World Communication Report

World Communication Report

World Communication Report

Unesco

Published in 1989 by the United Nations Educational, Scientific and Cultural Organization,
7 Place de Fontenoy, 75700 Paris.
Composed by Unesco
Printed by Imprimerie des Presses Universitaires de France, Vendôme

ISBN 92-3-102628-3

Printed in France

Preface

World Communication Report originated with Unesco's International Programme for the Development of Communication. The IPDC was established by the General Conference of Unesco at its Twenty-first Session in October 1980; at that meeting, a thirty-five-member Intergovernmental Council, based on an equitable geographical distribution, was elected. The basic function of the IPDC is the creation of communication infrastructures–both technical and human–in developing countries, so that their voices can be heard in an increasingly interdependent world.

It was in this context that the idea of a global report on communication was first mooted: primarily for utilitarian purposes, as a reference tool for communication policy-makers, planners and practitioners. The Report sets out to provide up-to-date information on recent developments in the communication field, and sources of reference for further inquiry and practical contacts. In doing so, it treats a number of key perspectives, including technical co-operation, communication technology, economic and industrial organization, employment and training, information flow, legal and regulatory aspects, and new or alternative approaches to communication (in particular experimental projects, women's programmes and media education). A comprehensive reference and bibliographic section is included, and a summary of the most recent communication statistics.

The data in the Report have been provided by a co-operative network of international and regional organizations, supplemented by information from the reference base specially created for the Report. Altogether, information was received from 44 specialized contributors, 20 National Commissions for Unesco, and 119 international and regional organizations. Statistical information has been compiled from Unesco, International Telecommunication Union (ITU) and Universal Postal Union (UPU) sources, supplemented where appropriate by other United Nations or international organizations. The Report may, therefore, fairly claim to be one of most comprehensive sources of information on international communication at present available, particularly as regards the developing countries.

For the orientation of the reader, it is important to specify the understanding of the term "communication" employed in the Report. Priority is given to the area of mass communications or mass media, which is central to the work of the IPDC, but the fields of telecommunications (as a key infrastructural support) and of information technology are also included, given their increasing importance in recent years as a result of the phenomenon of technology convergence, whereby distribution channels are becoming common for all kinds of information. Similarly, work in specialized information fields has also been included in some sections, given the centrality of libraries and archives as major users of data storage and communication facilities.

Every attempt has been made to verify the data which the Report contains, but as it is based principally upon information provided to Unesco by external contributors, or culled from secondary sources, some inaccuracies may inadvertently have occurred. The commmunication field is vast, and in many cases data are difficult to secure, particularly in relation to the developing countries. The Report is the first of its kind and experimental; it is therefore not only unique in its coverage but also an excellent indicator of gaps in data collection and dissemination in this interdisciplinary field. In consequence, it is hoped that the Report may help to guide future policy and practice in the collection of both descriptive and statistical data. Unesco would welcome any corrections or comments on the information included, so that these can be taken into account in future planning. It should be emphasized, however, that the descriptions provided in the text, and any conclusions offered, are those of contributors; they do not necessarily reflect the views of Unesco.

Contents

Introduction

The idea of a *World Communication Report* was first aired during the Fourth Session of the Intergovernmental Council of the IPDC (Intergovernmental Programme for the Development of Communication), held in Tashkent in September 1983. In the course of a debate on future plans, two proposals were discussed which were to have a substantial impact upon later events: the creation of a reference base to collect and process information on communication and development; and the publication of "popularized reports on the world communications situation". Working from these embryonic ideas, a tentative Table of Contents for a report was prepared by the Secretariat and placed before the Fifth Session of the IPDC in May 1984. So began a series of studies and consultations, which attempted progressively to focus down the objectives, audiences, character and contents of the Report, in a way which could meet the needs and satisfy the reservations of all members of the IPDC Intergovernmental Council.

It was only after 1985, however, that attention was systematically devoted to the Report. A consultation held in Paris, in June 1985, examined its potential in greater depth, and further assistance from Unesco's Regular Programme was provided within the Approved Programme and Budget for 1986/87. The project was considered by the Twenty-third Session of the General Conference of Unesco, held in Sofia in October-November 1985, and the debate continued during the Seventh Session of the Intergovernmental Council in January 1986. Work on the Report proper was begun in mid-1986, and a small professional unit established within Unesco's Sector of Culture and Communication.

In the course of preparation a close relationship was maintained with the IPDC Council and progress reports were delivered to each successive Bureau meeting. A further debate on the project was held in the course of the Eighth Session of the Intergovernmental Council in January 1987, at which time a number of practical decisions were taken, establishing the sequence of different parts of the Report, and limiting its length. Above all, it was emphasized that the original, experimental version would be issued as a draft, to be evaluated by the Intergovernmental Council before any decision on its wider distribution (or on its periodicity) was taken. The Programme and Budget of Unesco for 1988/89 therefore made provision to cover this scenario.

In August 1987, while preparations for the Report were continuing, a final list of contents was presented to the Bureau of the IPDC, and this was generally approved as a reflection of consensus and as a basis for action. It is from this detailed outline that the final version of the Report has emerged.

Objectives

The objectives of the Report have been discussed on a number of occasions, and redefined and re-ordered in consequence. In summary, its main functions are seen as providing a concrete and practical tool of analysis for policy- and decision-makers; offering an information and reference base for research and

operational programmes; and increasing understanding and awareness of the real situation of different countries and regions in the communication field.

Target audiences

The Report should therefore appeal to a number of distinct, but inter-related audiences, which include, at an individual level, communication policy- and decision-makers; communication and development planners; communication managers and practitioners; teachers and instructors; students and researchers. It is hoped that the Report will also be consulted widely by professional organizations, libraries and documentation centres.

Collaborators

World Communication Report could not have reached its present stage without the collaboration of a large number of organizations, institutions and individuals in different parts of the world. These are listed in full in the Acknowledgements, but it should be recorded that no less than 24 intergovernmental and non-governmental organizations, professional and research institutions have made a major contribution to specialized sections of the Report and 20 to its regional sections. Their co-operation is most gratefully acknowledged.

Particular mention should also be made of two sister United Nation agencies, which have been associated with the project since its origins: the International Telecommunication Union and the Universal Postal Union participated in the planning of the Report, as well as in furnishing statistics and other data. While we are grateful to them for their assistance, the inclusion of data from ITU or UPU sources, and references to their programmes, does not necessarily imply their approval of the contents of the Report as a whole, which remains the responsibility of Unesco.

Preparation of the Report

In the first place, it should be emphasized that the selection and presentation of materials have followed the directives of the Eighth Session of the Intergovernmental Council. These conditioned the sequence of different chapters, overall length, and the need to retain a global character, stressing criteria of relevance, reliability, and representativeness. An ideal profile for the Report was included in a Progress Report prepared for the Eighth Session, which many Council members believed should be highlighted. "It should not be too ambitious in scope, being both eclectic in its choice of materials and rigorous in its criteria for the selection of data. The narrative sections should be descriptive in character, avoiding polemic and concentrating upon concrete information which would be difficult to acquire elsewhere. Similarly, the statistical sections should be based on data available across a wide and balanced spread of countries. In the collection and presentation of material, the target audience of the IPDC and its members should be borne continually in mind, the focus of the Report being upon practical utility."

Methodology

World Communication Report was prepared in two stages. Between June 1986 and December 1987, a preliminary version was produced, which was placed before the Ninth Intergovernmental Council of the IPDC for review. On the basis of its comments, a second revised edition was prepared. Throughout this process, the Bureau of the IPDC acted as interface and adviser between the Council and the Secretariat.

In specific terms, the methodology employed was as follows. In preparing the first experimental version, as mentioned above, the Secretariat invited 44 intergovernmental and non-governmental organizations, professional and research institutions to contribute their specialized knowledge either of particular facets of communication or of communication in a specific region of the world.

As a result of the debate during the Ninth Session of the Intergovernmental Council, various structural changes were proposed to this draft (notably its reduction to a single, rather than two separate volumes), and a number of minor inaccuracies and omissions were pointed out. In consequence, a complete revision of the draft was undertaken between March 1988 and January 1989. The draft Report was distributed for comment and/or correction to more than 400 Member States, intergovernmental and non-governmental organizations, and individual experts, as follows:

- the original major contributors, who were requested to up-date material for which they were primarily responsible;
- National Commissions of all of Unesco's Member States (together with the Observer Missions of the United States and the United Kingdom) (160 in all), who were asked for overall comments;
- 18 organizations interested in information flow and 62 contributing to development co-operation, who were invited to comment on these sections respectively;
- 139 research organizations or selected communication organizations and institutions, who were asked to verify reference material.

Visits were also paid by Secretariat staff to a number of major contributors to the Report in order to seek their assistance in revising specific sections. New material was solicited, in particular, from a number of non-governmental organizations active in the communication field.

The revised version was sent to Bureau members for comment at the end of January 1989 and discussed at the Tenth Session of the Intergovernmental Council in March 1989. At that time, it was agreed that the deadline for reactions would be extended until 15 April 1989, and all comments received by that date have been taken into account in finalizing the published version of the text.

Structure of the report

The Report is divided into nine chapters, followed by a comprehensive index. Of these, Chapters 1 to 7 are descriptive, highlighting a series of key dimensions of communication development, while Chapters 8 and 9 are made up of reference material.

In the descriptive chapters, Chapter 1 is devoted to development co-operation and technical assistance, and is based primarily upon a survey specially conducted for this purpose. The data obtained in this way were supplemented by other searches, notably of OECD material and international statistical information derived from secondary sources.

Chapter 2 reviews recent developments in communication technology, while Chapter 3 surveys economic and industrial patterns in the mass media, telecommunications and information technology. Chapter 4 deals with patterns of employment, and in particular with professional training for the media. In Chapter 5, data are included on information flow, and this dimension is supplemented in Chapter 6 by a survey of recent developments in legal and regulatory fields. In Chapter 7, the focus is on experimental or alternative approaches to communication, and on the media user: it reviews first alternatives to mainstream media, including community channels, before turning to the field of women in the media, and finally to questions of media literacy (the education of media users and audiences).

It should be noted here that the women's dimension of communication is covered in two ways. In the first place, it is a component of all chapters of the Report, being treated as a separate variable (wherever information relative to gender can be found, e.g. in relation to employment, training etc.). The separate subchapter noted above is devoted specifically to various action programmes, networks etc., organized by women and on their behalf.

Throughout Chapters 1 to 7 wherever sufficient information is available, a general and global account is followed by data presented from a regional perspective, selected in such a way that characteristic or unique developments at the regional level are highlighted.

Data provided by the co-operating network of international and regional organizations and institutions have been supplemented from the reference base specially created to prepare for the Report. Inevitably, there are imbalances of information as between different topics and different regions: the facts and figures given reflect the current, uneven situation of the world in the collection, processing and circulation of information.

Moreover, it should be emphasized that the data in these chapters do not follow the more rigorous criteria adopted for the statistical chapter (Chapter 9), where a reasonable degree of comparability was considered necessary. In the earlier, descriptive chapters, the first criterion assumed is one of interest and significance, in particular when isolating key developments, both current and future. For this reason, a body of statistical information may be included by way of illustration, even if it is, on occasion, only available for a particular country or region, or has been based to some extent on estimations. A second main criterion is one of practical utility, to those decision-makers, planners and professionals who are in need of guidance or sources of referral for further inquiry.

Beginning with Chapter 8, a range of general reference material is provided, including profiles of selected communication organizations and institutions, and guides to periodicals, reference books and bibliographies. The function of this chapter is primarily to act as a referral agent for the user in search of further guidance.

Chapter 9 summarizes the most recent available statistical information on communication, compiled from Unesco, ITU, UPU and other international sources. All these data have been assembled by the Secretariat from existing sources; no special statistical inquiry was undertaken. The intention was primarily to gather together, in a single place, statistical data normally widely dispersed, often inaccessibly located, and to present these in formats suited to the needs of the planner and decision-maker rather than the statistician. A main criterion for the inclusion of data in Chapter 9 has therefore been their comparability, and for this reason only data are included which meet the following criteria:

- they are available for a minimum number of countries (30);
- they reflect a balance, across this number, of geographical location, and of the development and organization, in political, socio-cultural and economic terms, of the world community;

- they do not introduce distortions into the presentation of statistical data, by emphasizing one sector or type of activity out of proportion to other sectors or types of activity.

Finally, a comprehensive set of indexes is provided, arranged by country, organization and subject.

Comprehensiveness

In the final selection of data, a conscientious attempt has been made to follow the detailed structure agreed for the Report by the Bureau of the IPDC in August 1987. However, the Secretariat emphasized, at the time, that the list of contents submitted for review was an optimal schedule of contents at their most exhaustive: there could be no guarantee that all categories and items of data could finally be covered. In a sense, the preparation of the Report has been a voyage of discovery, not only for the Secretariat, but also for regional and international collaborators, since none could be confident in advance of the range of information that might be secured.

In practice, the task of processing data has had repercussions of two kinds. In some cases, it has proved impossible to include data, either because they are not routinely collected, or could not be traced. In these cases, the fact that data were unavailable is itself significant, and should be useful as a guide in determining priorities for future collection.

Conversely, and somewhat ironically, a good deal of useful data could not finally be included, again because of space limitations. Such data has been retained in the reference base created for the Report, and it is hoped that this information bank can be continually updated, as well as cross-referenced in greater depth. In this way, it should be possible for all the information so painstakingly collected for *World Communication Report* to be made available to Member States and their communication specialists over the longer term.

Notwithstanding the care taken in compiling the Report, it is still an experimental work, and should be treated as an adventurous pilot undertaking. It is hoped that it will find its way into all those places where information is systematically sought, and that it will soon become a practical and utilitarian tool.

Unesco will be most grateful to receive comments on, corrections to and updatings of the material contained in *World Communication Report*.

Acknowledgements

World Communication Report is the result of extensive collaboration over a period of several years. Special thanks go to the following communication centres or specialists who, in their various fields of competence, have made major contributions to particular chapters of the Report: Chapter 2 (Communication Technology), the International Institute of Communications (United Kingdom), in particular, John Howkins and Anthony Gottlieb; Chapter 3 (Ecomonic and Industrial Patterns), Laurent Gille of the Institut de l'Audiovisuel et des Télécommunications en Europe (France); Chapter 6 (Developments in Regulation), Cees Hamelink of the Institute of Social Studies (Netherlands); Chapter 7 (Section on Women in Communication), Jane Cottingham of ISIS (Switzerland), and Margaret Gallagher, City University (United Kingdom).

For the rest, some contributors were contacted initially because of their specialized knowledge of subjects to be covered by the Report, others for their knowledge of a particular world region. Where individuals have contributed in different capacities, they are listed below only in relation to their most important contribution. Because of space limitations, academic and professional titles and distinctions are omitted, as are addresses, but in the case of institutions, the host country is indicated to avoid any possible confusion.

Many agencies of the United Nations system were approached to let us know the extent of their development co-operation assistance in the field of communication and we are grateful for their advice in this respect. The International Telecommunication Union and the Universal Postal Union also gave valuable technical advice on Chapter 2 and the International Labour Organisation on Chapter 4.

A large number of intergovernmental, regional and non-governmental organizations were consulted at all stages of preparation, and their advice was particularly helpful in compiling Chapters 1 and 8.

We would also like to express our gratitude to the following institutions and individuals who made specialist contributions to particular chapters of the Report:

The Academy for Educational Development, the World Bank, the United States Agency for International Development, the United States Information Agency, the United States Telecommunications Training Institute, the National Telecommunications and Information Agency and the Federal Communication Commission (all located in the United States of America) (Chapter 1).

The International Association for Mass Communication Research (United Kingdom), in particular: Hamid Mowlana, Madeleine Kleberg, Olga Linne, Peggy Grey, Nathan Lee, G. Cleveland Wilhoit, Len Masterman and James D. Halloran (Chapters 1, 5 and 7).

The International Council for Film, Television and Audiovisual Communication (France) and its international members (Chapters 2, 3, 4, 6 and 7); Christopher Roads, Chairman of the IFTC Archives and Cataloguing Commission, provided much help with Chapter 2.

The International Federation for Information and Documentation (Netherlands), in particular Ben G. Goedegebuure (Chapters 2 and 8).

In addition to those already mentioned, George Boston (British Broadcasting Corporation), Jon Chaplin (European Space Agency), Anne Hanford (International Federation of Television Archives), Dietrich Schuller (Austrian Archives) and Barry Scott (United Kingdom) gave valuable technical advice on the various versions of Chapter 2.

Thérèse Revesz (United States of America) (Chapters 2, 3, 4 and 6).

The Arab States Broadcasting Union (Tunisia) in association with Mohamed Ridha Najar (Chapter 4).

The Asia-Pacific Broadcasting Union (Malaysia), in particular Hugh Leonard, Secretary-General and Arthur Wyndham, Director of Programme Services (Chapter 4).

The Asia-Pacific Institute for Broadcasting Development (Malaysia), in particular Dato' Abdullah Mohamad, Director, and Brajesh Bhatia, Deputy Director (Chapter 4).

The Centro Internacional de Estudios Superiores de Comunicación para América Latina (CIESPAL) (Ecuador), in particular Edgar Jaramillo (Chapter 4).

The Faculty of Sociology, Political Science and Journalism (Ljubljana, Yugoslavia), Slavko Splichal, and the Polytechnic of Central London (United Kingdom), Colin Sparks (Chapters 4 and 5).

The Federación Latinoamericana de Facultades de Comunicación (FELAFACS), the Departamento Administrativo de Planeación Nacional (DANE), the Instituto Colombiano de Educación Superior (ICFES), the Ministry of Communication, the Centro Regional para el Fomento del Libro en América Latina y el Caribe (CERLALC), (all located in Colombia), in particular Alicia Valenzuela, Liliana Cadavid and Joaquín Sánchez G. (Chapter 4).

The International Federation of Journalists (Belgium), in particular Aidan White, General Secretary, and Hans Larsen, Neal Swancott and Marie-Anne Paquet (Chapter 4).

The International Liaison Centre for Film and Television Schools (Belgium), particularly Raymond Ravar, General Secretary, and Henry Verhasselt, Executive Secretary (Chapter 4).

The President and Secretariat of the International Organization of Journalists (Czechoslovakia); and the International Institute of Journalists (German Democratic Republic) (Chapter 4).

The Union des Radiodiffusions et Télévisions Nationales d'Afrique (URTNA) (Senegal), in particular François Itoua, Secretary-General, and Samba Ousmane Toure, Director of CIERRO (Chapters 4 and 5).

The Centre for the Study of Communication and Culture (United Kingdom), in particular James McDonnell, Robert A. White and Joe Kumar (Chapters 7 and 8).

The International Council for Educational Media (France), in particular Robert Lefranc (Chapter 7).

Philip Simpson of the British Film Institute (United Kingdom) (Chapter 7).

Members of the International Network of Documentation Centres on Communication Research and Policies (COMNET), co-ordinated by Walery Pisarek (CECOM, Poland) with assistance from Antonio García Gutierrez (IBERCOM, Spain); Claus Kragh Hansen (NORDICOM, Denmark); Jasim Mohammed Jirjees (ARABCOMNET, Iraq); Maija Jussilainen (NORDICOM, Finland) and Christine Leteinturier (France) (Chapter 8).

Organizations with a wide overview of a particular world region were also asked to collect information on many topics covered in the Report from the point of view of the region concerned. We are grateful to all of them for their efforts in co-ordinating a large number of contributions, often in difficult circumstances:

African Council on Communication Education (Kenya): co-ordinated by Charles Okigbo, Department of Mass Communication, University of Nigeria, with contributions from S. T. Kwame Boafo, Batilloi Warritay, Executive Co-ordinator, and Rahab Gatura.

Asian Mass Communication and Information Centre (Singapore): co-ordination under the direction of Vijay Menon, Secretary-General and Harald von Gottberg, Deputy Secretary-General with contributions from Ina Suparto, Fisip-Universitas (Indonesia); M. Hamdan b. Adnan, MARA Institute of Technology (Malaysia); Nilo Mamaclay, Philippines Information Agency; Darunee Hirunrak, Chulalongkorn University (Thailand); A. B. M. Musa (Bangladesh); Dilip Thakore (India); Sharif al Mujahid, Quaid-I-Azam Academy (Pakistan); William de Alwis (Sri Lanka).

Caribbean Institute of Mass Communication at the University of West Indies (Jamaica) with contributions from the CARICOM Secretariat (Communications Unit); the Extra-Mural Department, UWI (Resident Tutors); National Journalist and Media Associations; Friedrich Ebert Stiftung (Jamaica); Trinidad and Tobago High Commission (Jamaica); Roderick Sanatan and Jean Skeete (CARICOM); Aggrey Brown and Marjan de Bruin (CARIMAC/UWI).

Central European Mass Communication Research Documentation Centre (CECOM) (Poland): co-ordinated by Walery Pisarek with contributions from the Press Research Centre, Cracow; Sylwester Dziki, Katarzyna Ignatowicz, Janina Maczuga, Barbara Ochmanska and Danuta Wagiel.

Centre d'Etudes des Probèmes de la Communication (Zaire): Mavinga Tsafunenga.

Centre for Social Science Research and Documentation for the Arab Region (Egypt): co-ordination by Atef El-Abd, Cairo University, with contributions from Nadia Salem and Nadia Shafik of the National Centre for Social and Criminological Research, Cairo.

Confederación Universitaria Centroamericana (Costa Rica): Ricardo Sol.

Ecole Supérieure des Sciences et Techniques de l'Information (Cameroon): Biyiti bi Essam.

European Insititute for the Media (United Kingdom): contribution compiled and edited by John L. Eccleston, Fellow of the Institute and Brigitte Meyer, Institute Librarian, drawing on research by Eliane Couprie, Philip Crookes, André Lange, Georg-Michael Luyken, Henry Olsson, Anthony Pragnell, John Roper, Cornelia Goeyvaerts, Patrick Vittet-Philippe and George Wedell.

Hungarian Institute of Public Opinion Research (Hungary): co-ordinated by Tamas Szecsko, Director, with contributions from Plamen Bratanov (Bulgaria); Danica Breckova and J. Kostal (Czechoslovakia); Waldemar Petrow and Jerzy Mukulowski Pomorski (Poland); Laszlo Beck, Ildiko Kovats, Csilla Voros (Hungary).

IBERCOM (Spain): co-ordinated by Antonio García Gutierrez (IBERCOMNET) with contributions from the Facultad de Ciencias de la Información, the Ministry of Culture, the Asociación Española de Editores de Diarios, Agencia EFE, Fundesco, TV3 Cataluña, Radiotelevisión Española S. A., Cámara del Libro de Madrid (all located in Spain), and Direcção-Geral da Comunicação Social de Portugal, Associação Portuguesa de Editores e Livereiros, and Marktest (located in Portugal).

Indian Institute of Mass Communication (India): co-ordinated by J. S. Yadava, Zahoorul Haq and Prem Singh Manral, drawing on contributions from N. L. Chowla, Director-General, Research and Publications Centre; M. V. Desai, Trustee, NAMEDIA; Jag Mohan, Executive Secretary; R. Dayal, Research Consultant; Geeta Chandran, Research Associate; Vimala Sundaresan, NAMEDIA Secretariat.

Institute of Culture and Communication, East-West Center (United States of America): organized and edited by Syed A. Rahim from contributions by Meheroo Jussawalla, Wimal Dissanayake, Paul Clark and Godwin Chu.

Instituto Latinoamericano de Estudios Transnacionales (ILET) (Argentina): co-ordinated by Héctor Schmucler on the basis of material provided by ILET research staff and associates and further contributions from the Consejo Latinoamericano de Ciencias Sociales (CLACSO), the Centro de Estudios e Investigaciones Laborales (CEIL), the Asociación Argentina de Protección Familiar, the Instituto Nacional de Cinematografía, the Cámara Argentina del Libro, Argentina Televisora Color (ATC), Mercados y Tendencias, empresa medidora de rating, and IPSA empresa medidora de rating.

Instituto para América Latina (IPAL) (Peru): co-ordinated and edited by Claudia Bayona (Colombia), researcher at IPAL, from contributions by Sandra Aliaga (Bolivia); Eliana Franco (Ecuador); Eduardo Stein (Panama); Pedro Goicochea (Peru); Alejandro Alfonzo, Bárbara de Corso and José Antonio Mayobre (Venezuela).

International Centre for Scientific and Technical Information (USSR).

International Communication Association (United States of America): co-ordinated by Brenda Dervin, Joseph Foley and Roger Musgrave of the Department of Communication, Ohio State University with research contributions from Lee Becker, Janis Bruwelheide, Heather Hudson, Frank Jamison, John Robinson, Carolyn Spicer, Leslie Steeves and Fred Williams.

Keio University (Japan): Youichi Ito and Norichika Tanaka.

La Trobe University (Australia): Peter B. White.

Annie Mear, Department of Communication, University of Montreal (Canada); Canadian International Development Agency; the Department of Communication of Canada.

Preben Sepstrup, Aarhus School of Business Administration (Denmark).

Sociedade Brasileira de Estudos Interdisciplinares da Comunicação (INTERCOM) (Brazil).

Editorial assistance in researching and correlating data from the various regions was contributed by: Kwame Boafo (Ghana), Nabil Dajani (Lebanon), Shampa Srivastava (India) and Tamas Szecsko (Hungary). Elizabeth Fox (United States) edited the contributions of a number of Latin American centres and Maldwyn Jones (Canada) synthesized the data furnished from a variety of sources for Chapter 1 and was responsible for overall textual editing. The editorial responsibility for the Report as a whole is with the Division of Communication Development and Free Flow of Information, Unesco.

The Index and Glossary for the English, French and Spanish editions of the Report were prepared by the International Federation for Information and Documentation.

Finally, the Report could not have been compiled without the generous help of the numerous interns who worked in the Division between 1987 and 1989, researching new material and preparing tables under the supervision of programme specialists.

1. Communication and development co-operation

Introduction

It is not the brief of this (or of any other) section of *World Communication Report* to provide an analysis or interpretation of current trends in communication; it has rather the objective of providing factual information and data upon which such analyses may eventually be founded. Nevertheless, in introducing a review of development co-operation in the communication field, it should be emphasized that many of the respondents to Unesco's inquiry on methods and levels of technical co-operation stressed, explicitly or implicitly, the importance which they attach to communication as a factor and instrument in overall development processes. This reflects a significant shift in the international climate of opinion since the working documents for the International Conference for Co-operation on Activities, Needs and Programmes for Communication Development (DEVCOM) (Paris, April 1980) were originally prepared, as a prelude to the creation of the IPDC. It also appears that the proportion of technical assistance devoted to communication development, while still extremely modest in relation to other areas of development assistance, has nevertheless risen over the past eight years.

It should be emphasized that the primary concern of *World Communication Report* has been with communication *per se*, as a general instrument within development processes, as opposed to specific uses of communication in support of particular development sectors, such as education, health or agriculture.

Even with this restriction of focus, it is still extremely difficult to make a quantitative evaluation, at a global level, of technical assistance in the field of communication. In the first place, even the definition of communication varies from one organization to another; secondly, the number of organizations concerned in one form or another with technical-assistance programmes in communication is very considerable, and it would be impossible to establish their contribution to world communication development more precisely without further in-depth study.

Co-operative arrangements between private companies or non-governmental organizations and their counterparts in the developing countries are especially difficult to quantify. In a number of countries with market-based economies such assistance may be the equal of governmental co-operation, or at least compare significantly. However, no systematic information on the proportion of this assistance that concerns communication development is available.

Nevertheless, a macro-economic approach allows some general orders of magnitude to be established. The starting-point is a base of some $25,000 million[1] worth of communication goods purchased in 1985 by the developing countries from the industrialized countries, an amount which has substantially increased since that time in view of the marked devaluation of the dollar. (See Table 1.1.)

Table 1.1

Estimate of trade between industrialized (OECD only) and developing countries in communication goods, 1985

Type of goods	$ thousand millions
Data processing equipment	6.0
Telecommunications	6.0
Receivers and domestic electronic equipment	7.0
Other materials	3.3
Books and newspapers	1.5
Audio-visual support	1.2

By geographical zone	Percentage
Africa	11
Latin America	16
Asia and the Pacific	73

Source: IDATE, France. Approximately 40 per cent of this flow is financed by concessionary credits established at subsidized rates (this includes an element, which can be considerable, of direct grants).

In general, technical assistance loans are often written into the agreements concluded for equipment (mainly radio, television broadcasting, telecommunications and data processing).

In parallel (but with no direct link and unrelated to the supply of goods), bilateral or multilateral missions allow for technical assistance corresponding to four principal categories of activity:

- feasibility studies for projects;
- operation and maintenance of projects and related on-site training;
- training in donor countries;
- supply of printed/audio-visual materials, free of charge.

The financial cost of assistance and technical co-operation can be estimated at $600 million, broken down (for 1985) as in Table 1.2.

Table 1.2

Volume of assistance and technical co-operation

Technical assistance included in equipment agreements:	$ millions
Telecommunication	240
Other	140
Subtotal	380
Bilateral technical co-operation	160
Multilateral technical co-operation	60
Subtotal	220
Total	600

Source: IDATE, France.

Thus, between 2 and 4 per cent of the value of such equipment agreements may be reserved for technical assistance, which represents a substantially greater volume than untied technical co-operation. These figures are estimated average values which can vary noticeably from year to year for the particular entity under review, according to the number of communication projects involved. For example, telecommunications loans from the World Bank have varied in recent years by a factor of 1 to 10, or even by as much as 1 to 15.

It is equally difficult to isolate the technical assistance component in agreements for other services (engineering, installation, etc.). Such figures as are available are most probably estimates, including training in the host and donor countries, as well as maintenance assistance which often constitutes the most effective form of "on-the-job" training.

Notes on structure

The chapter on communication and development co-operation is divided into two parts, the first of which deals with technical co-operation at international and regional levels. It begins with a short description of the activities of Unesco and the International Programme for the Development of Communication (IPDC). This is

1. Figures given in dollars ($) throughout this Report are US dollars unless otherwise indicated.

followed by short summaries of the work (in the communication field) of other United Nations agencies, and in turn by profiles of some other international and regional intergovernmental organizations.

The second part looks selectively at the co-operative activities in the communication field of a number of different countries across the world, both industrialized and developing. It treats both governmental and non-governmental or private initiatives, so that a broader overview of technical co-operation can be obtained, including aspects of TCDC (technical co-operation among developing countries).

The information is based upon a comprehensive survey of institutions conducted by the Secretariat. An initial, general letter of inquiry was followed up by reminder letters, but in a number of cases, no reply has been received to date. Consequently, where information is not included for a particular organization or Member State, this is due to our inability to secure sufficient information to complete the entry. We have attempted to cover gaps, and to supplement the information received from correspondents by referring to secondary sources, but it has not always been possible to locate material in this way.

It will be noted that, in this section as in others, a large number of acronyms and abbreviated forms are used. These have been spelled out in full at the time of their first appearance, but a glossary of major acronyms is also included at the end of the Report.

In each of the above categories, a short profile of the organization or institution concerned is followed by a description of its main communication activities and forms of assistance, with an indication of characteristic projects and financial data, where available.

Co-operation at the international and regional levels

United Nations Educational, Scientific and Cultural Organization (Unesco)

Within the United Nations system, Unesco is the principal contributor to communication development, as mandated by its charter and its Member States, in particular through: Major Programme III of the Regular Programme: "Communication in the Service of Man"; The International Programme for the Development of Communication; Extra-budgetary activities, including Funds-in-Trust projects.

Major Programme III: "Communication in the Service of Man" 1988-1989

The figures in Table 1.3 refer to the three programmes which together constitute Major Programme III, "Communication in the Service of Man", in Unesco's overall Programme and Budget. These three programmes focus, in turn, upon communication research, information flow and exchange, and the development of communication systems, means and infrastructures. As far as the Regular Programme of Unesco is concerned, the figures are based on the budget allocated to the Major Programme approved by the General Conference of Unesco in November 1987, but the figures cited for extra-budgetary sources are only estimates of likely project allocations.

Table 1.3

Sources of funding for Major Programme III

III.1 Studies on communication	$
Regular Programme	890 200
United Nations sources	-
Other sources	60 000
Sub-total	950 200
III.2 Free flow and wider and better balanced dissemination of information: increased exchanges of news and programmes	
Regular Programme	1 449 300
United Nations sources	1 000 000
Other sources	2 600 000
Sub-total	5 049 300
III.3 Development of communication	
Regular Programme	6 922 900
United Nations sources	1 700 000
Others sources	10 800 000
Sub-total	19 422 900
Total Regular Programme	9 262 400
+ Participation Programme	704 500
Sub-total	9 966 900
Total United Nations sources	2 700 000
Total other sources	13 460 000

Source: Approved Programme and Budget for 1988-89 (24 C/5 Approved)

International Programme for the Development of Communication (IPDC)

The IPDC was created by decision of the General Conference of Unesco in 1980. Its basic function is the creation of communication infrastructures, both technical and human, in developing countries, so that they contribute to economic, social and cultural growth. IPDC manages a Special Account which provides resources for the implementation of projects. Other means of assistance to the developing countries are also provided, such as provision of equipment, training and technical aid.

Among IPDC's main objectives are: to identify needs and priority areas for the information and communication development plans in developing countries; to promote the creation or extension of infrastructures for the different communication sectors, as well as improved international exchange of information; to analyse the technical and financial needs and resources in the fields of information and communication at the national and international levels; to promote viable regional communication institutions; to provide consultative and advisory services to developing countries in the field of communication.

Priority is generally accorded to: projects for the planning and implementation of national policies and plans for the development of communication; development and strengthening of infrastructures necessary for production, storage and utilization of supports and for the production, storage, reception, transmission and dissemination of messages; projects aimed at the creation or improvement of national and regional structures and capacities for the production of messages; professional and technical training.

IPDC action has been concentrated on the following areas: training programmes and seminars; training and research centres; support for news agencies; support for radio and television broadcasting; planning; production of audio-visual materials; books; newspapers; and telecommunication.

Of 332 projects supported by IPDC's Special Account, 182 were national and 150 regional or inter-regional. The important place given to regional projects reflects the wishes of IPDC's Intergovernmental Council.

The total funds allocated to the projects from the IPDC Special Account are $13,723,500 distributed as follows:

Table 1.4

Classification of IPDC funds allocations from the Second to the Ninth Session by media and region ($ thousands)

Region	Planning		News agency newspapers		Radio, TV broadcasting audio-visual, film		Training research centres	
	Number of projects	Funds allocated	Number of projects	Funds allocated	Number of projects	Funds allocated	Number of projects	Funds allocated
Africa	6	270	31	1 306	21	717	15	600
Arab States	4	218	6	282	4	180	19	997
Asia and the Pacific	1	30	11	620	17	812	16	666
Latin America and the Caribbean	13	430	12	207	34	1 129	16	948
Europe	-	-	1	30	-	-	-	-
Inter-regional	5	157	5	65	3	90	3	140
Total	29	1 105	66	2 510	79	2 928	69	3 351

Region	Training programmes (seminars, workshops)		Books		Tele-communication		Total	
	Number of projects	Funds allocated	Number of projects	Funds allocated	Number of projects	Funds allocated	Number of projects	Funds allocated
Africa	18	804	10	419	1	40	102	4 156
Arab States	9	392	-	-	1	50	43	2 119
Asia and the Pacific	17	715	3	101	-	-	65	2 944
Latin America and the Caribbean	14	521	5	190	1	25	95	3 450
Europe	-	-	-	-	-	-	1	30
Inter-regional	6	318	-	-	4	254	26	1 024
Total	64	2 750	18	710	7	369	332	13 723

Source: IPDC.

Unesco extra-budgetary activity in the Communication Sector

Since January 1979, Unesco's activity in the Communication sector, funded from extra-budgetary resources, has included 77 projects: 35 in Africa, 22 in the Asia-Pacific region, 12 in Latin America and the Caribbean and five in the Arab States. Of these, 50 were national or local projects, 11 were subregional, 13 regional and three inter-regional. The total cost of these projects was $34,370,000, of which 79 per cent ($27,156,000) correspond to completed phases or projects, the balance representing projects under way.

The breakdown of these projects was as follows: rural press 15 per cent (more than $5 million) for 10 projects, of which nine were in Africa; press institutes 2 per cent for three projects in Asia; printing and publishing (except rural press) 7 per cent for three projects; news agencies 31 per cent (more than $10 million) for 13 projects; development of radio 10 per cent for six projects; development of television 1 per cent for two projects in the Caribbean; cinema 2 per cent for four projects; multi-media development 3 per cent for three projects; training centres 18 per cent (more than $6 million) for 13 projects; training programmes 11 per cent for 17 projects; studies and research 0.5 per cent for three inter-regional projects.

UNDP's contribution reaches $11,500,000, or 33 per cent of the total, and involves 28 projects (of which 9 per cent or nearly $3 million came from the United Nations Fund for Namibia). Member States contributed more than $20 million or 59 per cent, of which 7 per cent ($2,350,000) was through the IPDC. AGFUND contributed 6 per cent of extra-budgetary resources. The Federal Republic of Germany alone has contributed 52 per cent of Funds-in-Trust.

Other Unesco programmes

Other sectors and programmes within Unesco are also concerned with communication; the Education Sector, for example (and specifically its Division of Educational Sciences, Contents and Methods of Education (ED/SCM)) has activities in the field of educational media and distance learning, as well as new information technology in education, while the Division of Population in the Sector of Social and Human Sciences (SS/POP) has an extensive programme, financed primarily by the United Nations Fund for Population Activities (UNFPA) in support of population communication.

Specific mention should also be made of the Office of Information Programmes and Services, whose objectives are to facilitate general access to specialized information, to promote its free flow and to expand Member States' capacity to exchange, store and use the information needed for development. Particular emphasis has been laid on development of the normative tools required for data processing, the application of new technologies, the strengthening of national, regional and international information systems and services, and the interconnection of these systems and services.

The General Information Programme includes Unesco's efforts to promote UNISIST, which is a framework of internationally developed standards, principles, methods and techniques governing the processing and transfer of information, particularly through the use of modern computer and telecommunication technologies.

Within the Science Sector, the Intergovernmental Informatics Programme (IIP) was established in 1986. The following are its principal tasks:

- education and training of various specialists in the field of informatics, particularly from developing countries;
- development of telematic networks providing electronic mail, access to data banks;
- assistance to Member States in the preparation of national strategies and policies for the development of informatics;
- development, production and adaptation of software.

Other United Nations agencies

International Telecommunication Union (ITU)

The ITU, based in Geneva, is a United Nations specialized agency dealing with telecommunication. It currently numbers 164 members.

The purposes of ITU, as defined in the Convention, are: to maintain and extend international co-operation for the improvement and rational use of telecommunication of all kinds; to promote the development of technical facilities and their most efficient operation with a view to improving the efficiency of telecommunication services, increasing their usefulness and making them, so far as possible, generally available to the public; to harmonize the action of nations in the attainment of those common ends.

It is responsible for the regulation and planning of telecommunications worldwide, for the coordination and dissemination of information required for the planning and operation of telecommunication services and, within the United Nations system, for the promotion of and contribution to the development of telecommunications and the related infrastructures.

Technical co-operation is one of the Union's major activities. ITU has become the recognized executing agency for UNDP-funded telecommunication projects. Thus, the Technical Co-operation Department of the General Secretariat administers, mainly within the framework of the UNDP, a programme through which telecommunications experts are sent to various countries throughout the world to advise on the operation of all terrestrial and space telecommunication systems or to help train technicians.

The Union's technical co-operation activities fall primarily into three categories: the promotion of development of regional telecommunication networks; the strengthening of national telecommunication technical and administrative services; and the development of human resources.

Table 1.5

ITU: number and distribution of technical co-operation projects, 1986.

Region (source of financing)	Number of projects		
	Country	Regional	Total
1. Africa (UNDP)	38	6	44
2. Americas (UNDP)	18	-	18
3. Asia and Pacific (UNDP)	34	10	44
4. Europe (UNDP)	13	2	15
5. Middle East (UNDP)	11	2	13
6. Interregional (UNDP)	-	1	1
7. Africa (Trust Funds)	14	11	25
8. Americas (Trust Funds)	8	1	9
9. Asia and Pacific (Trust Funds)	4	1	5
10. Middle East (Trust Funds)	5	2	7
11. Interregional (Trust Funds)	-	1	1
Total	145	37	182

Source: Report on the Activities of the ITU in 1986.

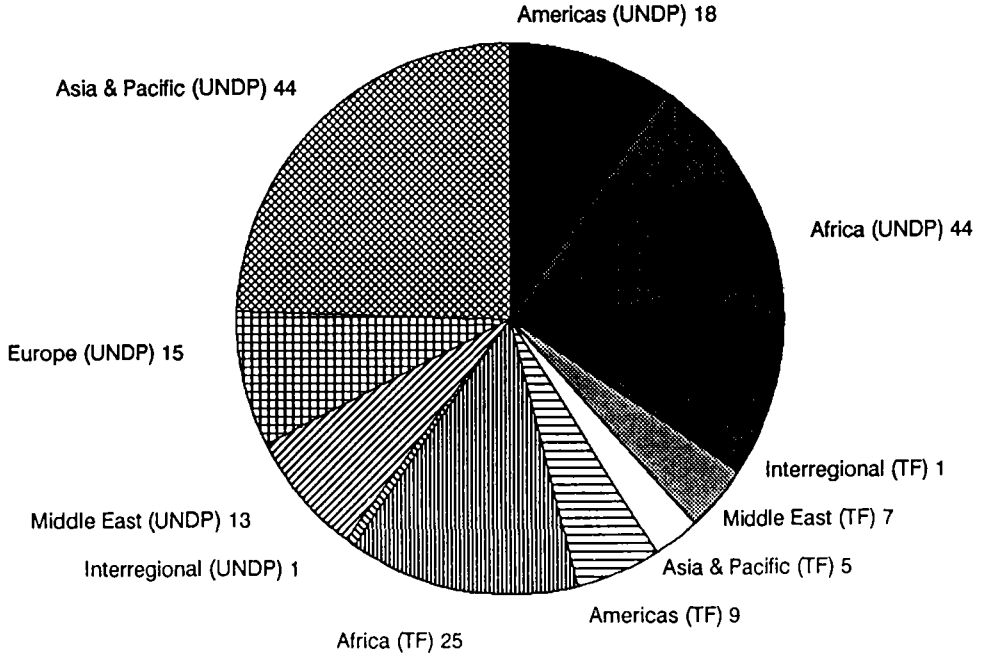


Figure 1.1. ITU: number of technical co-operation projects, 1986.

Source: Report on the Activities of the ITU in 1986.

Table 1.6

ITU: Project expenditure by source of funds and region ($)[1]

Financial resources	Africa	Americas	Asia and the Pacific	Europe	Middle East	Interregional	Total
UNDP	5 095 441	2 718 850	6 975 960	1 257 311	5 740 030	36 985	22 824 577
Trust Funds	2 394 852	1 223 662	66 185	-	408 457	-	4 093 156
Associate experts	173 830	-	80 369	-	1 136	60 430	315 771
Other sources	-	-	-	-	-	-	-
Total	7 664 123	4 942 512	7 122 514	1 257 311	6 149 623	97 421	27 233 504

1. UNDP funding includes cost-sharing projects in which part of the cost of the UNDP project is provided by the recipient country in which the project is executed.

Source: Report on the Activities of the ITU in 1986.

The technical co-operation department has 45 Professional and 50 General Service staff for a programme of just under $5 million. The department is structured in four regional divisions (covering respectively Africa, the Americas, Asia and the Pacific, Europe and the Middle East); an Administrative Division; a Training Division; a Group of Engineers; the Voluntary Progamme Support Unit; and the Telecommunications Support Unit.

ITU has assisted notably in the establishment of modern regional telecommunication networks in Latin America, Asia and Africa (PANAFTEL, MEDARABTEL).

The ITU recently established the Centre for Telecommunications Development, adding a new dimension to the Union's technical co-operation activities. Entirely financed by voluntary contributions from public and private sources, its 1987-1989 plan of action is designed to help developing countries which wish to strengthen their social and economic development plans on an integrated basis by means of appropriate telecommunication infrastructures and services.

Specific objectives of the centre are: to stress and promote the key role of telecommunications for socio-economic development so as to enhance investments in this sector; to provide advisory services as well as operational and technical support in critical areas so as to foster telecommunications growth in developing countries; to raise and mobilize resources, to initiate co-operative activities, and to provide information services so as to optimize the overall effectiveness of telecommunications development.

The Centre organizes evaluation and sectoral study missions; advisory and specific support missions; and projects for technical co-operation in various priority areas at national, regional and global levels.

Universal Postal Union (UPU)

Within the context of its mandate to contribute to the organization and development of postal services and to foster international postal collaboration, the UPU has carried out programmes of technical co-operation for 25 years, thanks to the financial support of the UNDP and its Special Fund. Postal service administration and training of personnel have been the principal axes of UPU's intervention.

UPU's principal development co-operation activities include: training of postal administration personnel, notably of middle and upper level managers; support for regional and multinational training institutions; further specialization of postal personnel in the context of ongoing professional development programmes; general introduction of postal finance services; fostering technical co-operation among developing countries; and a special programme on behalf of the least developed countries.

In 1986-1987, UPU collaborated with IPDC in the execution of the project "Application of the Modular Training System in Postal Administrations".

Table 1.7(a)

UPU technical co-operation: disbursed in 1987

UNDP Projects: breakdown by region (in $)
(Source: Executive Board 1988 (CE 1988/C 9 Doc. 9))

	Africa	Latin America	Arab States	Asia/ Pacific	Europe
National Projects	385 438	39 417	211 097	143 528	-
Regional Projects	409 619	51 129	79 464	331 202	-
Total	795 057	90 546	290 561	474 730	-

UNDP Projects: breakdown by category of expenditure (in $)
(Source: Executive Board 1988 (CE 1988/C 9 Doc. 4))

Experts	Fellowships	Equipment	General	Total
777 265	430 493	363 843	79 293	1 650 894

UPU Regular Programme (in Swiss francs)
(Source: Executive Board 1988 (CE 1988/C 2 Doc. 4))

	Africa	Latin America	Arab States	Asia/ Pacific	Europe
Consultants	304 451	221 394	26 147	94 344	-
Fellowships	278 433	144 295	55 216	56 682	18 712
Equipment	190 868	37 745	54 526	110 860	-
Total	773 752	403 434	135 889	261 886	18 712

UPU Special Fund (in Swiss francs)
(Source: Report on the Union's activities, 1987.)

	Africa	Latin America	Arab States	Asia/ Pacific	Europe
Consultants	-	-	-	-	-
Fellowships	88 907	3 791	15 599	73 391	3 782
Equipment	18 170	5 022	7 200	9 736	-
Total	107 077	8 814	22 799	83 128	3 782

Other Projects (in $)
(Source: UPU Project documents.)

	Africa	Latin America	Arab States	Asia/ Pacific	Europe
INT/86/X41 (Sectorial Support)	11 222	18 702	11 222	11 222	-
IPDC/Unesco	19 965	7 421	6 253	6 253	-

Table 1.7 (b)

UPU technical co-operation: planned financing for 1988

UNDP Projects (in $)
(Source: Report on the Union's activities, 1987: figures have been updated to take account of revision and new projects.)

	Africa	Latin America	Arab States	Asia/ Pacific	Europe
National projects	1 015 148	6 745	488 722	262 768	-
Regional projects	406 186	-	20 028	451 300	146 700
Total	1 421 334	6 745	488 750	714 068	146 700

UPU Regular Programme (in Swiss francs)
(Source: Executive Board 1987.)

	Africa	Latin America	Arab States	Asia/ Pacific	Europe
Consultants	156 300	298 400	46 500	182 100	-
Fellowships	398 600	105 500	106 400	183 300	51 700
Equipment	13 500	16 000	18 100	13 600	-
Total	568 400	419 900	171 000	379 000	51 700

UPU Special Account (in Swiss francs)
(Source: Executive Boards 1987 and 1988.)

	Africa	Latin America	Arab States	Asia/ Pacific	Europe
Consultants	-	-	-	-	-
Fellowships	192 900	34 500	60 400	115 000	17 060
Equipment	89 340	48 060	35 780	63 960	-
Total	282 240	82 560	96 180	178 960	17 060

Other Projects (in $)
(Source: UPU Project documents.)

	Africa	Latin America	Arab States	Asia/ Pacific	Allocation to be decided
INT/87/X41 (Sectorial support)		6 000	7 400		27 732
RWA/87/971	10 300				
IPDC/Unesco	30 400				15 500
BHU/87/004				13 800	
UNFDAC/UPU				50 000	

Table 1.7(c)

UPU technical co-operation: disbursement in 1989 (forecast)

UNDP Projects (in $)
(Source: Report on the Union's activities, 1987: figures have been updated to take account of revision and new projects.)

	Africa	Latin America	Arab States	Asia/ Pacific	Europe
National projects	1 016 460	-	308 044	26 976	-
Regional projects	571 000	44 100	-	493 600	3 200
Total	1 587 460	44 100	308 044	520 576	3 200

UPU Regular Programme (in Swiss francs)
(Source: Executive Board 1988 (CE 1988/C 9 Doc 6))

	Africa	Latin America	Arab States	Asia/ Pacific	Europe
Consultants	235 800	245 900	95 000	183 000	32 500
Fellowships	295 800	80 100	91 700	145 500	19 500
Equipment	29 400	22 000	25 300	28 500	-
Total	561 000	348 000	212 000	357 000	52 000

UPU Special Fund (in Swiss francs)
(Source: Executive Board 1988 (CE 1988/C 9 Doc 7))

	Africa	Latin America	Arab States	Asia/ Pacific	Europe
Fellowships	108 180	77 700	41 560	90 000	13 320
Equipment	38 500	13 420	14 000	3 320	-
Total	146 680	91 120	55 560	93 320	13 320

Other Projects (in $)
(Source: UPU Project documents.)

	Africa	Latin America	Arab States	Asia/ Pacific	Allocation to be decided
INT/88/X41 (Sectorial support)	-	-	-	-	47 000

United Nations Food and Agriculture Organization (FAO)

FAO actively promotes the use of communication resources to help attain development goals, notably by adapting communication methods and technology especially to reach rural audiences. FAO's activities in this field are implemented by the Development Support Communication Branch.

Among specific objectives of communication development co-operation activities, FAO seeks to: promote community participation; benefit small farmer families by informing, motivating and transferring skills; improve the quality and effect of training activities; expand the use of cost-effective media, particularly low cost audio-visual media for grassroots-level training, especially for illiterates; and develop national capacities to implement communication programmes.

FAO's Development Co-operation Programmes take the form of: training; evaluation of communications needs; national communication planning; development of specific communication strategies; development of audio-visual and printed instructional materials; and provision of audio-visual equipment.

For 1986, FAO reported: 43 ongoing projects; 20 projects in the pipeline; various activities for a global UNFPA project; and headquarters-based production of audio-visual materials for member governments and FAO-assisted projects. Funding for the Development Support Communication Branch amounts to approximately $2 million in the current biennium.

Table 1.8

FAO resources devoted to the communications component of ongoing projects by region

Region	$
Africa	4 039 250
Asia and the Pacific	2 121 000
Latin America	3 239 000
Near East	1 387 000
Population activities	398 000
Total	1 184 250

Source: FAO, Development Support Communication Status Report, 1986.

International Labour Organisation (ILO)

The objective of the ILO–the only tripartite organization of the United Nations system with worker and employer representatives taking part in its work on equal status to those of governments–is to promote social progress as a necessary precondition for balanced economic and social development. In the execution of its mandate, *inter alia*, to improve living and working conditions and promote full employment, the ILO deals with

various categories of workers who play a role in communication, be it in the production of information (print and electronic media journalists) or its distribution (audio-visual and graphics industries, performers, posts and telecommunications personnel).

As with other occupational categories, the ILO particularly monitors the application of international conventions concerning protection of basic human rights (freedom of association, elimination of discrimination in employment) working conditions and social security. Allegations of the violations of freedom of association are given particular attention.

ILO manages a network of information services in the form of data bases, and collects and publishes labour statistics (*Year Book of Labour Statistics*). It is currently developing an International Labour Information System designed to improve the availability in member states of ILO's own information services and of labour information more generally.

World Health Organization (WHO)

As a Specialized Agency of the United Nations with primary responsibility for international health matters and public health, one of the objectives of the WHO is to assist in developing an informed public opinion in all countries on matters of health.

In view of the crucial role that education and the media have to play in nutrition and health promotion, Unesco and the World Health Organization joined forces and launched in 1984 a major intiative to increase the involvement of the communications media in nutrition and health educational efforts.

With support and partial funding from the International Programme for the Development of Communication (IPDC), Unesco's Regular Programme, WHO and additional funding support from the United States Agency for International Development (USAID), the first phase of this Unesco/WHO interagency project was carried out in five ASEAN countries (Thailand, Philippines, Malaysia, Indonesia and Singapore).

Each of the participating countries developed a pilot project dealing with some aspect of national health/nutrition promotion. These country-level projects were then endorsed by respective government authorities and carried out with Unesco and WHO technical support and financing from USAID. Each project used different designs and approaches from radio listening groups to promotional/educational campaigns using the rural press for the training of media professionals in nutrition and health education. All projects stressed education and communications as major intervening factors.

In 1985, the second phase of the Unesco/WHO project was supported and partially funded by the IPDC, Unesco's Regular Programme, WHO and the International Development Research Centre of Canada. Six countries in South Asia (Bangladesh, India, the Maldives, Nepal, Pakistan and Sri Lanka) were involved.

A third phase of the Unesco/WHO interagency project involving all seventeen French-speaking countries in West and Central Africa was approved at the seventh session of the IPDC in January 1986. Canada has made a funds-in-trust arrangement with Unesco for C$100,000 and France has pledged $48,000 for the financing of six of the seventeen African country projects developed during the course of two decision-making roundtables.

The fourth phase of the interagency project was given an allocation of $20,000 from the IPDC. This contribution will go toward the financing of the first roundtable to take place in the Caribbean.

United Nations Development Programme (UNDP)

UNDP has been involved in virtually all aspects of communication development since the mid-1960s, notably in the telecommunication sector, where 729 projects in all regions totalling over $250 million have been undertaken. UNDP also has numerous projects concerning such aspects of communication as self-instruction and audio-visual materials, educational films, audio-visual education and equipment, photography, mass media, radio communication and broadcasting and educational television.

The UNDP Asia and Pacific Programme for Development Training and Communication Planning aims to strengthen government agencies in performing training, communication support, extension and management functions within their rural development programmes.

In implementing UNDP-funded projects, great reliance is placed on executing agents like ITU, UPU and other specialized agencies of the United Nations system.

In Africa, UNDP has actively supported news agency development. Among the national beneficiaries, SHIHATA, the Tanzanian News Agency, is a notable example. However, more recently, UNDP has

funded a project to establish the Information and Documentation Department of the Panafrican News Agency (PANA) headquarters.

Table 1.9

UNDP telecommunications projects by region, 1966-87

Region	Projects	$
Africa	218	87 543 893
Asia and the Pacific	184	100 543 565
Arab States	101	43 428 131
Europe	68	10 578 854
Latin America	149	44 265 829
Global/Interregional	9	2 290 593
Total	729	288 650 865

Source: UNDP Programme & Project Management System Engineering Facility 07/11/87.

United Nations Fund for Population Activities (UNFPA)

Established in 1969, with an annual budget currently of around $171 million, UNFPA's mandate is to build up the capacity to respond to needs in population and family planning; to promote awareness of population problems in both developed and developing countries and possible strategies to deal with them; to assist developing countries at their request in dealing with their population problems, in the forms and means best suited to the individual country's needs; and to play a leading role in the United Nations system in promoting population programmes, and to co-ordinate projects supported by the Fund.

Communication and education are now considered to be a top priority among the major functions of the UNFPA's programme. Efforts are directed at: publicity and information in support of population policies; communication support for censuses, maternal and child health/family planning and education programmes; population education in schools; and special programmes for women and young people.

Growing emphasis is being placed on face-to-face communication in family planning. Radio is used as an educational tool and tapes are used to provide "spot" announcements on health and family planning. Work is continuing on better low-cost audio-visual aids.

UNFPA assistance in the field of communication includes: public information programmes; population education; film and video production; population communication strategy planning; and other aspects of development communication.

During 1987, UNFPA joined with French-speaking institutions in Belgium, Canada and France to establish short- and long-term courses in population communication for French-speaking African programme personnel.

In 1987, UNFPA assistance in the area of information, education and communication totalled $18.7 million or 14.0 per cent of total programme allocations, compared to $15.6 million or 15.5 per cent of expenditures in 1986. During the period 1969-87, UNFPA assistance in this area totalled $181 million or 12.6 per cent of total assistance.

United Nations Children's Fund (UNICEF)

For UNICEF the importance of communication in, and for, social development can hardly be overstated. A long involvement in project and programme "support" has led to the recognition of communication as an integral part, indeed at the heart, of effective social development.

This recognition has emerged from the growing developmental interest in enlisting a variety of national level social forces and their material and human organized resources in, and putting their political weight behind, efforts to tackle the problems of children and mothers. These efforts in the 1980s were heavily concentrated on the international objective of immunizing all children by the end of 1990. Success over the decade in raising immunization coverage from a worldwide average of 5 per cent to ten times that figure by 1988, and the prospects of actually achieving and sustaining universal coverage in the 1990s, encouraged many to see a powerful role for communication and the mobilization of social organizations in the development process more broadly.

Although there is no definitive figure for investment in communication as a proportion of UNICEF programme assistance, one frequent estimate is that on average not less than 10 per cent of the half billion dollars of such assistance each year is spent on communication and related activities–and in some countries 15 or even 25 per cent.

Many UNICEF offices now have communication or social mobilization staff, in addition to regional level staff, working together with information officers in a network of some 175 professional and support personnel distributed throughout the organization's six geographical regions and offices serving 120 countries worldwide. These staff work with almost as many contracted consultants, individual and institutional, mostly from the countries concerned. The overall approach is being encouraged, and skills of these and other programme staff upgraded, through training courses which integrate the programming, communication and social mobilization processes.

Along with growing recognition has come the articulation of more ramified policies, notably a joint statement on Information, Education and Communication developed with the World Health Organization which sets out some of the basis for collaborative efforts in the field of health. Collaboration with a range of other organizations involved in communication–within the United Nations system and beyond–is being actively explored. The groundwork for this partnership is provided by annual roundtables on communication and education for development involving United Nations agencies, consulting organizations and universities, among others.

Meanwhile UNICEF has begun to test global initiatives aimed at introducing communication more comprehensively into its programme strategies. A three-year programme funded by the Government of Norway to introduce journalists and other communicators to social development issues particularly affecting children and mothers was undertaken in 1986 and has led to some continuing networks of participants, some country-based, others regional. Associations or clubs of print and broadcast journalists concerned to monitor child-related issues and promote the development of policies and practices benefiting children have begun to work with a number of UNICEF offices at country level.

Partly as a consequence of these experiences, a major initiative involving WHO and Unesco as well as UNICEF has been developed to use all available channels of communication at the country level–from mass media to organizational networks–to reach parents and communities with information important for the survival and healthy growth of their children. Known in English as Facts for Life (in Spanish as Para La Vida and in French as Savoir pour Sauver), the effort has brought together priority messages in 10 major areas of child health. More than a hundred international non-governmental organizations are helping to disseminate a total of 300,000 copies in five languages to national-level operations which are enlisting local systems of communication–including schools, religious and community service networks, trade unions and employers, and professional and business associations as well as the health and medical infrastructures–in transforming this information into forms and language appealing and understandable to their particular audience or constituency.

World Bank

Comprising the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA), the World Bank aims to raise standards of living in developing countries by channelling financial resources from developed countries to the developing world. Finance takes the form of hard or soft loans, and the total combined loan activity of the World Bank in 1985 and 1986 exceeded $30,000 million. Communication is viewed as a tool to support the development process.

In 1985/86, the World Bank funded 504 projects in 13 sectors. Although some form of communications activity (particularly in the provision of computer hardware and software) may be found in projects across every sector of the Bank's lending efforts, the activities of the World Bank in support of communications development that fit the definitional framework of Unesco are found in the Agriculture, Education, Health/Population/Nutrition and Telecommunications sectors.

The Bank seeks to extend the educational impact of specific development programmes by the addition of a communication component to an existing programme, or by addressing a development problem directly through a communication strategy.

Bank assistance has gone towards: capital infrastructure for telecommunications; technical assistance and advice regarding the use of the mass media to change attitudes and practices; support for improvement in sectoral management, research, training and extension; provision of audio-visual and instructional materials (including video production) and textbooks.

For the fiscal year 1985/86, the Bank reported: 135 projects in the agriculture sector drawing $25,329.3 million dollars of World Bank and government financing, of which the communication component is valued at $560.1 million; 35 projects in the education sector totalling $5,642.2 million, of which the communication component is valued at $289 million; 18 projects in health, population and nutrition, involving World Bank

and government financing of $1,148.6 million, of which $75.346 million is estimated as the communication component; direct World Bank support for telecommunications development amounted $286.5 million for 10 projects.

United Nations activity under the aegis of the High-Level Committee on the Review of Technical Co-operation among Developing Countries

The objectives of the current interregional activities of the High-Level Committee on the Review of Technical Co-operation among Developing Countries, for which UNDP is the main executing agency, are to provide direct support at the inter-country level by means of training and the exchange of expertise; to encourage and promote the voluntary sharing of technical resources, skills and capabilities through action-oriented TCDC activities; and to provide direct support to all developing countries and territories with a view to strengthening their TCDC capabilities.

For the purposes of TCDC programming, there is a Transportation and Communications sector, but it is apparent that communication *per se* is not a major focus of TCDC activity in this particular United Nations context.

In the two programming exercises cited in the Progress Report TCDC/5/6 of April 1987, this sector counted ten projects among 269 in one case, and 1 out of 146 in the other. In terms of overall distribution of resources by sectors, the Transportation and Communications sector was allocated $109,229, representing 6.2 per cent of total resources.

Table 1.10

TCDC resources for the transport and communications sector by region, 1985/86 ($ thousands)

Region		%
Africa	51 536	7.09
Arab States	2 677	8.97
Asia	-	-
Latin America and the Caribbean	55 016	8.10

Source: United Nations High-Level Committee on the Review of TCDC.

International intergovernmental organizations

Agence pour la Co-operation Culturelle et Technique (ACCT) (Agency for Cultural and Technical Co-operation)

The ACCT is the principal international organization grouping the francophone countries. It administers co-operative programmes in the fields of culture, communication, education, training, science and technology. The ACCT is also the executing agency for many of the initiatives agreed to by the Meetings of Heads of State and Governments of Wholly or Partially French-speaking Countries.

In 1987, the ACCT created a General Directorate for Culture and Communication responsible for communications-related activities. These are focused on:

- the development of rural radio;
- the expansion of radio and television programme production capacity in developing francophone countries (including participating in the production of 52 hours of radio programmes and 40 hours of television programming in 1988);
- the further development of TV 5, a co-operative French-language television programming venture retransmitted by satellite;
- the establishment of a centre for the multilateral exchange of French-language news items (CEMAF);
- the further development of exchanges of programmes and co-productions among francophone radio and television broadcasters (organization of coproduction consortia for children's programmes, youth programmes, documentary series and popular education series; the establishment of a "bank" of French language television programmes; organization of a French television programme trade fair every two years);
- promoting exchanges of personnel among francophone media (journalists, radio broadcasters, technical and production personnel);
- the creation of a permanent structure for collaboration among francophone countries in high-technology communications (Francophone Telecommunications Agency);
- further training of existing personnel resources (conception and creation, production, distribution).

A number of important programmes for education using modern communication techniques are also being supported and developed by the ACCT:

- educational and school radio (Comoros, Djibouti);

- creation of an international francophone centre for distance education (CIFFAD);
- organization of a 14-country co-production consortium for the harmonized production of schools and educational television programming;
- production of printed audio-visual materials for education and training.

The Commonwealth

Within the Commonwealth Organization of 50 member countries, the Commonwealth Fund for Technical Co-operation is the principal vehicle for development assistance in the field of communications. Development projects covering virtually all aspects of communications are grouped in the Transport, Posts and Telecommmunications; Mass Media, Communications and Public Relations, and the Public Administration Sectors. Projects are largely carried out in collaboration with national institutes or other national or regional organizations, and may take the form of training and education, policy and planning advice and technical assistance.

The CFTC has provided considerable support (for example, to the Asia-Pacific Institute for Broadcasting Development (AIBD)) under the Fund's Fellowship and Training Programme. CFTC support to AIBD has totalled over $2.5 million to date.

Commonwealth collaboration in telecommunications developed from the early 1920s and the Commonwealth Telecommunications Organisation took over from the Commonwealth Telecommunications Board in 1969. The Constitution of the CTO stipulates that its activities should be directed towards the improvement of international telecommunications.

The Partner Governments undertake to promote the efficient exploitation and development of the Commonwealth's external telecommunications facilities and to consult with one another on external telecommunications policy and practice of Commonwealth interest. To this end an Operational and Developmental Group of technical experts meets regularly and advises Council on matters of common interest. Furthermore, the CTO Financial Agreement 1983 provides:

For developing Partners to receive a preferential treatment in their traffic accounts with the most developed Partners. No specific control is exercised on the way in which these funds are utilized but it is expected that the developing countries will utilize the funds to develop their facilities.

For all Partner Governments to contribute to a Common Fund for collaborative activities. While all Partners do indeed contribute to this Fund, the major proportion of the Fund is provided through voluntary contributions from the major Partners. These funds are used to finance a Programme for Development and Training (PDT) under the direction of Council. The programme provides for: Multilateral Activities, in which all Partners are able to participate; Bilateral Projects whereby developing Partners may secure specialist technical training for their staff or the loan of technical experts for short assignments; Special Projects involving longer term loans of experts and, where appropriate, the provision of equipment to meet certain deficiencies; an Emergency Spares programme and a programme for the Calibration of Test Equipment.

Under the Programme for Development and Training for 1988/89 a total of six multilateral activities, 138 bilateral projects and 59 special projects have been approved or are at an advanced planning stage. These provide for more than 1,250 work weeks of training for staff from 22 countries and over 500 man weeks of experts on loan to developing countries. These projects span the Commonwealth countries of Asia, Africa, the Pacific and the Caribbean but due to the state of telecommunications development in Commonwealth countries, the largest proportion of the funds is directed towards Africa.

Table 1.11

Commonwealth Fund for Technical Co-operation: communication projects, by region, 1985/86 and 1987/88 (in £ Sterling).

1985/86[1]	Region	1987/88[2]
186 275	Africa	444 350
8 355	Arab States	-
1 420 954	Asia and the Pacific	1 377 232
169 822	Latin America and the Caribbean	119 085
2 476	Europe	8 628
1 787 882	Total	1 949 295

1. Average exchange rate for 1986 (January to December) $1 = £0.682
2. Average exchange rate for 1988 (January to December) $1 = £0.573; the Review covers the period between 1 July and 30 June for each year

Source: Commonwealth Secretariat Review of CFTC Activities 1985/86 and 1987/88

International Telecommunications Satellite Organization (INTELSAT)

INTELSAT is a non-profit co-operative owned by 115 nations and serving an additional 60 non-member countries, providing worldwide and domestic telephone, television and other telecommunications services.

Under the INTELSAT Assistance and Development Programme (IADP), over 100 countries have been assisted in the form of advice, training and planning support for new and improved telecommunications systems. The INTELSAT Development Fund assists developing countries to apply for and receive financing for their domestic, regional and international communications needs.

Certain specialized services provided by INTELSAT contribute directly to development. These include Domestic Telecommunication Services (DTS) which allow some 20 developing countries to provide long distance service, telephone, data and sometimes television via leased transponders. They also include INTELNET (small, low-cost earth stations for data for remote areas), and VISTA (moderately-sized and priced earth terminals for rural and remote communities). More recently a modified Super VISTA service has been approved and is being introduced in the South Pacific region.

INTELSAT also offers special professional development programmes, e.g. the Assignee, Young Professionals and Visiting Scholar Programmes.

INTELSAT development co-operation activities include: advisory services under the INTELSAT Assistance and Development Program (IADP); under the INTELSAT Development Fund, assistance in obtaining capital financing; and technical assistance including viability analyses, revenue projection, preparation of specifications, and help with the procurement of earth stations and directly connected terminal equipment. Project SHARE, conducted in collaboration with the International Institute of Communications (IIC) during 1984-87, made free satellite time available for tests and demonstrations of telecommunication programmes which promote health-care and education activities; and training and professional development programmes. This programme which involves a series of projects in 65 countries was successfully concluded with some projects like the Chinese National Television University converting to operational television service. It now has over a million students and 5,000 earth stations in operation. The follow-on programme to encourage remote and rural access to the global satellite system is called Project ACCESS. This programme started in 1988 and is an ongoing activity, not directly involving the International Institute of Communications.

The INTELSAT Organization is composed of a membership which is 75 per cent developing countries with about one-third of the use and ownership involving developing countries. In a sense it could be said that one-third of INTELSAT's budget supports services to developing countries. Budget allocations related to specific development or training programmes such as the IADP/IDF; Project ACCESS, Visiting Scholar Programme, Young Professional Programme, Assignee Programme are now excess of $2 million.

Intersputnik

The Intersputnik Organization of Space Communications was established on 15 November 1971 to meet the space telecommunications needs of member countries on the basis of an agreement between the Governments of Bulgaria, Cuba, Czechoslovakia, the German Democratic Republic, Hungary, Mongolia, Poland, Romania, and the Union of Soviet Socialist Republics. The Governments of Viet Nam, Democratic Yemen, the Lao People's Democratic Republic, Afghanistan, the Democratic People's Republic of Korea and Nicaragua have since acceded to the Agreement.

Intersputnik is an unrestricted international organization. Any country recognizing the aims and principles of the organization's activities may become a member of Intersputnik.

Intersputnik's activities are directed by a board which comprises one representative of each of the Organization's member states, all having equal voting rights. Within the limits of its powers, the Board discusses matters of general policy and principle concerning Intersputnik's activities, approves plans for the establishment, exploitation and development of the communications system, determines the technical characteristics of earth stations, approves the plan of channel allocation and the use of the space occupancy period, fixes tariffs, elects the Director-General and approves the organization and staff of the Directorate and examines other matters for which provision is made in the Agreement. All members of the Board participate equally in the adoption of Board decisions. These are carried out by the Directorate of Intersputnik, the organization's permanent executive and administrative body, which is located in Moscow. The staff of the Directorate are recruited from citizens of the countries whose governments are members of the

organization, with due regard for professional competence and equitable geographical representation. The satellite technology is provided by the USSR, while ground station technology is provided both by the USSR and the collaborating partners.

Intersputnik coordinates its activities with the International Telecommunication Union and co-operates with other organizations. As of 1988, co-operative agreements had been concluded with CMEA, OIRT, Intercosmos and the INMARSAT international organization.

Selected regional intergovernmental organizations

Africa

African Posts and Telecommunications Union (APTO)

Since its establishment in 1961, APTO, which groups twelve member governments, has sought to foster co-ordination and co-operation among its members in the development of telecommunications and postal services.

Pan-African Telecommunications Union (PATU)

The Pan-African Telecommunications Union (PATU) was established in December 1977 as the Specialized Agency of the Organization of African Unity (OAU) in the field of telelcommunications. PATU, a regional intergovernmental organization, has at present a membership of 45 African States. The Union, with its General Secretariat in Kinshasa, Zaire, is headed by a Secretary General as the Chief Executive. The Supreme Organ of PATU is the Conference of Plenipotentiaries which meets once every four years in ordinary session. The Administrative Council comprising 19 member states meets annually to give guidance in the administration of the Union and to approve the programme of activities and budget.

The Communication Development activities of the Union are centred on the harmonious development, operation and maintenance of telecommunications networks and services in Africa, in a concerted and integrated manner. In this respect, the Union fosters inter-state, subregional and regional technical co-operation and interacts with the ITU and other international organizations having interest in the development of telecommunications in Africa. The Union also acts as an intermediary for technical assistance and fellowships for the benefit of African Telecommunications Administrations.

The Union has been involved in the co-ordination activities of the two UNDP-funded PANAFTEL projects being executed by the ITU and also in the on-going feasibility study for the Regional African Satellite Communication System for the Development of Africa (RASCOM), which the African Ministers of Transport, Communications and Planning have requested the Inter Agency Coordinating Committee (comprising the OAU, ECA, ADB, ITU, PATU, UAPT, URTNA, AFCAC, Unesco and UNDP) to undertake.

Being a regional IGO for the development of telecommunications, PATU's resources are entirely devoted to telecommunication development. For the 1986/87 and 1987/88 Financial Years, the allocations were respectively $1,053,560 and $987,234. The 1988/89 provision is $1,047,080.

South African Development Coordination Conference (SADCC)

Regional co-operation in communication in Southern Africa is focused on the Southern African Transport and Communications Commission, (SATCC), created out of a recognition that regional development as a whole depended largely on adequate regional transportation and communications. Currently the SATCC investment programme includes 181 transportation and telecommunication projects, of which 41 are telecommunications at a total cost of approximately $694 million which corresponds to about 15 per cent of the total investment cost.

In terms of regional co-operation, attention is focused principally on: regional components of PANAFTEL; satellite earth-station connectivity in the region; international telephone and telex switching centres in member countries; special-application telecommunications in support of regional transportation, meteorological and civil-aviation projects; training and personnel development, including the setting up of joint or co-operative programmes and ensuring that each major capital project contains a training element.

African Development Bank (AFDB, ADB)

The African Development Bank group comprises the African Development Bank, African Development Fund (ADF), and the Nigeria Trust Fund (NTF). The Bank finances top priority sectors according to the development needs of the regional member countries. Since 1977, the Bank group resources have been allocated according to five-year Operational Programmes, which identify the priorities for each institution and the resources allocated to each priority sector. The Bank group uses its resources to finance projects and programmes of activities which correspond to the fundamental requirements of the most needy populations; that is to say, activities that increase food, agricultural production and economic growth.

The ADB also helps to construct facilities to improve the economical transmission of information. From 1985 to 1987, the Bank group loaned nearly $100 million for telecommunications projects in Benin, Cape Verde, Chad, Senegal, Zaire, and Zambia. It also loaned $14 million for a regional telecommunications project grouping Burundi, Rwanda, the United Republic of Tanzania, and Uganda.

Among other funding sources, ADB participated in financing a feasibility study for the Regional African Satellite Communication System (RASCOM). Considering the regional character of the project and its importance for the development of Africa, the Bank group granted nearly $4 million towards the study. The grant is intended to benefit all the regional member countries of the ADB group and as such the ADB is in charge of the administration of the grant, while ITU has been designated as executing agency.

West African Development Bank (WADB)

Established in 1973, WADB promotes balanced development of member states. Funds disbursed for telecommunication projects averaged $2,169,285 per annum from 1978 to 1984, for a six-year total of $15,185,000.

United Nations Economic Commission for Africa (ECA)

The United Nations Economic Commission for Africa (ECA) was established on 29 April 1958 by the United Nations Economic and Social Council (ECOSOC) by Resolution 671 A(XXV). The ECA is one of five such regional commissions of ECOSOC. It has its headquarters in Addis Ababa, Ethiopia. The principal legislative organ of the Commision is the Conference of Ministers, composed of the Ministers responsible for economic planning and development in the government of the 50 independent African States members of the Commission.

The primary responsibility of the Commission is to promote economic development in Africa, with particular emphasis on the social aspects. Over the years, the role of the Commission has expanded to include that of an Executing Agency for projects of the United Nations Development Programme which are of a multidisciplinary and multisectoral character.

The ECA has promoted the development of communications in Africa, most notably within the framework of the programme of the United Nations Transport and Communications Decade for Africa (1978-88). The Commission was designated to be the lead agency for the programme, designed to focus attention on the development of transport and communications in Africa, as a necessary component of the overall development effort. The communications component of this programme includes telecommunications, broadcasting and postal services.

Notable developments have been achieved in telecommunication: the Pan-African Telecommunication Network (PANAFTEL) has developed to include 43,000 km of microwave and submarine cable transmission links supplemented by satellite earth stations of the INTELSAT system operating in 41 African countries. To further extend communication services to the rural areas, where the greatest portion of economic activity occurs, the African countries are undertaking a feasibility study for a joint Regional African Satellite Communication System (RASCOM). This study is expected to be completed in 1990.

In 1980 the Commission established the Pan African Documentation and Information System (PADIS) programme as a regional information system to provide governments, the international community and business with information on development. Seven data bases have been established so far, covering African economic and social development, industrialization, agriculture, labour, worldwide economic and social developments, United Nations missions to African countries as well as livestock. This information is provided in printed or machine-readable formats.

Arab States

Arab League Educational, Cultural and Scientific Organization (ALECSO)

ALECSO aims to promote unity of thought among Arab countries through education, culture and science, and raise the standard of cultural activities in these countries so that they may keep in touch with world civilisation and make a positive contribution to it.

Since the first ALECSO General Conference in 1970 priority has been given towards carrying out a comprehensive and continuous survey of educational, cultural and scientific potentialities in the Arab world, primarily by means of conferences, meetings and seminars. It was as a result of the interest of ALECSO in studying the principle of the "right to communicate" that its sixth General Assembly set up an Arab Commission for the Study of Information and Communication Problems, whose work was completed in late 1985.

Arab Bank for Economic Development in Africa (BADEA)

BADEA has provided loans for telecommunications projects in the Comoros, Mozambique, Zimbabwe and East African countries.

Arab Fund for Social and Economic Development

The Arab Fund was established in 1974 and groups member states of the League. Loans to the communication sector totalled KD5.4 million (US$1 = KD0.291) in 1986 and KD0.4 million in 1987, representing 8.1 and 0.4 per cent respectively of the Fund's lending programmes for the two years.

Arab Gulf Programme for United Nations Development Organizations (AGFUND)

AGFUND was created in 1981 to support social and economic development efforts in developing countries by contributing to the funding of development projects undertaken by United Nations organizations adopted by the Programme, particularly projects targeted on women and children.

AGFUND granted $2 million through Unesco funds-in-trust to provide equipment for PANA headquarters in Dakar and the five PANA regional pool centres. In addition, AGFUND has assisted 17 individual national news agencies in Africa.

AGFUND's accounts do not display a separate communications sector. Elements of communication development can be found however in a variety of projects supported by the Fund, for example: a project on preparation of a comprehensive health education programme in Arab Gulf countries addressed the need to prepare and produce health education programmes for dissemination by modern communication techniques and using widespread institutions, such as schools and mosques. A rural post-literacy press project in the United Republic of Tanzania is developing rural press work in Swahili to provide developmental reading materials for a larger number of new literates.

AGFUND projects have also assisted: production of educational audio-visual materials; production of school books; use of mass media for literacy and post-literacy programmes; and training.

Arab Telecommunications Union (ATU)

ATU was founded in 1953 with the objective of developing and improving means of communication among member states, and to promote telecommunications use. The ATU also promotes scientific and operational research.

OPEC Fund For International Development

The OPEC Fund for International Development is a multilateral agency for financial co-operation and assistance. Its aim is to reinforce financial co-operation between OPEC member countries and other developing countries by financial support to assist the latter in their economic and social development, through concessional loans, financial and technical assistance activities and grants. By the end of December 1986, over $2,000 million had been committed in activities in 89 countries.

The Fund provided figures on the following communications-related projects: partial financing of a telecommunications project in Burma ($3.1 million); partial financing of a telecommunications project in Cape Verde ($1.5 million); rehabilitation of aerial

navigation equipment in Africa (Burkina Faso, Central African Republic, Chad, Congo, Mali, Mauritania and Niger) ($1 million).

Asia and the Pacific

Asian Development Bank (ADB)

The Asian Development Bank aims to integrate its support for telecommunications development into the overall development strategies and plans of its member countries. Since the Bank's formation in 1966 it has provided in excess of $21,000 million for development assistance to its member countries.

While a substantial part of the Bank's assistance for telecommunications includes funding for capital infrastructure, the Bank's telecommunications strategy also covers the provision of technical assistance for institutional development. The primary focus of the technical assistance programmes is on strengthening telecommunications institutions in the role of systems integrators. Included here are support for technical and managerial training, technology transfer, systems development, organization strategy and policy development. Further, the Bank's involvement has covered both public and private sector institutions.

Many of the Bank's member countries are now actively integrating telecommunications development into their overall national development frameworks. The Bank has provided assistance for the development of telecommunications in India, Pakistan, Thailand, Vanuatu, Western Samoa, Sri Lanka, Tonga, Viet Nam, Philippines and Papua New Guinea. Direct Bank support for telecommunications development since 1971 has amounted to $336.28 million for 12 projects.

Asia-Pacific Institute for Broadcasting Development (AIBD)

The Asia-Pacific Institute for Broadcasting Development (AIBD) is an intergovernmental broadcasting training institute serving countries of the United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP) region in the development and upgrading of their broadcasting personnel and systems. It is located at the Malaysian broadcasting training centre, Institut Penyiaran Tun Abdul Razak (IPTAR) in Kuala Lumpur, Malaysia.

To achieve its objectives, AIBD organizes training courses, seminars and workshops for broadcasting personnel at regional, subregional and in-country levels designed to develop their professional capability. Over the last ten years or so, the Institute has organized about 50 activities with about 1,000 participants per annum. The Institute also produces curricula, training materials and manuals, and advises the national broadcasting training centres in the region.

In addition, the Institute has worked in close collaboration with the Friedrich-Ebert-Stiftung and the Asia-Pacific Broadcasting Union (ABU) in setting up ASIAVISION and organizing training for it since 1979.

The Institute is also involved in setting up development broadcasting units and providing training for them in three countries - India, Indonesia and Papua New Guinea. This project is being funded by the Canadian International Development Agency through the Ryerson International Development Centre, Toronto.

Since its inception, the Institute has provided training for 9,963 participants from 38 countries within the region and 23 countries outside the region in 556 activities until August 1988.

China joined the AIBD in early 1988, and it is expected that Australia, Brunei, France, Japan and New Zealand will also join in the near future.

Asian-Pacific Postal Union (APPU)

The APPU promotes regional co-operation, technical assistance and training at the Asian Pacific Postal Training Centre (APPTC).

Asia-Pacific Telecommunity (APT)

The Asia-Pacific Telecommunity was established in 1979 to promote balanced development of telecommunications in the region. To date, it has 21 Members, two Associate Members and 10 Affiliate Members (Common Carriers). The Telecommunity aims to facilitate the efficient and effective planning and operation of national and international networks within the region. The Asia-Pacific Telecommunity achieves this by the provision of expert assistance, facilitating inter-country training, the holding of seminars and workshops on topical issues and the maintenance of study group activity in areas of on-going concern. Thus, it fosters the establishment of standards and agreements, the development and promulgation of

technical and management expertise and the promotion of telecommunication programmes. In 1988 the Telecommunity expected to spend approximately $0.5 million on work programme activity, out of a total budget of $10.9 million, while supporting training courses by affiliated organizations in excess of $1.0 million.

In 1988, the focus of activities was on mobile radio, signalling systems and ISDN, computers and communication, upgrading telecommunications and management technology in developing countries and assisting in telecommunication planning, particularly the introduction of digital technologies.

Association of South-East Asian Nations (ASEAN)

The ASEAN Committee on Culture and Information has embarked on a programme of training of media personnel in areas such as film production and distribution, and radio-and-television news production, notably through the ASEAN-Australia Media and Information Programme. There is also a journalists' exchange scheme which provides for regional visits, briefings and meetings on a regular basis.

ASEAN has also launched a programme to strengthen the capabilities of member countries in micro-electronics design by establishing a core group of trained personnel in each country to develop and disseminate the technology. Expert exchange programmes will be supported by a communications network to facilitate transfer of information on design software among ASEAN countries.

South Pacific Bureau for Economic Co-operation (SPEC)

SPEC was established in 1972 as the secretariat and executive of the South Pacific Forum (SPF) which is the annual meeting of the Prime Ministers of the fifteen independent countries of the South Pacific: Australia, Cook Islands, Federated States of Micronesia, Republic of Fiji, Kiribati, Republic of the Marshall Islands, Nauru, New Zealand, Niue, Papua New Guinea, Solomon Islands, Tonga, Tuvalu, Vanuatu and Western Samoa. SPEC provides the facilities for the coordination of co-operative activities as directed by the SPF for the economic development of the Forum Island countries. Within the area of communications, it has a development programme funded from international and regional sources: the South Pacific Telecommunications Development Programme. This Programme is controlled by a Management Group consisting of government officials of the member countries. A small Programme Control Office at SPEC conducts studies of needs, brings these to the attention of regional and international organizations willing to provide technical assistance and financing and initiates planning studies and installation of equipment. SPEC receives significant funding from the European Community and UNDP, amongst others, for this activity.

Europe

United Nations Economic Commission for Europe (ECE)

Established in 1947, the Economic Commission for Europe (ECE) is one of the five currently existing regional bodies of the United Nations Economic and Social Council. Based in Geneva, it comprises 34 Member States from Europe and North America. The Commission serves as a forum for regional multilateral economic co-operation among countries with different economic and social systems in the fields of trade, industry, science and technology, the environment and other areas of economic activity.

In the framework of its activities related to the facilitation of international trade procedures, the Economic Commission for Europe is engaged in the development of standard messages for international trade transactions, for direct Electronic Data Interchange (EDI) between computers. The United Nations rules for Electronic Data Interchange for Administration, Commerce and Transport (UN/EDIFACT), developed within UN/ECE, are recognized worldwide as the universal standard for EDI in international trade, transport and related activities.

Commission of the European Communities (EEC)

Development assistance by the 12-member European Community in the area of communication is largely administered under the terms of the Lome III convention with the so-called African, Caribbean and Pacific (ACP) states, which gives two principal orientations to Community assistance in this field: increasing the capacity of ACP states to contribute actively to the international flow of information and knowledge, notably by support for national and regional communication organs; and providing better information to the people of ACP countries to manage their

development, through projects and programmes focused on information and self-expression, and using local, basic communication means.

Although communications is now recognized as a sector in its own right, much EC aid to communications is contained within larger projects, notably within the rural development and education sectors. The Community finances relatively few media and communication projects compared to the bilateral efforts of its members, and its efforts have focused chiefly on: capital infrastructure assistance; training and education; provision of programmes; and information exchange.

Bilateral and multilateral aid from EC sources in the sector of communications is estimated to be 100 million ECUs (1 ECU=approximately US$1.2) annually. Half of EC assistance is directed to Africa, most of the remainder to Asia, and the balance to Latin America and the Caribbean.

Some typical EC projects include: radio broadcasting in Swaziland; Development Liaison Bulletin in Niger; and the AFSAT pre-feasibility study.

European Investment Bank (EIB)

The EIB finances development projects in 70 countries outside Europe, mainly in the less-developed countries. In 1982, the EIB loaned Côte d'Ivoire more than 72 million ECUs for telecommunications infrastructure development. In 1983, the Bank loaned 15 million ECUs through the Community of West African States (ECOWAS) for microwave links between ECOWAS members, and in 1987, a further loan of 21 million ECUs was made for this project, as well as to underwrite construction of a new international satellite earth station at Bamako, Mali. The Congo received a 6.1-million-ECU loan to extend its international telecommunication links in 1985.

In 1986, a loan of 13 million ECUs was provided to Telemalta Corporation of Malta for the modernization and extension of telephone and telex services. A further 10 million ECUs were provided to Côte d'Ivoire for the rehabilitation and reinforcement of the national and international telecommunication systems.

In 1987, 12 million ECUs were lent to Senegal for the expansion and modernization of the national telecommunications network. Together with the second ECOWAS loan, this represented 8.4 per cent of the Bank's total operations outside the community.

International Centre for Scientific and Technological Information (ICSTI)

ICSTI is a specialized international organization intended to promote and improve co-operation in the field of scientific and technological information by concentrating and co-ordinating the efforts of CMEA (Council for Mutual Economic Assistance) countries. In addition to the Eastern European countries, Cuba, Viet Nam and the Democratic People's Republic of Korea are members. Through MNSTI (International Scientific and Technical Information System), ICSTI members are assisted to cope better with economic problems through access to the latest developments in science and technology.

ICSTI collaborates with other international organizations in joint operations in CMEA countries and ICSTI may assist non-member countries in developing their national systems of science and technology information on the basis of co-operative agreements.

Among the activities carried out by ICSTI are: information services, based on extensive use of advanced technology, to various organizations in member countries, particularly in problem areas crucial for economic development and scientific and technological progress; research projects in the field of theoretical and practical applications of science and technology information; organizational, methodological, scientific and technical assistance in the science and technology information field; assistance in instruction and advanced training for information specialists from member countries; technical co-operation by scientific workers and specialists; and developing national scientific and technological information systems, notably for Cuba, Mongolia, and Viet Nam, through transfer of modern information technology and provision of training.

ICSTI has organized instruction and practical training for a duration of 1,646 days for 47 specialists from Cuba, and Mongolia and Viet Nam.

Intercosmos

The Intercosmos programme for multilateral co-operation in space research was launched by the scientists of socialist countries in 1966. Co-ordination is assured by Intercosmos Committees within the national science academies of participating countries. Joint projects include launching of rockets and satellites for scientific purposes. Research results are shared, and conferences, scientific visits and exchanges are organized.

The Intersputnik satellite communication system is one outcome of the Intercosmos project.

Latin America and the Caribbean

Association of Telecommunications Enterprises of Members of the Andean Pact (ASETA)

ASETA is made up of five state-owned telecommunication enterprises in the Andean Pact countries: ENTEL (Bolivia), TELECOM (Colombia), IETEL (Ecuador), ENTEL (Peru) and CANTV (Venezuela). It was established in 1974 principally to develop studies and conclude agreements to promote understanding and beneficial use of telecommunication services so as to facilitate the regional integration of the Andean countries.

Besides the regional co-ordination and co-operation activities in the field of services planning and exploitation, ASETA conducts several regional programmes. ASETA obtained the approval of its members to develop the Andean Satellite Project (CONDOR). Based on the regional microwave network, SAT, communication facilities for direct and transit services have been established. ASETA has bought data processing and communications equipment and has improved a specialized data bank through the SATEL Teleinformatics Project. Proposals have been requested to design and construct five different telecommunication equipment prototypes under the PAFET project; as of June 1988, offers were being assessed. The total amount of resources devoted to communications development in the 1986/87 period was approximately $1,500,000, representing 71.8 per cent of the Association's total budget for the same period.

CERLALC (Centro Regional para el Fomento del Libro en América Latina y el Caribe) groups fourteen Latin American governments in activities to promote books and reading, defend copyright, and encourage national policies on book publishing. ILPES, the Latin American and Caribbean Institute for Economic and Social Planning, carries out research, policy, and planning programmes with the planning offices of its member states; some of these programmes include the communication sector. JUNAC, the Junta del Acuerdo de Cartagena, is a programme of regional integration of the Andean countries. JUNAC carries out research and action programmes in communications technology and policies together with the Andres Bello Agreement. CACIFL, headquartered in Lima, is the Action Committee for Co-operation in data management, information flow and electronics.

SELA (Sistema Económico Latinoamericano), is organized in different Action Committees. SELA has also been involved in the creation and implementation of an Information Service for the Evaluation of Communication Technologies (SIETCOM) for Latin America and the Caribbean. Since 1986, a series of studies and surveys in the field of communication technologies has been conducted in order to institutionalize a regional co-operation network for the exchange and evaluation of information in that specific area. SIETCOM's main objectives are to provide adequate and prompt information on communication technology monitoring, improve the region's negotiations for the acquisition of technologies, and document and promote development of regional production of equipment. In general terms, it is conceived as an information support mechanism for decision-makers in public and private bodies related to communication systems in countries of the region. It encompasses activities related to the provision of special and organized information in the fields of science, economy and technology. SIETCOM pursues a technology-monitoring and development system by means of interconnected information networks and collection of specialized data within and outside the region, as well as by strengthening efforts to standardize procedures which may ensure access to and adequate selection of communication technologies for the region. A considerable amount of information has been collected on statistics, decision-making processes for the acquisition of technologies, related enterprises and institutions within the region, on the regional response to the initiative and other necessary criteria for the implementation of the network. A final proposal is to be submitted for the consideration of SELA member countries shortly.

Caribbean Telecommunications Union (CTU)

Caricom Ministers responsible for Telecommunications, meeting in Barbados in September 1988, agreed to establish a Caribbean Telecommunications Union (CTU), comprising member states of Caricom. The CTU will be headed by a Secretary-General, and was established on 1 October 1988.

It is envisaged that the CTU will be able to assist member states of Caricom to solve problems regarding frequency incompatibilities which affect them, both at the national and international levels. By providing easy access to expertise from the region, the CTU will also reduce the high costs of consultancies from extra-regional sources. The CTU, among other things, will also foster collaboration among member states in seeking technical assistance, and will maintain permanent contact with various international telecommunication entities, such as the International Telecommunication Union (ITU).

A strengthened and co-ordinated telecommunications sector will offer better levels of communications for civil aviation, meteorology, maritime and disaster planning and will also be of great value to the region in terms of its economic, social, educational, health, commercial, industrial and other sectors.

Organization of American States (OAS)

The Organization of American States carries out a wide variety of activities which fall within the description of communications and development co-operation and are designed to contribute to or enhance the economic, social, scientific and technological, and educational development of its Member States. The OAS is conducting and participating in various activities with the goal of modernizing telecommunications in Latin American countries. The OAS programme focuses on pre-investment technical and economic feasibility studies and pre-feasibility studies to determine the appropriate level of technology and equipment required to make a transition to integrated digital networks in several OAS member states. The study currently involves Argentina, Colombia, Costa Rica, Honduras, Mexico, Uruguay and Venezuela. However, it will be extended to other countries in the near future.

Specifically, cost/benefit studies are performed to determine the kind of materials and technology appropriate for each participating country and the consequent investment required for the necessary equipment and systems. First, the existing telecommunications systems are reviewed and an estimate is made of their life expectancy and the demand for new service. Next, feasibility studies for transforming the system are conducted, taking into account the technology and equipment available in the market, then investment needs and strategies for a period of 15 years are mapped out. Finally, based on the results of the previous studies, a detailed cost/benefit analysis and technical specifications are constructed for each alternative approved. Total expenditures on this activity are expected to reach approximately $6 million.

In conjunction with the study on development of an integrated digital telecommunications network, a feasibility study is under way on fibre-optic links for transmission in Costa Rica, Venezuela and Uruguay.

The studies mentioned above include a training component whereby the OAS provides $100,000 a year in short-term scholarships for specialists of the participating countries and other member states.

The OAS is further involved in telecommunications projects through CITEL, the Inter-American Conference on Telecommunications. One of the Inter-American Specialized Conferences held periodically by the OAS, CITEL provides a permanent forum to all the OAS member states and Canada in order to: facilitate and promote through all available means the continuous development of telecommunications in the Western Hemisphere; organize and sponsor technical meetings on telecommunications in the areas of planning, financing, studies, construction, operation and standards, as well as technical assistance, maintenance and other related matters. CITEL also maintains permanent co-operative relations with governments and international organizations in the telecommunications field.

CITEL has a permanent executive and co-ordinating body called the Permanent Executive Committee, as well as three technical commissions on: (a) public telecommunications services, which studies and makes recommendations on planning, operation and other matters related to public telecommunication services; (b) broadcasting, which draws up standards, studies and recommendations on sound and television broadcasting; and (c) radio communication, which draws up standards, studies and recommendations on radio communications in general. The OAS provides approximately $120,000 annually to fund the meetings of CITEL and its commissions.

Through its Regional Programme of Educational Development (PREDE) the OAS carries out a programme on Communication for Education which is designed to utilize the advances in technology and in techniques of social communication to improve the quality and relevance of educational systems and extend them to all sectors of the population.

This programme includes national projects for basic education and communication skills and long-distance education systems in nine countries of the region: Barbados, Chile, Colombia, Dominica, Ecuador, Haiti, Mexico, Trinidad and Tobago, and Venezuela, at a total cost of $514,700 for the 1988/89

biennium. PREDE also administers an information system known as INFOCIECC, which produces on microfiche and distributes the substantive material of the projects which make up PREDE.

Through its Department of Scientific and Technological Affairs, the OAS is carrying out several projects in the field of informatics. The purpose of the Special Project for Computer Networks is to design a computer programme (software) for experimental use by a group of interconnected computers located within a relatively limited area (university campus or building) and to supply staff training in the design, evaluation, operation and maintenance of local computer networks.

Local networks were set up at the University of São Paulo; Federal University of Rio de Janeiro; University of São Paulo Polytechnical School; Autonomous University of Mexico; and the Center for Advanced Studies at Mexico City's National Polytechnic Institute.

The Distributed Processing Applications project represents an advanced stage in the development of centres that supply scientific and technological information to the productive sector, emphasizing a network configuration in which each of the components may compile and process information. For purposes of computer-based intercommunication, the centres comprising the network use existing telephone facilities.

Inter-American Development Bank

The Inter-American Development Bank is an international financial institution created in 1959 to help accelerate the economic and social development of its member countries in Latin America and the Caribbean. The Bank, whose headquarters are in Washington, D.C., is today a major source of external public financing for most of the countries of the Latin American region.

Telecommunications projects funded by the Bank have included improvement of existing networks, installation of rural service and emergency rehabilitation after earthquakes. Since its inception the Bank has approved a total of $394.4 million in loans for $844 million worth of telecommunications projects located throughout
Latin America. This represents 1 per cent of the Bank's total loan approvals in the same period. Since 1985, the amount approved has been $138 million, or 1.6 per cent of total loan approvals.

Communication development activities of selected countries

The information given below on bilateral assistance to developing countries is derived from replies sent to Unesco, in response to the letter of inquiry sent out to member states: it therefore only applies to selected countries, since the response was not uniform. However, it is prefaced by a series of tables compiled from data furnished by the Organisation for Economic Co-operation and Development (OECD), concerning Official Development Assistance (ODA) from 18 member states of OECD's Development Assistance Committee (DAC).

Table 1.12 provides data on assistance (loans and grants) rendered over two years, 1985 and 1986 (the most recent figures available) and broken down by world region. In Table 1.13 loans and grants in the field of communication are related (for the same two years) to overall development assistance. Finally, in Table 1.14, again over the same period, communication assistance is compared to assistance in the sectors of agriculture and education.

From these tables, it is possible to see the relative levels of assistance provided as between world regions, and the relative portion of loans and grants both between regions and between donor countries.

The tables also make it clear that, while rising, development assistance offered to communication is considerably lower than other sectors, such as agriculture and education, and particularly low in relation to development assistance overall. This is even more marked if only the grant element of such assistance is considered.

Table 1.12

Official Development Assistance (ODA) loans and grants to the communication sector, by receiving region ($ thousands)

Countries	Africa		Latin America and the Caribbean		Asia and the Pacific		LDCs Unspecified	
	Loans	Grants	Loans	Grants	Loans	Grants	Loans	Grants
1985								
Australia	-	-	-	-	-	440	-	-
Austria	-	-	-	-	-	-	-	-
Belgium	-	-	-	-	-	-	-	-
Canada	-	18 317	-	3 122	-	109	-	-
Denmark	4 152	1 793	-	-	7 549	-	-	-
Finland	-	-	-	-	-	-	-	-
France	66 482	6 067	-	-	12 151	1 653	-	-
Germany, Fed. Rep. of	-	-	-	-	-	-	-	-
Ireland	-	-	-	-	-	-	-	-
Italy	25 125	-	14 650	-	-	-	-	-
Japan	40 172	11 938	5 954	210	167 786	19 069	-	-
Netherlands	4 968	-	707	1 576	3 914	-	-	-
New Zealand	-	-	-	-	-	-	-	-
Norway	-	4 653	-	-	-	30 724	-	3 605
Sweden	-	4 195	-	-	-	-	-	1 262
Switzerland	-	1 557	-	-	-	-	-	-
United Kingdom	-	-	-	-	-	-	-	-
United States	-	-	-	-	-	481	-	-

Table 1.12-cont.

Countries	Africa		Latin America and the Caribbean		Asia and the Pacific		LDCs Unspecified	
	Loans	Grants	Loans	Grants	Loans	Grants	Loans	Grants
1986								
Australia	-	-	-	-	-	445	-	-
Austria	-	-	-	-	-	-	-	-
Belgium	-	-	-	-	-	-	-	-
Canada	-	9 039	-	6 572	-	14 674	-	-
Denmark	4 573	3 708	-	-	-	14 213	-	-
Finland	-	-	-	-	-	-	-	-
France	97 976	11 711	17 406	-	16 639	1 758	-	-
Germany, Fed. Rep. of	67 993	2 281	-	-	-	-	-	-
Ireland	-	-	-	-	-	-	-	-
Italy	68 624	400	-	-	1 650	-	-	-
Japan	27 976	24 451	-	-	179 631	17 121	-	-
Netherlands	-	2 041	-	-	17 388	-	-	-
New Zealand	-	-	-	-	-	-	-	-
Norway	-	-	-	217	-	1 146	-	-
Sweden	-	15 768	-	-	-	1 550	-	425
Switzerland	-	1 334	-	-	-	-	-	-
United Kingdom	-	-	-	-	-	-	-	-
United States	-	-	-	-	-	-	-	-

Source: Compiled from OECD statistical data and the OECD 1987 and 1988 Reports on development co-operation.

Table 1.13

Official Development Assistance (ODA) from DAC Countries[1]: aid to communication

Countries	Total ODA ($ millions)	Grant element of total ODA (% 1985/86 average)	Aid to communication			
			Loans ($ thousands)	Grants ($ thousands)	Total ($ thousands)	Grant Element (%)
1985						
Australia	749	100.0		440	440	100.0
Austria	248	*91.8[2]	-	-	-	-
Belgium	440	*98.3	-	-	-	
Canada	1 631	99.7	-	21 548	21 548	100.0
Denmark	440	96.7	11 701	1 793	13 494	13.3
Finland	211	98.2	-	-	-	-
France	3 995	*89.4	78 633	7 720	86 353	8.9
Germany, Fed. Rep. of	2 942	89.1	-	-	-	-
Ireland	39	100.0	-	-	-	-
Italy	1 098	95.8	39 775	-	39 775	0.0
Japan	3 797	77.9	213 912	31 217	245 129	12.7
Netherlands	1 136	97.2	9 589	1 576	11 165	14.1
New Zealand	54	100.0	-	-	-	-
Norway	574	99.6	-	38 982	38 982	100.0
Sweden	840	*99.7	-	5 457	5 457	100.0
Switzerland	303	99.1	-	1 557	1 557	100.0
United Kingdom	1 530	99.8	-	-	-	-
United States	9 403	96.4	-	481	481	100.0
Total[3]	29 429	*92.5	353 610	110 771	464 381	23.9

Table 1.13-cont.

Countries	Total ODA ($ millions)	Grant element of total ODA (% 1985/86 average)	Aid to communication			
			Loans ($ thousands)	Grants ($ thousands)	Total ($ thousands)	Grant Element (%)
1986						
Australia	752	100.0	-	445	445	100.0
Austria	198	*91.8	-	-	-	-
Belgium	547	*98.3	-	-	-	
Canada	1 695	99.9	-	30 285	30 285	100.0
Denmark	695	98.5	4 573	17 921	22 494	79.7
Finland	313	98.3	-	-	-	-
France	5 105	*78.2	132 021	13 469	145 490	9.3
Germany, Fed. Rep. of	3 832	87.2	67 993	2 281	70 274	3.2
Ireland	62	100.0	-	-	-	-
Italy	2 403	93.4	70 274	400	70 674	0.6
Japan	5 634	62.4	207 607	41 572	249 179	16.7
Netherlands	1 740	96.1	17 388	2 041	19 429	10.4
New Zealand	75	100.0	-	-	-	-
Norway	798	99.4	-	1 363	1 363	100.0
Sweden	1 090	*99.9	-	17 743	17 743	100.0
Switzerland	422	99.6	-	1 334	1 334	100.0
United Kingdom	1 737	99.4	-	-	-	-
United States	9 564	97.0	-	-	-	-
Total[3]	36 663	*87.0	499 856	128 854	628 710	20.5

1. The expression "DAC countries" refers to the eighteen member states of the OECD Development Assistance Committee.
2. * estimate.
3. The total of all countries does not add up exactly due to rounded figures.

Source: Compiled from OECD statistical data and the OECD 1987 and 1988 Reports on development co-operation.

Table 1.14

Official Development Assistance (ODA) from DAC Countries[1]: aid to agriculture and education, ($ millions)

Countries	Total		Aid to communication as % of total ODA		Aid to agriculture as % of total ODA (1985/86 average)	Aid to education as % of total ODA (1985/86 average)
1985						
Australia	749		0.06		10.1	22.3
Austria	248		-		3.0	38.4
Belgium	440		-		11.7	28.6
Canada	1 631		1.32		18.8	8.1
Denmark	440		3.07		15.4	2.9
Finland	211		-		19.7	7.7
France	3 995	2 770[2]	2.16	3.12[2]	10.1	26.5
Germany, Fed. Rep. of	2 942		-		10.2	19.9
Ireland	39		-		18.4	20.3
Italy	1 098		3.62		13.8	4.3
Japan	3 797		6.45		14.2	8.1
Netherlands	1 136		0.99		22.2	10.8
New Zealand	54		-		20.7	9.8
Norway	574		6.72		14.4	8.3
Sweden	840		0.80		6.0	7.3
Switzerland	303		0.52		24.5	7.2
United Kingdom	1 530		-		10.2	12.8
United States	9 403		0.005		11.2	3.8
Total[3]	29 429		1.58		12.5	10.9

Table 1.14-cont.

Countries	Total		Aid to communication as % of total ODA		Aid to agriculture as % of total ODA (1985/86 average)	Aid to education as % of total ODA (1985/86 average)
1986						
Australia	752		0.06		8.2	19.8
Austria	198		-		3.0	38.4
Belgium	547		-		11.7	28.6
Canada	1 695		1.78		18.8	8.1
Denmark	695		3.21		10.8	3.6
Finland	313		-		19.7	7.7
France	5 105	3 510[2]	2.83	4.14[2]	10.1	26.5
Germany, Fed. Rep. of	3 832		1.81		10.8	19.0
Ireland	62		-		17.2	22.0
Italy	2 403		2.92		18.3	3.9
Japan	5 634		4.53		14.2	8.1
Netherlands	1 740		1.12		23.3	5.0
New Zealand	75		-		10.9	29.4
Norway	798		0.17		13.9	10.8
Sweden	1 090		1.65		12.6	6.7
Switzerland	422		0.30		20.2	7.9
United Kingdom	1 737		-		10.2	12.8
United States	9 564		-		11.2	3.8
Total[3]	36 663		1.94		13.2	10.6

1. The expression "DAC countries" refers to the eighteen Member States of the OECD Development Assistance Committee. DOM/TOM = Départements d'Outre-Mer/Territoires d'Outre-Mer.
2. Excluding DOM/TOM.
3. The total of all countries does not add up exactly due to rounded figures.

Source: Compiled from OECD statistical data and the OECD 1987 and 1988 Reports on development co-operation.

Australia

Australia is particularly active in telecommunications development in the Pacific region, notably in the context of the *South Pacific Telecommunications Development Programme*, established to promote regional coordination and co-operation in rural telecommunications within the South-West Pacific region. Australia has offered technical support for assessing the needs and priorities for television of the South Pacific Forum Island countries.

Recent technical assistance provided by *Australia Post* included training in Australia for five officers from India, Pakistan, Papua New Guinea and Thailand. Four Australia Post officers acted as consultants for UPU. Australia provides considerable support to the Papua New Guinea Post and Telecommunications Corporation, notably through the provision of personnel on secondments and short-term assignments. Also, more than 70 Australian Telecom personnel are employed under direct contract to the Papua New Guinea Post and Telecommunications Corporation.

Telecom Australia also provides technical aid to developing countries and as a part of this, 24 trainees from 10 countries received instruction ranging from a few days to three months within the Commission during 1986. Trainees came from Burma, China, Fiji, Hong Kong, India, Indonesia, Papua New Guinea, Tonga, United Arab Emirates and Vanuatu.

Australia provides grants to the Asia-Pacific Institute for Broadcasting Development (AIBD) to cover recruitment of broadcast training experts and the purchase of technical equipment to assist the Institute in its work. It previously funded a full-time expert based at AIBD and has provided an annual financial commitment for many years. Australia has indicated its interest in becoming a member of the AIBD.

As well as providing funds and facilities, Australia has also been represented in media training in the wider Asia-Pacific region through the recruitment of skilled personnel under a number of international and government-initiated schemes. Training and engineering personnel from the *Australian Broadcasting Corporation (ABC)* were involved in the establishment of IPTAR (Malaysia's national broadcast training centre), while other Australian experts assisted the Solomon Islands Broadcasting Corporation in a major A$2 million (US$1 = A$1.5) project funded by the *Australian International Development Assistance Bureau (AIDAB)*, to upgrade the technical and programme operations of that country's national radio network. The ABC has also hosted numerous rural development courses for radio broadcasters from Asia, Africa and the Pacific and has co-ordinated several special visiting groups, such as the ASEAN Senior Media Managers' Study Tour. The *Australian Film Television and Radio School (AFTRS)* and various tertiary institutions have also provided consultations for training work in Fiji, Micronesia and parts of Asia.

The AIDAB Centre for Pacific Development and Training (formerly the International Training Institute) in Sydney provides training opportunities for professionals (including those from media-related disciplines) in such areas as the design of training materials. (The centre is funded by the Australian International Development Assistance Bureau.)

Australia provides A$4.1 million for the ASEAN-Australia Media and Information Programme, an initiative of the ASEAN Committee on Culture and Information in collaboration with AIDAB.

Austria

Austria's foreign aid directed at communications development in 1987 amounted to 2,120,000 Austrian schillings (US$1 = 15.27 schillings), i.e. 0.3 per cent of the total amount for technical assistance.

In addition to support for Inter Press Service (IPS), since 1976, the *Institute for International Co-operation* in Vienna has borne the salary cost of one professional journalist for the Agencia Periodística de Información Alternativa (APIA) in Nicaragua.

Brazil

In 1985, Brazil and Mexico signed an agreement for the use of an underwater telephone cable between Brazil and Europe. The same year, Bolivia and Brazil signed an agreement whereby Bolivia rented channels on Brazil's satellite Brasilsat. In 1986, Brazil sold Nigeria a telephone system and provided technicians to help Nigerians set it up.

In 1986, the *Rede Globo de Televisão*, the largest private television network, agreed to provide training, technology, and technical assistance to help Togo set up a television station. The same year, Brazil and Honduras signed an agreement for Brazil to set up three AM and FM radio stations. Brazil and Argentina have an agreement for the use of satellites for navigation and the Brazilian scientific station in the Antarctic agreed to receive a team of Chilean and Argentine scientists to study the propagation of magnetic waves for satellite transmission.

Brazil has been actively engaged in sharing with developing countries the expertise acquired as its own communications system is modernized and expanded.

Over 500 telecommunications and postal technicians from Latin America and Africa have already been trained in Brazil, while Brazilian engineers have completed 52 consultancy missions to countries on these two continents. Foreign technicians are trained at *TELEBRAS, ECT* and *RADIOBRAS* facilities. These activities, as well as missions by Brazilian experts, will proceed, whenever possible, in co-ordination with regional and international co-operation agencies such as ITU and UNDP.

Co-operation with countries of Latin America and Portuguese-speaking Africa is a regular and concerted element of Brazilian policy. Such co-operation is expected to expand in support of the efforts made by African agencies involved with regional development, and it is intended to establish regular co-operation mechanisms likewise with other African countries.

Canada

Growing awareness of the importance of communications led in the mid-1970s to a considerable increase in the number of communication projects supported by the *Canadian International Development Agency (CIDA)*. In 1982 a Development Communication sector was established. While Canada has assisted with mass media infrastructures, there has been increasing focus on human resource development, notably to increase capacity in the Third World to maintain and re-create media forms to respond to local culture and needs. A fundamental objective of Canadian assistance in the sector has been to improve the capacity of developing countries to communicate with their peoples, among themselves, and with the North.

Increasingly, development communication projects and components are designed to support activities in other sectors, such as agriculture, fisheries and health. For example, the Developing Countries Farm Radio Network, a non-profit organization partially supported by CIDA, has shown how providing information on simple practical methods through radio and rural communications may help to increase food supplies and improve nutrition and health standards of small-scale farmers in the Third World.

Reflecting another CIDA priority, one of the objectives of the *Ryerson Polytechnical Institute/Asia-Pacific Institute of Broadcasting Development* is to produce programming relevant to women.

CIDA-financed projects in the telecommunications sector over a five-year period totalled approximately C$200 million (US$1 = C$1.4). Estimated disbursements from April 1986 to 31 March 1987 by region were: Africa 35.6 million; Asia 2.3 million and Americas 6.6 million.

Canada also provides multisectoral assistance in this field. During the reporting period, Canada contributed $25,000 for communication training for women in Africa and $100,000 for the IPDC/Unesco/WHO project on media and health.

A number of projects have also been undertaken in conjunction with NGOs. It is estimated that the voluntary sector has received another $200,000 for small projects.

Table 1.15

CIDA on-going development communication projects (C$ thousands)

Region	Country	Project title	Total budget	1986 budget[1]
Africa (Francophone)	Regional	Technical Assistance in Development Communication	10 000	1 643
Africa	Ghana	Water Utilization Project	1 500	750
Asia	Regional	Ryerson/AIBD Development of Broadcasting	4 975	1 242
Asia	Pakistan	Communication/ Motivation Support-Immunization	3 268	1 215
Asia	Thailand	Extension Activities Fisheries Sub-Project	2 000	800
Latin America	Brazil	Development of A/V Communication	1 909	517

1. Canadian fiscal year: 1 April to 31 March.

Source: Canadian International Development Agency.

Lack of trained managers is a critical gap in the communications infrastructure of many developing countries. This led to a new Canadian initiative, the founding in 1986 of the *Telecommunications Executive Management Institute of Canada (TEMIC)*. A joint undertaking by the government and private sectors, TEMIC offers courses for telecommunication managers from developing countries.

The *International Development Research Centre (IDRC)* is a corporation created and funded by the Parliament of Canada to stimulate and support scientific research by developing countries for their own benefit. The Centre's programmes help developing countries to build up the scientific competence of their institutions and their researchers so that these can work to solve their own problems.

Among the fields of investigation which the IDRC supports are information systems and dissemination of research results. Under the heading of Information Programmes, support is given to developing countries to: establish regional and national information systems and improve library infrastructures at these levels; participate in international information networks; create specialized information centres (serving the region or world) on development-related subjects; strengthen sectoral information programmes, especially in agriculture, health and population. In the area of communications, services provided by the Division include the publication and dissemination of the results of IDRC-sponsored research via print and film media; public affairs and translation. Research institutions in developing countries are also strengthened to prepare and disseminate scientific and technical information, particularly on projects supported by IDRC.

In West Africa, the Information Sciences Division has undertaken to help two more countries link up with the International Information System for Agricultural Sciences Technology (AGRIS), a network that offers access to the agricultural bibliographies of 116 member states.

Using Minisis, a bibliographic software package developed by IDRC used by 170 countries and operating in several languages at the same time, China is being assisted to integrate the AGRIS network.

The Social Sciences Division of the IDRC has supported research in the field of mass media and alternative communications, especially in Latin America.

Another Canadian institution which has focused on the communication sector is the *Ryerson International Development Centre (RIDC)*, an agency of Ryerson Polytechnical Institute which specializes in the provision of applied professional education.

Among feasibility studies and preliminary planning projects undertaken by RIDC are: development communications in Thailand; an analysis of potential co-operation in distance learning between Canada and other Commonwealth countries; planning a training system for development broadcasting through radio and television (Bangladesh, India, Indonesia, Papua New Guinea and Thailand) in collaboration with AIBD; design and implementation of development broadcasting training and production programmes in Asia and the Pacific; and professional programmes in television production (the Bahamas, China and Jamaica).

Democratic People's Republic of Korea

The *International Journalist Training Centre* organizes a one-month course two or three times a year to enhance the quality of journalists from developing countries. The courses are given either in Pyongyang or in a developing country (e.g. Benin).

The following organizations are involved with technical co-operation in the field of communication and information: *Information Communication of DPRK*; *Ministry of Posts and Telecommunications of DPRK*; the newspaper *Rodong Sinmun,* the newspaper *Minzu Choson*; *Korean Central News Agency; Radio and Television Broadcasting Complex*; and the *International Journalist Training Centre.*

Denmark

Denmark is currently providing bilateral assistance for the following projects in the communications sector: railroad signal and telecommunications equipment, the United Republic of Tanzania, and Zambia; telephone equipment, Zimbabwe; service and equipment for telecommunication, Nepal; extension of the telecommunication sector, Malawi.

Multilateral assistance is channelled through the Danish International Development Agency (DANIDA) which has financed through Unesco the Mahaweli Community Radio project ($1.1 million from 1980 to 1989). A second major project is in preparation for the development of broadcasting services in Bhutan.

Danicom is a non-profit division of the *Danish Broadcasting Corporation,* established to serve development towards self-reliance in the non-industrialized countries. It proposes a wide range of communication support services including: technical design and planning; equipment specification and purchase; training in engineering and programme production; and audience research. Among projects in which Danicom has been involved are Mahaweli Community Radio in Sri Lanka; Swaziland Broadcasting Service; and Projecto Pucarani, Bolivia.

Finland

Bilateral development assistance is administered by the *Finnish International Development Agency (FINNIDA)*. Currently FINNIDA is financing telecommunications projects in Bangladesh, Nepal and Sri Lanka as well as international training courses in communication for African and Asian participants. FINNIDA is also financing a media project in the United Republic of Tanzania under the IPDC umbrella. Furthermore, FINNIDA provides financial assistance to IPS (Finland). In 1987 FINNIDA assistance in communication and telecommunications totalled approximately FIM70 million (US$1 = FIM4).

The *General Directorate of Posts and Telecommunications* of Finland, together with its subsidiary *Telecon Ltd*, have undertaken a number of technical co-operation activities in postal services, telecommunications and broadcasting, including provision of high-level experts for missions sponsored by ITU, UPU, WMO, SADCC and other Nordic development co-operation agencies and international financing institutions and several rural telecommunications projects in Asia and Africa. Training is provided in the postal and telecommunications sectors.

France

French assistance in the area of audio-visual communications is estimated at around FF300 million (US$1 = FF6.2) for 1985. This assistance forms an essential part of France's development co-operation efforts with African, Caribbean and Indian Ocean states. Three French government agencies are instrumental in implementing French co-operation programmes: *Télédiffusion de France (TDF)*, *Institut National de l'Audiovisuel (INA)* and *AITV-RFO* (*Agence Internationale d'Images*) acting jointly with *Radio-France Outremer* since May 1986.

French aid is targeted on infrastructure development (FF60 million in 1987) including broadcasting and receiving equipment; on overseas technical assistance by French engineers and technicians (FF50 million) and training of journalists and technicians (FF40 million). French aid for communications infrastructure has grown rapidly, from FF40 million in 1983 to FF51 million in 1986 and FF60 million in 1987.

Priority was given in 1987 to the development of AITV, the creation of which was decided at a summit meeting of French-speaking countries (see below). It is also desired to extend and enrich the daily service of television news distributed by RFO. At the request of national broadcasting organizations, *Radio France Internationale (RFI)* organizes training sessions both in France and in Africa. In 1986, 22 trainees from 14 countries were hosted by RFI.

Media France Intercontinents assists French-speaking or Portuguese-speaking African media to obtain information materials and documentation. Its budget for 1987 amounted to FF2.7 million for freelance reporting, circuit rental, printing and telecommunications costs.

Thanks to the momentum imparted by the two Francophone summits, the *Agence Internationale d'Images (AITV)* was allocated important resources in 1987 (FF11 million). AITV is intended to foster improved North-South and South-South exchanges of video and picture material, and currently serves 140 stations and networks. Between May and December 1986, AITV handled over 150 satellite feeds originating in developing countries. Satellite transmissions represented 270 hours, including 2,400 subjects aimed at Africa, 1,800 subjects at Asia and 2,200 subjects towards Latin America. Material is also provided in video-cassette form.

The Institut National de l'Audiovisuel (INA) is the principal French institution providing training in the audio-visual professions. Since 1975, more than 1,000 African trainees have taken two-year courses at INA. Courses are given at four levels, ranging from technical operations to senior management techniques. In 1983 the *Ministry of Co-operation* provided FF21 million to cover training activities in France and to support personnel undertaking training activities overseas.

The *Centre International de Journalisme* and the *Centre de Formation et de Perfectionnement des Journalistes* provide instruction for trainees from the Third World holding bursaries from the French government, the ACCT or other international organisations.

CREC-AVEX is based in Lyons and is subsidized by the French government, although its major funding comes from the Catholic and Protestant churches. Instruction in radio and television journalism, sociology and theology is dispensed to Third World trainees who will work within religious institutions in their home countries.

The *Direction Générale des Télécommunications (DGT)* of the French PTT is often the executing agency for telecommunications infrastructure projects funded with French aid. It is also a source of experts for technical assistance missions (553 experts to Africa in 1986). One of its operating subsidiaries, SOFRECOM, specializes in helping developing countries establish, improve or operate their national networks. It now has a hundred projects in some 40-odd countries.

Within its activities in the area of information, the *Comité Catholique contre la Faim et pour le Développement (CCFD)* (Catholic Committee Against Hunger and for Development) assists various agencies and organizations in the following sectors: press (press agencies, periodical press); radio (local radios, information programming, literacy programming, educational programming); documentation centres (operational support, development of documentation, data bases, bibliographies); and book publishing.

German Democratic Republic

Assistance to developing countries in the field of communication takes the form of training in post-secondary and technical training institutions and the fielding of technical experts in developing countries; certain activities have been conducted in co-operation with United Nations organizations.

The Faculty of Journalism at Karl Marx University in Leipzig has for many years offered a four-year diploma course for journalists from developing countries. Between 1971 and 1988, 112 regular students obtained this diploma, together with three or four special students each year. The Faculty has made two places available each year to Unesco's IPDC. Students are eligible for bursaries. This training can lead to a doctorate, and 21 overseas students, mostly from developing countries, have successfully presented their theses. The Faculty's specialized staff have also often participated for periods of several months in the education and training of journalists and teaching staff in developing country institutions.

From 1981 through 1987, 485 journalists from Africa, Asia and Latin America, as well as from various national liberation movements, have been trained in 29 courses organized at the International Institute of Journalism in Berlin, associated with the International Federation of Journalists. Overseas, the Institute organised 80 courses between 1983 and 1987, involving 1,670 students from 14 countries.

The Institute has collaborated with Unesco's IPDC in developing new teaching methods for professional development courses for journalism professors, a special "Rural Press in Africa" course, and in providing further specialist training for experienced photo-journalists.

At the Friedrich List Graduate School in Dresden, students from developing countries have been able to obtain several years of expert instruction in important communication fields. Depending on their specialization, they can graduate with an information engineering diploma or as posts and telecommunications economists. These studies can lead to a doctorate. Staff members have often participated in training activities overseas.

The Rosa Luxemburg Civil Engineering School of the German Democratic Republic's Postal Service, specialized in the training of engineers and economists in the posts and telecommunications field, also accepts students from developing countries, to whom it offers postgraduate specialist courses for experienced personnel. The Postal Service's National Professional Training Agency in Berlin has for many years organized courses and continuing education programmes for posts and telecommunications experts from developing countries.

The German Democratic Republic has also been active in supporting international literacy efforts, notably through the supplying of printing presses and equipment combined with training, technical assistance, and equipment maintenance. Such activities have been carried out with Algeria, Angola, Argentina, Brazil, Colombia, Democratic Yemen, Ecuador, Ghana, India, the Lao People's Democratic Republic, Mexico, Mozambique, Nicaragua, the United Republic of Tanzania and Viet Nam.

Training of overseas technicians in printing techniques takes place in the training and continuing education centres of Kombinat Polygraph, a state enterprise, but also directly in the countries concerned. In 1987, courses were organized for participants from Afghanistan, Algeria, Angola, Egypt, Ghana, India, Iran, Iraq, the Lao People's Democratic Republic, Mexico, and others.

Assistance has also been provided to national telephone networks in Algeria, Madagascar, Mexico, Nicaragua and Zambia. Developing countries have been actively supported through the establishment of training institutions, maintenance and after-sales service facilities; manufacturing plants for communications equipment; and qualified technical assistance and training.

Germany, Federal Republic of

The Federal Republic of Germany has been a major development partner in the area of communications media. From 1961 to the end of 1984 approximately 560 projects were undertaken involving commitments of DM1,330 million.

In 1986, DM63.4 million (US$1 = DM2.17) were committed to 137 projects. In 1985, DM129 million were committed. For non-training projects in 1986, the distribution was as follows: radio, 40.9 per cent; television, 10.3 per cent; films, 3.6 per cent; news agencies, 8.0 per cent; print media, 14.6 per cent; audio-visual aids, 3.6 per cent; and documentation centres and conferences, 6.6 per cent.

Bilateral aid is channelled for most projects by the *Bundesministerium für Wirtschaftliche Zusammenarbeit* through the *German Agency for Technical Co-operation (GTZ)*. A limited number of large-scale media projects are handled through the *Kreditanstalt für Wiederaufbau*. The GTZ passes on the execution of projects in many cases to other specialized bodies: in particular the various regional German broadcasting organizations. The GTZ will frequently provide a package which will combine the provision or rehabilitation of transmitting stations and production studios, the training of engineering personnel in Germany or on-the-spot advisory services in all aspects of broadcasting. Services can be provided to regional broadcasting organizations as well as to individual countries. Apart from the specific development of media infrastructure and the training of the appropriate personnel, the GTZ has also developed expertise in the field of development support communications.

In addition to the considerable training activities carried out by German organizations in the Third World, there are four principal programmes carried out in the Federal Republic of Germany. In the field of training, the *Carl Duisberg Gesellschaft* carries out scholarship programmes. There are courses for television personnel at *Sender Freies Berlin (SFB)* and for radio at *Deutsche Welle* in Cologne. Together these courses provide 300 to 350 man-months of training a year. Training for journalists is provided by the *Internationales Institut für Journalismus* in West Berlin, described below.

Multilateral assistance is channelled through the the BMZ in funds-in-trust arrangements with Unesco. In this way the Federal Republic of Germany has contributed $2.5 million to the development of the West African News Agency (WANAD), involving equipment and training in eight countries: Benin, Congo, Gambia, Ghana, Guinea, Mali, Niger and Nigeria. Similarly, the Federal Republic of Germany is funding the Southern and Eastern Africa News Agency Development (SEANAD) project; a rural press project in Kenya; educational radio in Cape Verde; training of journalists and development of printed media in the Pacific; and planning for the modernization of the *Peasants' Daily* in China.

The *Deutsche Bundespost*, the German Posts and Telecommunications Ministry, with its subsidiary *Deutsche Telepost Consulting GmbH (DETECON)* undertakes consulting services in developing countries on a worldwide basis in the areas of telecommunications and postal services. Their activities include needs analysis and planning, relevant studies, technical design, supervision of system implementation projects, acceptance testing, staff training, and operation and maintenance of installations and networks.

The *Kreditanstalt für Wiederaufbau (KfW)* is a lending institution that both fosters domestic development and assists developing countries. In 1984, KfW loaned a total of DM63 million for telecommunications development. In addition, a grant of DM19 million was extended to Guinea for telecommunications systems improvements. Between 1970 and 1984, KfW committed an average of DM74 million per year to telecommunication projects, representing an average of roughly 4 per cent per year of KfW lending.

While the bulk of development aid for communication development goes through official channels, some of the most innovative work is carried out by foundations associated with one or another political party, and financed in part by the Government of the Federal Republic of Germany. Two of these have been particularly active in the field.

The *Friedrich-Ebert-Stiftung (FES)* is the largest of the four foundations in the Federal Republic of Germany. In the last four years, it has disbursed more than DM40 million on media projects and activities in developing countries. FES has been particularly active in the development of regional news agencies and television news exchange (Asiavision), COMNET centres, and educational broadcasting.

In 1987, media and communication projects amounted to 13 per cent (DM9.8 million) of the Foundation's annual budget of DM76 million for co-operation with developing countries.

FES activities in 1987 were broken down as follows:
Asia: (ASIAVISION/ABU, AMIC/Singapore, SLTTI/Sri Lanka, Philippines, China) DM3,803,000
Africa: (ACCE/Kenya, ARABVISION/Algiers, FANA, Ghana, Mozambique, URTNA, Zimbabwe) DM2,828,000

Latin America and the Caribbean: (ULCRA, CIESPAL, CARIMAC) DM1,097,000
South-Pacific: DM988,000
Publications: DM150,000
International and regional conferences and other activities: DM954,000

The *Friedrich-Naumann-Stiftung* sees a special role for itself in the development of "small media" in development support communication and stresses the particular role of the media in rural development.

In 1987, 13 projects totalling DM6.03 million were in the field of communication, including consultancy and training for local radio stations in Costa Rica, Honduras and Uruguay; upgrading of journalists in Rwanda, Burundi and Zaire; training of journalists in Egypt; training of radio and television journalists in Sudan; upgrading of journalists and communicators from Tunisia and neighbouring African and Arab countries; training and upgrading of journalists and communicators in the fields of radio, television/video and print media in Zambia; training and upgrading of print journalists in Zimbabwe, and assistance in production of development support communication (video films) for the Jordan Co-operative Organization.

The *Berlin Association for the Advancement of Mass Communication in Developing Countries* was established in 1962 to provide advanced training of journalists from developing countries at the *International Institute for Journalism*. The task of the Institute is to organize advanced courses for journalists from the developing countries of Asia, Africa and Latin America. The programmes of the Institute are designed to help alleviate the shortage of highly-qualified personnel, primarily in newspaper and agency journalism.

The Institute undertakes training in the Federal Republic of Germany and organizes workshops overseas. On request, the Institute undertakes media research and consulting projects in developing countries.

In 1987, the Institute had an annual budget of DM1,400,000 and organized 30 workshops overseas (Latin America 4, Asia 13, Africa 13) involving 1,000 journalists (Asia 440, Africa 430, Latin America 40, Caribbean 40, Middle East 30, Pacific 20).

Deutsche Welthungerhilfe (an agency to combat hunger in the world) participated in the establishment of a radio transmitting station at Santa Cruz, Bolivia, to advise rural people about agricultural problems (cost DM126,000).

India

The Film and Television Institute of India (FTII) is an educational institution set up in 1960 for training in the arts and techniques of film-making and television production. Government-sponsored scholarship-holding foreign students from Asian and African countries may be admitted to the FTII. The Institute offers training in all aspects of film production and other allied subjects and coordinates activities for training of film technicians in India.

The Indian Institute of Mass Communication was established in 1965 as an autonomous society. It offers courses which include all means of communication–traditional and modern–with emphasis on communication for development. A number of foreign scholars from Asia, Africa and Latin America participate in these courses. At the instance of IPDC, it conducted two short-term courses, one each in 1985 and 1986. IIMC has also been organising seminars/workshops at national/international level in areas of interest to Unesco/IPDC and the Non-Aligned Movement. It conducts news agency journalism courses for candidates from non-aligned countries.

Japan

Japan is very active in technical co-operation in the field of communications, through a wide variety of government and broadcasting agencies, as well as private corporations.

Japan provides extensive training for overseas candidates, helping them to master telecommunications and broadcasting skills and services. During the 1986 fiscal year Japan welcomed a total of 435 overseas trainees.

Table 1.16
Overseas trainees in Japan

Region	Countries	Trainees
Africa	21	66
Middle East	15	69
Asia	15	200
Oceania	4	8
Europe	1	4
Central and South America	7	88
Total	73	435

Source: Ministry of Posts and Telecommunications, Japan.

Japan also furnishes substantial technical assistance in developing local posts, telecommunications and broadcasting systems, and for operation and maintenance of facilities. In 1986, 198 experts were assigned overseas as part of this programme.

Table 1.17

Japanese overseas experts (1986)

Region	Number of countries	Number of experts
Africa	7	14
Middle East	3	15
Asia	8	114
Oceania	2	5
Central and South America	13	50
Total	33	198

Source: Ministry of Posts and Telecommunications, Japan.

Japan provides teams of experts to survey project quality control. In 1986 such teams assisted with seven projects.

Table 1.18

Japanese survey teams

Region	Countries	Projects
Asia	3	6
South America	1	1
Total	4	7

Source: Ministry of Posts and Telecommunications, Japan.

Japan is an active supplier of equipment and other hardware to developing countries. The supply of this equipment is backed by the assignment of technical specialists who provide related technical instruction, while at the same time specialists from the host countries are welcomed to Japan on an exchange basis.

A total of 63 experts were dispatched to overseas centres during fiscal 1986. Ten centres in eight different countries were the subjects of this programme during the year, including the posts and telecommunications training centre in Beijing. Equipment and machinery to a value of Y573 million (US$1 = Y168.5) were supplied under the programme. Meanwhile Japan played host to a total of 23 specialists from these countries.

Sony Corporation is typical of the major Japanese companies which have become directly involved in technical co-operation. Sony's International Co-operation Division (ICD), founded in 1975, has participated in the Japanese Government's technical co-operation programmes as well as in those of various United Nations agencies (e.g. Unesco, FAO, UNFPA, UNICEF, UNDP, WHO). ICD has designed and implemented audio-visual projects in the areas of education, broadcasting, health and hygiene and vocational training.

Sony's ICD plans and designs effective audio-visual systems; supplies and installs audio-visual equipment and provides practical hands-on training; develops and offers audio-visual training classes; sends engineers abroad to run training courses at project sites; and produces and supplies video software for industrial and vocational training for communication purposes.

Over 500 participants from 50 countries have received training from the Sony Corporation.

Kuwait

The Kuwaiti National Commission for Unesco reported the following technical co-operation/assistance activities in the field of information: training of eight persons from *Gulf Co-operation Council* states in maintenance of broadcasting studios; training of two persons from Democratic Yemen; provision of technical equipment for the Arab Centre for Broadcasting and Television Training in Damascus, as well as to Tunisia and Somalia; setting up of a specialized service unit in Somalia to test, maintain and operate broadcasting equipment; assisting in planning, training, evaluation and annual budget preparation for the Arab Centre for Broadcasting.

Netherlands

Netherlands development co-operation has traditionally devoted considerable attention to communications. In the period 1978-83, allocations to

telecommunications and information projects were of the order of 253 million guilders (US$1 = 2.85 guilders in 1983). Of that, more than 50 per cent was devoted to training, largely carried out in recipient countries.

In the same period, some 20 per cent of Netherlands aid was channelled through four non-governmental organizations which tended to concentrate on small-scale projects, many aimed at strengthening local media as an essential component of development. These four organizations are as follows:

NOVIB:Nederlandse Organisatie voor Internationale Samenwerking, Amaliastraat 3, 2514 JC The Hague;

CEBEMO:Katholieke Organisatie voor Medefinanciering van Ontwikkelingsprogramma's, Rhijngeesterstraatweg 40, 2341 BV Oegstgeest;

HIVOS:Stichting Hunamistisch Instituut voor Ontwikkelingssamenwerking, Raamweg 15, 2596 HL The Hague;

ICCO:Stichting Interkerkelijke Coördinatie Commissie Ontwikkelingsprojecten, P.O. Box 151, 3700 AD Zeist.

In 1986, a number of the major private media organizations agreed to consolidate their development efforts by creating the *Communication Assistance Foundation (CAF)*. This new programme of development co-operation emphasizes small-scale, rural community-oriented projects using primarily print media and radio. Its underlying theme is to contribute to the plurality of media in developing countries while contributing to freedom of the press.

Assistance is rendered principally to press and radio organizations, news agencies, associations of newspaper and radio journalists and other organizations having development objectives for communications *per se* (as opposed to development communication activities) and can include hardware and software (training, technical assistance) components.

Funding for CAF-sponsored projects comes largely from the Netherlands Government. Project identification, preparation and execution are delegated to two organizations: the *Graphic Media Development Centre* for printing media projects, and the *Radio Netherlands Training Centre* in Hilversum for radio projects, both in the Netherlands and in the countries concerned.

Norway

In 1986, Norway devoted NKr3,017,000 (US$1 = NKr7.4) of bilateral overseas development assistance (ODA) to mass communication projects, and NKr78,496,000 to telecommunications projects. Under multilateral ODA, NKr7,000,000 was provided to the IPDC and NKr3,000,000 to the *Worldview International Foundation (WIF)*. Communication projects represented 1.55 per cent of total aid.

Table 1.19

Distribution of bilateral ODA in the communication sector (in Norwegian kroner)

Region	Amount
Africa	30 637 000
Asia	49 103 000
Latin America	101 000
Global or unspecified	1 672 000
Total	81 513 000

Source: Ministry of Development Co-operation, Norway.

The principal communications projects in 1986 were: participation in Unesco's "rural press" projects in Madagascar and the United Republic of Tanzania; a contribution to IPS for journalist training; a rural telecommunications project in India; telecommunication equipment for Pakistan; Telelink Malawi-Tanzania; other telecommunications projects in the SADCC countries.

Redd Barna is the Norwegian "Save the Children Organization" and is a voluntary, humanitarian organization working to improve conditions for children through long-term assistance, emergency relief and help for children in especially difficult circumstances. $70,000 has been allocated to a Rural Communication project in Nepal which aims to improve and develop new methods of communication for health personnel in rural areas in order to give better information about rehydration therapy with a view to reducing child mortality caused by diarrhoeal diseases.

New Zealand

New Zealand is active in the provision of technical assistance and co-operation, notably in the South-East Asian and Pacific regions. The principal agents of such

co-operation are the *Telecom Corporation of New Zealand*, the *Broadcasting Corporation of New* Zealand (BCNZ), the *Ministry of Foreign Affairs, New Zealand Post Limited* and the *National Library of New Zealand.*

The New Zealand Section of the Commonwealth Press Union has assisted in the training of journalists in the Pacific by providing scholarships for Pacific Islanders (one per year) to undertake the Manukau Polytechnic course "Journalism for Pacific Islanders" and by developing and conducting workshops and training courses for Pacific Island journalists in Pacific Island countries and New Zealand.

Training courses in the area of media studies open to overseas students have been developed by selected New Zealand polytechnics.

Telecom Corporation has provided assistance both directly to South Pacific Island countries (provision of technical experts and training in New Zealand) and indirectly via assignment of experts for ITU-sponsored missions and, more recently, for the Commonwealth Telecommunications Organisation (CTO), primarily (but not confined to) the Pacific and Asia regions.

Technical advice, repair of equipment and donations of surplus equipment have also been provided by New Zealand to various Pacific Island countries, particularly Western Samoa, Niue and the Cook Islands.

BCNZ technical assistance has tended to focus on the Asia-Pacific Institute for Broadcasting Development to which New Zealand contributes. An AIBD course on "Women in Action" was held in New Zealand in 1986.

New Zealand Post has undertaken a number of technical co-operation activities, notably in Pacific region states. In the 1970s, New Zealand Post ran several training programmes designed to develop basic management skills in middle management supervision areas aimed at developing countries in the Asia-Pacific region, but also Commonwealth countries of Africa and the Caribbean. Similar programmes are being considered for the near future.

New Zealand Post has assisted the Asia Pacific Postal Training Centre (APPTC) through the provision of fellowship funds. After a serious fire in Western Samoa's General Post Office, New Zealand donated a large amount of equipment and forms to assist in the restoration of postal service. Technical assistance was provided in 1987 to the Cook Islands Post Office, and technical training courses in modern solid-state FM-AM transmitters and aerial coupling units were provided to a member of the Fijian Post and Telecommunications Department.

The National Library provided advisory and training assistance to the National Library of Singapore for the establishment, management and use of the Singapore Integrated Library Automated Service.

Pakistan

The *Pakistan Broadcasting Corporation* provides training facilities for foreign broadcasters on specific request from countries in the context of cultural agreements.

Poland

Polish development co-operation activities in the area of mass communication are carried out by five agencies: the *Polish Radio and Television Committee*, the *Polish Press Agency*, *Polish Interpress*, the *Polish Journalists' Association*, and the *Prasa- Ksiazka-Ruch Publishing Co-operative.*

The Polish Foreign Ministry, together with the Polish Radio and Television Committee and the Prasa-Ksiazka-Ruch Publishing Co-operative contributed to the organization of two postgraduate courses of six weeks' duration for young journalists from developing countries, in the context of Unesco's IPDC.

Co-operation also takes the form of provision of radio programmes to Angola, China, Cuba, Ethiopia, Nicaragua and Viet Nam. Similarly, television programmes were provided to Afghanistan, Angola, Cambodia, China, Cuba, Democratic People's Republic of Korea, Mongolia and Viet Nam.

The Polish Radio and Television Committee organized several courses for trainees from other countries (e.g. three from the Syrian Arab Republic in 1985, three from the Democratic People's Republic of Korea, and five from Algeria in 1987).

The Polish Journalists' Association has provided training assistance for the Organisation des Journalistes de la Libération de la Palestine, and for the Afghan Journalists' Organisation.

Qatar

The *Qatar Broadcasting Service* has provided technical assistance in the form of equipment to a number of other broadcasting services: Radio Khartoum, Sudan (fully equipped studio and telecommunication channels); Radio Tunis, Tunisia

(tape-recorders, a record-player and spare parts for broadcasting equipment); Radio and Television Training Centre, Syrian Arab Republic (fully equipped studio and special equipment for a studio announcer); Radio Orient, Paris (fully equipped studio, tape-recorders, a record-player and spare parts for broadcasting equipment).

Republic of Korea

The *Korean Broadcasting System (KBS)* provided fellowships in 1986 worth $220,000 in the context of the IPDC for thirty television and radio reporters and producers from developing countries. KBS also provided field training in connection with the installation of transmitting facilities in Sri Lanka ($5,000).

Distribution of assistance by region in 1986 was as follows: Africa, 34.3 per cent; Asia and the Pacific, 21.9 per cent; Middle East, 15.6 per cent; and North and South America, 28.2 per cent.

Spain

Spain carries out various communication development activities. In 1987, the approximate cost of these activities was $6 million. Spain's development activities are mainly directed toward Latin America given the historical and cultural links with the region. The communication development activities are carried out by both public and private organizations.

Important public sector activities include the postgraduate course offered to Latin American broadcasting journalists by the Official Institute of Radio and Television (Instituto Oficial de Radio y Televisión) in collaboration with the Institute of IberoAmerican Co-operation (Instituto de Cooperación IberoAmericana). Spain organizes other specialized courses on broadcasting through an agreement with the IberoAmerican Organization of Television (IOT).

The Institute of IberoAmerican Co-operation has contributed funds to a short-wave radio station in Costa Rica that will be used jointly by the National Television System of Costa Rica and the Spanish external radio service.

Spain's recent treaty of friendship and co-operation with Argentina includes the possibility of setting up a short-wave radio station in Argentina for the Southern Cone. Under the treaty Spain will donate equipment for Argentine public television channels, especially Channel 7.

Spain is preparing an agreement with Guatemala for the donation of equipment for a public television channel and an FM radio broadcasting system.

Some of the most important non-governmental development activities in Spain are the activities of Manos Unidas and Solidaridad Internacional for the construction of powerful radio transmitters in Peru. With funds from the Institute of IberoAmerican Co-operation, the SER radio network has put into operation the CREA radio network directed especially at Latin America. Finally, non-governmental sources have made major contributions to the system of distance education set up by Radio San Gabriel in 1952 serving the Aymara Indians in Peru.

Sweden

Swedish bilateral assistance in the telecommunication sector in 1986/87 included projects in Guinea-Bissau, Lesotho, Mozambique, United Republic of Tanzania, Zimbabwe, Malawi, as well as the Malawi-Mozambique-Zimbabwe microwave link. This assistance totalled SKr27,436,940. (US$1 = SKr7.12) for technical assistance and SKr39,928,868 for equipment. The total represented about 1.4 per cent of all aid through the *Swedish International Development Authority (SIDA)*.

Communication-related projects in the education sector in 1986/87, involving mainly development of press, radio, news agencies and film, totalled SKr4,923,000., distributed regionally as follows: Africa, SKr1,163,000; Asia, SKr770,000; Latin America, SKr1,297,000; and Global, SKr1,693,000.

Technical co-operation for telecommunication projects amounted to SKr5.3 million in 1985/86 and was distributed regionally as follows: Africa, 18 per cent; Asia, 53 per cent; and Latin America, 29 per cent.

International training was the single most important activity. Courses have been arranged yearly, since 1979, through the *Swedish Telecommunications Administration*. More than 450 participants from 60 countries have participated in four different programmes: International Programme on Telecommunications Management (177 participants); Digital Network Programme (166 participants); Operational Management Programme (101 participants); Telecommunications in Society Symposium (22 participants).

The *Swedish Agency for Research Co-operation with Developing Countries (SAREC)* was founded to promote research co-operation with developing countries. Communications as such is not a formal area of activity, but communications elements are found in a number of SAREC projects, for example: purchase and/or publication of scientific books; journals for research institutions and university libraries; computer-based data systems; assistance to the Association of African Women for Research and Development, notably concerning feminine roles in the mass media.

SAREC projets with communications elements have been carried out in Latin America and Africa (on a regional level), and in Ethiopia, Mozambique, the United Republic of Tanzania, and Cuba.

Switzerland

In 1986, the bulk of Swiss development co-operation in the field of communications took the form of technical assistance, estimated at SFr6,410,000 (US$1 = SFr1.85), while programmes of training in Switzerland amounted to SFr238,000.

Swiss assistance can by classified according to the target areas supported: publishing activities in support of continuing education and literacy programmes (SFr1,415,000, or 21.3 per cent of the total); training in electronics, information technology and telecommunications (SFr3,544,000, or 53.3 per cent); telecommunications development (SFr1,080,000, or 16.2 per cent); development of audio-visual materials (SFr372,000, or 5.6. per cent); bursaries and training courses in Switzerland (SFr238,000 or 3.6 per cent of the total).

Table 1.20

Swiss technical co-operation by region

Region	Amount (SFr)	Percentage
Africa	3 596 000	54.1
Asia	2 524 000	38.0
Latin America	439 000	6.6
Europe and other	90 000	1.3
Total	6 649 000	100.0

Source: Département Fédéral des Affaires Etrangères, Switzerland.

Union of Soviet Socialist Republics

Soviet agencies active in the field of technical co-operation are the *Ministry of Post-Secondary and Specialized Secondary Education*; the *State Committee for External Economic Relations*; the *State Committee for Professional and Technical Education*; the *State Committee for Radio and Television Broadcasting*; the *State Committee for Cinematography*; the *State Committee for Publishing and Printing*; and the *TASS* and *Novosti* news-agencies.

Assistance provided falls chiefly into two categories: technical and material assistance (participation in construction of communications links, supply of equipment, technical advisers and consultants); and education and training in journalism, radio communication, broadcasting, film-making, etc., both in developing countries and in the USSR.

Technical assistance has generally been provided in support of national infrastructure development, notably the installation of basic radio and telecommunications networks, cable links, radio relay and satellite networks, and to strengthen communication in rural regions and improve the information capacity of cinema and the press. Some examples are: automatic telephone exchange and radio relay stations in Mongolia; a telecommunication centre in Havana providing direct links with Moscow; a tropospheric circuit linking the USSR and India; Intersputnik satellite earth stations in Afghanistan, Iraq and elsewhere.

With Soviet assistance, printing presses have been contructed and typographical material delivered to Burundi, Congo, Democratic Yemen, Mali and São Tomé and Principe. Cinematographic material has been provided to Congo, Guinea, Iraq, Mali and Somalia.

Ongoing assistance to radio and television development is provided to Afghanistan, Democratic Yemen, the Lao People's Democratic Republic, Mongolia, the Syrian Arab Republic and Viet Nam. This includes provision of spare parts, technical assistance and training of national staff. One- to six-month broadcasting training sessions are organized for trainees from these countries at television stations in Moscow, Leningrad and other cities. Over 100 personnel have been trained in recent years.

The USSR has provided considerable assistance to cinema activity in Asian, African and Latin American countries. Examples of such assistance in the 1980s include: construction and testing of a cinema complex in Mongolia; eight mobile projection units provided to Afghanistan; planning of new cinema studios in Cuba;

assistance in the establishment of national film archives; specialized courses for trainees from Guinea Bissau, Madagascar and Mali.

Since 1961, the State Institute of Cinematography has trained hundreds of cinema specialists from 41 developing countries.

Various Soviet agencies support printing and publishing in developing countries by producing training manuals in more than 10 foreign languages aimed at engineers and technicians and by the supply of printing equipment.

Some 20 new major communications infrastructure projects in developing countries are currently under review, including: Intersputnik earth stations; extension of automatic telephone switching networks; rural communication networks; establishment of specialized communications education and research centres; and long-term communication planning.

In the context of the IPDC, the USSR provides 50 six-year post-secondary bursaries to citizens of developing countries and 30 one-year bursaries in different fields of communication.

United Kingdom

Estimates in the mid-1980s suggested that the *British Council* had some form of media assistance activity in about 60 countries, while the *British Broadcasting Corporation (BBC)* had assisted 72 countries in the five years to 1984. British assistance has tended to be concentrated on the Commonwealth and Middle Eastern countries, and has generally been in the form of technical assistance rather than capital aid. Compared with France and the Federal Republic of Germany, there has been limited expenditure on the building of studios, transmitter networks, and film-processing laboratories. Technical assistance has been made up of three components: study awards for courses in the United Kingdom, assistance with training programmes in developing countries, and provision of experts.

The British Council has had a central role in British work in the field of media development. It acts as the *Overseas Development Agency's* adviser and executive agent for much of British activity in the field, and its representatives overseas provide an initial point of contact.

Traditionally, there has been a wide variety of media training available to overseas students. A list prepared by the British Council shows that universities, colleges, the BBC and other television companies, government agencies and private electronic companies are organizing more that 400 media courses in 1989. Topics range from purely technical training to journalism, radio, television, film, video photography, graphics, printing and educational media. Some sponsorship is available, mostly under bilateral arrangements.

The BBC has a long connection with assistance to overseas broadcasting organizations. It provides courses on radio production (since 1951), advanced drama and features, radio management, training for television producers and directors and courses for engineering and technical staff. In 1989, the BBC is organizing an intensive 12-week training course on television production for education and development. The BBC is also able to provide on-site training courses designed to suit local circumstances or to provide consultants on long- or short-term assignments for overseas broadcasting organizations.

British Teleconsult is the consultancy service of British Telecom which has always helped other telecommunications administrations seeking its advice. British Teleconsult provides consulting services to countries around the globe. The organization has undertaken system definition studies, preparation of specifications for procurement and evaluation of subsequent proposals, as well as supervision and monitoring of initial system development.

Visnews, the international television news service, provides a number of courses for training television professionals from developing countries in television journalism, production, programme creation and advanced documentary production. Visnews has also provided on-site training in Africa, particularly for news and outside broadcast work.

The Thomson Foundation was established in 1962 by Lord Thomson of Fleet for the training of journalists and broadcasters and to assist in the establishment of newspapers, magazines, radio and television stations in developing countries. More than 3,000 men and women from 90 countries have undergone training in the United Kingdom and in-country.

As well as having wide-ranging experience in the actual training of television, radio, newspaper, news-agency and magazine personnel, the Foundation can develop training programmes and help media organizations design systematic programmes with long-term objectives. "Teaching the trainers" is an essential part of the Foundation's work, particularly in engineering.

The Foundation can also examine management structures and advise on methods to streamline procedures to make the best use of all resources. In the area of the press, the Foundation can provide training strategies, management courses, senior editorial courses and editorial workshops.

The Foundation is particularly interested in helping developing nations enhance their capabilities to play a greater role in the free flow of information. For example, the Thomson Foundation in partnership with New China (Xinhua) News Agency runs an International Journalism Training Centre in Beijing. Nearly 200 of Xinhua's foreign correspondents have trained there and many are now stationed in the capitals of the world. It is planned to open the centre later to journalists from other developing nations. The Foundation also ensured the training of the staff of *China Daily*, China's only English-language daily.

Among recent television projects have been the building of a television transmitter and studio at Kitwe, Zambia, and training of staff; the updating and improvement of production techniques at Xandir, Malta; re-organization of China Central Television's management structure; and the training of academic staff in television production for India's educational satellite programme.

Recent press projects have included specialist courses for women journalists in Botswana, Lesotho, Liberia, Nigeria, Sierra Leone and Swaziland; a financial seminar and workshop for Caribbean journalists, conducted in Saint Christopher and Nevis; a course in London for journalists from the smaller Commonwealth states, introducing them to desk-top publishing technology, and an advanced editorial course for senior journalists from South Africa, China, India and Pakistan.

The Foundation's income from all sources in 1987 was £581,757 (US$1 = £0.602), and expenditure was £593,980, dedicated to communication development in developing nations.

United States of America

According to an official United States survey, American Government assistance for communications development has increased significantly over the past three years–from about $422 million in 1985 (the date of the last survey) to about $504 million in 1988. These figures include grants, loans, loan guarantees, loan insurance, investment guarantees, training, technical assistance, and training and feasibility studies. The following table summarizes the results by sector based on the survey responses from 10 United States Government agencies.

Table 1.21

United States Government communications development assistance, financial years 1984 and 1988 ($millions)

	1984	1988
Grants	45.0	45.0
Loans, loan guarantees, investment guarantees, and insurance	316.5	390.3
Technical assistance	45.0	49.4
Training	15.0	15.8
Feasibility studies	0.7	3.8
Total	422.2	504.3

Source: United States Department of State

Of the many American government agencies involved in this effort, five have been most active over the last four years. These are the *Agency for International Development (AID)*, the *Department of Commerce*, the *Export-Import Bank*, the *Overseas Private Investment Corporation (OPIC)*, and the *United States Information Agency*. Five other agencies had major programmes: the *Department of Defense*, *Department of Agriculture*, *Trade and Development Program*, *Peace Corps*, and *United States Postal Service*.

USAID is notable for its 23-year commitment to the field and its pioneering field experimentation with communications technology to meet critical human needs. The most recent application is a commitment of $15 million, over a five-year period, to support worldwide activities related to communications about Acquired Immune Deficiency Syndrome (AIDS). Eximbank provides approximately $350 million each year in loans and loan guarantees that have permitted several key countries to modernize their communications technology. USIA's presence in some 100 developing countries and its specialized training programme for broadcasters constitute a significant source for professionals interested in information diffusion.

The *United States Telecommunications Training Institute (USTTI)* applies an innovative approach to communications training and, as a joint venture between major telecommunications and broadcast corporations and four agencies of the United States government (National Telecommunications and Information Administration (NTIA); Federal Communication Commission (FCC), United States Information Agency (USIA); and the Agency for International Development (USAID)) provides an

interesting model of public and private sector collaboration. USTTI offers tuition-free training in telecommunications technologies and management techniques, donated by the sponsoring government or organization to qualified applicants from developing countries. As of 1988, USTTI had offered 164 training programmes to more than 1,400 participants from 108 different developing countries. In 1989, USTTI will offer 37 training programmes that will provide training to more than 300 telecommunications managers, engineers and technicians from 75 developing countries.

Communications-related services provided or supported by United States Government agencies are of three kinds; some projects are worldwide in scope, some have a regional emphasis, and others concentrate on individual countries. USAID-supported projects are found in approximately 70 developing countries, and of these, 50 are projects with communications components.

The American private sector, with resources infinitely greater than those of the United States Government, has provided a far greater level of communications development assistance. The private sector contribution to communications development is broad and significant but defies easy characterization due to the diversity of goods and services provided and the decentralized context in which such activity takes place.

United States corporations: although only a limited number of companies participated in the survey, among them are some of the most active participants in communications development activities: AT&T, COMSAT, IBM, NYNEX, and Southwestern Bell.

Most United States telecommunications assistance to developing countries takes place in a commercial context. With new business opportunities and a more propitious investment climate in many developing countries, American companies have increased their commercially related communications development activities. These include equipment donations and loans, feasibility studies, seminar participation, fellowships, training, consulting, exchanges of technical information, and other technical assistance.

Universities, foundations, co-operatives, and associations: American educational and nonprofit groups carry out a multitude of programmes to assist developing countries improve their communications and information capabilities. Scholarships and fellowships for developing country journalists and broadcasters represent a major effort of these organizations. The 25 most active American foundations and associations awarded more than 550 grants in 1988 varying between $200 and $35,000 each. Among these foundations are the *World Press Institute*, *Alfred Friendly Foundation*, *Council for International Exchange of Scholars*, *East-West Center*, *Gannett Foundation*, *Inter-American Press Association* and *Rotary International*. Over 400 American colleges and universities also offer a wide range of scholarship opportunities for developing country journalists and broadcasters. Some characteristic programmes are as follows, by way of illustration.

The Academy for Educational Development (AED), *inter alia*, conducts studies and research on problems in education, the arts, communication, family planning and international development, and assists public and private sector programmes in developing countries for human resources development, transfer of technology and institutional development.

AED has divisions devoted to Social Development, Higher Education and Technical Training, and International Exchange and Student Services. Its international programmes (more than 300 projects in over 100 countries) are involved with telecommunications, development communications and information.

Under the Social Development Programme area, AED has emphasized the value of communications for social change and effective development. The Division tests and validates the effectiveness of various communication technologies applied to development; translates theory into practice in agricultural development; develops creative uses of communications for health and family planning, as well as AIDS education; effectively and innovatively adapts communications media to the needs of basic vocational/technical education; provides technical assistance, specialized training, and information services to a wide variety of institutions; and links public and private sector institutions to professionalize communications programmes.

AED's Telecommunications Programme has addressed the range of activities involved in defining, planning, and implementing broadcasting and telecommunications systems, helping to develop effective and economic ways to use communications technologies for education and development. AED's primary objective in telecommunications is to work with nations to transfer substantive skills and develop local capabilities in programming, using and maintaining technologies.

The Center for Foreign Journalists (CFJ) is a nonprofit, independent institution established in 1985 to share professional know-how and information with journalists from around the world, primarily from developing countries.

In the past three years, CFJ has conducted more than 65 professional seminars and workshops and has provided services to more than 1,300 journalists from 158 countries. In addition to its training programmes, CFJ publishes and distributes journalism literature, provides consulting services for news organizations, trains and identifies journalism teachers for overseas work, and places international colleagues at appropriate American news organizations for internships.

Recently, CFJ has focused on programmes to improve news coverage of development issues, including three workshops in Latin America on environmental journalism. About one third of CFJ's programmes are conducted in vernacular languages. Half of CFJ's staff are non-American.

In 1989, approximately 350 journalists will participate in training programmes offered by the Center, both in the United States and abroad. The only full-service organization of its kind in the United States, CFJ has collaborated with the Academy for Educational Development, American Newspaper Publishers Association, American Society of Newspaper Editors, International Press Institute, Press Foundation of Asia, the Inter-American Press Association, African Council on Communication Education, and others.

Housed in the building of the American Press Institute outside Washington, D.C., CFJ is funded largely by donations from the American newspaper industry. It conducts its programmes on grants and contracts from both the public and private sectors. The Center has a Board of Advisers composed of leading professionals from the United States and abroad. The Center draws its faculty from the working press and leading academic institutions in the United States and abroad.

The Inter-American Foundation (IAF) was created by the United States Congress in 1969 to assist the self-help efforts of poor people in Latin America and the Caribbean, out of a concern that traditional programmes of development assistance were not reaching the poor. In 16 years, the IAF has channelled over $250 million through 2,512 grants to agricultural co-operatives, intermediary organizations that provide local groups with credit, technical assistance, training and marketing services. The IAF also supports grassroots development efforts through the publication of its journal, special studies, monographs, videos, and fellowship programmes.

Among communications-oriented projects by the IAF are: audio-visual materials on conserving and maximizing energy resources from firewood and vegetable waste; a monthly newspaper with information on a variety of topics ranging from the role of women to appropriate technology; Radio San Gabriel, broadcasting a daily array of cultural and development programmes in the Aymara language; a regional project on the use of radio programmes to facilitate a literacy programme for low-income adults (IRFEYAL).

The *East-West Center's* Institute of Culture and Communication conducts a number of specialist development programmes for journalists at all stages of professional accomplishment, designed to enhance Asian, Pacific and American journalists' understanding of Asia-Pacific regional issues.

They include: Jefferson Fellowships, which have enabled more than 150 mid-career news editors, editorial writers, reporters and broadcasters to study Pacific Basin news issues, with emphasis on how those issues are handled in differing cultures; the Chinese Journalists Training Seminar brings a dozen young print journalists to the University of Hawaii for an academic year for classes in basic journalism skills and seminars on regional and media issues (68 journalists to mid-1987); East Asian journalists' workshop on issues of professional concern and economic and security issues facing the Asia-Pacific Region; basic skills workshop for Pacific Island print and broadcast journalists (planning stage); annual conferences of senior editors and publishers, with annual country reports.

2. Communication technology

Introduction

This chapter presents a selective account of innovative developments in the fields of print, posts and telecommunications, and information technology. It is organized in eight subsections. The first subsection covers the print media and printing processes, and the second is devoted to broadcasting, including (as well as radio and television), cable, broadcast satellite, videotex and teletext systems. The third covers audio and video technologies, including cassettes and discs, recorders, film and photographic materials, and laser vision. The fourth subsection covers new technologies in postal services, while the fifth subsection, devoted to telecommunications, includes Integrated Services Digital Network (ISDN), telephony, message-handling services, fax, teletex, local area networks, mobile radio communication, satellite services, emergency services and optical fibre communications. The sixth subsection describes new computer-based information technologies. The seventh sub-division of this chapter looks at communication technology in relation to archiving and reference services. It covers audio, video, film and photographic material, and international co-operation in the fields of archives, electronic documentation, storage and data base development. Finally, an account is given of Unesco's work on the endogenous production of equipment, with special reference to the needs of developing countries.

International

Print media

Electronics and digitization in the print media have stimulated two complementary trends in this industry: (a) modularization of the various processes in printing; and (b) rationalization of these modular processes into an integrated system. In turn these have led to: computerization of all the major steps in the preparation of text and graphics; improvements in control, speed, and quality of the reprographic output, particularly with the use of computer-driven laser printers; in some cases, direct platemaking by laser from computer output for offset printing, including both text and images, though this method is extremely expensive and still in development.

Printing processes

While in industrial countries, lithography, or offset printing, has widely replaced the traditional letterpress using movable type, the expense, infrastructure and labour-intensive aspect of letterpress in developing countries have made this changeover very slow. A review of the three main ways of transferring an image to paper is discussed below.

Letterpress and *flexography* can be conveniently considered together.

Letterpress uses a raised surface to carry the image to be printed; this surface is usually of metal. Such presses are robust and long-lasting, but very labour-intensive and thus can be wasteful when preceded by modern pre-press production techniques. Very large newspaper publishers use a non-metal form of letterpress, known as a photopolymer plate, in which the plate is made of a light-sensitive polymer.

Flexography is a form of letterpress that is replacing metal letterpress. It uses a more flexible printing image carrier and light-weight presses. Because the image-carrier is flexible, it deforms slightly when making contact with the paper, which results in some loss of definition, particularly in the reproduction of photographs. It is used mainly for large runs where high-quality printing is not essential, as in newpapers and large quantity paperback production.

Lithography, commonly known as offset, is now the most widely used printing process in the developed world. Various materials are used for lithographic plates, depending on how many copies need to be printed from each plate. Electrostatic paper plates are used for up to 5,000 impressions; various more robust types of paper, polyester and plastic are used for print-runs up to about 10,000; metal substrates are used for longer print-runs and for higher quality.

Gravure printing uses a revolving cylinder with depressions in its surface corresponding to the areas to be inked. Because, traditionally, gravure cylinders had to be etched, which is a lengthy and highly skilled process, it was economic to use the gravure process mainly for long print-runs, artistic works or prestige printing.

Two developments are changing this situation: an electronic method of engraving the cylinders, in which copy (text and graphics) is scanned electronically and the cylinder is etched automatically under electronic control; and the Lasergravure system, developed in the United Kingdom. Lasergravure deposits an epoxy resin on the cylinders, which are then engraved by a high-power laser, working from a digital encoding of the text and graphics to be printed. Though gravure, by traditional methods or laser techniques is expensive, time-consuming and requires highly-skilled work, it is expected to remain the principal method of high-quality, prestige printing, despite the improvements and lower cost of offset technology.

Printing machines as computer output devices

Parallel to developments in printing presses, a number of printing machines have been designed to serve as output devices for computers or microcomputers. This has enabled the computerized preparation of text and image, including photos, particularly in the reprographic stage. More complex systems can read computer data and drive a laser beam to prepare half-tone photographs or even the photo plate; expensive systems can also prepare the final printing plate.

Impact printers, daisy-wheel or band printers (sometimes called chain printers) have been greatly improved for quality and speed; most are driven by computerized editing systems. Chain printers can deliver up to 600 lines a minute.

Dot matrix printers (a kind of impact printer whose head ejects inked pins on the paper surface) have increased speed (up to 250 characters per second) and quality (24-pin resolution) but have not equalled the finer resolution of the lower end of the laser models (300 dots per linear inch). These printers are useful as telex output, for drafts, and the electronic representation of calligraphic scripts. Where fine print quality is not essential, the 24-pin dot matrix machines are also sufficient as the final copy prior to photocopying or the film plate stage.

The ink-jet printer uses two systems of magnets which deflect a stream of ink particles horizontally and vertically on to paper (or any other surface, rough or smooth) to form characters. Their high speed (1,000 characters per second) is compromised by very low resolution (depending on the font structure, between 65 and 100 dots per linear inch). These restraints limit such printers to use as large quantity addressograph systems, labelling, and similar applications.

Laser printers use a laser beam to form an image on paper, usually 300 dots per linear inch (dpi) for standard models; higher resolution up to 1,200 dpi may be available shortly and for a number of applications, particularly for preparing photo plates and printing plates. It should be noted that 600 dpi would be the maximum laser resolution that could be used for paper surfaces, as most paper textures would not be able to store any higher definition. The laser's principle advantages are speed (up to 18,000 lines per minute) and precision resolution, particularly in the more developed models.

The current 300 dpi resolution of the standard laser is more than sufficient for most documents and small to middle-sized newspapers, though to a professional's eye, it would lack the "prestige quality" of impact printing.

Electronic publishing

In the area of electronic publishing, most recent attention has been focused on desktop publishing. Desktop publishing (DTP) employs special software on

a microcomputer to prepare text, lay out pages of words and pictures and to print the camera-ready copy, usually on a laser printer. The first completely integrated system became available in 1985 from the Apple Computer Company in California. Since 1986, Unison World, Alders and Xerox have developed similar software for the IBM-PC in conjunction with a variety of laser printers.

Electronic desktop publishing, as a concept, seeks to create the entire pre-printing process environment on the top of a desk, thereby simplifying the work of illustrators and layout editors by enabling them to manipulate images on screen and combine text with pictures. Especially in the second stage of the publication process, it produces type, sizes illustrations and composes complete pages for printing.

Desktop publishing systems using a laser printer (300 dpi) are sufficient for most pre-printing needs of in-house and small community newspapers. Type fonts are varied and very legible; photographic images when printed by offset are sometimes superior to the traditional letterpress. The camera-ready copy can be photocopied (for small runs) or sent for platemaking and offset (for longer print runs).

Other software packages have been developed to convert electronic data (from an electronic desktop system, data base or other sources) to prepare a final electronic copy for professional typesetting and offset. In general, the concept of integrated electronic desktop publishing is now being extended to larger and more professional systems than hitherto.

Broadcasting

Sound broadcasting technology is now developing in two main directions: (a) improving the efficiency of conventional services through a more rational and cost-effective use of existing resources (frequency bands, equipment and networks); and (b) the introduction of new services associated with the existing ones.

At low frequency (LF) and mainly at medium frequency (MF), Regional Frequency Plans currently in application set either a 10 kHz or a 9 kHz frequency separation between amplitude modulated sound broadcasting transmitter carriers. This results in a compromise between the number of the available channels in a given band and an acceptable audio quality.

Due to the particular ionospheric propagation conditions at night-time, the LF and MF bands are at present saturated in most parts of the world. Although it may seem that the service provided in the MF band can no longer compete with the higher quality offered by frequency modulation (FM) sound broadcasting at higher frequencies (VHF), a growing interest in revitalizing MF amplitude modulation sound broadcasting is evident in several countries. One reason is that this type of broadcasting, due to its peculiar propagation conditions, is less prone to the degradation suffered by VHF/FM car receivers in densely populated environments.

Extensive experiments carried out in North America indicate a pronounced and growing interest by the public in wider-band MF/AM (amplitude modulation) sound broadcasting services, possibly in stereo, intended for car reception.

Although a definite new MF/AM wide-band stereo system has not yet been standardized (at least three or four slightly different systems are currently in operation), some manufacturers are already producing suitable receivers. This new trend could well spread beyond North America, and might lead in time to a *de facto* standard.

Special emphasis has been placed on high frequency (HF) sound broadcasting. Recent ITU Conferences, besides the goal of achieving a world wide planning system, have reconfirmed the importance of this medium for broadcasting outside national borders, together with the need to improve spectrum-utilization efficiency in the HF bands assigned to broadcasting.

Although the straightforward solution of introducing single side bands (SSB) transmissions has been gradually scheduled for the next decade, the current production receiver technology has already been affected by this choice. Whilst up to three years ago only one commercial portable HF receiver with SSB receiving capabilities was available on the market, today at least a dozen models from different manufacturers provide full short wave (SW) range SSB receiving capabilities (usually associated with LF, MF and VHF band coverage) at prices ranging from $150 to $600. Due to the widespread use of digital components (for synthesized tuning and digital frequency display) a progressive and dramatic reduction in price is expected.

In the VHF band for sound broadcasting (usually 87.5-108 mHz, though this may vary from country to country), the use of frequency modulation (FM) offers a definitely higher sound quality.

Nevertheless, the coverage area is in general more restricted due to the quasi-optical propagation conditions. This characteristic, together with the use of directional transmitting antennas, has led to a proliferation of individual "city" stations in many industrialized countries.

As mentioned above, high population density and the closer channel spacing of FM stations in large towns have made the quality and the continuity of reception in the mobile environment somewhat problematic, especially for stereo broadcasts.

Despite this inconvenience, the VHF band remains one of the most powerful media for sound broadcasting, not only from the quality point of view but also for the possibilities offered by a wide-band transmission channel. Recent developments have, in fact, demonstrated the feasibility of broadcasting additional information associated with the main stereo programme at VHF. In Western Europe the RDS (Radio Data System) recommended by the International Radio Consultative Committee (CCIR) and adopted by the European Community has now been implemented in several countries. It allows a variety of auxiliary data signals to be transmitted along with the main stereo channel and decoded by an additional unit on conventional receivers. The capability of this system is not yet fully exploited but services currently in operation include transmitter and programme identification, clock and time signals, road information for motorists, etc. Further applications are still in development and will include fax transmission and radiopaging. European industries already produce FM/RDS car receivers at prices about 1.5 times higher than conventional sets. Production is expected to grow considerably with a consequent reduction in receiver retail prices in the next few years, as the system is implemented by more countries.

Other developments have focused on the greater miniaturization of receivers, and the improvement and diversification of energy sources (including solar energy). In the same vein, attention has been paid to reducing the size and complexity of radio transmitter equipment, and some of Unesco's work in this field is reported on below (in the concluding section on endogenous production).

The basic technologies of television production, transmission and reception have not changed radically in recent years. The most important trends are towards smaller, cheaper equipment and towards digital coding. However, several technologies have been developed that are now beginning to find commercial use (e.g. satellite and multi-channel systems).

In the production of television programmes, increasing use has been made of video tape rather than film. One of the main advantages of video is that it permits use of digital and electronic editing techniques that are faster and easier, and facilitates the sophisticated creation and manipulation of graphics. The use of small combined audio- and video-tape camera recorders to collect material for news bulletins has now led to widespread electronic news-gathering (ENG) which enables broadcasting companies to use smaller, more flexible teams and process their news bulletins more quickly. In the last few years, computer systems dedicated to newsroom management have also been installed in most major broadcasting stations in the developed world. A recent development has been the digital slide store, which transmits a particular slide from archives on to the screen in a matter of seconds.

The last two years have seen major developments in the acceptance of solid-state charge-coupled devices (CCDs) as video-camera image sensors. These have the advantages over conventional camera tubes that there is no highlight lag, burn-in, microphony or registration drift; but hitherto they have suffered a number of side-effects which have rendered them unacceptable to all but the domestic market. A combination of techniques has now overcome these drawbacks and CCD cameras are gaining wide acceptance in the industrial and professional lightweight camera market and also in broadcast telecine machines.

Other recent developments concern television sets themselves. Nearly a quarter of television sets in the United States are now equipped for stereo sound, though relatively few television stations transmit in stereo (e.g. in Japan, North America, France, the Federal Republic of Germany). Many video-cassettes, however, have stereo sound and people use their stereo television sets to play them. Several Japanese manufacturers have demonstrated flat (which really means thinner) television screens of four inches or less. Very small television sets with colour liquid-crystal displays (similar to a pocket calculator) have also been demonstrated, but are not expected to become a major market. However, the most significant technological developments of recent years concern methods of distributing television programmes.

Cable television

Cable television generally refers to a cable-based carrier (coaxial or fibre optic) that simultaneously delivers multiple programmes from a cable station operator to subscriber households. Programmes may originate from a variety of sources, including productions from the system's own studio, from a tape or film recording, reception over a terrestrial communications network or via communication satellites. The operator may make arrangements to relay existing broadcasting signals as they are received from other stations, or may purchase special services (e.g. in the United States and in parts of Europe: Home Box Office, Sky Channel, SAT-1, Cable News Network) or purchase or lease recorded materials. Programmes are transmitted simultaneously on multiple channels from the cable company's "head-end".

The cable industry, which began with simple community-antenna television systems, has since evolved into a highly competitive field. Although the growth of cable was at first overestimated, it is still seen as an attractive area for long-range investment.

Cable television is inherently interactive, but most systems restrict the return channel capacity to simple data instructions to the cable operator. Very few television cable systems are integrated into the telephone network.

A number of experimental cable networks around the world offer home-banking, home-shopping and travel reservations via interactive (two-way) cable, though by far the most successful home-shopping services, which are in the United States, are not truly interactive: shoppers have to order their purchases using a separate telephone line. Some home-shopping services are also carried on broadcast television. Similarly, only about one fifth of pay-per-view television services, in which subscribers order and pay for individual programmes instead of whole channels or packets of channels, are interactive.

Wireless systems

Some areas of the United States that have not been cabled utilize a type of television service known as multi-channel multi-point distribution systems (MMDS), which offer between four and twelve channels distributed over fairly short distances by microwave signals. This may be a form of pay-television, with subscribers paying to become part of the network. Another type of service that has been developing rapidly in the United States is subscription television. Broadcast signals are transmitted in a scrambled form over the air and decoders rented to subscribers unscramble the programmes. Most such systems allocate subscribers numbers which they must key into their set-top decoders; the numbers change periodically. Some advanced systems are "addressable": the pay-television company can remotely switch off individual subscribers who do not pay up. France has successfully installed a system and several other countries have begun experimental services.

Television by satellite

The use of satellites is a major factor in the growth of television services. Most satellites now being used are low- or mid-powered satellites that require a large and relatively expensive dish receiver (costing about $2,000). Most of the nationwide network television in the United States is distributed to local broadcasting stations by satellite, as is much of the television transmitted by cable networks in North America and Western Europe (cable companies receive the programmes from satellite dishes and then retransmit down cables to their subscribers). The USSR also distributes many of its television programmes around the country via satellite; France communicates similarly with its overseas departments and territories. Satellites are also used to gather news pictures and reports. But the most significant recent development in the use of satellites for television is in the delivery of television programmes directly to homes via backyard and rooftop dishes.

In Australia almost all television programming and some radio programming uses Aussat, the domestic communication satellite. Programmes are then broadcast using terrestrial transmitters. Residents of remote Australia have access to television, radio and data channels direct from Aussat.

About 1.7 million American homes and a few thousand European homes "eavesdrop" on low-power (10-20 watt) satellites used to deliver television programmes to cable television stations. Their reception dishes measure around 1.8 metres in diameter on average. In the 1980s, several attempts have been made in North America and Western Europe to finance higher power "direct broadcast satellites" (DBS) which are powerful enough to send signals that can be received on much smaller dishes (30-60 cm diameter, depending on how far the reception area is from the satellite's beam). 1989 and 1990 will see the launch of DBS satellites from the Federal Republic of Germany, France, Sweden, United Kingdom and the European Space Agency (ESA). They will carry between two and four channels of up to around 200 watts per channel. These launches have been delayed by problems with the Ariane launcher, technical difficulties with transmitters and indecision for a variety of reasons (commercial, political, technical, regulatory). These follow earlier launches of similar satellites by Canada (1976) and Japan (1984) who were the DBS pioneers. In Europe, the Federal Republic of Germany was the first country to launch a DBS, but its TV-SAT-1 malfunctioned and became inoperational. The French TDF-1, which is essentially similar, was launched on 27 October 1988 although at the time of launch the government had not reached agreement on channel allocations. The British Satellite Broadcasting (BSB) satellite is scheduled for launch in August 1989.

After experiments with a 100-watt-per-channel satellite, Japan now has an operational system. NHK started its DBS experiment in April 1978 and completed it in 1981. One channel of regular service began in 1984 (18 hours and 41 minutes per day) and a second channel was launched in 1986. In 1986 NHK provided 18 hours and 33 minutes per day (on average) through DBS I and 18 hours and 7 minutes through DBS II.

Subsequently, NHK expanded the DBS I service to 24 hours in July 1987. Before July 1987, there was considerable overlap in programming between DBS I and Terrestrial I (general) on the one hand and DBS II and Terrestrial II (educational) on the other. In July 1987, however, the programming offered via DBS I was made completely different from and independent of Terrestrial I, while the programmes of DBS II consist of programmes broadcast by Terrestrial I and II. The reason for this is that DBS I is now aimed at the same general public who enjoy Terrestrial I and II services, whereas DBS II has become a special channel for the inhabitants of remote islands or mountain villages who cannot receive NHK Terrestrial I and II services adequately.

Technological advances, primarily in satellite reception equipment, have somewhat complicated the situation since 1977, when the World Administrative Radio Conference of the International Telecommunication Union fixed the frequencies, orbital positions and technical specifications (particularly power) of DBS for Europe, Africa and the Arab States, Asia and Oceania. (DBS specifications for the Western Hemisphere were agreed in 1983.) Satellites of much lower power are now capable of being received on small dishes suitable for a domestic mass market. The principal advance has been in the amplifiers which magnify the weak signal picked up from satellites: in the last ten years, the performance of these amplifiers has increased fourfold.

A private company based in Luxembourg, Société Européene des Satellites (SES), launched a satellite with 16 channels of 45 watts each (with four audio channels for each video channel) in December 1988. The company claims that nearly three-quarters of Western Europe will be able to receive their programmes on a dish of 60 cm. Eutelsat, the European satellite body owned by Western Europe's telecommunications authorities, plans to launch a very similar satellite in 1989. The OLYMPUS satellite of the European Space Agency will provide a rare opportunity for experimental services. OLYMPUS will start operations before the end of 1989 and offers three different payloads to support experiments and demonstrations.

A number of things will be tried on the two DBS channels of OLYMPUS including distance-learning in daylight hours and general pan-European programmes in the evening. The footprint of the "European" channel beam will reach almost all of Western Europe and complements the coverage of the "Italian" channel to be operated by RAI in Italy. As with all true DBS satellites, these transmissions will be receivable on equipment similar in price to video-recorders.

The distance-learning programme is ambitious and could involve hundreds of European academic institutions. The services to be demonstrated will be of interest to people at home and at work, in schools, colleges and offices.

The telecommunication payloads of OLYMPUS will be used for a wide range of technical tests to aid the design of future systems. Demonstrations of advanced concepts such as suitcase-portable satellite news gathering equipment and multipoint video conference with simultaneous presence of all participants are also planned.

High-definition television

One of the main determinants of the sharpness, or definition, of television pictures is the number of horizontal lines of which the picture is composed. Since 1970, Japan's public broadcasting organization NHK, in collaboration with Japanese manufacturers, has investigated the key parameters of enhanced or high-definition television, such as the number of lines and the aspect ratio. They have developed a 1,125 line system high-definition television (HDTV) system which provides much sharper resolution than the 525-line pictures of the present system in Japan and the United States, or the 625-line system used in Europe.

There has been much public interest in the possibility of substantially increasing picture resolution. For example, during the Seoul Olympic games in 1988, 205 HDTV sets provided by 11 manufacturers were installed at 81 public sites across Japan (such as department stores, shopping centres, city halls, railway stations and showrooms) with set sizes varying from 20 inches to 400 inches. The opening and closing ceremonies were covered from beginning to end by a live HDTV telecast and edited video-taped versions were telecast regularly each day.

Higher resolution would make large-screen television sets much more attractive to buyers, and would be much more suitable for video projection in cinemas. However, a number of problems both technical and economic have prevented much progress towards the adoption of HDTV for transmission.

The economic challenge is that if the new system is incompatible, much existing equipment–cameras, recorders, editors, transmitters, receivers–would be instantly obsolete. High-resolution television also requires more bandwidth than conventional channels, sometimes by a factor of five (meaning that a cable or spectrum location for one high resolution channel might take up the same space as five traditional channels).

Most European companies do not want to adopt the Japanese system, which was initially favoured by CBS, but prefer instead to develop their own HDTV system, and to employ a new family of television standards known as MAC (Multiplex Analogue Components), adopted by the European Broadcasting Union and the subject of a European Commission regulation. An impressive demonstration of the European system was staged at the International Broadcast Convention, Brighton (United Kingdom), in September 1988. It now seems very likely that by 1991 the complete system will be on the market.

The Europeans' main technological objection to the Japanese Hi-Vision system lies in the fact that the Japanese system is more revolutionary than evolutionary. It would require completely new receivers for everyone. In Western Europe a plan exists for evolutionary development, adding on special features to TV sets by the use of plug-in adaptors of various sorts. This plan, based on the MAC standards, would gradually add wide-screen pictures, reception of pictures from high-power satellites, eight-channels of sound and data, and higher-definition pictures.

Research and development of HDTV systems include studio production and transmission. HDTV studio equipment based on the 1,125 lines 60-fields-per-second proposal is already used in a number of HDTV production studios in several parts of the world, including Europe. HDTV has proved to be an effective tool for film production. It leads to a quality level comparable with 35 mm film but adds to it the advantages of television production technology and extended artistic options. It is easier to handle and, consequently, more cost effective. Equipment developed in Western Europe has been demonstrated recently as prototypes. Japan is prepared to start satellite transmission of HDTV using a system called MUSE (Multiple Sub-Nyquist Sampling Encoding).

In addition, stimulated by expectations of the public for higher quality television compared with the existing colour television systems, studies are pushing ahead in a number of countries, mainly in the United States, to enhance these traditional systems. So as to distinguish them from real high-definition systems, such improved systems are usually called enhanced television systems. Attempts are also being made to use additional or enlarged transmission channels to carry additional information to the receiver, to allow for improved picture quality for those who are willing to purchase more expensive receiving equipment.

Beyond broadcasting, HDTV has potential applications in a number of other fields:

Printing: materials for printing can be made and applied directly from video tape. This has applications in the media and art areas as well as for the *medical* sector. HDTV's potential for printing is based on its ability to transmit large quantities of information. Single frames recorded on 35 mm films using the laser method developed for electro-cinematography are already being enlarged and printed. In the future, printing can employ data converted directly from the HDTV signal, enabling even greater merging of broadcasting, video and printing media.

Electrical HDTV data bases have enormous potential for *medical* purposes; the life of digital storage on video tape is fifteen years minimum. It can then be transferred to another tape.

Art Museums: high-definition stills combined with computers can facilitate easy access to all art works in all museums. They can be transmitted by fibre-optics networks. High definition gives improved presentation and preservation of colours, as well as compact memory storage.

Advertising: television commercials are being recorded in high definition and then shown in video (for example, in Japan and the United States).

Low-powered television

All broadcasting services use radio frequencies, and the number of services depends on the number of available frequencies and other factors such as transmitter power and technical standards (often based on minimum standards for the received picture). A specific kind of low-powered television was sanctioned in the United States in 1982 by the Federal Communications Commission (FCC). It allows the establishment of stations with a sufficiently low signal radius that they will not interfere with one another. This opened up many opportunities for investors or public groups to enter into the television business. The range of low-powered stations had existed prior to this date but they were mainly used to extend the range of traditional broadcast beyond their normal coverage.

Low-powered stations can be established for a fraction of the cost of a major station; usually the figure is under $100,000. This makes them attractive for specialized broadcasters (e.g. for certain ethnic or foreign-language groups), for public interest organizations, or investors who would not normally be involved in large-scale television operations.

Low-power television stations were tested effectively in 1975/76 in India during the Satellite Instructional Television Experiment (SITE). The low-power design developed as part of the ITU/UNDP project that supported SITE was subsequently employed in a

number of operational locations in India using programme feeds from the Indian National Satellite (INSAT) system. Low-power television stations provide cost-effective delivery means for developing countries.

Videotex

A videotex service is an interactive service enabling the customer to use a terminal and monitor in conjuction with a modem (an interface device) to interrogate and retrieve information from data banks over the switched telephone network. Videotex may offer facilities such as information input, terminal-to-terminal communication, transactional services (for example, transfers of funds), data processing, and interconnection with other services. The actual and potential range of computer-based videotex services is virtually unlimited. Largely aimed at institutional users, they include business, financial and economic news and data, stockmarket quotations, employment information, a wide variety of industrial, scientific and technological data bases, as well as general news and information services. Where videotex systems have been developed for private consumers, the services can include personal banking, local public service information, news, weather, sports, travel and entertainment information and reservations, consumer information, teleshopping, games, personal messaging, employment opportunities, etc.

Aside from the unique French experience, where use of the Teletel network by private individuals has been promoted by providing the necessary terminal equipment (so-called Minitels) free of charge to several million telephone subscribers, interactive computer data services are largely confined to business and institutional users. Subscriber figures are typically a few thousand per system, with the major exception of France's Teletel (4.2 million subscribers in 1989, almost 17 per cent of all telephone subscribers). Some of the earlier European and North American services also have subscribers numbered in the tens of thousands.

Teletext

Teletext is a service currently carried in the vertical blanking interval (VBI) of TV signals. As teletext services develop, a greater proportion of the available bandwidth will be used, in various ways. The information can be received on a decoder-equipped home television set and is called up by means of the remote control unit. The quality of the broadcast television image enables the use of much more sophisticated text design, graphics and colour than computer-based viewdata systems. However, it is not truly interactive and is aimed largely at the general public and confined to a relatively limited data base, providing local public service information and such general information as news, weather, sport, radio and television programming, leisure activities, financial and stockmarket news. In some countries a teletext is also used for so-called closed captioning, i.e. special subtitles for programmes aimed at those with impaired hearing.

The number of users of teletext systems can only be estimated with difficulty in the absence of coherent statistics. Since new television receivers are increasingly equipped with decoders for teletext, it can be expected that the potential market for teletext services, made up for the most part of private individuals and households, will continue to expand in the coming years. Already, there are typically hundreds of thousands, and, in some cases, millions, of viewers who use the most important Western European and North American systems.

Audio and video technologies

Audio cassettes and discs

Pre-recorded analogue magnetic audio-tape cassettes (usually called "compact" cassettes), the familiar 10cm-wide cassettes used in cars, portable personal stereos and hi-fi component cassette decks, are the most popular form of music reproduction available, despite poor fidelity, on account of their simplicity, durability and portability. Such cassettes outsell compact discs (see below) and long-playing vinyl discs (records) by two to one.

Compact discs are the fastest growing medium for pre-recorded music: 300,000 CDs were sold in the United States in 1984, 3 million in 1986 and sales of around 160 million are predicted for 1989. CDs are thin discs made of polyvinyl chloride with a reflective aluminium coating, measuring 120 mm across. Like video discs (see below) they store digitally encoded information in patterns of microscopic pits which can be detected by a low-power laser beam.

Since a CD player reads only the digital information encoding the musical signal, no surface noise is reproduced (except when the disc is badly damaged). Reasonably handled, the disc undergoes virtually no degradation over time through usage, because the laser beam which reads the musical signal does not physically affect it, and the techniques of CD manufacture mean that the 100,000th copy pressed is practically as good as the original master recording.

Given the higher quality of both laser-read audio and video-discs, many have queried their longevity. In 1987 and 1988, severe deterioration was noted in some discs, due to the corrosive effect of the dyes used to print the labels, which tend to attack the thin plastic coating on the aluminium layer containing the laser pits. The entire fabrication of the laser-read discs is in itself fragile, consisting essentially in binding together several extremely thin layers, particularly those of the aluminium substratum and its protective coating. More permanent laser discs could be manufactured using glass and a gold coating, but the costs would be exorbitant and use might be limited to professionals and institutions. A simpler method would be to reinforce the protective coating, but even this is considered by a number of manufacturers to be a "constraint" to production and eventual sales prices. To determine more realistically the longevity of the laser-read compact discs and to propose effective improvements to longevity, rigorous and continuous research is needed by professional laboratories in consultation with manufacturers.

In theory, it would be possible to use a higher sampling rate for digital recording. Thus, some manufacturers speak of super-CDs. Optical discs are capable of carrying a higher bandwidth than present-day CDs. It would be feasible to produce audio recordings on a super-CD at 320 kHz, 22 binary digits per sample, which would yield a bandwidth ten times greater than that of today's CDs and would sound markedly better (but would leave less physical space to store long musical items).

Long before super-CDs become available (if they ever do), *digital audio tape (DAT)* machines will be on sale. Such machines and their corresponding software are already available in limited numbers in Japan and elsewhere, and were being mass-marketed at the end of 1986. DAT players for use in homes and cars were demonstrated at trade fairs in North America in early 1987. Transportable DAT machines are commonplace and truly portable ones, both for professional and amateur use, are also now available.

The DAT player is a development of the technology of the video-cassette recorder/player (VCRs). Like video-cassettes, DAT tapes are almost entirely enclosed by their cassettes, which to some extent protects them from dust and dirt. But unlike CDs, they are not immune to deterioration in playing because the reading head does come into contact with the tape.

DAT players produce sound comparable to that produced by CDs, play cassettes that run for 80 minutes (in the case of relatively cheap ferric tape, or two hours for higher quality metal-particle tapes) and are about half the size of conventional audio-tape ("compact") cassettes. They have the added advantage over CDs that they can be used for recording.

Although the mechanics of a DAT machine are slightly more complicated than those of a video-cassette recorder, DAT machines are expected eventually to retail for less than VCRs because they are essentially cheaper to manufacture. (Current DAT machines cost around Yen150,000 ($1,150) and are heavy: around 11 kg, although portables weighing about 2 kg are also available.)

Since it would be possible to make near-perfect copies of a CD on a blank DAT tape, musical copyright owners and those with an investment in the technology of CD are attempting to make the manufacturers of DAT tape players incorporate various types of "spoilers" into their equipment to preclude illegal copying of copyright material. The manufacturers of DAT players have accepted an industry standard for DAT according to which the machines will play, but not record, at 44.1 kHz - the same as CD players. Some industry observers believe that the financial temptation to manufacturers of DAT players to break ranks and market equipment that can also record at 44.1 kHz, and will thus be able to make near-perfect copies of CDs, will nonetheless be irresistible.

Some companies in the music industry, notably CBS, have therefore advocated "spoiling" digital recordings so that near-perfect DAT recordings cannot be made of them. A technique recommended by CBS, known as "notch filtering", would remove signals from a certain part of the audio waveband. However, although the intention was to leave the original purchased recording substantially intact, consumer reports indicated that notch filtering also degraded the original sound signal, and the proposal now seems to be dead.

Video-cassette recorders

The ability to record video images along with sound has been available since its introduction in the 2-inch format by the Ampex Company in the mid-1950s. Although small reel-to-reel black-and-white video-tape machines were available by the late 1960s, they were used mainly for non-commercial broadcasting purposes such as education or industrial training. By the mid-1970s, the cassette versions of the machines were introduced in a 3/4 inch tape format that immediately became a standard on its own because of widespread adoption. Later in the 1970s home versions of the machine were introduced and by the mid-1980s video-cassettes were the best-selling home entertainment technology.

The earlier incompatible formats for video-cassette recorders (including the popular Betamax format) have now almost dwindled to one, VHS (originally invented by the Japan Victor Company (JVC)): about 90 per cent of VCRs sold outside Japan are VHS format. About 95 per cent of all VCRs bought are made in Japan. Sales of VCRs are growing strongly in all countries that have not yet reached near saturation. Over 40 per cent of American homes have a VCR and in Japan this percentage is put as high as 53 per cent (in 1988).

However, another type of format war has broken out between different types of VCR. Small-format video-cassettes, Video 8 with 8 mm tape (developed by Sony–the cassette is approximately the same size as a standard audio-cassette) now take a small but growing share of the VCR market (still under 5 per cent in the United States) and a larger share of the camcorder (portable one-piece combined video camera and recorder) market. 8 mm recorder/players use metal-particle tapes, analogous to the highest quality audio-tape cassettes, and record for 90 minutes or three hours. They can also record digital audio signals together with a video picture.

Though the specification for Video 8 has been subscribed to by a number of manufacturers, that alone is no guarantee of survival. It is however interesting to note how flexible in deployment its cassettes are. They can be used solely for digital audio recording with six parallel tracks, a three-hour cassette will last more than 18 hours–indeed the maximum audio recording capacity of any cassette planned is 23 3/4 hours. When used in the video mode, then the operator has the choice of high or normal definition–a device which economizes in tape when detail is not so important.

JVC have introduced another small VCR format to compete with 8 mm (unlike 8 mm, it is not a new type of tape system but simply a miniaturization of VHS). Called VHS-C, such a cassette is pocket-sized and can record for 30 minutes or one hour. VHS-C cassettes can be used in special camcorders, or in any standard VHS recorder/player if used together with a special adaptor.

VHS-C was specifically designed for home video cameras and has the undoubted advantage that with an adaptor its cassettes can be played in existing VHS players and other equipment. VHS-C cameras suffered from a technical limitation on the resolution of the image which has been overcome in the models which came onto the market for the first time in the Spring of 1988. The extreme portability of this new generation of VHS-C camcorders has opened new horizons in news type field "reporting". With equipment scarcely larger or heavier than an SLR 35 mm camera, there are few limitations on its portage or deployment. Recent exhaustive tests on a sample range of VHS recorders reveal a high overall standard in picture quality, but rather less satisfactory sound. However hi-fi stereo sound is likely to start coming in during 1989; most of the new features added to VCRs in recent years to boost sales–with the exception of stereophonic sound–are facilitated by the incorporation of digital memory chips which can be used to manipulate the picture, for example sharper freeze-frame and forward scanning. A feature called PIP (picture in picture) allows the display of a small picture in the corner of the main picture, which may be from a broadcast, tape or other source.

Resolution of VHS is around 250 lines and the latest 1988 VHS-C cameras are close to this, too. Super VHS offers better than 400 lines. The system is expected to come into fairly widespread use in 1989.

Since VCR machines in most countries are now used more often for playing pre-recorded rented or purchased cassettes, manufacturers have begun to sell some cheaper machines that play but do not record. Six major publishers of pre-recorded video-cassettes are planning to encode their tapes to prevent unauthorized copying. The encoding system, called Macrovision, confuses the tracking control of any VCR used to record from a pre-recorded cassette. An alternative system of "watermarking" all television transmissions with their programmes, date and time of transmission is already in use by the BBC. Technical details are a closely-guarded secret, but the watermark, which is quite undetectable to the viewer or user, remains permanently "visible" to the BBC, so safeguarding their material from misuse.

Film and photographic materials

One of the more alarming findings of the *Survey on Moving Images* (reported in the Final Report of the International Round Table to evaluate the Unesco Recommendation for the Safeguarding and Preservation of Moving Images) was the fading of colour films due to exposure to light and from natural decomposition. All major manufacturers of both film and still photographic stock have made major strides since 1983 towards the near-permanence of their colours. However, despite artificial longevity tests, no film manufacturers would risk the claim that colour and resolution on film would be certain to endure beyond 100 years.

Efforts to introduce electronic still cameras have proceeded more slowly than some anticipated. Nearly all the Japanese camera companies have prototypes of cameras using a "chip" memory to store the images but, to date, the preferred technology for image storage has been a 2.5-inch magnetic disc. It has been found that wear on the moving parts associated with a rotating disc adversely affects long-term reliability.

Unfortunately chip memories can store only five fully-scanned images, though a design of memory to hold 40 frames is under development. Picture quality with chip memory cameras is still noticeably below good 35 mm film standards but instant replay through a domestic television set is attractive for news coverage. Instant development film-based cameras also seem to have reached a certain market share which is difficult to surpass.

With still photographic film stock there is both an increasing tendency to produce high-speed films (without high contrast, loss of detail, excessive grain, and colour shift), and a continuing swing towards colour prints and away from transparencies.

In cine film, the 1970s saw some considerable effort put into the development of vesicular film stock which could be instantly developed in a single process, but, in spite of favourable technical reports, it seems to have vanished from sight, probably because video tape now has so large a share of the traditional market. With video tape, editing an extremely wide range of complex electro-optical effects can now be achieved, covering all that could be formerly encompassed by film and more. Film will no doubt continue to have applications: location shooting with limited technical support, certain types of specialized film animation, need for a universal production medium prior to post-production television using different systems.

In the field of specialist photography (as, for example, where infra-red coverage is required) film continues to be the preferred medium, but for low light-level situations, a number of ultra-sensitive video tubes are now available.

Video-discs

Video-discs have been on the market in one form or another since the early 1970s. Initially there was a noticeable division between those that were laser-read and others which employed a stylus, but one by one the non-laser systems have fallen by the wayside so that today the laser is the acknowledged and virtually universal form.

Another distinction between the forms of optical disc has been between those that are factory "written", and thereafter normally immutable, and those that can be "written" by the laser. Usually this is a "write once" capability but it can, more rarely, take an erasable and multi-usable form. If permanence is desired then erasability has to be sacrificed.

The purposes for which optical discs have been used have varied almost from the beginning. They can be used to store images of almost any type, in colour or black-and-white and with whatever degree of definition is desired. Obviously high definition implies a large amount of data and that means more disc space per original item. They can also be used for data storage. The record can equally well be analogue or digital, depending on convention and convenience more than on technical considerations. Finally almost any disc can be made interactive or interrogable, given the coupling of the reader with any appropriate computer and software. In practice, some types have been preferred in the interactive role largely because their manufacturers have seen this as a main selling point. Addressability–an ability to pinpoint a given element of content and retrieve it at high speed–has reached impressive speeds. Philips laser vision of the early 1980s was reckoned not to exceed six seconds, but now to exceed one second is poor performance.

Video-discs must be formatted, like any other medium, and they must be coded. This can follow lines being mooted for the International Electrotechnical Commission (IEC), or it can follow a manufacturer's preference or house style. Probably this is the area where most effort is needed in future, if users are to avoid the risk of being locked into their system.

A relatively superficial difference between different makes and types of optical discs is in their size. Philips, the originators of laser-read discs, adopted a 12-inch size, which has considerable appeal in its large capacity with analogue broadcast standard images, but offers a greater challenge in manufacturing terms. It is argued by competitors that the necessary degree of perfection required in the laminated construction can be attained only with the smaller 5 ¼ inch size. Certainly today the majority of video-discs adhere to the smaller format, with which extremely high levels of consistency in quality of manufacture can be maintained.

Video-discs seem likely to survive far into the future as they have some obvious advantages over tape formats. Their relative indestructability, their suitability for postal transmission and for low-cost bulk manufacture, and their direct use by computers are amongst the most striking. With the incorporation of inbuilt error correction systems they can be given a lengthy working life. They are also well suited to mechanical linkage and retrieval, so that very large data banks or audio-visual archival holdings, or both, can be virtually on-line.

Laservision

The Philips Laservision medium is a 300 mm diameter optical disc which contains prerecorded video information. It was first shown in 1972 and then introduced into the United States for use with the National Television System Committee (NTSC) standard in 1976, before being modified to the PAL standard for

use in the European market in 1982. Two main variants of the Laservision disc are available, these being either constant angular velocity (CAV) or constant linear velocity (CLV). With the CAV approach, the disc is rotated at a constant rate and one frame of video is stored per track. This allows over 50,000 rapidly and randomly addressable pictures on one disc, which makes CAV particularly useful for interactive applications. An Interactive Laservision (ILV) standard exists which allows computer data also to be stored on the disc and is thus applicable to computer programmed ILV. With the CLV mode, maximum use is made of storage capacity by maintaining a constant data density over the disc. In this mode sophisticated interactive capabilities are normally not available. However a playing time of approximately one hour is achieved.

Compact disc (CD)

As described in an earlier section, these discs have a diameter of 120 mm and are used to store prerecorded data. They operate in a constant linear velocity (CLV), so as to maximize the stored capacity, but the CD specification allows data to be recorded on only one side of the disc. Audio CDs can contain over an hour of high-quality digital music. Compact disc read-only memories (CD-ROMS) contain up to 552 megabytes of computer-retrievable data–roughly 500 books or 100 million words of text. CD-ROMs offer a computer data transfer rate of 176.4 kilobytes per second and access times of less than one second. Thus CD-ROMs are an attractive medium for distribution and on-line storage of large data bases. CD video (CDV) contains analogue video and digital audio and interactive CDs (CD-I) contain both video, audio and digital data.

Wide publicity has been given in the spring of 1988 to reports of the alleged failure of many CDs. Certainly some have seriously deteriorated in only a year or two through corrosive action of dyes used for labelling them. This is a relatively limited problem now generally overcome. However, there is evidence of wider justified concern of the slow creepage of gases, notably oxygen, through the plastics leading to the oxidization of the aluminium reflective surface. Gold plating is now being advocated for greater longevity. Indeed it is already orderable where the application justifies the extra cost.

Late 1988 has brought further evidence of the growing importance of CD-ROMs. Philips and Sony have announced the arrival of CD-ROM XA (extended architecture). One of the advantages of this new format is that a single disc can contain 19 hours of speech or, say, 11 hours of middle fidelity music–ideal for the reissue of old 78-rpm gramophone records and early LPs. Indeed, the potential of CD-ROMs with an appropriate development of the present portable players is quite remarkable. Soon a battery powered "Info Walkman" will be a practical proposition so that the user can conveniently carry with him around two to three million megabytes of information, equivalent to an impressive library of 2-3 million books!

Write-once (WO) discs

Write-once discs can be recorded by the end user. The information written on to a WO disc cannot be erased and then re-written, but it can be read many times and hence it is also termed a write-once-read-many (WORM) disc. Applications include the recording, distribution and on-line storage of digital data, image, audio and text. WO discs are available in a number of alternative sizes including 14-inch, 12-inch, 8-inch and 130 mm diameters, with the latter being the most common. Currently available 130 mm discs will store up to 800 megabytes on a double-sided unit and currently available 12- inch discs have capacities over two gigabytes per side. Many disc formats exist, which inhibits disc interchange. However, important emerging formats are the 130 mm ISO disc, at present in the form of a Draft International Standard and the 130 mm format from IBM and Matsushita.

A number of WO recording technologies are employed by the different manufacturers, including tellurium alloys in which holes are melted, e.g. from Philips-Dupont Optical; alloys which undergo an amorphous-crystalline phase change, e.g. from IBM; dye polymers in which holes are formed, e.g. from Ricoh; and platinum mark forming, e.g. from Plasmon. All recording types have archival lives longer than 10 years. However, the platinum mark forming discs have an archival life considerably in excess.

Such is the interest in safeguarding the growing investment in these discs that a number of major organizations in the United Kingdom have joined forces (the British Library, the National Sound Archives, the BBC, and the Independent Broadcasting Authority) to conduct an independent longevity trial of all types of available optical discs, including WORMs and CDs to establish definitive life expectations. Preliminary data suggests that more than one type has a life expectancy of above 100 years and, in one case, four or five centuries. Given such longevity, attention must shift to the risk that the obsolescence of the system is a greater danger to the reading of the disc than physical or chemical deterioration.

Erasable discs

Re-writable optical discs have been demonstrated and products have been announced which employ magneto-optic recording. When these appear on the market they will have storage capacities similar to those for the WO discs. Archival lifetimes will however be short compared with the best WO media.

Postal services

The first use of machine technologies by the postal services was for counter machines in post offices (automatic stamp dispensers, franking machines, etc.) and this has continued and intensified. However, the main innovation has been in letter sorting, which is now entirely automated in the majority of industrialized countries. The newest technologies eliminate human intervention altogether, even for address reading.

Deregulation of the postal services in many countries has led to the creation of express mail services, which were originally under private enterprise but are now increasingly offered by public administrations. Advances in the automation of postal service management and increasing links between postal and telecommunications services, using modern computer-based technologies, has also led to the development of new electronic mail services.

Electronic mail service

An electronic mail service (EMS) refers to a service, operated within the postal service, whereby printed documents are transmitted electronically from one post office to another post office, and then reproduced in the original form (i.e. hard-copy print) for delivery to the addressee. An example is Intelpost, developed by Comsat in the United States which is an experimental system for international electronic mail. It uses facsimile transmission.

Telecommunications

Integrated Services Digital Network (ISDN): an all digital network

The invention of Pulse Code Modulation (PCM) techniques opened the way to digital transmission whereby an analogue signal, usually in a composite waveform, is sampled and converted into a train of discrete bits. Large-scale application of PCM to telecommunication started in the mid-1970s. Digital networks were introduced either on an overlaid basis, that is in parallel with existing analogue systems, or in cells where the entire network within the area of the cell was converted to a digital network. Many countries combined both strategies in introducing digital techniques.

In telephony a speech signal, which is by nature analogue, is converted to a digital bitstream at a convenient point of the network. At present, most subscriber lines carry analogue speech signals up to their nearest digital public exchange or private branch exchange, but in future multipurpose subscriber lines will carry digital signals right to the telephone instrument.

As the telecommunication network, which includes subscriber lines (local network), the switching network and the trunk networks, may carry other services than telephony and telegraphy (e.g. communication between computers, fax machines, the transmission of video, and home-banking, home-shopping and videotex services, etc.), it has proved more economical to introduce Integrated Services Digital Network (ISDN) to carry and switch all these services in digital form. ISDN thus virtually eliminates the use of expensive analogue/digital and digital/analogue converters.

Even in very advanced telecommunication networks in Western Europe, Japan and North America, ISDN has still to be fully implemented. A number of protocols for signalling, interconnectivity, etc., remain to be agreed. Thus worldwide ISDN is a prospect only for the twenty-first century.

Several countries in the meantime are going ahead with their own versions of ISDN before standards have been formalized. Japan plans to have most of its own system (INS) in place by 1995. One $80-million experiment is already under way in a suburb of Tokyo. There, households are connected with digital phones and video terminals linked by digital exchanges on a network of optical fibre.

Much of the most advanced telecommunications equipment being developed and deployed is in the United States, but, because the telecommunications industry there is decentralized, standardization is proving to be particularly difficult. The seven regional Bell operating companies and the equipment manufacturers often have different ideas of how ISDN should best be configured and developed. Some manufacturers of equipment do not want to wait until standards have been developed before making their new products available; local telephone companies, on the other hand, are lobbying hard for the implementation of ISDN in order to sell more equipment themselves.

Europe, with its telecommunications monopolies, is finding it easier to develop national strategies for the introduction of a fully digital ISDN network. The United Kingdom, Belgium, France, the Netherlands, Italy, Sweden and the Federal Republic of Germany are all installing full digital exchanges.

Telephony

The recent developments in telephone technology that are most apparent to the consumer are mostly the results of packing more circuitry into their apparatus and the digitalization of exchanges. The main such features are the use of memory chips to enable abbreviated code dialling (whereby the depression of one or two keys can dial one of a dozen, twenty, or sometimes more, frequently dialled numbers stored in the telephone's memory); automatic last-number redial; automatic callback.

In those places where digital exchanges have replaced electro-mechanical ones, and tone-diallers are in use at each terminus of a call, connections can be made apparently instantaneously (i.e. virtually no delay is perceived between selecting the last digit of the number to be dialled and hearing the ringing tone at the other end). Another facility which is becoming increasingly available to consumers, especially in North America, is the integration of circuitry into a domestic phone set that enables a waiting call to be acknowledged and held while another conversation is continued. Some small areas in the United States are connected to advanced exchanges that allow consumers such services as monitoring which number is calling them before picking up the call.

Analysts expect such services to become widespread in the next decade, but they depend on the digitalization of telephone exchanges.

Other features that have become more widespread in areas served by modernized exchanges and switching systems are conference calls (calls connecting more than two parties); automatic call-forwarding (which enables calls to one number to be temporarily rerouted to another number); and the automatic forwarding of messages.

Message-handling services

Message-handling services (MHS) allow users to exchange electronic messages on a store-and-forward basis. The user can be a person or a computer; the communication can be person-to-person, person-to-computer or computer-to-computer. Each message consists of an electronic "envelope", containing information on the sender and recipient etc. and the electronic contents, which are not disturbed or affected by the message-transfer process. Message-handling services may be offered by national telecommunication administrations or by private companies. They may be national or international. The chief relevant standards for MHS are given in CCITT Recommendation X.400 series. MHS may interact with both other electronic services (telex, teletex, facsimile and videotex) and with physical delivery systems.

The characteristic function of an MHS is that it may be used for delayed communication (which thus distinguishes it from many other means of telecommunication, such as telephony or teleconferencing). This delay may be a function of either the transmission system or the reception system. The transmission system may use an intermediate central facility that receives the messages, stores them for a period and then sends them down another line after a set delay. Or the messages may be transmitted immediately and then stored at the receiving end for subsequent reading. Both methods allow the sender to select times of spare capacity on the lines that carry electronic mail. These lines may be, and usually are, telephone lines or data lines but, in theory, any type of telecommunications link may be used.

MHSs are operated according to the CCITT's Recommendations X.400 series adopted in 1984. X.400 lays the foundations for a worldwide electronic mail system that can operate irrespective of the different hardware that users operate. Its introduction is intended to be two-pronged: as a range of software products designed to be run on different hardware, and as a range of services offered by telecommunications authorities.

Recommendation X.400 specifies network architecture, protocol structure, implementation options, message transfer, and messaging services for interconnecting systems. The system's operation divides into three main functions:

Packing and addressing. Text, digitized audio messages, computer-aided design drawings, and other forms of information are put in an "envelope" that is addressed, and date-stamped. Whatever performs this end of the operation is known as the User Agent (UA). The precise specifications of the UA will depend on the user's hardware.

Sending. The message is transmitted to a Message Transfer Agent (MTA), or sorting office. Thus all UAs must be connected to an MTA. MTAs may be connected to other MTAs, to UAs or both. The MTA interprets the address of a message, works out a transmission route for the message and sends it on.

Forwarding. When the recipient MTA gets the message, it addresses it to the final destination UA and returns an acknowledgement to the originating MTA. The UA then reads the message and handles its contents (storing, forwarding, processing, etc.).

Although formal protocols have been established to standardize communication between a UA and an MTA, and for direct communication between two MTAs, there is no standard laid down by the X.400 agreement governing the interface between an individual user and his UA for writing or reading of messages. This permits the interfaces to be tailored to particular organizations (bearing in mind particularly the other types of telecommunications services that an organization may use).

From the viewpoint of the user of the many current electronic mail systems the introduction of X.400 connections will provide a more consistent method of interchange between networks. It is not *in itself* a user-visible service, but an *interface* between services and a set of guidelines which will direct the future development of such services in a compatible way.

British Telecom and the French TRANSPAC have already introduced an X.400 message service and most major West European telecommunications authorities and the United States are following closely. In the United States, Dialcom and GTE Telenet are about to introduce X.400 electronic mail systems. British Telecom has already introduced an X.400 message-handling service. Most European countries plan to introduce services based either on Dialcom or Telenet. In Japan, Kokusai Denshin Denwa and Nippon Telephone and Telegraph (NTT) are in the vanguard of X.400 software development.

Fax

Telefax is an internationally standardized electronic service by which all forms of written, graphic etc. material can be reproduced at a distant location. A major advantage of telefax is its ability to handle all kinds of script, in all written languages. There are now about 2.5 million fax machines in the world, slightly more than the number of telex machines.

Fax, as it is generally known, typically uses an electro-mechanical scanning of the original document to convert its tonal variations into an analogue electrical signal.

After reception, a fax image has to be stored. This is done by producing a copy of the document or image transmitted, in one of at least five different ways. The main process utilizes either electrostatic or electro-thermal forces, electrical resistance, pressure or electrolysis respectively. Reception and transmission machines have to be compatible for the fax process to work, and all fax equipment currently on sale in the developed world can intercommunicate. The International Telegraph and Telephone Consultative Committee (CCITT) has established four successive industry standards, each of which has tended to supersede its predecessor.

Group I, the earliest standard fax system, took about six minutes to transmit one page. Group II was an improved analogue system which took only three minutes to transmit the same document.

The Group III standard introduced digital techniques and data compression which reduces the time taken for a typical typed A-4 page to about half a minute. Data compression techniques improve the efficency of transmission by reducing the number of binary digits that need to be transmitted. Digital compression may, for example, allow the transmission of a picture element by encoding its distance from the last black to white transition in the current scanning line, instead of transmitting all the elements of the same colour in the line. The actual transmission time depends upon the amount of detail in the page, and it may range from a few seconds for an almost blank page to ten minutes or more for a photograph.

One weakness of the Group III standard was that transmission errors could only be corrected by repeating an entire page. The CCITT has recently added a footnote to the standard, permitting error correction by repeating sections of a page, but this requires substantial additional memory capacity at both ends and it slows down transmission considerably.

Parallel with the recent rapid growth in numbers of fax machines has been the development of computer graphics, scanning and optical character recognition (OCR) techniques. Fax pages can be sent or received by a computer, where they can be edited on the screen and stored as files or printed out. This is a useful facility for documents with pictures or diagrams, but it is less satisfactory as a method of handling text. Even the best OCR software has a typical error rate of several per cent and considerable manual correction is usually needed. It is in fact a transitional technology.

Group IV fax addresses the problem by transmitting text and graphical information separately and re-combining them in the final document. It is effectively a form of remote desktop publishing. This standard is however only suitable for use on public data networks and it is closely integrated with the X.400 and ISDN developments. Consequently its growth will be constrained by the availability of these carrier services.

Teletex

Teletex is an electronic service by which users may exchange correspondence on an automatic memory-to-memory basis. The basic unit is the page. Teletex, sometimes described as super-telex, is markedly faster than telex and uses the same protocol as facsimile Group IV.

Teletex was intended for international use, and compatibility between terminals was seen as an essential element in the service. The ITU Recommendations T60 series were agreed for this purpose. The mixt mode of operation with fax Group IV is now standardized.

Local Area Networks (LANs)

The most striking current improvements in telephone technology are in business uses, particularly in the systems known as Local Area Networks (LANs).

LANs may be defined as private networks which provide high-speed, normally high-bandwidth (i.e. capacity) switched connections between personal computers, larger computers, printers and other peripheral devices. Most LANs are connected by a "gateway" that translates between various sorts of standards and can thus communicate with other networks. LANs are one of the five key areas of research targeted by the EEC's ESPRIT (European Strategic Programme for Research into Information Technology) project. Considerable resources are also devoted to the development of LANs in Japan, where they are also seen as perhaps the most important component of the office of the future.

One important notion for the understanding of LANs and other advanced networks is packet switching. This is a method of routing data around a network so as to maximize the capacity of the system by minimizing the time that parts of the system are idle. Packet switching, which may be performed either at an exchange or at a terminal originating a message, splits the message into discrete packets, each of which contains the address for which the message is intended, and routes each separately for sorting and reassembly at the point of reception.

A local area network emphasizes several qualities, the first being that it serves some type of geographically proximate needs such as linking an office, the buildings in an industrial complex, or offices located in a particular city or region. Another feature is that this network is purchased or leased for the sole use of its owner or client and is not a common carrier (although the owner may choose to sublet services on it). Many local area networks are "broad band" in that they are designed to accommodate voice, text, and image transmissions.

A trend in local area networks is to expand their range of operation, as, for example, a business that is housed in different parts of a city. Further, when users of the local area network wish to connect to the long-distance telecommunications network, they now have the opportunity to circumvent the local common carrier. This is called "bypass" and is a controversial issue in the deregulation of the telephone industry as, in the public view, it lessens financial support for the development of powerful and widely available common carrier networks. The addition of a satellite transmit-receive earth station to LANs could allow by-pass of the entire terrestrial Postal Systems Telephony Network (PSTN). The telecommunications administrations are by-passing themselves, by building so-called teleports to avoid the links between city centres and rather remote trunk earth stations, when connecting into international and regional satellite systems.

Mobile radio communications

Mobile radio networks may conveniently be divided into: (a) private systems, in which a certain range of frequencies is assigned by telecommunications authorities to a given utility service or industry; and (b) public systems, which are, in effect, extensions of the public telephone service. On such public systems, users can dial into and receive calls from the standard wire-carried service. We shall refer to the latter as mobile telephones.

While private services have been predominant until recently, the advent of cellular radio in recent years may shift the balance in favour of mobile telephones. Mobile telephones, which are mainly used in cars and other vehicles on land and in coastal areas, were an extremely unattractive proposition for consumers in most countries for many years because of a shortage of frequencies.

However, cellular radio opened up the airwaves for mobile telephones in developed countries in the early-to-mid-1980s. A cellular system in a city can easily handle 50,000 calls per hour. By contrast, the mobile telephone system operated by AT&T in New York City in the late 1960s could only handle twelve calls at once in the whole city. Cellular radio enables many users to make use of the same limited number of frequencies by dividing the area concerned into many hexagonal cells. Thus each cell (except those at the periphery of the area served) abuts six others. Each cell is served by a low-powered transmitter that is only strong enough to cover its own cell. These transmitters, or base stations, are interconnected through a central control station via land-lines, or, sometimes, microwave links. As a vehicle passes from one cell to another,

electronic switching equipment hands the call over from one transmitter to the next without interruption. When a base station receiver detects the weakening of a signal from a mobile telephone, signifying that it is leaving its cell, that information is conveyed to the central control station, which then allocates new frequencies for the call concerned. The frequency-range of the channel used by a given call will change from cell to cell. The frequencies used in the first cell will be in simultaneous use for different calls in many other, distant cells. Distant, in this sense, need not mean geographically remote: it is enough that no two cells using the same frequency for two different calls should be immediately adjacent. Cells are divided into blocks, usually of seven cells, for the purposes of frequency assignment; some systems use blocks of twelve cells. Such cells are usually a few miles wide but their area will depend on the amount of radio traffic in the area. When an area becomes saturated with mobile users, it is possible to redesign the area's system and break it up into smaller cells.

Various analysts predict that the United States will have 2 million cellular mobile telephones by the end of 1989 and Western Europe 1.1 million by that date. The pioneer system was the Nordic Mobile Telephone (NMT) system. The systems currently used in Western Europe are, mostly, incompatible from country to country, though France and the Federal Republic of Germany have a common system and so do the countries of Scandinavia with the NMT system. However, there are several trends towards standardization for passenger use, and several technological developments now under way promise to improve the service. Powerful, battery-run lightweight cellular telephones are being developed and marketed by several companies. A so-called "second generation" of cellular telephones should increase further the number of calls a given cell is capable of handling by transmitting and receiving their voice-data in digital form (which requires less bandwidth). Fast transmission of data between mobile terminals via the cellular radiotelephone network is also under development.

During 1987, several British and American airline companies, in conjunction with telephone companies and INMARSAT announced plans to begin radio telephone links to aircraft via satellite. Present air-to-ground telephones, such as the American Airfone system, work via VHF land beacons and can only be used when the aircraft is over land or not more than 200 miles (300 km) from shore. The United States, Canada, Japan and Australia are planning satellite land mobile services for the 1990s and it is predicted that many other countries and regions will follow. The proliferation of terrestrial cellular mobile systems is impressive but is, like ISDN, unlikely to reach everywhere. Satellites can fill in the spaces between the islands of the terrestrial systems in a flexible and evolutionary way.

Satellite services

Satellites in low-earth orbit (300 miles/500 km above the surface or less) can be used for reconnaisance, regional weather monitoring, and low-gravity experiments, such as space manufacturing. NASA's proposed space station is intended to be in low orbit. Medium orbit (7,000-8,000 miles/11,000-13,000 km above the surface) is used for navigational purposes, remote sensing of the earth's surface, missile early warning, and international meteorology.

The most useful orbit for communications purposes is precisely 22,238 miles (35,788 km) above the Equator. Satellites in this position are geostationary: they rotate at the same speed as the earth and are therefore always above the same spot. They can thus be permanently in view of, and hence in contact with, the ground stations which send and receive messages to and from them. There are currently some 133 communications satellites in geostationary orbit. They are used to transmit voice, data and video images internationally (though they are also used to bounce signals from parts of one country to another part of the same country), and to send television programmes around the world by using several satellites. Such "multiple-hopping" (the use of several satellites for one link) was used to carry the Live Aid pop concerts to half the countries of the world simultaneously on 13 July 1985. In the case of voice and data transmissions, satellites compete with undersea and other cables and with microwave links for traffic.

Earth stations and communications satellites communicate via extremely high-frequency radio signals (usually between 2 GHz and 30 GHz). Usually, two frequencies are used for each transmission via a satellite: one frequency to take the signal up to the satellite (the uplink) and one to send it from the satellite to another earth station (the downlink). The most commonly used frequency bands for communications are C-band (uplink 6 GHz, downlink 4 GHz); Ku-band (14 GHz, 11-12 GHz); L-band (1.6 GHz, 1.5 GHz). Use is now being made of the Ka-band (30 GHz, 20 GHz) by Japan. American companies and Europe will soon launch Ka-band satellites. This frequency band has the advantages of having much greater capacity than C-band and Ku-band and avoiding interference with terrestrial systems.

Over half of all transatlantic telephone calls are currently routed via satellite. The latest model Intelsat IV communications satellite has the capacity to carry 120,000 simultaneous telephone calls plus three television channels. One reason why it has such a high capacity is that it receives digital transmissions and thus can use time division multiplexing, which interleaves the signals from different earth stations at virtually the same time. When many satellites have the capacity to sort and switch signals in digital form, the capacity of satellites to handle large amounts of voice, data, fax and so on should increase considerably. Tables 2.1 and 2.2 provide a listing of communication satellites currently in orbit, and a roster of projected future launches.

Recent developments rely more and more on the inherent characteristics of satellites such as their ability to provide multiple access and distribution, the insensibility of their economies to distance, their wide-area coverage, their flexibility to traffic and network changes etc. Based on these characteristics and the recent availability of greater transponder power with more directional satellite antennas, many new telecommunication services are able to provide direct links between users' premises using very small aperture earth stations (VSATs). Considerable work has been done to ensure that satellite system performance standards meet requirements of ISDN. Therefore, it is envisaged that satellite networks will fulfil a similar important role within the ISDN.

IMO and the application of advanced radiocommunication techniques at sea

The International Maritime Organization (IMO), in co-operation with ITU, WMO, the International Hydrographic Organization (IHO), INMARSAT and the COSPAS-SARSAT partners, is reaching the final stage of preparation for the introduction of the Global Maritime Distress and Safety System (GMDSS) as the new system to govern emergency radiocommunications at sea. When it becomes operational, in the early 1990s, the new system will constitute the major component of the international maritime search-and-rescue plan IMO is developing in pursuance of its responsibility as the depositary of the International Convention on Maritime Search and Rescue, 1979.

The basic concept of the system is that shore search-and-rescue authorities as well as shipping in the vicinity of a distress and over-flying aircraft, will be immediately aware of a distress incident and be capable of being involved in a co-ordinated search-and-rescue (SAR) operation. This concept applies to all shipping regardless of geographical location. Additionally, the system will provide for emergency and safety communications, as well as the dissemination of navigational and meteorological information to ships.

The system will use both satellite and terrestrial communications. Satellite communications will be provided by INMARSAT and the COSPAS-SARSAT system. Through the latter, a warning capability by float-free satellite EPIRBs (Emergency Position Indicating Radio Beacons) will be provided by low near-polar orbiting satellites. Terrestrial communications will use frequencies in the MF, HF and VHF bands. It is envisaged that ships will no longer use Morse code radiotelegraphy but will employ digital selective calling (DSC), radiotelephony and narrow-band direct-printing (NBDP). The equipment to be carried on ships (including EPIRB satellites) has been designed for simple operation and will be largely automated.

Table 2.1

Communication satellites currently in orbit

Name	Organization	Launch Date	Scope	Footprint	Status	Observations
V (F2)	Intelsat	12/80	GL	Atlantic	IG	TV, Telecom, Radio
V (F1)	INTELSAT	05/81	GL	Pacific	IG	Telephony, TV
V (F3)	INTELSAT	12/81	GL	Indian Ocean	IG	TV
V (F4)	INTELSAT	03/82	GL	Atlantic	IG	TV, Telecom, Int. News Feeds
V (F5)	INTELSAT	09/82	GL	Indian Ocean	IG	Telephony, News Feeds, TV
V (F6)	INTELSAT	05/83	GL	Atlantic	IG	Telephony, News Feeds, TV
V (F7)	INTELSAT	10/83	GL	Indian Ocean	IG	News Feeds, TV, Telecom.
V (F8)	INTELSAT	03/84	GL	Pacific	IG	Telephony, TV, Newsfeeds,
V-A (F10)	INTELSAT	03/85	GL	Atlantic	IG	Telephony, Newsfeeds
V-A (F11)	INTELSAT	06/85	GL	Atlantic	IG	Telephony, TV, CNN, MTV Europe
V-A (F12)	INTELSAT	09/85	GL	Atlantic	IG	Video
V-A (F13)	INTELSAT	05/88	GL	Atlantic	IG	Telecom.
V (F15)	INTELSAT	01/89	GL	Indian Ocean Atlantic	IG	TV, Telephony, Data, IBS

Table 2.1-cont.

Name	Organization	Launch Date	Scope	Footprint	Status	Observations
GORIZONT 4	INTERSPUTNIK	06/80	GL	Atlantic, North Africa	G	Video, Telephony, Data
GORIZONT 7	INTERSPUTNIK	07/83	GL	Atlantic, North Africa	G	Video, Telphony, Data
GORIZONT 10	INTERSPUTNIK	08/84	GL	USSR	IG	TV, Telecom., Maritime, Telephony, Data
GORIZONT 11	INTERSPUTNIK	01/85	GL	Pacific, Eastern USSR	IG	TV, Telecom.
GORIZONT 12	INTERSPUTNIK	06/86	GL	Atlantic	IG	TV, Multichannel, Radio, Telecom., Video, Data
GORIZONT 13	INTERSPUTNIK	11/86	GL		IG	Data, Video
ARABSAT F1	ASCO	02/85	R	Arab States	IG	TV, Telephony, Data
ARABSAT F2	ASCO	06/85	R	Arab States	IG	TV, Telephony, Data
EUTELSAT F1	EUTELSAT	06/83	R	Europe	IG	TV
EUTELSAT F2	EUTELSAT	09/84	R	Europe	IG	TV, Telephony
EUTELSAT F4	EUTELSAT	09/87	R	Europe	IG	TV, Telephony
EUTELSAT F5	EUTELSAT	07/88	R	Europe	IG	TV, Radio, Telephony
MARECS A	INMARSAT	12/81	GL	Atlantic Ocean	IG	Maritime Telecom.
MARECS B2	INMARSAT	11/84	GL	Pacific Ocean	IG	Maritime Telecom.
TELE-X/VC SAT	NORTEL	04/89	R	Nordic Countries	IC	TV
OSCAR 27 & 28	INTERNATIONAL	09/87	GL	Global	P	Amateur Radio
OSCAR 13	INTERNATIONAL	07/88	GL	North America	P	Amateur Radio
AUSSAT I	AUSTRALIA	08/85	D	Australia/Papua New Guinea	G	TV, Telephony, Data
AUSSAT II	AUSTRALIA	11/85	D	Australia/Papua New Guinea/ New Zealand	G	TV, Telephony, Data
AUSSAT III	AUSTRALIA	09/87	D	Australia/Papua New Guinea/ New Zealand	G	TV, Telephony, Data
SBTS A1 /	EMBRATEL	02/86	D	South America	G	TV, Telephony, Data, DBS
SBTS A2 /	EMBRATEL	03/86	D	South America	G	TV, Telephony, Data, DBS
ANIK-C1	CANADA TELESAT	04/85	D	Canada	G	Telecom.
ANIK-C2	CANADA TELESAT	06/83	D	Canada	G	Telephony, TV
ANIK-C3	CANADA TELESAT	11/82	D	Canada	G	Telephony, TV, Radio, Telecom.
ANIK-D1	CANADA TELESAT	08/82	D	North America	G	Cable TV Services
ANIK-D2	CANADA TELESAT	11/84	D	North America	G	Cable TV Services
STW-1	CHINA	04/84	D	China	G	TV, Radio, Video
STW-2	CHINA	02/86	D	China	G	Telecom.
STW-3	CHINA	1988	D	China	G	
SATCOL II	COLOMBIA	1986	D	Central and South America	G	Telecom., TV
TELECOM F1 (1A)	FRANCE	08/84	D	France/Atlantic	G	TV, Video
TELECOM F3 (1C)	FRANCE	03/88	D	France/Atlantic	G	TV, Telephony
TDF 1	FRANCE	10/88	D	France/Europe	G	DBS, TV
INSAT IB	INDIA	08/83	D	India	G	TV, Telecom.
INSAT IC	INDIA	07/86	D	India	G	TV, Telephony
INSAT 1C	INDIA	07/88	D	India	G	Telecom.
PALAPA-B1	INDONESIA	06/83	D	Asean Countries	G	Telephony, TV
PALAPA-B3	INDONESIA	06/86	D	Asean	G	Telephony, TV
PALAPA B2P	INDONESIA	03/87	D	Asean Countries	G	Telephony, TV
AMS-2	ISRAEL	1986	D	Israel	G	TV
AMS-1	ISRAEL	1988	D	Israel	G	Telecom.
CS SAKURA-2A	NTT (JAPAN)	02/83	D	Japan	P	Telephony, Various Com.
CS SAKURA-2B	NTT (JAPAN)	08/83	D	Japan	P	Telephony, Various Com.
CS SAKURA-3A	NTT (JAPAN)	04/88	D	Japan	P	Telephony, TV
ETS-5 (Kiku 5)	JAPAN	03/87		Japan		
JC SAT 1	COM. SAT. CO (JAPAN)	03/89	D	Japan	P	Telephony
MOS-1 (Momo-1)	JAPAN	02/87	D	Japan	G	
SPACESAT I	SCC (JAPAN)	1988	D	Japan	P	
YURI-BS2A	NHK-JAPAN	01/84	D	Japan	G	NHK-TV Tokyo
YURI-BS2B	NHK-JAPAN	02/86	D	Japan	G	DBS, Radio
ASTRA	SES (LUX)	12/88	R	Europe	P	TV
MORELOS FI	MEXICO	06/85	D	Central America	G	Telephony, TV
MORELOS F2	MEXICO	11/85	D	Central America	G	Telephony, TV
ASC I	ASC (USA)	09/85	D	USA/Alaska/Hawaii	P	Televideo, Data, Facsimile, Telephony
AURORA I	ALASCOM INC.	10/82	D	USA/Alaska/Hawaii	P	Telephony, TV, Data, Video

Table 2.1-cont.

Name	Organization	Launch Date	Scope	Footprint	Status	Observations
COMSTAR D2	COMSAT Corp.(USA)	07/76	D	USA	P	Telephony, Telecom.
COMSTAR D3	COMSAT Corp.(USA)	1984	D	USA		Telephony
COMSTAR D4	COMSAT Corp.(USA)	02/81	D	USA	P	Telephony, Telecom.
GEOSTAR R 1	(USA)	03/88				
GEOSTAR R 2	(USA)	09/88				
SIMON BOLIVAR	PANAMSAT (USA)	07/88	D	Caribbean, Central and South America	P	Video, Telephony, Data
TELSTAR 301	ATT (USA)	07/83	D	USA/Alaska/Hawaii	P	Telephony, Video Services, Network Feeds, TV
TELSTAR 302	ATT (USA)	08/84	D	Caribbean, North America/Pacific	P	Telephony, Data, Video Services
TELSTAR 303	ATT (USA)	06/85	D	North America	P	Telecom.
SKYNET 4B	ATT (USA)	12/88				
SPACENET I	GTE-Corp.(USA)	06/84	D	USA	P	Video, Telephony, Data
SPACENET II	GTE-Corp.(USA)	11/84	D	USA	P	Video, Telephony, Data
SPACENET IIIR	GTE-Corp.(USA)	03/88	D	USA	P	Telephony
GSTAR A1	GTE (USA)	05/85	D	North America/Hawaii/Alaska	P	Telephony, TV (Interactive)
GSTAR A2	GTE (USA)	03/86	D	North America/Hawaii/Alaska	P	Telephony, TV (Interactive)
GSTAR III	GTE (USA)	08/88	D	North America/Hawaii/Alaska	P	Telephony
GALAXY I	HUGHES (USA)	06/83	D	USA/Alaska/Hawaii	P	Cable TV, Video Services
GALAXY II	HUGHES (USA)	09/83	D	Continental USA	P	Telephony, Data, Video Services
GALAXY III	HUGHES (USA)	09/84	D	USA/Alaska/Hawaii	P	Telephony, Data Services, Video, TV
SBS I	MCI (USA)	11/80	D	USA	P	Data
SBS II	MCI (USA)	09/81	D	North America	P	Business Services
SBS III	MCI (USA)	11/82	D	Continental USA	P	Video Services
SBS IV	MCI (USA)	08/84	D	North America	P	TV
SATCOM F1R	GE-RCA (USA)	04/83	D	North America/Hawaii	P	TV, News Feeds, Video
SATCOM F2R	GE-RCA (USA)	09/83	D	North America	P	Telephony, TV, Radio
SATCOM F3R	GE-RCA (USA)	11/81	D	North America/Hawaii	P	Cable TV, Radio, Data, News Feeds
SATCOM F4	GE-RCA (USA)	01/82	D	North America	G/P	Cable TV, Radio, News Feeds
SATCOM K1	GE-RCA (USA)	11/85	D	USA	P	TV, Commerc. Com.
SATCOM K2	GE-RCA (USA)	01/86	D	USA	P	TV, Commerc. Com.
WESTAR III	WESTERN UNION (USA)	08/79	D	USA	P	Telephony, Radio, TV, Facsimile
WESTAR IV	WESTERN UNION (USA)	04/82	D	USA	P	Telephone, TV
WESTAR V	WESTERN UNION (USA)	06/82	D	USA	P	Telephone, TV
WESTAR VII	WESTERN UNION (USA)	03/86	D	USA	P	Telephone, TV
GORIZONT 8	USSR	11/83	D	USSR	G	TV
GORIZONT 9	USSR	06/84	D	USSR, Asia, Africa, Europe	G	TV
RADUGA 14	USSR	02/84	D	USSR/Asia	G	Telephony, Telecom.
RADUGA 15	USSR	06/84	D	USSR/Asia	G	Telephony, Telecom.
RADUGA 16	USSR	08/85	D	Africa/USSR/Asia	G	Telecom.
RADUGA 17	USSR	09/85	D	USSR	G	Telecom.
RADUGA 18	USSR	01/86	D	Atlantic	G	TV, Radio Com.
RADUGA 19	USSR	10/86	D		G	TV, Radio Com.
RADUGA 20	USSR	03/87	D	USSR	G	TV, Radio
RADUGA 21	USSR	12/87	D	USSR	G	TV, Radio
EKRAN 12	USSR	03/84	D	USSR	G	TV, Radio, DBS
EKRAN 14	USSR	03/85	D	USSR	G	TV
EKRAN 15	USSR	05/86	D	USSR	G	TV, Relay, DBS
EKRAN 16	USSR	09/87	D	USSR	G	TV
EKRAN 17	USSR	12/87	D	USSR	G	TV
MOLNIYA-3(28)	USSR	04/86	D	USSR	G	TV, Multichannel, Radio Com.
MOLNIYA-3(29)	USSR	06/86	D	USSR	G	TV, Multichannel, Radio Com.
MOLNIYA-1(67)	USSR	07/86	D	USSR	G	TV, Multichannel, Radio Com.
MOLNIYA-1(68)	USSR	09/86	D	USSR	G	TV, Multichannel, Radio Com.
MOLNIYA-3(30)	USSR	10/86	D	USSR	G	TV, Multichannel, Radio Com.
MOLNIYA-1(69)	USSR	11/86	D	USSR	G	TV, Multichannel, Radio Com.
MOLNIYA-1(70)	USSR	12/86	D	USSR	G	TV, Multichannel, Radio Com.
MOLNIYA-3 (31)	USSR	01/87	D	USSR	G	TV, Multichannel, Radio Com.
MOLNIYA-3	USSR	05/88	D	USSR	G	TV, Multichannel, Radio Com.

Note: GL = Global; R = Regional; D = Domestic; IG = Intergovernmental; G = Governmental; P = Private

Source: Compiled by Unesco from trade magazines

Table 2.2

Projected satellite launches

Name	Organization	Launch Year	Scope	Footprint	Status	Observation
INTELSAT VI (F1)	INTELSAT	1989	GL	Europe	IG	Telecom.
INTELSAT VI (F2)	INTELSAT	198	GL		IG	Telecom.
INTELSAT VI (F4)	INTELSAT	1989	GL		IG	Telecom.
INTELSAT VI (F3)	INTELSAT	1990	GL		IG	Telecom.
INTELSAT VI (F5)	INTELSAT	1990	GL		IG	Telecom.
ARABSAT F3	ARABSAT	1989	R	Americas	IG	TV
ASIASAT 1	CITIC/C&W/HUTCHISON	1990	R	Asia	P	TV, Telecom., Data
EUTELSAT II-A	EUTELSAT	1990	R	Europe	IG	Telecom.
EUTELSAT II-B	EUTELSAT	1990	R	Europe	IG	Telecom.
EUTELSAT II-C	EUTELSAT	1990	R	Europe	IG	Telecom.
INMARSAT II F1	INMARSAT	1989				Voice, Teletype, Data, Facsimile, Maritime Com.
INMARSAT II F2	INMARSAT	1990				Voice, Teletype, Data, Facsimile, Maritime Com.
OLYMPUS	ESA	1989	R	Europe	IG	DBS, Telecom., Data, Televideo, TV, Telephony
ANIK E1	CANADA/TELESAT	1990	D	North America	IG	Telecom, TV
ANIK E2	CANADA/TELESAT	1990	D	North America	IG	TV, Telecom
DFS 1	F.R. GERMANY	1989	D	F.R. Germany	G	Telephony, Data, Cable TV
DFS 2	F.R. GERMANY	1989	D	F.R. Germany	G	Telephony, Data, Cable TV
TV-SAT 2	F.R. GERMANY	1989	D	F.R. Germany	G	TV, DBS
TDF 2	FRANCE	1990	D	France/Europe	G	DBS, TV
INSAT 1D	INDIA	1989	D	India	G	
EIRESAT	ATLANTIC SATELLITES (IRE)	1990	D	Ireland/UK	P	TV, Telecom.
ITALSAT 1 & 2	ITALY	1989	D	Italy	G	Telecom.
SARIT-1	ITALY	1991	GL	Italy	G	DBS, TV
JC SAT 2	COM.SAT.CO. (JAP)	1990	D	Japan	P	Telephony
ASTRA-2	SES (LUX)	1990	R	Europe	P	TV
BSB-1	BSB (UK)	1989	D	UK/Ireland	P	DBS
BSB-2	BSB (UK)	1992	D	UK/Ireland	P	DBS
ASC III	ASC (USA)	1990			P	Voice, Data, Facsimile, Video
AURORA II	ALASCOM (USA)	1989				Telephony, Data, Telecom.
FORDSAT 1	AT&T (USA)	1992	D	North America/Hawaii/Alaska	P	Telecom.
FORDSAT 3	AT&T (USA)	1993	D	North America/Hawaii/Alaska	P	Telecom.
GALAXY DBS 1&2	HUGHES (USA)	1989	D	USA	P	DBS
GSTAR IV	GTE (USA)	1990	D	North America/Hawaii/Alaska		Telephony
SATCOM K3	GE-RCA (USA)	1989	D	USA	P	Commerc. Com.
SATCOM K4	GE-RCA (USA)	1990	D	USA	P	Commerc. Com.
SBS VI	MCI (USA)	1989				
SKYNET 4C	ATT (USA)	1990				
MORYA	USSR	1989	R	Pacific Ocean	G	Maritime Com.

Note: GL = Global; R = Regional; D = Domestic; IG = Intergovernmental; G = Governmental; P = Private

Source: Compiled by Unesco from trade magazines.

Optical fibre communications

Cables made of optical fibre that carry digital signals in the form of light pulses are perhaps the most important developing communication technology for the carriage of voice, data and video.

Optical fibres are strands of special glass thinner than a human hair. Researchers are currently trying to reduce the absorption and dispersion of light as it is sent down the fibres by improving the cladding which surrounds the fibre. The signals to be transmitted down optical fibres are converted into digital pulses, then sent as "blinks" of light, emitted by a laser diode. Laser diodes can blink (i.e. switch on and off) hundreds of millions of times per second. This allows 6,000 telephone calls to be transmitted along a single fibre simultaneously (some experimental lasers have been shown to be capable of blinking 2,000 million times per second). At the receiving end, a photodetector receives the signals and converts them back into their original form.

By 1986, some 40,000 miles (64,000 km) of optical fibre had been laid around the world for communications purposes. AT&T expects all major exchanges in the United States to be linked by fibre-optic cables by 1990. Work has started on the first transatlantic fibre-optic cable, called TAT-8. Further links are planned between California, Hawaii, Guam, Japan, Australia and New Zealand. A submarine fibre-optic cable has already been laid between the United Kingdom and Belgium under the North Sea. At present, the United Kingdom is Europe's largest market for optical fibre, although experiments are under way in many European countries. Japan's NTT aims to run optical cables into every home eventually and plans to spend $80,000 million on the project over the next 15 years.

Although optical fibre has become markedly cheaper in recent years (a metre of fibre cost $3.50 in 1977 against less than $0.25 now) while improving in quality, the other components of an optical fibre network, such as detectors and receivers, remain expensive. There is still plenty of room for improvement in optical networks. One main area of development and research is coherent-light detectors and transmitters, which handle tightly-defined wavelengths. Today's commercial optical networks use relatively crude transmitters that produce a jumble of scattered wavelengths. Coherent wavelength signals would enable signals of many (perhaps 10,000) different wavelengths to be sent down a single fibre simultaneously, to be sorted out by a tunable receiver at the other end.

Information technology

Computers

Historically computer development is divided into five generations. The first generation used vacuum tubes and early examples of computers were the ENIAC all electronic computer (1946) and EDSAC (1946) which had a high-speed memory. The second generation of computers of the 1960s used transistors as switches in central processing units but still had magnetic main-core memories. The invention of the silicon chip in the 1970s opened the way for radical improvement, and the third generation was more compact with integrated circuits on chips. The fourth generation of computers, including microcomputers, utilizes large-scale integrated circuits, many miniaturized on one microprocessor as a central processing unit. Fifth-generation computers will (among many other functions) compress both the central processing unit and a large amount of high-speed memory into a very small compass.

It has been customary to divide modern computers into three classifications based originally on memory size and computational capability: microcomputers, minicomputers and mainframe computers. However, with new VLS (very large scale) integrated circuits and increased memory for the microcomputer, these conventional classifications have less meaning.

The micro-miniaturization of computer components, economizing on materials and power consumption, has made it possible to produce microcomputers which are capable of handling much more information than the massive early models and the drop in their production costs (and consequently their purchase price) has brought them within the reach of many organizations and individuals.

Quite apart from the rapid growth of data bases as commercial services (for example, in banking or shopping by telephone link to appropriate data bases), there is a marked increase in the use of micros and home terminals linked to centralized data bases. The announcement by IBM of a new personal computer, at a price which is comparable to, say, the cost of a small family car, and which possesses 1.6 gigabytes of memory, opens up new possibilities for home businesses and research.

The recent market strategy of IBM, which set the standard for office use of personal computers, is to integrate its personal computer line (PS, for personal system) into the architecture of mini- and mainframe computer networks. If this is successful, we may see the future personal computer much less as an independent machine than as one that allows for both "stand-alone" as well as network computing.

Meantime, the PC-only market has broadened to a variety of clones from both large and small manufacturers, based on the 8,088 chip–now all but abandoned by IBM. A smaller number are designing microcomputers based on the 80,286 and 80,386 chips which are also used in IBM's PS models.

Today's supercomputers are essentially advanced versions of ordinary computers, and the drive to improve their performance is encountering fundamental physical barriers. One after another, supercomputer makers are discarding the engineering principle that for the past 40 years has been the foundation of virtually all computers. As outlined in 1946 by mathematician John von Neuman, a computer's central processor gets its instructions and its data from a main memory step by step, pausing after each step to send its results back to the memory. All this happens at what is in human terms a blinding speed. But the frequent delays as the processor waits for the data to come and go are considerable for a system that measures time in billionths of a second. In the past, engineers minimized the problem by making the transistors on the computer's integrated circuits smaller and packing them closer together. But the more transistors on a chip, the more heat they generate, and unless this heat is removed, the circuits will melt. To cool some contemporary supercomputers, these chips are immersed in a liquid refrigerant.

Computer makers are now turning to multiprocessor computers. The latest supercomputers already have a handful of processors operating in parallel, and a few machines have scores of them. Tomorrow's multiprocessor giants will routinely have thousands, even millions of parallel processors.

Assigning a large number of processors to tackle different parts of a task allows computers to attain fantastic speeds. Although many contemporary computers have exceeded the speed of a million operations per second, some of these attaining six million, it might be possible to reach a trillion by the 1990s.

With machines 1,000 times faster than today's supercomputers, one might think that the thirst for computing capacity will soon be satisfied. Only about 35 supercomputers were sold worldwide in 1984, and the total number that exists barely reaches 100. Most projections for the next decade call for annual shipments to increase to approximately 200 supercomputers or more. One of the major barriers to development of parallel processing is that it requires an entirely different type of software, since most existing programmes are geared to serial programming.

Input procedures

The human input to computers has traditionally been via keyboards, but with the advent of videotex, teletext and cable television systems the keypad has been introduced. Another input device is optical character recognition (OCR) which works by scanning text line by line with intense light. Each black character is electronically recorded and the shapes are compared to images the machine is programmed to identify. Each match results in a code being stored and later recalled for printing. Developments allow direct conversion of text into digital form, thus speeding up input of documents into word processing systems and later manipulation. By automatically scanning text optically and sending it to a host computer the time involved in re-keying text is eliminated.

A new concept in the information industry is that of the "compound document" which can include information in any form–text, images, voice and data. Voice processing procedures include speech recognition, voice synthesis, and store and forward voice switching. Work is in progress on voice input to computers, and speech-activated typewriters may be commercially produced in the not too distant future.

Special interfaces

In both Europe and the United States, special interfaces have been designed to enable blind and poor-sighted persons to interact with a computer or microcomputer. To address the computer, braille keystrokes are converted by an electronic interface to the ASCII alphabet readable by the micro-processor. To read what is presented on the screen, the blind person touches a special reader, called by some manufacturers a "braille window". (It is a 35 cm long bar whose braille pins are activated by the interface that reads the ASCII on the screen.) There is also a wide range of braille printers, of varying quality and speed, that can provide embossed braille copies of texts or designs output by the computer. These range from $4,000 for the cheapest to $15,000 for the more sophisticated models.

Artificial intelligence

The concept of artificial intelligence (AI) refers to the design of intelligent computer systems: that is, systems which exhibit the characteristics commonly associated with human intelligence–understanding natural language, the ability to solve problems, learning, logical reasoning, etc. Computers are capable of handling forms of reasoning and problem-solving that can be

clearly broken down into logical steps, and artificial intelligence concentrates on the development of these systems. An early use of problem-solving AI, based on the principles of search and problem reduction is the "computer-chess" game. AI techniques have been used to develop methods for searching information in a data base and testing the validity of generalized statements ('theorems'). This technique has been extended to include monitoring the acceptability of these statements as information is added to the data base.

Another application of artificial intelligence is the understanding of natural language. This application is of fundamental importance to information systems. If all the inherent problems could be solved, computers could receive natural language as input and translate this input into machine language, or even other natural languages. Another application related to this concept is the field of visual pattern recognition. If computers could receive input by recognizing objects (e.g. via television cameras), this would clearly influence the flexibility of information input.

For many years, artificial intelligence was an esoteric field of research mainly pursued for theoretical ends. However, in the 1980s, AI techniques began to be used for practical applications where human expertise and reasoning power that had been "captured" by the computer could now be applied to problem solving. With the availability of several AI programmes on disc for current microcomputers, the use of AI is beginning to spread.

Expert systems

One such application is the expert system, which combines the storage capacity of the computer with the ability to imitate the thought processes of a human expert. On the basis of a set of rules and instructions the expert system decides which items of information are needed, and repeats this decision process until a conclusion can be reached. Some expert systems are in use at the moment, the most advanced being in medical diagnostics and in geological prospecting and the detection of oil deposits.

Communication technology and archiving and reference services

The new technologies have already had their effect upon storage, retrieval and distribution of reference and archive material and may in future offer radical alternatives to the existing systems. Developments in this field are of interest not so much to the individual user of information media as to the specialist (planner, researcher, librarian, archivist), but as such they can also have a marked impact upon access to data that is significant in futures planning, in programming and in the management of media materials.

In this section, the areas of audio, video and general information storage and retrieval are dealt with successively.

Audio

Archivists have been increasingly concerned with the preservation of sound recordings over the past 30 or so years. By the early 1980s, however, the issue was becoming pressing. While LPs could be expected to last a considerable number of decades, most archivists reckoned that they could not be played more than three times before a copy had to be made so that the original or master could be adequately safeguarded. With the arrival of Pulse Code Modulation (PCM), the first generation of digital audio, the situation with regard to available options changed abruptly. PCM video digital audio recorders have proved efficient, economical and effective in comparison with comparable analogue equipment (for instance, two hours of Betamax tape can be spooled in under one minute). Even though their total life span may prove to be only about 15-20 years, this seemed still more than sufficient to have justified their adoption. Present maintenance guarantees from the manufacturers extend to 1998.

PCMs had another striking advantage, namely that the measure of manipulation of sound now available far exceeded that previously possible. Around 1983/84, it became possible to introduce new techniques for the restoration of deteriorated sound recordings which opened up new vistas in the re-issue of old records and, of course, in broadcasting. Building on this base, advanced algorithms have been written for the computer treatment of many imperfections often found in old recordings, such as clicks from scratches or cracks, and excessive surface noise. By 1989 it is already possible to restore many conditions in close to real time; by 1992 it is expected that almost any audio defect from reverberation to air conditioning hum, from distortion to tape hiss, will be eliminable in real time. It is possible that the preferred convenient carrier for such restoration will now gradually switch from digital audio/video tape, such as Betamax, to DAT.

It is not sufficient to introduce a new medium of holding sound, namely DAT, and then rest content with the archiving of tape which may last only a few decades without re-copying. However, one of the most recently developed of all optical discs–that of Plasmon in liaison with PA Technology–claims to have a life span in excess of 500 years without low temperature or special

storage. A second series of artificial ageing tests should be completed by early 1990. In their audio role these discs will interchange with domestic DAT cassettes or professional open-reel digital audio tapes to whichever of the three sampling standards is required. They will also be able to hold colour photographs in immediate association with sound and in one version will be interchangeable in length with compact discs.

Audio archivists already face serious deterioration not only with wax cylinder acetates and amberols, but also with 78-rpm records and some early audio tapes. So large an industry has grown up in re-issuing earlier recordings that the need to restore them has itself become a major preoccupation. A great deal can be done with traditional, analogue equipment and conventional filtering, but it was the advent of digital audio that opened the door to the real manipulation of sound.

Similar ethical questions arise in restoring a sound recording as in the restoration of a work of art, if it is claimed that whatever is done must be solely directed towards restoring the original sound and not amount to enhancement. In the latest audio restoration systems such as those being developed for the National Sound Archive in London by Cambridge University, at the Austrian National Sound Archive in Vienna and at Syracuse University in New York State, it is possible to merge two identical recordings and automatically eliminate defects and imperfections.

Although the advantages of digital audio formats are very considerable and already being capitalized by many archivists, there is still a body of opinion, especially strong in the United States, which believes in sticking to analogue open-spool tape until a clear digital audio leader emerges. They talk in terms of "investigating and experimenting" with possible systems but they are too concerned with problems of obsolescence to wish, at present, to adopt any digital audio standard. As already stated, obsolescence, whilst a real problem is not so serious that is cannot be contained. Indeed to many archivists there are no valid reasons for losing, probably for more than a decade, the great archival advantages of the digital approach.

The latest developments in audio editors or "sound stations" are highly sophisticated computerized machines with very wide capabilities in the mixing, "stretching" and editing of sound–all without the operator moving from his console.

Video

The protection of video tape has mainly centred on the use of special containers for its transportation, designed to ensure that it is immune from any danger of erasure on account of magnetic fields to which it may happen to be exposed. In fact, some decades of experience have shown that risks of such damage have been greatly exaggerated.

Although VHS is usually regarded in Europe as an amateur-only gauge, in much of the rest of the world it has been used extensively for such tasks as general news gathering and recording cultural activity. Even in the West it is widely used for such purposes as popular music video which, as a part of our growing cultural heritage, deserves to be archived. There is thus now considerable interest in copying VHS, through a suitable time base corrector, on to a permanent and thoroughly durable medium such as platinum and polycarbonate discs since VHS copies badly by routine means. However, copied with appropriate equipment, VHS fully justifies its permanent archiving.

Nevertheless, the retention of video tape over the long term is likely to depend upon copying, and since video tapes are almost invariably in analogue form, this necessarily means loss of quality. For the archivist therefore, the arrival, around the mid-1990s, of generally available and competitively priced digital high-definition video will mark a watershed, though it may still be that the optical disc will provide a more convenient long-term archival medium for video as well as audio. In 1987, a full range of equipment including video tape recorders (VTRs) came on to the market to process video in digital form, on present broadcast standards, for professional application.

However, although Philips originally promoted their Laservision discs, in part at least, by claiming a virtually indefinite life, as well as near immunity from damage in handling, it soon became apparent that the discs themselves were not as safe archivally as originally supposed. Indeed by 1982 Philips was declining to give a guarantee of longer life than about ten years, though, granted careful handling and good storage conditions, they expected them to last for at least several decades. As the discs are normally pressed from metal masters, the possibility exists of archiving these masters rather than the discs. Already this is sometimes done in the case of gramophone records. These discs are analogue but it is known that experimental digital forms have been produced; nevertheless, the entire system remains in doubt whilst failures continue to occur with their present frequency.

Archivally, the video system of the future seems likely to be a development of the platinum and polycarbonate disc. One of the striking applications of platinum optical discs, covering both archival and access needs, is their location in racks with mechanical retrieval mechanisms transporting them to reading heads whenever requests arise at an associated data base. Already the National Archives of the United

States have a juke-box-like retrieval and storage system for certain optical discs being brought into operational use, while one British juke-box manufacturer has very recently placed on the market a machine to take 60 compact discs. Moreover, at least one broadcasting company in the Federal Republic of Germany uses mechanical retrieval and supply of audio cassettes to broadcast programmes on an almost completely automated basis.

Film and photographic

Many film archivists have had the foresight to recognize the potential of video tape to protect their films and now pursue a regular policy of using video-tape copies as access copies, so as to minimize wear and tear on optical originals. Yet though film has lost a very considerable amount of ground to video, still photography remains firmly rooted in optical rather than electronic media of record. Arguably the most stable of all audio-visual forms of record known until the advent of the new platinum and polycarbonate discs was the silver halide image. Some archives still prefer black-and-white separation negatives for blue, green and red for the long-term archival storage of all really important holdings, in spite of the high costs involved.

Vast strides have been made in the 1980s in the stability of colour images in both film and still photographic material; even so, untold damage can be done to colour dyes if film is allowed to come into contact with air-polluting gases. Where archives possess colour films of the 1970s and earlier, the risks of serious loss of colour both through fading on exposure to light and when contained away from the light, are so great that consideration must be given to copying more important items on to modern stock.

In the mid 1980s, concern began to arise about the self-destructing property of cellulose triacetate as well as cellulose nitrate film stock. Until 1987 it was thought that this was confined to cellulose triacetate incorporating traces of cellulose nitrate in its manufacture. Now it is believed that all cellulose triacetate stock is self-destructing. The "vinegar syndrome", as it is termed, is accelerated by the use of less suitable containers such as metal or plastic and can be minimized by the use of glass or polycarbonate boxes. Nevertheless, recent detailed tests in the United Kingdom have suggested that the maximum life expectancy from cellulose triacetate in the most inert containers may be only about 130 years. These findings, which have shocked the archival world, may accelerate the changeover to video formats. Although a research group at Manchester Polytechnic Faculty of Science and Engineering has recently announced that a cure has been found, the long-term ideal for the film archivist may finally be television-standard long-life video-discs or HDTV standard.

For still photographs the archivist has a wider choice available to him than the cinematographer. He can, for example, elect to use instant Polaroid film, and recently Polaroid have brought out a special film especially for archival use which is claimed to be exceptionally stable and certain to last for a very long time.

The conservation of still photographs involves both ensuring that an adequate master negative or print survives indefinitely in the best possible state, and that access to an adequate print is available. Long-term access to photographs through access or reference prints in albums for manual consultation is expensive to sustain. As a consequence, there has long been keen interest in alternative systems for viewing as, for example, in the late 1960s and 1970s, transparencies stored in magazines for viewing in auto-projectors. None of the many systems marketed has over-commended itself, with the result that since Philips introduced their Laservision disc in the late 1970s, this has seemed to offer an attractive alternative for many major archives where the considerable capital investment required can be justified.

International co-operation in the field of audio-visual archives

Much of the work being carried out in audio-visual archives involves the international non-governmental organizations active in these fields, namely: the International Association of Sound Archives (IASA); the International Council of Archives Committee for Audio-visual Archives (ICA-CAV); the International Federation of Film Archives (IFFA/FIAF); and the International Federation of Television Archives (IFTA/FIAT).

Since there is considerable overlap of expertise in the archiving of the various audio-visual materials, the four NGOs have organized an inter-NGO Technical Committee, called the Catalyser Group. One of the chief aims of this committee is to maintain an open and regular dialogue between the audio-visual archives, the industry and the international standards committees.

Information storage and retrieval

The storage and retrieval of information that would, in earlier generations, have been preserved in print form is also undergoing radical change as a result of the new technologies, and many of the references made earlier in this section have, or will have, a direct impact on this

field. For example, as reported above, optical discs and CD-ROM discs store data (which may be in the form of encoded characters or document images) written on to the discs by high-power lasers. Although actual sales of data bases and publications on CD-ROM are as yet very low, publication projects on CD-ROM are proliferating rapidly. R.R. Bowker, the bibliographic information publishers of New York and a subsidiary of Reed Publishing, are issuing *Books in Print*, claimed to be the world's biggest single source reference for English-language titles in print with almost three-quarters of a million entries on a single CD-ROM disc. The Netherlands-based publishers, Elsevier, are committed long-term to the provision of their *Embase Excerpta Medica* data base on CD-ROM.

Data base development

Throughout the 1970s and 1980s the number and size of data bases available on-line have grown considerably, as has the size of the files available. Simultaneously, access has been improved and the cost of access reduced by linking computers via time-shared telecommunication channels. Access to many on-line data bases normally goes through information hosts, the largest being Dialog and the Pergamon-ORBIT-Infoline Systems.

Data bases (sometimes called data banks) contain some combination of numerical data, natural-language text, or bibliographic or source information: they are considered to be either bibliographic or factual. A third type of data base consists of the full text of the source material covered.

Bibliographic data bases contain bibliographic reference, source, some natural-language text (e.g. abstracts), and possibly numerical or representational data. Examples of such data bases are discipline data bases such as Chemical Abstracts Service (CAS), COMPENDEX (on-line version of the Engineering Index), BIOSIS (coverage of the world's life science information) and PsycINFO (on-line version of Psychological Abstracts); and mission-oriented data bases such as those created by the National Aeronautics and Space Agency (NASA) and the European Space Agency (ESA). In addition, there are problem-oriented data bases, e.g. Environment Abstracts and INPADOC (a patent data base produced by the International Patent Documentation Center); and multidisciplinary data bases like SCISEARCH (Scientific Citation Index of the Institute of Scientific Information - ISI) and SOCIAL SCISEARCH (Social Science Citation Index - ISI).

Factual data bases or data banks contain "hard" numeric or statistical data and examples are the Chemical Compound Registry of CAS; census data and a wide range of commercial data including stock exchange prices, commodity and price indexes, etc. In the United States information available on businesses in the country include Market Identifiers (companies which file, information with the United States Securities and Exchange Commission), Disclosure Company Data (Compustat II), shareholder reports (PTS Annual Reports Abstracts) and one of the most comprehensive information files collects and makes available all firms listed in the yellow pages of the telephone directories produced in the country (Electronic Yellow Pages).

Full-text data bases incorporate all the information given in the source material. Examples of this kind of data base are New York Times (containing the full text of the *New York Times*), NEXIS (containing the full text of about 100 newspapers, newsletters and journals), produced by Mead Corporation, and LEXIS which contains selected statutes, regulations, federal and case law, from the United States, United Kingdom and France.

The advance of computerized systems and the availability of large data bases for searching (e.g. CAS with over 7 million references available since 1967) has led to a large increase in the use of natural languages as a retrieval tool. Indexing by natural language is often cheaper and easier at the input stage than using authority files or thesauri. Major disadvantages of using natural-language systems are the problems involved in using synonyms and multi-meaning terms etc. which make the accessibility of information more complicated. Concept identification therefore becomes increasingly important and the role of words within the textual context has to be studied.

Automatic indexing is the term used for the automatic production of an index for documents in a data base. The most commonly used technique is extraction indexing, by which a document in machine-readable form is scanned by the computer and words are extracted which comply with a prescribed formula written into an extraction programme. This programme usually directs the computer to extract those words and phrases according to frequency, while using a stop list to eliminate common non-substantive words. A different form of extraction indexing uses relative, as opposed to absolute, frequency as the extraction criterion. This form of extraction indexing makes use of a form of "word weighting".

A different form of automatic indexing is assignment indexing. This method, which is less frequently used than extraction indexing, selects words in a similar fashion to extraction indexing, but instead of using extracted terms as index terms, the extracted

terms are used in conjunction with some kind of thesaurus to produce a list of index terms chosen from a controlled vocabulary list. This is a fixed list of terms used to index records for computer storage and retrieval. In on-line searching such a list is normally required.

Electronic document delivery

The new technologies are also contributing to the distribution of information by novel means. One of the first document delivery systems is Adonis, sponsored by the EEC and backed by a number of major Western publishers. The concept behind Adonis and similar systems dates back to the 1970s when it was thought that an increasing percentage of demand for scientific and technical material published in journals was being fulfilled by libraries supplying photocopies. The idea was that publishers themselves would offer an on-line demand service, using the latest technology to supply a service which should be better than that supplied by libraries using photocopiers. The intention was to transfer material to optical discs in a service which would commence in 1984. The new technology in the shape of CD-ROM disc and new facilities for document scanning associated with the European Patent Office changed the Adonis project. A trial of the new Adonis started in 1987, based on 300 journals in the field of biomedicine with several European libraries participating.

Meanwhile another document delivery trial involving new technology started in January 1987. With the heading "documents through space" the first demonstrations of the European Apollo (Article Procurement with On-line Local Ordering) system began. Using Apollo it will be possible to receive and transmit documents via small satellite receiving stations. Apollo is a joint project of the Commission of the European Communities and the European Space Agency.

Holography

A new form of data storage is holography, using laser technology to create holograms which can carry vast amounts of information in very small dimensions. Holography is another multi-media technology permitting not only three-dimensional representation of a two-dimensional impression, but also the inclusion of text and sound. It is very easy to produce holograms and it is possible to computer generate in just a few seconds a three-dimensional hologram of a two-dimensional engineering, architectural or medical drawing or structure. In principle, all the material in the American Library of Congress could be stored on a holographic medium the size of a sugar cube. The advantages of holography over optical disc storage are that the speed of access is very much higher (ten times as fast), the enormous storage capacity (it is claimed that holography can store twenty times the image capacity of optical discs), and the ability of being easily transmittable over optical fibre networks. Holograms can be used to store text, but also to serve as a memory bank of objects seen from different angles.

Unesco and endogenous equipment production

In recent years, Unesco's programme for the development of communication has included a new orientation: designing appropriate communication equipment with engineers of both industrial and developing countries, and facilitating the local assembly of this equipment. The programme seeks to maximize the skills and talent available in developing countries and to tap the resources of a growing network of professionals and institutions.

FM community radio

In response to numerous requests to establish low-cost radio systems, in 1982 Unesco assisted in the development of a prototype 10-watt FM transmitter, in co-operation with the Economic Commission for Africa (ECA) and the Voice of Kenya (VOK). An experimental community station was established in Homa Bay on the shores of Lake Victoria in Western Kenya, using local materials for the studio and for an antenna. A simple studio was put together using non-professional equipment and a mixer designed and assembled by a consultant with the technicians of the VOK. Homa Bay community radio broadcast some 30 kilometres along the shore of the bay, and to cover a shadow area for VHF propagation, an unmanned solar-powered relay station was designed to ensure the best coverage. This consisted of Unesco's 10-watt transmitter and receiver coupled to a solar panel with long-life batteries.

A second station was set up in July 1983 in Guirandurokotte, Sri Lanka, using the 10-watt transmitter assembled by the Sri Lanka Broadcasting Corporation (SLBC). In December 1986, its power was boosted with a prototype 100-watt amplifier designed and tested in co-operation with the technicians of the Mahaweli Community Radio. SLBC also assembled one transmitter for Radio Voice of the Maldives for their station in the capital, Male.

FM radio is appropriate to the Pacific countries as a low cost means of communication. During 1985-87, four FM community stations and a 1 kW shortwave (HF) link transmitter were established in Tonga, providing a basic network for the country. One station will be operating on solar energy and programme origination from some of these sites is also envisaged in the future. The entire Tonga FM radio system costs less than one tenth of the proposed budget of a 10-kW medium-wave system.

In Niue, a Pacific island under the administration of New Zealand, two FM transmitters cover the entire island. Similar community stations have been established in Apam in Ghana (the first of three stations) and Burundi, and solar-powered stations have been installed on an experimental basis in Jamaica, Saint Vincent, Saint Lucia and Guyana in the Caribbean. Other FM stations are being planned in Bhutan, Gambia and the Philippines.

In Benin, the West African News Agency Development project (WANAD) uses this FM transmitter tuned to 150 MHz (in conjunction with an appropriate interface system) to send dispatches to subscribers in Cotonou.

VHF/FM receiver assembly

Realizing the cost of commercial radio receivers and the difficulties of constantly replacing batteries in remote and isolated areas, British, Chinese, French and Ghanaian engineers co-operated with Unesco at the end of 1984 on the design of a low-energy-consumption VHF/FM radio receiver, powered by photovoltaic cells, using a small solar panel of 10 x 10 cm. The design is based on an integrated circuit and is highly simplified for local assembly. Porsche Design prepared the prototype receiver housing, based on studies of environmental conditions, ergonometrics and cultural considerations. The first 200 sets are being prepared for experiments in several countries, prior to elaborating a full manufacturing routine.

Broadcasting organizations in Bhutan, China, the People's Democratic Republic of Korea, Sri Lanka and Zambia have expressed interest in this project. Two broadcasting organizations have already requested the addition of a medium-wave and a short-wave tuner to the apparatus, thus making it more adaptable to their particular countries.

Satellite earth stations

In co-operation with international and regional intergovernmental satellite organizations, preparations have been made for a series of experiments in 1989 with their compact portable satellite earth stations, in order to design low-cost versions adapted to the conditions of developing countries (e.g. for use by journalists on mission, to communicate with their headquarters from remote areas without telecommunication facilities).

Electronic data transfer (EDT)

In view of the great potential value of modern data communications to developing countries, and of the need to introduce this technology as soon as possible, Unesco has supported the development of a simple but powerful Electronic Mail system which is specifically designed for their needs. Based upon low-cost purpose-designed hardware at each station, the system makes very efficient and reliable use of short international direct-dialled telephone calls, even over poor-quality lines. It operates with any type of office computer, and does not require that the computer be left running. The units are autonomous, not needing any central facilities. Unesco has now tested the system in over 20 countries. It is a transitional technology which will eventually be superseded by the spread of public data networks, but this may be a decade or more away in many countries. It is providing at minimal expense a service which could not currently be implemented in any other way. Starting in 1986, engineers in Sri Lanka have been assembling the Mailbox hardware themselves.

Experimental electronic data transfer networks are being set up for scientific data exchange with the Arthur Clarke Centre for Modern Technologies in Moratuwa, Sri Lanka for data transmission between the administrative and technical offices of the International Radio and Television Organization (IRTO/OIRT), the Union des Radiodiffusions et Télévisions Nationales d'Afrique (URTNA), and with news agencies in selected countries. A pocket-size EDT accessory is now available to allow journalists to reach their headquarters through any telephone network.

Microcomputer applications

Electronic scripts

In the modernization of printing for newspapers and books, one of the key needs is the facility to write the national language scripts electronically for use on a microcomputer for composition or transmission. In 1986, Unesco assisted the Maldives in the programming of their national script in C language which was then compiled to MS-DOS for use on IBM-compatible

microcomputers. The C programme allowed for adjustment of the slant and size of characters in conformity with the national script approved by the Ministry of Education. Further refinements of the software will facilitate composition of books and newspapers for the offset printing industry and for electronic data transmission.

Based on this experience, similar projects are being planned for the electronic representation of Dzongkha, Nepali, Lao, Korean, Sinhala, Urdu and other languages.

Audio-visual data bases

In response to new forms of multi-megabyte memory storage, Unesco recently upgraded Micro CDS/ISIS (originally designed as a bibliographical data base) to enable networking and management of extremely large data bases. Version 2 now supports 16 million records (as opposed to the original 32,000).

In co-operation with the International Federation of Film Archives (IFFA/FIAF, Brussels), Cinemateca Brasileira (São Paulo), and Unesco's Office of Public Information, one regional and two international data bases were prepared for film and video libraries, and tested using Micro CDS/ISIS.

Regional developments

In the regional survey that follows, an extremely condensed account is given of technological developments and programmes specific to individual world regions. In view of the extensive references made to Europe and North America in the previous subsection, they are omitted from this account.

Africa

Many of the most recent developments in communication technology, including video-cassette recorders, satellites, stereo radio broadcasting, colour television transmission, digital telephony and telex facilities, have now penetrated sub-Saharan Africa, but diffusion of new technologies is sporadic and generally confined to large urban centres.

PANAFTEL, the Pan-african Telecommunications Network, represents an attempt to introduce appropriate technology into the region so as to enable African countries to be linked directly via broad-band microwave radio, submarine cable and satellite communication systems. Although hampered by resource constraints, by the end of 1986 about 43,000 kilometres of transmission links, of which 35,000 kilometres are microwave and 8,000 submarine cable, had been installed, supplemented by earth satellite stations in 41 African countries.

A Feasibility Study on a Regional Satellite Communications System (RASCOM) for the development of Africa has also been launched, with the goal of providing an efficient and economic means of telecommunications to all areas of African countries using appropriate technologies.

There is however very little transfer of the know-how, skills and capacity necessary to manufacture communication equipment in the region apart from the Unesco programmes cited above. What exists in the form of technology transfer is mostly training of local technicians and engineers in equipment usage and management, equipment maintenance and repair and equipment specifications. There is some low-level assemblage of radio and television receiving sets from imported components in local subsidiaries of transnational corporations in Ghana, Kenya and Zimbabwe, among others.

Two intergovernmental organizations in Africa have been specifically concerned with the diffusion and application of communication technology. The Pan-African Telecommunication Union (PATU) is an intergovernmental organization established in February 1978 as a specialized agency of the OAU. It is based in Kinshasa, Zaire, and its membership is made up of Member States of the OAU.

PATU's activities have mainly focused on the Pan-African Telecommunications Project (PANAFTEL) in the areas of implementation, operation, maintenance, tariffs, management and training. It has also been concerned with radio propagation studies in Africa; promotion of manufacture of telecommunication equipment in Africa; and inter-state co-operation and participation in conferences and meetings relevant to the development of telecommunications in Africa.

The Union Africaine des Postes et Télécommunications (African Posts and Telecommunications Union) (UAPT) is another intergovernmental organization in the area of telecommunication, and consists of posts and telecommunications corporations in French-speaking African countries. It was established in 1961 and its main activities have centred on research on tariffs and regulations and the creation of multinational training schools and coordination of training practices. It publishes *Revue UAPT* and informational booklets.

Arab States

This region has absorbed a considerable amount of new communication technology, notably in countries with high oil revenues. The collective resources of the region enabled it to invest in Arabsat, the Arab League's regional satellite system. Arabsat offers a range of services to Arab League Member States, with a footprint reaching from the West African Atlantic coast right across to the Indian Ocean. Arabsat provides for two television channels, telephony, mobile and data communications. This satellite system comprises three satellites: Arabsat 1 which reached its permanent orbital position in February 1985: Arabsat 2 which reached its orbital position on 18 June 1985; and Arabsat 3 which was completed in May 1987 to serve as a spare to be launched if either of the orbiting satellites breaks down. The system is run by the Arab Satellite Communication Organization which was formed in 1975.

With its huge beam spanning countries across several time zones it will be possible for Arabsat to broadcast programmes for 16 hours a day. Three types of ground receiver have been envisaged: a professional version for television relay stations, which might then rebroadcast over a region; and two smaller versions for individual use, one a straightforward receiver with an optional decoder unit, the other for use in the desert, which could use solar power coupled with batteries for use at night.

The Arabsat satellite system has two principal telemetry and uplink stations, one at the Arabsat base of Riyadh, and the other in Tunis, the headquarters of the Arab Broadcasting Union, which takes primary responsibility for television programming. The system includes a total of six uplinks.

In addition to the existing television channel, each of the Arabsat platforms will have a capacity of 8,000 telephone circuits. The system will also offer mobile services to remote regions. There are plans for emergency services such as disaster relief management and telemedecine to remote sites, and videoconferencing will also be among the payload's capabilities. Data banks may eventually be linked by data transfer throughout this Arabsat system.

A few months after the first Arabsat satellite was launched ASBU activated the ARABVISION system to encourage daily exchange of television programmes and information among the different Arab television stations.

The use of space, whether through Arabsat or the international satellite networks to which most Arab countries are linked, cannot entirely substitute for ground-based projects. In spite of its importance, space communication will not meet the growing needs in some regions; moreover, ground-based links between neighbouring states will often be economically more feasible. Thus, special importance is attached to the execution and completion of the Middle East and Mediterranean telecommunication network project which was launched in 1974 with the technical support of ITU. A major part of the network has already been finished and some links are in the process of completion. These links could make major facilities available for information exchange, particularly through television.

Asia and the Pacific

Asia and the Pacific are characterized by a great variety of nation states, enormously varied in size, population and economic potential.

Japan's role as a world leader in technological development is preponderant in the region, while several other countries like Hong Kong, Indonesia, Malaysia, Singapore and the Republic of Korea are rapidly mastering innovative communication technologies. India and China are concentrating heavily on developing endogenous technological capacity in the sector.

The two other high-income states of the region, Australia and New Zealand, can be considered as fully integrated into the same kind of communication systems as link European and North American nations.

Regional satellite technology

Perhaps the most widespread regional application of communication technology consists of various national and regional satellite communication and broadcasting systems. Each of these has undergone significant adaptations in order to suit the particular needs of the region.

Japan launched its CS-2 communication satellites in 1983. Since then, the satellites have been used by NTT, the Japan National Railway, electric power companies and government agencies such as police and fire departments for remote island communication and emergency communication. Video and digital communication services for high-speed data and facsimile transmission using CS-2 started in February 1985.

Also using CS-2, the Japanese Ministry of Posts and Telecommunications has been conducting experiments since 1983 on the following items: (a) a network for computer communication, including integrated digital communication in two local area networks, and television conferencing; (b) transmission of newspaper pages and; (c) distribution of television programmes to cable television stations. The telecommunications

reform of April 1985 enabled private companies to launch communication satellites and use them for business. Two companies had received licences by June 1985. Many new services using communication satellites are expected to develop.

Direct satellite broadcasting in Japan has developed in four stages. The first experimental broadcasting satellite was launched in 1978. The second satellite (BS-2a) was launched in January 1984 and was designed for practical use with two colour television channels for NHK to eliminate "blind zones" in its general and educational services. Its other missions were to experiment with new technologies such as high-definition television (HDTV), pulse-code modulation (PCM), voice and facsimile broadcasting. BS-2a was the world's first high-power broadcasting satellite in regular service, and its signal can be received directly by households all over Japan.

Although BS-2a was launched in January 1984, due to a mechanical problem NHK could provide only one channel in 1984 and 1985. The back-up satellite, BS-2b was launched in February 1986 enabling NHK to provide two channels from December of that year. With BS-3, to be launched in 1990, satellite broadcasting in Japan will then reach its third stage, with two channels for NHK and one for a private organization. After BS-3, BS-4 with an eight channel capacity is expected to be launched in 1995.

Indonesia's Palapa domestic satellite system has been the single most important contributor to the country's objective of providing education and information programming for its 165 million people, inhabiting 13,677 islands spread over more than five million square kilometres.

The Domestic Satellite Communication System (DSCS)'s second generation Palapa B2P Satellite was successfully launched in March 1987. The higher sensitivity of this satellite has made time division multiple access (TDMA) transmission from small earth terminal stations more viable.

Following the success of the Indian Satellite Instructional Television Experiment (SITE), *India*'s first endogenous experimental geosynchronous communications satellite, APPLE, was launched in 1981 by the European Space Agency's *Ariane* launch vehicle. APPLE, which carried two communication transponders, generated the requisite technology for building sophisticated geostationary communication satellites; provided experience in orbit raising manoeuvres and maintenance and control of such satellites in the orbit; and created an opportunity to conduct several more application-orientated experiments of considerable potential.

INSAT-I series comprises four satellites I-A, I-B, I-C and I-D, all of them procured from Ford Aerospace of the United States. INSAT I-A was launched by an American rocket and I-B and I-C by the European Space Agency.

The second generation INSAT will provide an increased number of transponders for telephone traffic, better interconnectivity between locations and capacity for new services. The satellites are being designed to accommodate the need for regional services in television and radio broadcasting.

With the rapid expansion of satellite and telecommunication services in India, plans are under way by a number of public and private organizations and companies for installing satellite communication networks for corporate communication or for interlinking computers placed in remote sites. Besides the television, radio and telecommunication departments of the central government, the private sector newspaper, *The Hindu of Madras*, has already become India's first newspaper to use satellite transmission facilities for its Delhi edition. The Press Trust of India already uses satellite relays, computers and visual display terminals and news scan services for its operations.

China launched an experimental communication satellite in 1984. Since then, 53 ground stations have been set up. Two *Ariane* launches have been booked to launch satellites which will extend the Central Radio and Television University. Nearly 1.15 million students who would otherwise be outside the educational system watch television courses every day and nearly 2 million others have done so since the broadcast university started in 1979.

The China National Satellite Corporation has been established under the Ministry of Radio and Television. It is projected that 90 per cent of the population could have access to Direct Broadcast Satellite (DBS) reception by 1990, and China hopes to build a launch vehicle capable of carrying 4,000 pounds into geostationary orbit by the year 2000.

Aussat, *Australia*'s domestic telecommunication satellite, also seems destined to have a wide regional impact. It currently serves New Zealand and may ultimately serve other Asian states.

Information and telecomunication technology

While satellites have obviously been given high priority by governments in the region, virtually all of the latest communication technologies are being adopted and applied. Once again, Japan has been a leader in actually developing national technological capacity and applying it to modern communication networks, but many other Asian nations have recognized the

developmental potential of new communication technologies, adopting and adapting them to local needs. An interesting phenomenon in the Asian region is that many nations have been able to "leapfrog" many intermediate technological innovations and thus pass directly, for example, from older electro-mechanical telephone switching systems to the latest digital and ISDN systems.

Japan has developed extensive, varied and technically sophisticated broadcast teletext services. In 1979, the NHK Technical Institute developed a new transmission method for teletext called the "hybrid transmission method" (this is a technology which combines the pattern and the code transmission methods to overcome the chief disadvantage of the pattern method, namely, slow transmission speed). The Ministry of Posts and Telecommunications formally adopted this method in October 1985 as the standard for Japanese teletext services. An adapter for the new hybrid transmission method now costs about 100,000 yen (approximately $556). It is estimated that the diffusion of teletext receivers will grow from 0.5 per cent of all receivers in 1985 to 21 per cent in 1990.

Japan's public videotex system CAPTAIN (Character and Pattern Telephone Access Information Network) was jointly developed by the MPT and NTT. They created a new organization called the Association for the Development of the CAPTAIN System and started experiments in 1979 with about 300 information providers (IPs) and 1,000 users. In 1981 the number of users was expanded to 2,000; various modifications were made, and the experiment continued until July 1984.

In 1981 NTT announced its intention to construct a broad-band, integrated digital telecommunications network called Information Network System (INS). INS is a Japanese version of ISDN (Integrated Services Digital Networks), and it is to include all types of telecommunications networks and services. According to NTT's plan, integration of voice and data networks is to be completed in 1995, and integration with video networks by the year 2000.

In September 1984, a model INS system started operation in the Musashino and Mitaka areas (suburbs of Tokyo), which lasted until March 1987. Two thousand households participated in this experiment.

Parallel to the INS model system, and as another part of the implementation of INS, NTT started laying optical-fibre cables throughout Japan. The most important part of this network is a trunk line along the complete length of Japan, which was completed in February 1985. It is approximately 3,400 km long and connects 34 cities, with a transmission capacity amounting to the equivalent of 70,000 telephone circuits.

Malaysia has been a leader in the region in adopting cellular mobile telephone technology. The ATUR (automatic telephone using radio) system which was introduced in 1985 is part of an overall plan to double the number of telephones in the country and provides the nation with one of the most modern telecommunication systems in the region.

In 1976, the *New Straits Times* of Malaysia became the first newspaper company east of the Suez Canal to computerize its operations. By 1987 the NST had changed to a newer generation of computers, and following NST's lead, three other Malayasian newspaper companies have begun to computerize their operations, including the *Star* and the *Nanyang Siang Pao*.

In August 1984, BERNAMA, the Malaysian national news agency, was one of the first national news agencies in the world to be computerized and later became the first fully computerized national news agency in Asia.

A cellular mobile telephone service was also introduced in Thailand in 1986 in several metropolitan areas and the eastern seaboard region. By 1990, the service is expected to cover all areas nationwide.

Computer technology

Computer technology has also been extensively adopted within the region, and is being used, *inter alia*, for conservation and restoration work, livestock insemination schemes, census and agricultural data, narcotics control and policy-making and administration all over Asia.

Significant progress in the development of computer networks has been realized at the Computer Science Centre at the University of *Indonesia*, Jakarta. Starting with the development of a local network on the university campus in 1984, the Centre initiated a much larger project on a national scale. This project, known as UNInet, aims at linking 44 state-owned institutions of higher learning under the auspices of the Ministry of Education and Culture. It is designed to promote co-operation in education, research and administrative data processing. The first phase of the network, initiated in 1986, links up seven state universities.

India has established national and regional computer networks that seek to serve many users. As large systems are considered more cost effective, although thus beyond the reach of individual users, the government rationale is to promote such centres. Three computer networks have been established: NICNET to serve central and state governments; INDONET to serve public and service sectors, as well as commercial organizations; and EDUNET to serve educational and training organizations.

Latin America

Although highly receptive to new technologies, economic factors have slowed the adoption of many new technological developments in communication systems throughout Latin America and the Caribbean region. For example, although most major newspapers have converted to computerized editorial, composition and data-storage systems, many regional and provincial papers still use manual and traditional techniques.

Radio has achieved close to 100 per cent coverage of Latin America, and has by far the largest audience of any communication medium in the region. However, television runs the gamut in terms of coverage and technological sophistication. Satellite transmission in some countries contrasts with limited black-and-white broadcast facilities in a few others.

There is considerable disparity in the degree of sophistication of postal services, some countries still relying on manual sorting of mail while others offer modern facsimile services like Interpost and Telepost. Telecommunications services are also unevenly developed, although some countries are adopting the very latest technology, such as optic-fibre data networks. A videotex system was introduced in Brazil in 1982.

All the Latin American countries are associated with the Intelsat system. Mexico and Brazil, however, have progressively switched to their own domestic satellites.

Brasilsat I, the first *Brazilian* telecommunication satellite was launched on 8 February 1985 by the French *Ariane 3* rocket. Brasilsat I was built in Canada and its main function was to increase the number of Brazilian channels of communication, both domestic and international. Brasilsat II was launched on 29 March 1986. Both satellites are in geostationary orbit above the Brazil-Colombia border. The two satellites have a capacity for 12,000 telephone calls, 24 television channels and 28,000 telex connections. In April 1986, the Brazilian state telecommunication company, EMBRATEL, began a search-and-rescue system with satellites. The system provides aid to ships under Brazilian flags in national and international waters.

Mexico launched its first satellite, Morelos I, on 17 June 1985 and the second on 27 November 1985. The satellite system integrated into the national telecommunications system approximately one-third of the Mexican population that had no prior access to its services. In 1984, Mexico had a network of 197 terrestrial stations, including receiver television stations. By the time the first satellite was launched, there were 277 stations covering the entire national territory. The plan includes the construction of 156 more stations in the near future. Mexico currently assembles small parabolic antennas.

In 1984, the Pan-American Satellite Corporation of the United States requested permission from the Federal Communications Commission to build, launch and operate the first subregional satellite in the Western Hemisphere. The project was initially promoted by the Spanish International Network in the United States and Mexico's Televisa. This satellite was launched from an *Ariane* rocket in July 1988. In principle, it should operate in all the countries of Latin America.

Since 1976, the Andean countries have been studying satellite projects to supply them with telecommunication services. The study was co-ordinated by ASETA (Association of State Telecommunication Enterprises of the Andean Subregion). In 1984, a feasibility study was approved and in 1985, ASETA notified ITU of the technical characteristics of the Condor project, consisting of 3 satellites.

Brazil, Mexico and Argentina have national data transmission services. TRANSDATA in Brazil has been in operation since 1980 offering specialized services for data transmission. INTERDATA, also in Brazil, provides services for the international transmission of data. RENPAC is a data-transmission service of TELEBRAS inaugurated in 1984. Much of the expansion of RENPAC is based on nationally produced equipment (COMPAC).

In Mexico, TELEPAC, a public service, facilitates the transmission of data and INFONET, another public network provides transmission and consulting services. There are also two private networks, Teleinformación de México and Tiempo Compartido.

In Argentina, the national telecommunication company has a data-transmission service, ARPAC. Most data transmission occurs around Buenos Aires. There are 336 access points to the network and plans are to increase this number to 4,500. In addition to Buenos Aires, the system can be accessed from Rosario, Córdoba and Bahia Blanca.

3. Economic and industrial patterns

In the economic field, communication has often been synonymous in the past with the media: until the end of the 1970s practically the only dimensions of international communication flow taken into consideration were what almost every country in the world called the "mass media".

The 1980s marked a radical break with this conception of the economics of information and communication. The press, publishing, the cinema, radio and television remain extremely important activities from a socio-cultural point of view, but their economic significance is now somewhat overshadowed by other activities coming to the fore, activities closely interlinked with the whole productive system, whose informational nature has gradually become clear as technological changes have altered their appearance.

As early as the 1970s, economists, notably Porat, (in *The Information Economy: Definition and Measurement*, published in 1977), observed that the proportion of workers whose job was to produce, process, circulate or distribute information was close to 50 per cent of the active population of the United States. Shortly afterwards the Organisation for Economic Co-operation and Development (OECD) calculated that this percentage was more than 30 per cent in most of the developed countries. Observers predicted the coming of a post-industrial society, an "information society" as they called it (or at least a "service society") in which media consumption would reach hitherto unknown proportions.

The technological revolution that has taken place in information technology and telecommunications since the 1970s has highlighted this development with greater precision, bringing out features that are somewhat different from the post-industrial scenario envisaged earlier. The powerful expansion of the traditional media was followed by a profound restructuring of the basic mechanisms of our production systems; information and communication emerged, not so much as an extension of the media sectors in the traditional sense, but rather as a transformation of administrative activities that were already a part of the production apparatus, and which now took on new forms and greater strategic importance.

The technological development already outlined in Chapter 2 acted as the main catalyst in this process. The scale of the investment required to modernize information and communication activities is a measure of the importance of technology; lead times for research and development, for identifying new products or for setting up production lines mean that supply must often be configured long before demand is expressed or even formed. Moreover, the changes observed occur more and more within the production system itself and innovations now tend to appear as product innovations. The situation is highlighted in a recent study published by the Economic Commission for Europe, entitled *The Telecommunication Industry: Growth and Structural Change*, (New York, United Nations, 1987).

> During the past 10 to 15 years, the communication and information industries have undergone spectacular technological and structural changes, having few comparisons in other areas.... They form the key to the massive shift towards the information economy (or even society) which is on the verge of taking place. This shift, already underway in certain countries, will accelerate over the next few decades, giving rise to far-reaching changes in industry and in society.
>
> The construction of new integrated digital telecommunication systems and networks represents an investment in infrastructure perhaps as important for industrial and economic development as were earlier investments in railways, roads and electricity transmission. The magnitude of some parts of these infrastructure investments can be gauged by comparison with the about US$400 billion which is sunk in the present telecommunication assets of the world. However, immense investments are required not only on the part of telecommunication administrations but also by telecommunication equipment and system producers and, above all, by the users, whether enterprises, public administrations or households. The new computer/telecommunication technology which is emerging is of strategic importance for countries for two reasons. First, it represents a large and rapidly growing sector of the economy, giving rise to production, employment and wealth. The National Telecommunications Information Administration (NTIA) of the United States Department of Commerce has estimated that the sales of the world's information industry amounted to US$450 billion in 1984, of which telecommunication equipment and services accounted for US$325 billion. By 1990, these figures are expected to reach US$830 billion and US$540 billion respectively, which will probably make the information industry the largest economic sector in many countries. Secondly, information technology will penetrate not only all sectors of the economy but also the private lives of people. Its application will give rise to extensive structural changes in manufacturing, administration and the distribution of goods and services. It will affect the working life of people as well as their leisure time and it has the potential of greatly increasing productivity and wealth.

The trend is now well documented. However, while it is an important phenomenon to highlight, and to illustrate as far as possible in quantitative terms in recognition of its implications for future industrial organization at a global level, it is most apparent in the industrialized countries, where it is focused on the areas of telecommunications and information technology (with mass media largely subsumed by this broader industrial environment). As the Report is particularly directed towards developing countries, and focused primarily on mass media, it seemed reasonable–given constraints of space–to restrict the information collected to a summary form. For this reason, what follows is a considerably reduced synthesis of a substantial body of material.

Changing patterns of ownership and financing in the mass media

Taking as a departure point the more familiar territory of management and financing of the media, in the course of the 1980s many of the earlier classic divisions of ownership and control of the various mass media industries have been eroded. Traditionally, if one takes the case of broadcasting, it has been possible to pinpoint broadcasting systems by their location in a continuum of ownership models illustrated in Figure 3.1 below (ranging from state control to a commercial structure, with the former commonly found in the socialist countries, and the latter in the United States and those countries following a similar model). In between come the public broadcasting systems most commonly associated with Western European broadcasting. However, as new or alternative models have been created in the developing countries (and as these have, over time, developed their own identities) various nuances emerge to vary this basic schema.

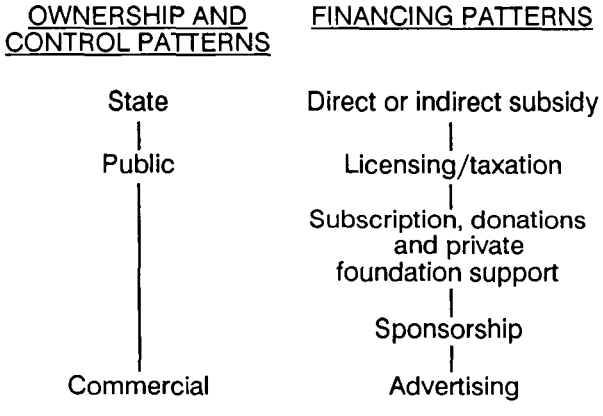


Figure 3.1

Figure 3.1 also lists various forms of financing employed for different broadcasting systems, ranging from direct government subsidy, through forms of licensing or taxation levied upon broadcasting equipment or audiences, to donations from private foundations and, most common of all in the market economies, support from some form of advertising. Nevertheless, in the contemporary world, these patterns of financing are also becoming mixed. In many cases, broadcasting systems which are primarily financed through some form of government subsidy, direct or indirect, are now also partly financed through advertising. In other cases (for example, public broadcasting in the United States) a primary financing system of support through public subscription or private donation may be supplemented by limited state support or various commercial undertakings (e.g. co-production, locally conducted sales drives and competitions). Given this watering down of models, there have been other attempts to change traditional

patterns of financing (for example, the recent move to consider advertising as a partial support to the British Broadcasting Corporation (BBC)).

In the search for financing support, the public broadcasting systems have also moved into new and enhanced areas of co-production and sales. Consequently, while the basic options for financial support are limited, the permutations upon these options are constantly varying.

The position *vis-à-vis* the printed press is less clear cut, partly because the press and publishing, as older industries which arrived before an era of state intervention, have more firmly established traditions. Though the socialist countries operate press and publishing systems that are mostly directly or indirectly state supported, there is, in the world at large, a broader tradition of private ownership of the press. Nevertheless, while the situation is ostensibly more open, in practice many constraints may be applied to press operations, through licensing arrangements, large governmental subsidies in certain parts of the world, an insistence upon local ownership, newsprint restrictions, or various forms of censorship. Again, within the press and in publishing, ownership patterns cut across national boundaries and they are increasingly part of multimedia conglomerates.

Given both exigencies of space and limitations of data, it is impossible here to itemize in detail the existing patterns of ownership and management on a country-by-country basis. It should in any case be emphasized that this is a constantly changing environment, much affected by the technological developments relative to production and distribution arrangements that were reported in Chapter 2. Even the separate economic systems of the socialist and the market economy countries are now being increasingly interconnected through the expansion of satellite and advanced telecommunication systems, to a point where further erosion of the original models may be expected in the future.

Mass media and the information industry

Above all, the factor that has changed the economic base of the mass media has been the connection of mass media enterprises with other parts of the information industry through a process of rationalization and concentration in which major corporations, conglomerates and multinational firms have been substantially involved. This has been done, in the main, in a gradual and unpublicized way, so that even those professionally concerned with communication may not always fully appreciate its extent, or the breadth of the modern information industry base.

The shift has been most marked in the market economies, and for this reason the bulk of the remainder of this section presents data on their economic transformation, primarily, though not exclusively, in the industrialized countries. As stated above, the reason for this emphasis is the considerable impact that these processes already have, or will have in the future, upon the developing countries.

Shorter sections follow on patterns of development in the socialist and in the developing countries (shorter, in the main, because of insufficient data). It should be emphasized, however, that given the present character of the information industry, and growing levels of interconnection at a global level, this separation is diminishing: the information economy is becoming increasingly a global economy.

The market economies

Industrial structures

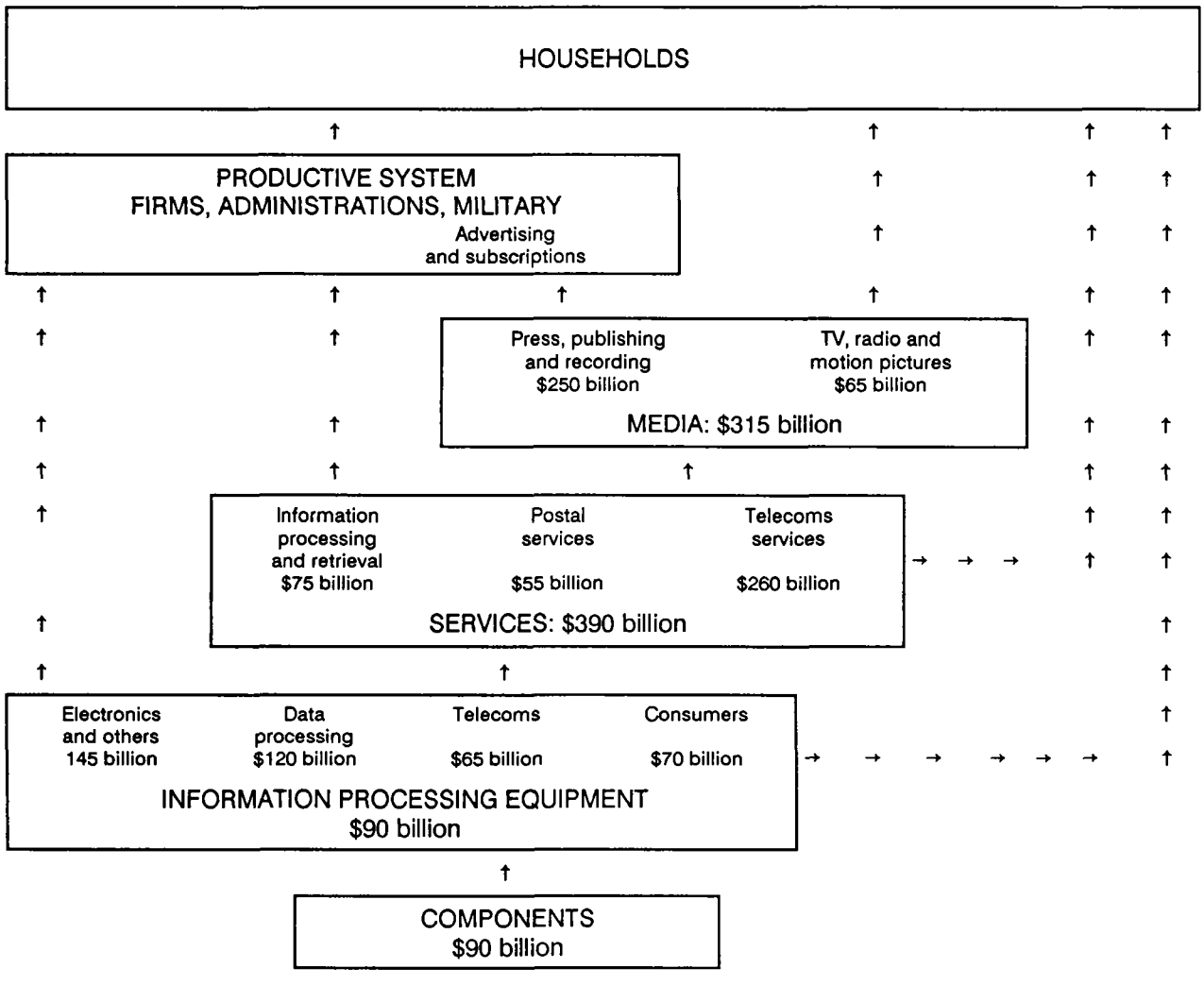
Within the modern apparatus of industrial structures and major markets, three main areas can be distinguished:

1. *The media*, i.e. the information content industry. This industry is broken down below according to the type of information that it produces and the means of distribution adopted:
   - The press, publishing and recording industries
   - Television, radio and cinema.
2. *The service industry*, i.e. the industry that processes and disseminates information. Traditionally, this industry is divided into the following main areas:
   - Information processing (printing, but especially today computer services) comprising
   - Data processing (service bureaux)
   - Software and package software
   - On-line data services (data bases)
   - Postal services
   - Telecommunications services.
3. *The equipment industry* manufacturing the capital goods needed for the production and distribution of information, which can be divided into:
   - Data-processing and office automation equipment
   - Public and private telecommunications equipment
   - Electronic and non-electronic (photographic etc.) household durables

- Industrial electronics measuring and testing instruments, navigation equipment, process control equipment, computer-integrated manufacturing, medical electronics, and components (which should be considered separately since they serve as inputs for other production).

Estimates of the size of each industry are given by major groups of countries in Figure 3.2 and Table 3.1 below. It may be seen that the three industries are of comparable size at the world level, reflecting the importance of information activities in the productive system. A large proportion of equipment is sold directly to firms, government departments and the armed forces, as well as to households (reception and recording equipment); most services are also supplied to the productive system, with only a small proportion being used by the media.

Figure 3.2 shows the vertical links between the various sectors of the information and communications industry. The manufacturing industry had sales of $400 billion in 1986 ($490 billion if components are included) but the service industry bought from it only $70 billion worth of equipment. Similarly, the service industry had sales of $380 billion, but the media accounted for only a small part of these. The media industry had a turnover of approximately $315 billion, of which $65 billion came from the audio-visual sector and $250 billion from the press and publishing sectors.



Source: IDATE, contribution to *World Communication Report*, 1987.

Figure 3.2

The information and communication economy, 1986.

Table 3.1

Information and communication economy by sectors, 1986 ($ billions)

	World total	United States	Japan	EEC	Others
Press, publishing recording	250	110	55	55	30
TV, radio, motion pictures	65	30	10	15	10
Total media	315	140	65	70	40
Information processing	77	40	9	20	8
Postal services	53	26	7	10	10
Telecommunications services	250	114	34	60	42
Total services	380	180	50	90	60
Consumers equipment	70	20	30	10	10
Telecommunications equipment	65	25	15	20	5
Data processing	120	60	23	27	10
Electronics and others	145	60	40	35	10
Total equipment	400	165	108	92	35
Components	90	30	30	15	15
Total information and communication	1 185	515	253	267	150

Source: IDATE, contribution to *World Communication Report*, 1987.

In 1986, the information and communication industries had a total turnover of about $1,100 billion, or roughly 8 to 9 per cent of world output. The media in the strict sense accounted for only 2 to 2.5 per cent of this output (approximately 0.5 per cent for the audio-visual industry and 1.9 per cent for press and publishing), while the media and information services together accounted for about 5 per cent. These figures should be considered in conjunction with the 20 to 30 per cent of world production that, by other yardsticks, may be regarded as being of an informational nature, thus illustrating once again the small share of production accounted for by the traditional information and communication industries. The leading companies in the sector are not only the major information and communication firms but also the major users of information and communications (banks, insurance companies, service and industrial companies).

Because the three major market economy areas (United States, Japan and the EEC) have a large combined production, they are the main centres for the development of information activities: whereas they account now for 70 per cent of world GDP, their share of the production of information goods and services is about 90 per cent.

There are over 300 companies in the information and communication sectors with a turnover of more than $180 million; these are listed at the end of this section. An analysis of these leading companies shows little vertical diversification, not only between sectors but also between subsectors. However, the same analysis reveals apparent trends in the *growth of multimedia industries*, on the one hand, as a form of concentration, and a convergence between *information processing and communication services* on the other. Although most companies are still concentrated in one sector, genuinely multimedia companies have arisen through concentration (e.g. Capital Cities and ABC) or diversification (e.g. Time Inc.). The United States and Japan continue to be the countries with the largest international multimedia groups. Europe is still dependent on a strong public audio-visual sector that limits multimedia growth, but some groups are starting to branch out (Bertelsman, Hachette, Maxwell), and the process is already well under way in Australia (Rupert Murdoch's News Corp. is present on three continents) and in Canada. There is still little interaction between the various distinct activities, but there is no doubt that with the progressive digitization of information, the globalization of advertising markets and the emergence of new forms of publishing (e.g. teleshopping and distance teaching), interaction will accelerate.

A similar trend may be observed as between information-processing services and communication services. The gradual deregulation of telecommunications in the United States and Japan, partial deregulation in Europe, and a similar process

beginning in the developing countries, are encouraging the emergence of services that combine processing and communication. The "network" activity of the major information processing companies is far from non-existent, but it bears no comparison with that of the largest telecommunications companies; the Bell Operating Companies are the largest producers of both services and message transmission (information processing and communication). Major telecommunications operators are also hiving off their information-processing activities to make them independent axes of development, thereby gradually externalizing these activities. The activities concerned are important: invoicing, subscriber and network management, and switching and transmission equipment programming.

Two factors reinforce the role of the telecommunications operators in this process. First, the telecommunications sector is over three times as large as the computer service sector. It enjoys stable and growing income from the telephone, which is still, and will continue to be for a long time, its main source of income. Second, the telecommunications sector is more concentrated, since it has long been regarded as a monopoly sector. The experience of deregulation has shown that there are limits to how far this process can go, and the number of operators that can survive in the same market today seems smaller than would have been envisaged a few years ago.

The balance between the various industries in the service sector has shifted in favour of the media. The press and publishing sector is more than three times as large as the audio-visual sector, but the latter sector is much more concentrated on account of the fact that outside North America and areas of North American economic influence it has traditionally been supervised by the state.

This experience gives a glimpse of the future pattern of development of the telecommunications and audio-visual sectors in developing countries, where the degree of state involvement is high. Some countries are today seeking to promote information services locally by allowing telecommunications operators to provide certain services or functions that serve as a basis for the development of services. In the same way as the Direction Générale des Télécommunications promoted videotex in France, telecommunications operators in these countries could develop or catalyse information-processing activities. The markets are still small but they should grow rapidly.

Analysis of international telecommunications (Table 3.2) shows that data transmission via dedicated networks accounts for only a small share of traffic. Admittedly, it may be considered that data transmission over telephone, telex and dedicated lines is larger than analysis by type of network would suggest, and that it may today account for 20 per cent of international traffic or approximately $2.4 billion. It will probably grow very rapidly, with the telex being gradually switched to data transmission networks.

The relatively small size of the international data-transmission market is shown by the turnover of the two largest worldwide co-operative networks in two of the sectors that are the biggest data-transmission users: the SITA network in the air transport sector and the SWIFT network in the banking sector, each with a turnover of about $110 million.

Table 3.2

Breakdown of international telecommunication traffic by type of network, 1986

Network	%
Telephone	75
Telex	16
Telegraph	1
Leased lines	5
Data transmission networks (circuits and packet transmissions)	1
Television and radio	1
Shipping services	1
Total $12 billion	

Source: IDATE, contribution to *World Communication Report*, 1987.

Co-ordinated approaches within the European Community and the Council of Europe

The European Community

Some significant examples of attempts to co-ordinate economic development in the information and communication fields are to be found within the European Community. Some of these go back many years, but the major programmes to develop communications on a European scale are of much more recent date.

In 1967, PREST (Policy for Scientific Research and Technology) was created, a body made up of senior officials which identified the areas where technical co-operation would be welcome (notably in data-processing and telecommunications), and recommended the establishment of a common policy for buying research and development equipment. On this basis, in 1970 the Council of Ministers created the COST

programme (European Co-operation in Science and Technology), COST being the end-product of co-operation between European research centres, whose secretariat and co-ordination were guaranteed by the Commission. COST is open to member and non-member states alike.

Various initiatives by COST were undertaken during the 1970s, notably the COST II projects, followed by COST II B, whose aim was the development of a European data network (REI). Some consideration was also given to the standardization of teledata, but this ran into difficulties at the European Conference of Posts and Telecommunications (CEPT), a subsidiary of ITU, which elaborated a parallel strategy for the development of data-transmission networks. At the same time, the Commission of European Communities (CEC), was concerned with the circulation of scientific and technical data within the Community. The 1975 Council of Ministers adopted a "Plan of Action for Scientific Data" and negotiated with the PTTs of the nine member states to set up infrastructures for the creation of a European access network to data bases (Euronet), whose lifespan would be limited to the development period of the different national networks for data transmission.

In 1980, Euronet was inaugurated at the same time as the REI project was being wound down. Alongside Euronet existed the DIANE project, which was to assist network utilization and to facilitate communication procedures, as much for producers as for users. Euronet came to an end in 1984, when the majority of member states opened up their national packet switching data-transmission networks.

However, despite these first initiatives, development was slow during the 1970s. Telecommunications was one of three sectors excluded from the scope of the 1976 directive on the expansion of common markets. It was only at the end of the 1970s, and in the early 1980s, that there was a growing sensitivity to the development of communication amongst member states, and a sense of how high the stakes could be for the EC.

In 1983, the Commission created the "Task Force for Telecommunications and Information Technologies" which initiated a concrete action plan and gradually developed the mechanisms for consultation that were vital to its success.

From 1984, structures for co-operation between states were established: SOG-T (a group of senior officals working in telecommunications), composed of representatives from member states; the Council of the Commission; its subgroup GAP (analysis and forecasts group); SOGITS–a body of senior officials supporting standardization in the field of information technology–all of these groups joined the consultative group of senior officials for the data market.

It was also in 1984 that the CEC and CEPT signed an agreement outlining a framework for their co-operation, especially for the standardization plan, in order to specify and promote NET (European Standards in Telecommunications). At the same time, the Commission submitted proposals for its own lines of action, which constituted the first coherent programme on telecommunications, approved by the Council in December 1984. It proposed:

1. The creation of a common market for telecommunications equipment and terminals.
2. Reinforcement of network development and advanced telecommunications services.
3. For the less-developed areas in the Community, an improvement in access to advanced networks and services, through an appropriate use of the Community's financial services.
4. The coordination of negotiating positions within the international organizations dealing with telecommunications, on the basis of discussions held jointly with the group of senior "telecommunications" officials.

From 1984 until today, the Task Force, which merged in 1986 with other departments within the Commission (notably those responsible for the Euronet/DIANE projects, to become the Directorate for Telecommunications and Information and Innovations Industries (DG XIII), has embarked upon a significant number of activities, which have gradually provided an operational and unified framework for communications in Europe. These plans are arranged along the following axes.

The coordination of infrastructure development

In December 1986, the Council adopted a recommendation[1] for the coordinated introduction of ISDN (Integrated Services Digital Network) into the community, covering standards, tariffs, services and the timetable. The recommendation foresaw that "the governing bodies must plan their networks in such a way that by 1993, they can provide ISDN access to the equivalent of 5 per cent of the 1983 subscribers' lines", and allow 80 per cent of their clients the opportunity of access to ISDN.

1. Recommendation 86/659/CEE, JO L 382.

In June 1987, the Council adopted a recommendation concerning the coordinated introduction of mobile ground cellular digital pan-European communication into the Community,[2] requiring the opening up of these services, according to a uniform standard of digital technology, by 1991 at the very latest, even though at the moment the existing systems are mostly incompatible. A directive has been issued calling upon member states to reserve the frequencies essential to run these services.

Other studies have been undertaken on the accelerated development of high-volume digital infrastructures within the Community. On the earlier Euronet model, the possiblity of accelerating the creation of pan-European broadband links as early as 1988/89 was also studied.

Finally, the Community highlighted the disadvantaged position of its less developed regions, seeking to reduce the geographical impediments to access to the "knowledge" essential to their development. To this end, the STAR programme (Special Telecommunications Action for Regional Development),[3] foresaw accelerated investment in digital technology in these areas, and subsequently in broadband technology between 1987-1991, with financial aid from the "European Funds for Regional Development".

The creation of a common market for services and equipment

Standardization is a cornerstone for the extension of networks and services and therefore of their capacity to intercommunicate. The conclusion of co-operation agreements with CEPT and CEN/Cenelec (European Committee for Standardization/ European Committee for Electronic Standardization) in 1984 and 1985 was an essential stage in the harmonization of European standards. According to the agreements, the Commission was able to indicate to these groups the priorities which it felt were necessary in the sphere of information technology. Included in these priorities was the establishment of NET (European Standards in Telecommunications). A directive published in 1986 foresaw general acceptance of tests to assess the compatibility of NET with other terminals, so as to establish a unified approval procedure. The first three NETs came into operation in 1988: they concern specifications X21 and X25 for linking data networks using packet-switched transmission and also the basic S interface and ISDN. Within the ISDN framework, the NETs now in preparation should lead gradually to a single system for the data services of the 1990s. Finally, to increase the pace of development even further, in 1988 the Commission created the European Telecommunications Standards Institute (ETSI), which is responsible for enforcing the system establishing standards and specifications.

Finally, in October 1987, the Council adopted the first phase of a programme related to the electronic transfer of data to commercial users (TEDIS). The objectives of this programme were: to promote the establishment of open systems, notably for small and medium enterprises, avoiding a proliferation of closed electronic data transfer systems; to make European industries aware of international and European standards and to respect them, especially those recommendations made by the United Nations Economic Commission for Europe.

Internal developments within Community institutions

Institutions within the Community can themselves become testing-grounds for certain significant applications. In its role as a potential major user, the EC took a series of measures to promote certain systems and services such as:

A video-conferencing system linking all the European capitals, based on CEPT's project EVE (European Video-conference Experiment).

An integrated system for communication within the Commission, and between the member states' administrations and the Commission. This inter-institutional data system for the integration of services (INSIS) is composed of two main bodies: INSEM (inter-institutional system of electronic mail); and OVIDE (videotext of the European Parliament), whose second phase was begun in 1988, allowing every Euro-MP access to the services available without having to leave his or her own constituency. INSIS is continuously developing access to Community data, notably to CRONOS; to the Eurostat data base (EC statistics office) and to ECDIN–the Commission's data system for the environment.

A system for electronic data exchange linked to the administrative formalities of the European market. The aim of the CADDIA programme is the automation of data processing and exchange by member states and by the Commission: data which are essential to the management of the European Customs Union; commercial measures vital to the Community and for the management and control

2. Recommendation 87/371/CEE, JO L 196.
3. Rule 3300/86/CEE of 27/10/1986.

of agricultural markets and procedures for collection and breakdown of statistical data on commercial exchange on a Europe-wide scale. In seeking maximum compatibility with developments of a similar kind set up by the United Nations Economic Commission for Europe, the CADDIA programme also relies on the CD (Coordinated Development) project, and on the review and harmonization of customs procedures with Third World countries.

Such additional initiatives as, for example, a programme for a system of automatic translation of advanced ideas (EUROTRA), complete the range of the Commission's own plans.

The framework of the research and development programme

The success enjoyed by the ESPRIT programme (European Strategic Programme for Research in Information Technologies), which was launched in 1984, led to several hundred research projects being jointly financed by manufacturers in the Community. In September 1987, the Council adopted a skeleton programme in research and development for the period 1987-91, of which around 40 per cent was to be devoted to development related to information technology and communication.

The core of this project was to be a follow-up to the ESPRIT programme. It aims to support research and development in micro-electronics and informatics-related fields, in data-processing systems and in the integration of information technologies within their fields of application.

The 1987-91 programme also saw the setting-up of a second ambitious R&D programme in the field of telecommunications–the RACE programme (Research in Advanced Communications for Europe). After a definitional phase in 1985/86, the programme was launched in 1988 along with 50 other projects which were as much concerned with broadband technologies as with network development, network implementation strategies and the functional integration of technologies. By coordinating this research into integrated broadband communication and by establishing from the outset a common framework for broadband networks, RACE has as its goal the achievement of a previously unimaginable level of coherence in the development of digital European broadband networks.

In the outline of other research programmes on new services of common interest, at least three are relevant to information technologies:

AIM (Advanced Informatics in Medecine in Europe) foresees a Community plan in the sphere of information technologies and telecommunications applied to health.

DELTA (Developing European Learning through Technological Advance) foresees the development of advanced learning technologies, as well as inter-disciplinary consultation on present and future needs in the field of instructional materials.

DRIVE (Dedicated Road Infrastructure for Vehicle Safety in Europe) aims to create a European operational system of up-to-the minute road information and multilingual navigation.

IMPACT (Information Market Policy Actions) aims at enhancing the European information market by setting up, *inter alia*, a European Information Market Observatory (IMO), responsible for improving the quality of data available on the information market; improving interaction between the public and private sectors; eliminating technical, administrative and legal barriers; promoting European information services through the development of multilingualism and the training of users; preparing a project to interconnect libraries in the European Community and introducing new technologies; and launching pilot projects concerning, in particular, tourist road transport, patent information and image banks.

In parallel to these Community plans, the Commission also provides the Secretariat for a scientific and industrial co-operation programme, launched by a group of European states extending beyond the frontiers of the Community, as a continuation of the working group on technology, growth and labour, created at the industrialized countries' summit at Versailles in 1982. EUREKA includes, in particular, the Prometheus project, related to the application of data and communication technologies to automobiles, and a development project for a high-definition television standard, based on the standard D2MAC specification.

Audio-visual markets

The development of a European audio-visual programme constitutes another major objective in Community policy. This policy has three main strands.

First, the harmonization of technical standards and technological developments in close co-operation with the telecommunications sector.

Second, study by the Council of a directive submitted by the Commission, after a very wide consultation, seeking to authorize unrestricted broadcasting reception and retransmission in all member states where the necessary conditions pertain. It treats, in particular:

The European content of programmes: a minimum percentage of air time (30 per cent initially, 60 per cent after three years) should be reserved for the broadcasting of Community productions. To encourage new producers in particular, a minimal amount of the programming budget of television channels (5 per cent initially, 10 per cent after three years) should be allocated to Community productions from independent producers.

Advertising regulations: the proposal establishes basic rules for broadcast advertising, which are intended to guarantee the free circulation of programmes within the Community. It is left to member states to allocate, on the basis of criteria established by the directive, the amount of airtime authorized for advertising in their national broadcasting systems. However, they cannot prevent the retransmission of visual advertising messages from other member countries, if the duration of the advertising does not exceed a certain length.

Futhermore, the proposal anticipates the separation of advertising and programming; general standards related to the interruption of programmes by advertising as well as sponsorship, prohibition of tobacco advertising, limits on advertising alcoholic drinks, advance screening of advertising messages; the protection of young people against programmes likely to affect their physical, mental or moral development (pornography, violence, racism); author's rights: facilitating simultaneous distribution by cable of complete and unaltered programmes coming from other member states, in full recognition of the interests of authors, composers, and other members of the cultural professions.

A common position was adopted by the Council of the European Economic Community on 13 April 1989 with a view to the adoption of a Council directive on the co-ordination of certain provisions, laid down by law, regulation or administrative action, in Member States, concerning the pursuit of television broadcasting activities.

Third, promotion of the European audio-visual industry, in particular by launching the preparatory phase of the MEDIA programme, which aims at the development of the European televised programme industry.

MEDIA (Measures for Encouraging the Development of the Audio-visual Industry) responds to the European Parliament's pressing demand to see a reinforcement of content production, as opposed to technical support.

MEDIA is destined to promote audio-visual activities in every sector: cinema, television, cable, satellite, video. In each sector, original innovative projects will be developed by the professionals: producers and film distributors, technicians and creative workers, radio and television organizations and research institutes.

MEDIA comprises two stages: a preparatory phase which defines the projects with the help of research and pilot experiments; and a production phase destined to bring the projects into operation, starting from European Cinema and Television Year in 1988. MEDIA focuses on three areas: production, distribution and the financing of the audio-visual industry.

There are two priority concerns: the stimulation of production and distribution; and the promotion of programmes of pan-European interest:

Stimulation of audio-visual production and distribution: an assertion of the cultural diversity and richness of Europe, through the promotion of original works, and a consequent improvement in production and distribution methods. Main strands of activity include manufacturing methods, technology development, promotion of co-operation, financing and audio-visual distribution;

Promotion of pan-European television programmes: this constitutes another priority area for the Commission. From the outset these programmes, which are destined for the whole of Europe, can count on an audience and on means which are usually impossible to achieve even at a national level: such programmes help to reinforce the feeling of belonging to a Community made up of countries which are at the same time different, yet still closely bound up together. Among the principal themes for action are multilingualism, European information and training, and Community-wide research programmes.

The Commission is also seeking to reunify Europe in relation to reception standards and to preserve the significant investments by the consumers of television equipment. A Commission initiative led the governments to accept, in 1988, the MAC standard for future projects on television transmission by DBS.

The impact of high-definition television on the unification of the European market, currently split between PAL and SECAM, depends a good deal on the success of the Eureka high-definition project.

Table 3.3
The budgets of the European programmes
(in millions of ECUs)

	Period concerned	Community financing	Total financing
1. Coordination of development			
STAR	1987-91	780	1 400
2. Creation of a common market of services and equipment			
TEDIS	1987-88	5.3	
3. The R&D programme			
ESPRIT I	1984-87	750	1 500
ESPRIT II	1987-91	1 600	3 200
RACE	1987-91	550	1 100
AIM-DELTA-DRIVE	1987-91	50	100
4. The data/audio-visual markets			
Data market	1988-91	36	
MEDIA	1986-89	10	

Source: The above figures are mainly derived from: Green Paper on the Development of the Common Market for Telecommunications Services and Equipment (CEE Com (87) 290), June 1987; H. Ungerer and N.P. Costello, *Telecommunications in Europe*, EEC, 1988.

The Council of Europe

A number of initiatives to increase the production and circulation of audio-visual materials in Europe have also been taken within the Council of Europe. In February 1983, the CDMM (Steering Committee for Mass Media) adopted an action plan in relation to satellite television, and in February 1984, adopted a Recommendation No.R (84)3 on the principles of television advertising. In December 1984, Recommendation No.R (84)22 on the use of direct broadcasting satellites was adopted, while Recommendation No.R (86)3 spelled out a number of principles to stimulate European audio-visual production. Furthermore, the CDMM also developed a draft European Convention on Transfrontier Television, which was presented in April 1988 to the Committee of Ministers. The draft Convention was subsequently discussed at the Second European Ministerial Conference in Stockholm in November 1988. At the same time, the Council of Europe and the European Community inaugurated the European Year of the Cinema in 1988, as a joint initiative. This year was intended to create favourable conditions for the development of the audio-visual sector, and to improve the exchange and distribution of audio-visual materials. The Stockholm conference when considering the European Convention on Transfrontier Television (which was opened for signature on 5 May 1989), adopted a Resolution No.1. which was primarily concerned with audio-visual production, co-production and exchange in the European setting. A third Conference is foreseen in Cyprus in 1991. As distinct from the European Community, however (which has a number of programmes which include financing for audio-visual development) the Council of Europe is more concerned with setting a policy framework, and with questions of programme quality and cultural identity.

The socialist countries

While increasingly linked with the world economy, for the socialist states as a whole, industrial and economic patterns reflect the preponderant role of state ownership and planning of the mass media and telecommunications and information services. In the past, social, ideological and political considerations have tended to have greater impact on economic and industrial policy regarding communication goods and services than have market factors.

No universally accepted standardized system for the measurement of the economic weight of the information and communication sectors has been developed so far. From among the traditional partial indices the following may be used to characterize the production potential of Council for Mutual Economic Assistance (CMEA) countries in these fields: in 1985 the paper production of the member states amounted to nearly 10 million tons (including 1.8 million tons of newsprint). Fourteen million radio sets, 12.2 million television sets, 6 million tape-recorders and cassette players as well as 1.8 million telephone sets were produced.

In the mid-1980s (1984/85) some 1.5 times as many radios and the same number of television sets were in use in the seven European CMEA countries as in the

United States. Their newsprint production amounted to two fifths of the production of the United States, somewhat more than that of the EEC countries. The number of books published is the same as that in the United States and Japan together, and the same holds for the average circulation of the daily newspapers. The number of feature films produced is nine-tenths of the production in the United States, whereas the number of cinema-goers is four times as large.

In contrast, however, the number of telephone exchanges operating in the seven European CMEA countries corresponds to less than one-quarter of the comparable United States index.

In the above figures, the USSR weighs relatively more in cinema-going, the circulation of newspapers and dailies and in the amount of newsprint produced, and the production of radio sets (75 to 85 per cent). It weighs less in the rest–and least of all in the production of feature films–45 per cent. The problem in the information and communication sectors is the state and level of telecommunications infrastructure. As a consequence of the development policies of several decades, there are obstacles in the way of the introduction and dissemination of information services. Until quite recently, economic leaders and economists themselves had regarded telecommunications as an unproductive sphere, so its development was only made possible from the "surplus budget allocations".

As a result, the number of telephones in the Eastern European countries is much lower than could be rightfully expected from the level of their economic development. Calculations reveal that an investment of 1 per cent in telecommunications infrastructure could yield a 3 per cent growth in national income.

Since the mid-1970s, however, the economic dimension of the sector has received more and more emphasis–though to varying extents and in different forms in each country. In the case of radio and television this is manifested in the need for more efficient utilization of existing means. In Poland, for instance, radio and television broadcasting is being developed to become a self-financing activity and the various multimedia businesses are being allowed greater access. The Hungarian television plans to enter the video business, and the news agencies are to increase their publication activities, etc. In the periodical press and book publication, where the products have traditionally had a "quasi-commodity form", government subsidies are being reduced and attempts are being made to rationalize costs and prices. The media and the information services of communications will doubtless continue to remain under state ownership, but under new forms. Infrastructure formerly financed from government budgets is being reorganized as state-run companies and businesses, with a view to self-financing. Similarly, institutions and companies enjoying monopoly situations–arguing reasons of technology and efficiency–are likely to face an ever-increasing number of attacks. In certain countries like Hungary and Poland, new regulatory environments are allowing private businesses to take part in the development of certain areas of the communications and information sectors. Their share is significant in the field of software services and in the initial sale of components and equipment. At the same time, it must be acknowledged that in nearly every country demand for video-cassettes (which is not satisfied by the state) has led to the formation of quite significant black markets.

Given their unified economic perspective, the socialist countries of Eastern Europe have therefore created a framework for the development of communication and information technologies comprising several organizations within the structure of the Council for Mutual Economic Assistance (CMEA). The most important of these are described below. The telecommunications and mass media industries of the socialist states, however, remain, relatively speaking, limited.

Table 3.4

Investments in communications in socialist countries in Europe, as a percentage of total public investments, 1986.

Bulgaria	Hungary	German Dem.Rep.	Poland	Romania	USSR
1.08	3.40	1.19[1]	1.00	0.96	1.53

1. Data refer to 1982.

Source: Survey and Analysis of Statistical Data on Communication Development for COMECON Member States (1986), Czechoslovak Communication Administration.

Data provided in Chapter 9 on mass media production, notably Tables 9.1 on newspaper production, 9.4 on book production, 9.16 on film production and 9.23 and 9.24 on availability of radio and television receivers, confirm that the production and availability of traditional mass media items in the socialist countries of Europe are generally as high as in other industrialized world regions. This is particularly true of the production of radio receivers, books and television receivers. However, consumption of newsprint and other printing paper is three to four times lower than in the industrialized market economies, and the areas of telephony and telecommunications have been less developed because until relatively recently these have been regarded as non-productive areas, to be financed largely from surplus budget allocations. Although this view has now changed, it places obstacles in the way of information economy development. While Table 3.4 surveys, for the CMEA countries, investments in

communications in comparison with total public investments, Table 3.5 provides a breakdown of post and telecommunication expenditure by major areas of activity.

Table 3.5

Post and telecommunication expenditure in socialist countries in Europe, by major areas of activity, 1986 (percentage distribution)

Area of activity	Bulgaria	Hungary	German Dem. Rep.	Poland	USSR	Czecho-slovakia
Postal	6.32	20.47	15.79	23.44	29.11	12.74
Telephone	71.92	45.11	41.30	57.40	46.57	68.47
Telegram + telex	5.61	5.17	4.30	6.10	8.09	4.89
Cable radio	1.06	-	-	0.10[1]	3.74	0.91
Radio broadcasting	3.92	2.29	2.35	2.50	7.27	2.28
TV broadcasting	2.95	1.68	3.71	-	-	3.47
Other (including periodical press distribution)	8.22	25.28	32.55	10.56	5.22	7.24

1. Data refer to 1982.

Source: Survey and Analysis of Statistical Data on Communication Development for COMECON Member States (1986), Czechoslovak Communication Administration.

The principal network for rapid dissemination of the latest technological and scientific developments in relation to economic problems is MNSTI, the International System of Scientific and Technological Information, which groups together the Eastern European countries plus Cuba, Viet Nam and Mongolia. This information network will play a large role in supporting the Complex Programme of Scientific and Technological Progress to the year 2000 adopted by the CMEA Council in December 1985.

The Complex Programme includes among its goals large-scale computerization of the economies of CMEA countries. Specifically it is intended to create a new generation of supercomputers; to develop mass production of smaller computers, including personal computers, together with the necessary sophisticated software; to create digital information networks for greater capacity and reliability of data transmission; to standardize technologies; to promote large-scale application of optical fibre; to establish new satellite systems for data transmission and broadcasting and to develop a new generation of digital television, stereo radio broadcasting systems and digital sound and video recording equipment.

The International Centre for Scientific and Technological Information (ICSTI) is a regional intergovernmental body established in 1969 and devoted entirely to problems of scientific and technological information. Among its tasks are the elaboration and improvement of information products and services and the adoption and practical application of updated hardware and computerized information handling.

Since 1971, CMEA countries have been working towards the establishment of a Unified Communication System in the context of an ongoing programme reviewed every five years. Various subprojects have already been launched, including Connection Technology (1981), Digital Transmission Technology (1985) and a mobile VHF radio telephone system. Progress has been slow, however, and it is expected that many of these systems will not be introduced until the 1990s. The pattern of expenditure of telecommunications equipment in recent years is illustrated in Table 3.6.

Table 3.6

Telecommunications equipment spending ($ millions)

	Bulgaria	Czechoslovakia	German Dem.Rep.	Hungary
1986	164	145	426	197
1987	-	187	464	211

	Poland	Romania	USSR	Yugoslavia
1986	227	42	8 400	161
1987	231	-	9 800	188

Source: *World Telecommunications Fact Book.* Statistics and Analysis of 120 Countries, 1987/88.

The Intercosmos agreement provides a structure for collaboration among socialist countries in space telecommunication systems. Intersputnik, a satellite communication organization, was created in 1971 by the Intercosmos signatories. Intersputnik groups 15 countries and operates as a profit-making enterprise. Intercosmos promoted considerable research, which was subsequently integrated in the Complex Programme referred to above. Thus, further development of satellite communication systems and the creation of Direct Broadcast Satellite networks are among the objectives of current research.

The technical and industrial development of communication in CMEA countries has inevitably been different from that of Western industrialized countries. Since the latter still dominate the world market, the CMEA countries have to a large extent been excluded from that market. Such trade relations as have existed, notably in communications and data-processing equipment, have tended to be one-way, with the socialist countries importing considerable quantities of material from the West. Present inward-looking trade arrangements and structures have tended to limit the competitiveness of CMEA member countries in the wider international market.

Although the construction of the necessary infrastructure to exploit new information services is well under way, notably thanks to the range of multilateral networks already described (ICSTI, CSTI), rapid progress in the socialist countries has been hampered by economic difficulties, scarce resources for development, and the embargo imposed by Western industrialized countries on many of the technologies involved.

There are signs, however, that an increased degree of economic liberalization and decentralization, such as has already been seen in Hungary and Yugoslavia, may be introduced in other socialist countries, notably the USSR. It remains to be seen whether, in the short term, evolving economic policies are likely significantly to affect the structure of communication and information industries.

As specific examples of changing economic and industrial patterns in the socialist countries, the following may be cited:

Over recent years, the *German Democratic Republic* has emphasized the development and use of modern communication technologies. Mass production of electronic circuits now includes circuits with 64 Kbytes of DRAM (dynamic random access memory) and development of 1 Mbyte of DRAM. In 1988, more than 20 basic technologies for the production of circuits were being applied, and some 850 basic types were produced. Unipolar circuit production went up by 40 per cent in a single year, that of bipolar circuits by 20 per cent. Traditional electronic component production also increased.

Great importance is attached to personal computers. In 1986 and 1987, the German Democratic Republic produced about 8,000 computers of its own, and production figures are still rising. In the field of microelectronics, both CAD (computer-assisted design) and CAM (computer-assisted manufacture) have shown good results, and the two systems are combined. At the end of 1987, about 43,000 work stations were able to use this equipment, and in 1990 some 90,000 stations are planned. One objective is to create a local computer network, so that in 1990 between 20 and 30 per cent of all existing computers may be able to exchange information. A network for automatic data transmission should be functioning from the beginning of 1990, and it is planned to connect 4,000 terminals to this network (and hence to inter-national data networks).

Digital communication is widespread in the German Democratic Republic. A characteristic feature of the new generation of equipment is the system of digital secondary stations (NZ 400 D), which allows for connection to other secondary networks and to other communication services such as ISDN (Integrated Services Digital Network).

The annual production of glass-fibre cables in 1988 was 9,500 km. Production of audio-cassettes has gone up from 400,000 (in 1985) to 500,000 (in 1988). Microcomputers are now marketed domestically, and in the near future production of VCRs and CD players is planned. Software creation and training programmes are also expanding rapidly.

In *Hungary*, economic factors are growing increasingly important in the production and distribution of information. Decreasing financial resources available for investment and development have led to efforts to produce better-quality information at lower cost. Charges for information have had an impact on areas where it was hitherto provided as a public service. A certain degree of competition has been stimulated, leading to greater attention to user needs.

The trend in Hungary towards economic de-centralization and liberalization has had an impact on the traditional operation and management of the mass media. New criteria, like efficiency, profitability and cultural equity, are also coming to challenge the traditional mass-media organizations. Some typical recent developments have included:

The creation of Radio Danubius, a commercial station aimed at domestic and foreign tourists, which covers operating costs through advertising.

The Hungarian Television's teletext service may be spun off as a public equity company.

The broadcasting organizations are extending the range of their services and products (cassettes, records, books) to improve their financial situation and optimize the use of recorded material.

Local cable programming has undergone considerable development in recent years and has taken place largely independently of the state television organization.

Newspaper companies have been reorganized into self-financing units.

Advertising as a source of revenue for state broadcasting organs has not been developed, and seldom represents more than 1 per cent of programming time on radio and television.

Since 1986, private cinemas and private video cinemas have been opened in the country. Import controls continue to exist on certain categories of pre-recorded video cassettes (pornographic, horror and recent commercial releases) but observers say that the major new film releases can be found in Hungary within a week of their release.

In the past few years, several private, profit-making book-publishing enterprises have been created.

Because of the increasing economic and social importance of information, the Central Statistical Office made an analysis of the organizations, activities and services handling, transforming, processing and distributing information or providing the technical infrastructure for these activities. The ratio of employees working with the information sector had reached 32 per cent by the early 1980s. In 1982, 12 per cent of the country's value-added production emanated from the primary information sector and 20 per cent from the secondary sector.

Cable is expected to be the next biggest spending area for Hungary, taking 31.5 per cent; customer premises and transmission equipment will take up an estimated 12.5 per cent and 9.5 per cent of expediture respectively.

The recent development of telecommunications services in *Czechoslovakia* was considerably influenced by changes introduced in tariff policies in 1979. Increased installation and monthly charges led to a decline in demand for new equipment installation. Together with improved supply, the number of those on the waiting list for telephone installation dropped about 50 per cent to 218,000 between 1976 and 1986. Demand for television sets has been virtually constant since 1978, growing on average less than 1 per cent per year. Fifty-nine per cent of television sets sold in 1986 were colour sets. Radio license revenue rose sharply in recent years as a result of the introduction of stereo broadcasts. Telecommunications plans are regarded as high priority over the long term. Major spending will be on cable, rising from $59.3 million in 1986 to a projected total of $120.5 million in 1990.

Czechoslovakia is typical of Eastern European countries which have been invaded by video-cassette recorders. This has produced interesting economic phenomena, as local enterprises and agencies seek to take advantage of the technology's popularity to market blank cassettes or set up copying and distribution networks for pre-recorded cassettes. The Czechoslovak Film Rental Company founded its video section in 1984. At present, seven regional and three corporate video rental shops are functioning in Czechoslovakia.

In *Poland*, a lengthy recession has led to decreased global production and reduced productivity. This means, for example, that a colour television costing the equivalent of 3.6 times an average monthly salary in 1980 cost 9.3 times that same salary in 1985. It is noteworthy that total circulation of all newspapers and periodicals rose by 119 per cent between 1980 and 1985, and that during the same period, the number of copies of books published grew by 169 per cent while the number of telephones per 1,000 inhabitants rose by 120 per cent. There is also a flourishing microcomputer industry in Poland, producing software and peripheral devices for export and the domestic market. However, both individuals and the state still depend heavily on imported computer equipment from the West.

The current economic recession has led to a search for more economically efficient models of production, including the mass media. Thus, Poltel was created in the early 1980s to produce television programmes. Poltel sells 60 per cent of its services to the Polish television and the rest to other partners in Poland and abroad. Economic reforms introduced in the 1980s forced both the publishers and editors of newspapers and periodicals to adapt to the tastes of the potential reading public. In 1987, *Res Publica*, the first privately produced periodical to be published in Poland since the Second World War appeared.

Poland also leads Eastern Europe in alternative printed publications, and in video distribution. A major modernization and expansion programme is under way in Poland. The government intends to increase the number of telephones in the country by 900,000 by the end of the decade. A new coaxial cable is being laid and new automatic exchanges are being installed as part of a project to modernize the country's exchanges (in the current plan which runs from 1986 to 1990). Fibre optics are gradually being introduced.

The developing countries

The information provided by the regional contributions to *World Communication Report* on this topic was limited, but this limitation came as no surprise. In the

first place, data on economic and industrial activities in the developing world are notably hard to come by, in the absence of regular data-collection mechanisms. Secondly, and more important, the developing countries have, to date, been largely labour markets (and to a lesser extent, sales markets) for the industrialized world. Much of the record, therefore, simply demonstrates the role of the developing countries in providing manufacturing-assembly and component-production services and in serving as a subsidiary market for consumer products, or for complete media systems.

In the past decade, attempts have been made to break this cycle of dependency, both by the developing countries themselves (singly, and in regional or political blocs), and through development-assistance programmes, and this subsection provides examples of such efforts. They have been particularly evident in some of the larger developing countries, such as India and Brazil, where a more adequate resource base is available. However, recent factors of economic recession and growing indebtedness have made these attempts at relative self-sufficiency, and at entry into world markets, far less effective than they might otherwise have been. At the present time, an alternative approach is being made by both industrialized and developing countries to enter into more equal partnerships, featuring a more complete technology transfer which embraces research and development techniques, and not simply passive, reproductive manufacturing skills.

Africa

A general observation is that African societies remain basically agricultural and the majority of the active population in most countries–above 70 per cent in Burundi, Ethiopia, Kenya, Rwanda, Swaziland, the United Republic of Tanzania and Uganda, among others–are engaged in agriculture. Thus, manufacturing and service sectors of the economy, including information- and communication-related activities, involve only a minute proportion of the labour force.

However, although representing a relatively small market compared to other world regions, Sub-Saharan Africa is nonetheless becoming increasingly significant for transnational corporations engaged in the manufacture of communications and telecommunications products. The 1970s and 1980s have seen expanding activities on the part of transnational corporations from Western Europe, Japan and North America in communication and telecommunications infrastructural development in African countries.

Japanese, American, British, French, Netherlands and Federal Republic of Germany transnational corporations such as Nippon Electric, ITT, GTE, Cable and Wireless, Thomson-CSF, CIT-ALCATEL, Philips and Ericsson play a dominant role in supply, installation and training for the operation and maintenance of radio and television transmitters, telephones and satellite stations in the region.

Second, transnational corporations such as Sanyo of Japan and Philips of the Netherlands have established local subsidiaries in Côte d'Ivoire, Ghana, Kenya and Zimbabwe to assemble radio and television receiving sets for the African market.

Publishing and printing are perhaps the most economically significant communication-related activities, and are relatively well developed. In general, governments play an important role in the form of state publishing corporations. They tend to have the largest capacity in the trade and are thus ideal for large-scale work like school textbooks.

Among regional bodies which attempt to promote indigenous production of audio-visual and information products are the Inter-African Association for the Development of Communication (Association Interafricaine pour le Développement de la Communication - AIDEC), based in Ouagadougou, Burkina Faso. AIDEC was formed to promote co-operation in the production and distribution of audio-visual materials and encourage research on communication problems in French-speaking African countries. A major activity of the association is the Tele-Africa Project which aims at developing a commercial television system to serve 17 French-speaking countries in the region.

The main organizations set up to promote local film production and distribution are: the Pan-African Federation of Film Directors (Fédération Pan-Africaine des Cinéastes, FEPACI), founded in 1970 and based in Dakar, Senegal; the Inter-African Film Distribution Consortium (IFDC) and the Inter-African Film Production Consortium (IFPC), both of which are intergovernmental organizations based in Ouagadougou.

Arab States

A sizeable proportion of the resources of the Arab States as a whole has been allocated to communication, the bulk of it in the area of telecommunication technology and equipment. In 1983, for example, Egypt spent around E£223 million (US$1 = E£0.70) on telecommunication equipment, and around E£167 million on telephone switching equipment alone. In 1984, Morocco and the Syrian Arab Republic spent Dirham224 million (US$1 = Dirham8.81) and S£96 million (US$1 = S£3.93) respectively on telecommunication equipment, and Dirham73 million and S£95

million on telephone switching equipment. An estimated $2,000 million was spent on the Middle East and Mediterranean basin telecommunication network project. The cost of Arabsat is estimated at $200 million.

It is possible for communication industries to be set up in the Arab region given its financial, human and national resources, and some small ventures have already been created to make finished or semi-finished goods or assemble components imported from industrial centres abroad. Foremost among these are the production of paper, radio and television receivers, printing inks and related equipment, telephone instruments, antennas and numerous other products. The Arab Educational, Cultural and Scientific Organization (ALECSO) considers these industries to be one of the foundations of what it calls the region's "cultural security", an expression which embraces all industries connected with culture, information and education.

Asia and the Pacific

Economic and industrial trends in Asia reflect the very wide range of economic development to be found in the region. High investment capacity and well-developed industrial structures are found in upper-income countries like Japan and Australia, while the sheer size and human resource base of countries like India and China have enabled them to evolve considerable indigenous capacity in communication technology.

In the communication sector, as in others, two noteworthy trends are the attempts by certain governments to develop national design and manufacturing capacity, as well as the extent to which the two developed economies of the region, Japan and Australia, are involved in technical assistance with their regional neighbours. Elsewhere, several governments in the region have adopted industrial and investment policies designed to encourage foreign manufacturers of communications and data-processing equipment to establish themselves in the region, notably through the setting up of duty-free industrial and trading zones.

Economic and industrial trends affecting the development of mass media, in particular, reflect the kinds of structural problems found in developing countries around the world. Their expansion has been in response to markets comprising relatively better-off urban groups, to the detriment of the rural populations often representing more than two-thirds of national populations. *China* stands out as a major exception where mass media, both print and broadcast, have been more evenly spread out over the country through deliberate policy measures.

The print media in *India* are privately owned. In 1984, there were a total of 21,784 newspapers and periodicals in the country with a combined circulation of 62 million–a 20 per cent increase over 1980. Press ownership is relatively concentrated and in 1979, 83 group owners controlled 331 big or medium newspapers with a circulation of 11 million, and owners of 5 per cent of the newspapers controlled one-third of the newspaper circulation in the country.

A major problem facing the Indian film industry is the growing use of video. This technology, involving the colour television boom and the influx of VCRs and video-cassettes in the early 1980s, provided alternative entertainment to the middle class in urban areas, which had comprised a major proportion of film-viewers. At present about 100,000 video parlours and video libraries, 3,000 "video coaches" and 15,000 hotel rooms with video facilities are operating in the country. It is estimated that about 300,000 "pirated" video cassettes are produced every month. Even though home viewing rights of video cassettes are authorized and the film industry is encouraging it, almost all the profits from this are siphoned away by the pirated cassettes.

All-India Radio controls one of the largest radio broadcast systems in the world. India has made considerable strides in meeting its broadcasting hardware needs locally. The Department of Electronics estimates that 80 per cent of the $600 million in broadcasting equipment needed during the 1986-90 seventh Five Year Plan can be supplied indigenously.

A country of the size and development level of India represents enormous market potential for the computer industry. It is especially the mini- and microcomputer market that is growing and it is estimated that the demand for computers and peripherals will grow at a rate of 20 per cent for the coming five-year period.

India has accorded priority to developing an indigenous computer industry for both hardware and software. A special framework of policies has been developed, aimed at acquiring foreign technology and developing software. Since 1973, imports of foreign equipment have been deliberately restricted in order to promote development and marketing of indigenous computer systems by the Electronics Corporation of India, Limited (ECIL). Domestic computer production (in fact, assembly of imported components) increased by 50 per cent in value during 1976-80. Computer systems manufactured in India can be classified into 8-, 16- and 32-byte systems: 8- and 16-byte systems are manufactured by over 15 firms at present, predominantly in the private sector. Indian firms also make terminals of different kinds, including intelligent terminals with graphic capabilities. As a result of the new computer policy of November 1984, the computer

industry has registered spectacular growth, particularly as regards its production base. At present there are over 70 firms making computers.

The Technology Development Council (TDC) was set up by the Electronics Commission with the objective of identifying priority areas, assessing the capability of various organizations to engage in R&D, and financing projects to overcome gaps in the development of the industry. The development of indigenous computer systems and peripherals has been funded under the TDC scheme.

The Computer Maintenance Corporation was established as a public sector agency, to provide maintenance and support services as an indigenous base for computer services, and to develop economic and cost-effective solutions to computer users' needs and problems. In June 1978, when IBM phased out of India, CMC undertook servicing for users of IBM equipment.

Indians who have studied and worked in the United States are creating a boom in the electronics industry at home. Helped by their American contacts, growing numbers are setting up businesses in a special zone on the northern fringe of Bombay aimed at boosting India's electronic exports. The Santacruz Electronic Exporting Processing Zone (SEEPZ) offers export manufacturers a five-year tax exemption, guaranteed power supplies, compulsory conciliation of trade disputes and duty-free import of equipment and materials. Forty per cent of the zone's exports go to Asia, 38 per cent to North America, 13 per cent to Eastern Europe and 7 per cent to Western Europe. SEEPZ has around 60 firms, half of them collaborating with foreign companies, mainly American.

The *Singapore* government has recognized the role of information technology, particularly software technology, and has made the Information Technology Centre for Asia one of its primary developmental goals.

Exports of *Philippine* electronic products for the first quarter of 1987 amounted to $355.4 million. These earnings represent 30 per cent of the $1.06 billion targeted for 1987. The industry, comprising 31 manufacturers, is opting for diverse product lines to include new items like magnetic recording heads and printed circuit boards.

Malaysia has an extensive electronics industry, primarily in the field of micro-chip manufacture for export.

Latin America

A number of major changes are occurring in the traditional organization of the mass media industries in Latin America. They are becoming more complex, more diversified and more transnational. The changes are most significant in countries with the largest private media conglomerates–Mexico and Brazil. On a smaller scale, however, similar patterns of diversification, growth, and transnational expansion can be found in other countries of the region.

In *Mexico*, Televisa is now a complex and diversified transnational conglomerate. Its holdings include the ownership and management of four television channels with repeater stations throughout the country; television production facilities with three separate complexes and 18 complete studios; a Mexican City cable company; the largest Spanish-language, United-States-based news production company; and a foreign sales business for global marketing of all Televisa and Univision productions. In home video, Televisa dominates most aspects of assembly, manufacturing, packaging, marketing and franchise operations. It owns two companies for dubbing and subtitling television and video productions, a feature film production company, and a distribution company. Televisa owns and operates seven national radio stations and a new satellite-transmitted rock station. It also owns and operates various recording studios to service four separate record labels.

Mexico's Televisa has recently undergone a major national and international restructuring based on the establishment of the international holding company Univisa to act as a blanket organization for all the conglomerate's disparate interests. International projects included the restructuring of the Spanish-language television network in the United States Univision (formerly SIN), expanding the American film distribution company Telefilms to include possible global sales of all Latin American feature film production, shifting of Televisa's foreign sales company Protele to Los Angeles, and marketing the new rock radio station with 24-hour broadcasts to Central and South America. Among the national plans are the construction of a 100,000 m^2. Televisa Cita, the launching of a new chain of home video clubs for lower-income VCR owners, and the establishment of a cinema chain with the construction of 40-50 new cinemas in Mexico City.

The Mexican public network Imevision also extended its international operations in 1987 with exports of its programming, especially series, news, and children's shows.

In *Brazil*, the Globo network covers virtually all of Brazil's 3,991 municipalities and reaches an estimated 95 per cent of the 17 million households with television. Globo produces 95 per cent of its own programming with locally produced newscasts, *novelas*, and musicals. Its operations extend to the daily newspaper *O Globo*, 30 radio networks, a major record company, SIGLA, and a home video division. Foreign sales of programming account for just 2 per cent of the overall

annual revenue. In 1986, foreign sales were approximately $12 million. In February 1986, Globo acquired operational rights over Tele Monte Carlo in Italy.

In 1986, Editora Abril, the largest press and publishing company in Brazil, started a new publishing house called Editora Azul. The new firm is in charge of some of the magazines produced by Editora Abril as well as the publication of education materials for the poorest zones of the country.

In *Venezuela*, Radio Caracas Television is a major supplier of programming throughout Latin America. It has entered the United States market through Univision and has its own programming sales company in Miami.

In *Colombia*, the private television programming companies, RTI and RCN, along with Caracol, also hold interests in radio chains and a television exporting company. They are developing a pay-television system delivering channels by UHF to subscribers. Three channels will be fed by satellite with their own advertising. A fourth station will carry only soap operas in Spanish. Local advertising will not be allowed.

The diversification and transnational expansion described in the case of the mass-media industries of Mexico, Brazil, Colombia and Venezuela has not occurred in *Argentina*. Under the present legislation (Ley de Radiodifusión, Article 45), there is a limitation on the number of radio stations–there are over 120 pirate stations–and newspaper owners are not permitted to own television licences. For this reason, media conglomerates have not formed, although one of the largest dailies, *Clarín*, owns 50 per cent of Radio Mitre. Furthermore, the government control of the television channels under the military regime, and of all but one channel up to 1987, limited the development of a commercial television export industry, although this is beginning to occur in the production company of the one private channel in Buenos Aires.

The *Chilean* telecommunications industry under the military government has experienced the dual impact of government control and the removal of public subsidies. In 1987, the Chilean telephone company was privatized. A major shareholding was purchased by an Australian communications and broadcasting company. In the case of the government-owned stations and the university stations this has meant a sharp increase in advertising as practically the only form of financing - advertising grew from $7 million in 1969 to $300 million in 1979. The increase of advertising and advertising investment resulted in the growth of a private production capacity in television and film including private studios. In the last few years, some Chilean programmes have been exported, especially soap operas and special events like the Festival of Viña del Mar and others often co-produced with Televisa and Univision for export to the United States.

Multi-media conglomerates like those in Brazil and Mexico have not developed in Chile, in part due to the university and government ownership of television and later radio. The most important newspaper, *El Mercurio*, however, has interests in radio and was given a concession for a cable system through its subsidiary Intercom. The industrial group Cruzat-Larrain owns the periodical *Ercilla* and part of Radio Minería while the Vial-BHC group owned a publishing house and interest in radio chains and television production.

At the beginning of the 1980s, there were more than 53,000 computers in Latin America, 90 per cent of which were concentrated in Brazil, Argentina, Mexico and Venezuela. More recent figures indicate a significant increase in computers of all sizes. In Argentina, for example, the number jumped from 11,500 in 1982 to 42,864 in 1984. Three-quarters of the computers in 1984 were microcomputers, most of which were in the private sector and in the area of services.

Between 1978 and 1982, computer imports increased by 25 per cent each year reaching over $400 million for the region in 1982. With the exception of Brazil, Argentina and Mexico, all the countries are entirely dependent on imported computers and parts. In those countries with limited national computer industries, many parts are imported and there is a heavy participation of transnational firms in the national industries. In Chile, in 1984, 70 per cent of the national computer market was occupied by IBM, Digital, NCR, Burroughs and Wang.

Various countries of Latin America produce telecommunications hardware in association with transnational firms. Much of the import of parts is directed toward these industries. *Brazil* presents an exception to this situation due to an explicit government policy towards transnational firms designed to increase the amount of locally produced parts. The Brazilian Government also promotes a programme of joint ventures between local and foreign firms, supports the development of national firms, and subsidizes a programme of research and development in the national firms that provide telecommunications services, as well as in Telebras.

In *Argentina*, transnational firms dominate the manufacturing of hardware and the transmission of data. In 1986, the Argentine telecommunications industry employed 5,300 people with an annual production of $123 million. It imported $23 million in parts and exported $0.4 million in products. In 1984, of the 42 enterprises in the sector, seven were foreign subsidiaries. The seven foreign subsidiaries accounted for 88 per cent of the total production and for 82 per cent of employment in the sector. The government has a programme of industrial and technological development for the telecommunications sector connected to

the Megatel plan that calls for the installation of a million new telephone lines. The programme is directed towards the local production of digital equipment and optical fibres and the establishment of an integrated network of services for data transmission and facsimile.

Mexico, mainly through joint ventures, leads the region in the export of telecommunications hardware. The Mexican telecommunications industry is influenced by the strong state presence in the economy, the high level of consumption of electronic products, and the importance of transnational firms in the economy.

The countries of the *Andean region* have not developed national policies for production and technology transfer in telecommunications. There are, however, some regional efforts in this direction like the Hispano-American Association of Telecommunication Research Centres (Asociación Hispano-americana de Centros de Investigación y Estudios de Telecomunicaciones, AHCIET), Andean Project for the Manufacture of Telecommunication Equipment (Proyecto Andino de Fabricación de Equipos de Telecomunicaciones, PAFET), of the Association of Public Telephone Companies/Andean Subregional Pact (Asociación de Empresas Estatales de Telecomunicación/Acuerdo Subregional Andino, ASETA) to produce and assemble appropriate hardware and software for the region.

In *Colombia*, the largest area of production and sales in telecommunications is in the area of telephones. There are some firms that assemble radio and television sets and video cassette-recorders nationally. Most of these firms are affiliates of transnational firms like Hitachi, Panasonic, Toshiba, Philips, Sony and Sharp.

Peru had approximately 24 firms producing and assembling audio and video technologies in 1983-85. Peru produced 14,799 black-and-white televisions, 23,667 colour televisions, and 103,680 radios in 1985.

Selected major information and communication groupings

These are groupings ranked by annual turnover as follows (in millions of current dollars):

Total turnover for information and communication (Table 3.7).
Total media turnover (press and publishing, television, radio and cinema) (Table 3.8).
Total turnover for services (informatics and telecommunications) (Table 3.9).
Total turnover for equipment (telecommunications and electronics) (Table 3.10).

Background on the grouping

The list of firms only covers data for "independents": that is to say, groups not controlled by another group. The state is not considered as a group. The data included are only for the sections under review. Cross-overs between sectors within the same group are not taken into account in the global total of information activities, as this could lead in certain cases to higher totals in the overall balance of figures. Data have not been obtainable from all countries and a significant number, especially of non-market based ecomonies, are therefore not reflected in Tables 3.7 to 3.10. The sectors are:

Equipment: manufacture of equipment and components for the production, processing and distribution of data in domestic, industrial, administrative, medical and defence environments. This sector consists essentially of the electronic industries (components, instrumentation, computers, systems and office automation), telecommunications, engineering and chemical industries (the latter only for their information technology products: photographic and film equipment, printing, and magnetic and chemical supports).

Services: these comprise: (a) telecommunications services; (b) computer services; (c) information services (software programming, data systems, engineering, data bases); (d) printing services etc.; and (e) agency and advertising services.

Television, radio and cinema: comprising audio-visual production, programming, distribution and exhibition.

Press and publishing: comprising information publishing in various formats (paper, records).

The classification does not include postal services, traditional information services (advisers and auditors), amusement parks and live entertainment, consumer distribution channels (bookshops, electronics retailers). Data are for the calendar year 1987, unless otherwise stated (up to date in the last column). Exchange rates are average rates (source IMF) over the calendar year.

The data should be treated with caution since some companies do not break down their activities in the same way as adopted in this classification. In a few cases, in particular in the media sector where many groups are privately owned, the data are estimates.

Some services directly linked to an activity are included under that activity, as is customary, such as: Marketing activities, installation, maintenance and supply of information technology software.

Leasing of terminals and private telecommunication systems, and the production of directories for telecommunication services, are included with telecommunication.

Activities traditionally linked, have not always been separated, for example, printing from press and publishing, telecommunications services from information services or vice-versa.

Only the profit margins of business activities (especially relating to advertising agencies) are taken into consideration.

Sources consist of, principally, annual reports and other documents supplied by firms; *Advertising Age* and selected national or sector-based classifications. IDATE compilations and estimates.

Table 3.7

Selected major information and communication groupings

Total turnover for information and communication

Group	Country	Ranking-Information and communication	Information and communication sales	Total sales	Information and communications (%)	Period
IBM	USA	1	54 217	54 217	100	
NTT	Japan	2	40 926	40 926	100	March-88
ATT	USA	3	37 458	33 598	111	
Matsushita	Japan	4	24 683	34 832	71	March-88
Deutsche Bundespost	Germany, Fed. Rep. of	5	20 185	28 960	70	
NEC	Japan	6	19 622	19 622	100	March-88
Philips	Netherlands	7	19 253	26 023	74	
British Telecom	UK	8	17 344	17 344	100	March-88
France Telecom	France	9	16 650	16 650	100	
Toshiba	Japan	10	16 106	17 824	90	March-88
Xerox	USA	11	15 125	15 125	100	
Fujitsu	Japan	12	14 565	14 794	98	March-88
Siemens	Germany, Fed. Rep. of	13	14 278	28 573	50	September-87
Hitachi	Japan	14	14 006	28 772	49	March-87'
GTE	USA	15	13 366	15 421	87	
General Motors	USA	16	12 917	101 782	13	
General Electric	USA	17	12 665	40 515	31	
STET	Italy	18	12 519	12 519	100	
Bell South	USA	19	12 269	12 269	100	
Nynex	USA	20	12 084	12 084	100	
CGE (Cie Générale d'Electricité)	France	21	11 018	21 208	52	
Eastman Kodak	USA	22	10 941	13 305	82	
Bell Canada Entreprises	Canada	23	10 680	11 051	97	
Sony	Japan	24	10 345	10 345	100	March-88
Bell Atlantic	USA	25	10 298	10 298	100	
Unisys	USA	26	9 713	9 713	100	
Ameritech	USA	27	9 536	9 536	100	
DEC	USA	28	9 389	9 389	100	June-87
Pacific Telesis	USA	29	9 131	9 131	100	
Thomson	France	30	8 484	10 014	85	
Sharp	Japan	31	8 483	8 483	100	March-88
US West	USA	32	8 445	8 445	100	
Hewlett Packard	USA	33	8 090	8 090	100	October-87
Southwestern Bell	USA	34	8 003	8 003	100	
Canon	Japan	35	7 060	7 060	100	
GEC	UK	36	6 758	10 471	65	March-88
Motorola	USA	37	6 707	6 707	100	
Honeywell	USA	38	6 679	6 679	100	
Fuji Photofilm	Japan	39	5 890	5 890	100	October-87
Olivetti	Italy	40	5 691	5 691	100	
NCR	USA	41	5 641	5 641	100	
Texas Instruments	USA	42	5 437	5 595	97	
Ericsson	Sweden	43	5 110	5 110	100	
Bertelsmann	Germany, Fed. Rep. of	44	5 096	5 096	100	June-87
Raytheon	USA	45	4 940	7 659	64	

Table 3.7-cont.

Group	Country	Ranking-Information and communication	Information and communication sales	Total sales	Information and communications (%)	Period
Rockwell	USA	46	4 902	12 123	40	
Ricoh	Japan	47	4 873	4 873	100	March-88
Sanyo	Japan	48	4 699	8 575	55	
Dai Nippon Printing	Japan	49	4 630	4 630	100	May-87
Telefónica (CTNE)	Spain	50	4 606	4 606	100	
Capital Cities/ABC	USA	51	4 440	4 440	100	
Mitsubishi	Japan	52	4 365	12 470	35	March-87
Time	USA	53	4 193	4 193	100	
Swiss PTT	Switzerland	54	4 026	5 768	70	
Telecom Australia	Australia	55	4 013	4 013	100	
MCI	USA	56	3 939	3 939	100	
Fuji Electric	Japan	57	3 900	3 900	100	March-87
News Corp	Australia	58	3 845	4 219	91	June-88
Daimler Benz	Germany, Fed. Rep. of	59	3 729	38 401	10	
Bayer	Germany, Fed. Rep. of	60	3 630	20 665	18	
STC	UK	61	3 503	3 503	100	
Warner Communications	USA	62	3 404	3 404	100	
Allied Signal	USA	63	3 380	11 116	30	
Control Data	USA	64	3 367	3 367	100	
Dun & Bradstreet	USA	65	3 359	3 359	100	
Yomiuri Group	Japan	66	3 323	3 323	100	86
Oki	Japan	67	3 262	3 262	100	March-88
Televerket	Sweden	68	3 242	3 242	100	
Dutch PTT	Netherlands	69	3 237	5 074	64	
ITT	USA	70	3 236	19 525	17	
Times Mirror	USA	71	3 106	3 155	98	
Bosch	Germany, Fed. Rep. of	72	3 105	14 112	22	
Gannett	USA	73	3 079	3 079	100	
Bull	France	74	3 007	3 007	100	
Du Pont de Nemours	USA	75	3 000	30 468	10	
United Telecom	USA	76	2 982	2 982	100	
Marin Marietta	USA	77	2 960	5 165	57	
Contel	USA	78	2 905	2 905	100	
Gulf+Western	USA	79	2 904	4 681	62	
OPT	Austria	80	2 865	2 865	100	
Wang	USA	81	2 837	2 837	100	
Nixdorf	Germany, Fed. Rep. of	82	2 821	2 821	100	
Lucky Gold Star	Korea, Rep. of	83	2 791	11 474	24	86
CBS	USA	84	2 762	2 762	100	
TRW	USA	85	2 721	6 821	40	
Apple	USA	86	2 661	2 661	100	September-87
ARD	Germany, Fed. Rep. of	87	2 614	2 614	100	
US Sprint	USA	88	2 592	2 592	100	
TDK	Japan	89	2 586	2 586	100	November-87
Toppan Printing	Japan	90	2 584	3 800	68	May-87
Samsung	Korea, Rep. of	91	2 581	14 193	18	85
NHK	Japan	92	2 541	2 541	100	March-88
Ford Motor	USA	93	2 500	71 643	3	
Telebras	Brazil	94	2 479	2 479	100	86
Advance Publications	USA	95	2 397	na	na	
Pioneer	Japan	96	2 374	2 374	100	September-87
Zenith Electronics	USA	97	2 363	2 363	100	
Racal Electronics	UK	98	2 317	2 317	100	March-88
Telecoms New Zealand	New Zealand	99	2 285	2 285	100	85
Plessey	UK	100	2 205	2 205	100	March-88
Alps	Japan	101	2 187	2 187	100	March-87
Korea Telecommunications Authority	Korea, Rep. of	102	2 178	2 178	100	
Tribune	USA	103	2 160	2 160	100	
Asahi Group	Japan	104	2 137	2 374	90	85
Televerket	Norway	105	2 134	2 134	100	
Minolta	Japan	106	2 104	2 104	100	March-88
Knight Ridder	USA	107	2 073	2 073	100	
Harris	USA	108	2 063	2 063	100	June-87
MCA	USA	109	2 052	2 590	79	
Pitney Bowes	USA	110	2 009	2 251	89	
Litton	USA	111	1 969	4 864	40	July-88
RTT	Belgium	112	1 962	1 962	100	
Hearst	USA	113	1 925	2 200	88	

Table 3.7-cont.

Group	Country	Ranking-information and communication	Information and communication sales	Total sales	Information and communications (%)	Period
Intel	USA	114	1 907	1 907	100	
National Semiconductor	USA	115	1 868	1 868	100	May-87
AMP	USA	116	1 854	2 318	80	
Konishiroku	Japan	117	1 835	1 835	100	March-86
Fuji-Sankei	Japan	118	1 825	2 457	74	81
Kyocera	Japan	119	1 809	2 171	83	March-88
Westinghouse	USA	120	1 801	10 679	17	
KDD	Japan	121	1 796	1 796	100	
Reed International	UK	122	1 792	3 408	53	March-88
Polaroid	USA	123	1 764	1 764	100	
Konica	Japan	124	1 760	1 760	100	April-87
McGraw-Hill	USA	125	1 751	1 751	100	
Tele-Communications	USA	126	1 709	1 709	100	
Casio Computer	Japan	127	1 699	1 699	100	March-88
New York Times	USA	128	1 690	1 690	100	
Omrom Tatesei Electronics	Japan	129	1 648	1 648	100	March-87
BBC	UK	130	1 601	1 601	100	
RAI	Italy	131	1 591	1 591	100	
Cable & Wireless	UK	132	1 580	1 580	100	
Axel Springer Verlag	Germany, Fed. Rep. of	133	1 553	1 548	100	
Automatic Data Processing	USA	134	1 549	1 549	100	June-88
Hachette	France	135	1 536	2 863	54	
Murata	Japan	136	1 530	1 530	100	
Amdalh	USA	137	1 505	1 505	100	
Lockheed	USA	138	1 502	11 321	13	
BASF	Germany, Fed. Rep. of	139	1 500	22 387	7	
Maxwell Communications	UK	140	1 498	1 498	100	
Avnet	USA	141	1 482	1 671	89	
SNET	USA	142	1 470	1 470	100	
Reuters	UK	143	1 469	1 469	100	
Cox Enterprises	USA	144	1 464	1 600	92	
Sagem	France	145	1 454	1 477	98	
Singer	USA	146	1 431	1 725	83	86
Fiat	Italy	147	1 417	29 460	5	
Eaton	USA	148	1 411	3 138	45	
Tektronix	USA	149	1 352	1 352	100	86
Perkin Elmer	USA	150	1 334	1 334	100	
Dow Jones	USA	151	1 314	1 314	100	
Centel	USA	152	1 312	1 476	89	
Data General	USA	153	1 304	1 304	100	
Schlumberger	USA	154	1 300	4 727	28	
Reader's Digest	USA	155	1 288	1 400	92	86
Thorn EMI	UK	156	1 280	5 176	25	March-88
Washington Post	USA	157	1 265	1 315	96	
Ascom	Switzerland	158	1 262	1 262	100	
Ferrandi International Signal	UK	159	1 250	1 250	90	March-88
McDonnell Douglas	USA	160	1 242	13 345	9	
E-Systems	USA	161	1 227	1 227	100	
Compaq	USA	162	1 224	1 224	100	
Teledyne	USA	163	1 222	3 217	38	
General Signal	USA	164	1 200	1 603	75	
Nihon Keizai Group	Japan	165	1 187	1 187	100	85
Comdisco	USA	166	1 175	1 175	100	September-87
General Instrument	USA	167	1 155	1 155	100	February-88
Computer Sciences Corp	USA	168	1 152	1 152	100	March-88
Scripps Howard	USA	169	1 129	1 147	98	
Mainichi Group	Japan	170	1 127	1 305	86	85
Tokyo Broadcasting System	Japan	171	1 120	1 120	100	March-88
Penn Central	USA	172	1 116	1 421	79	
Telecoms Arabia	Saudi Arabia	173	1 116	1 116	100	86
Columbia Pictures Entertainment	USA	174	1 112	1 112	100	
DGT	Iran	175	1 110	1 110	100	86
Pearson	UK	176	1 093	1 614	68	
Hersant Group	France	177	1 082	1 082	100	
Czechoslovakia Telecoms	Czechoslovakia	178	1 076	1 076	100	86
Atlantic Computers	UK	179	1 069	1 069	100	
General Dynamics	USA	180	1 050	9 344	11	

Table 3.7-cont.

Group	Country	Ranking-information and communication	Information and communication sales	Total sales	Information and communications (%)	Period
International Thomson	Canada	181	1 043	2 565	41	
Telecoms Mexico	Mexico	182	1 038	1 038	100	86
Indian Telecoms	India	183	1 037	1 037	100	86
Tandem Computers	USA	184	1 035	1 035	100	
Viacom	USA	185	1 011	1 011	100	
Advanced Micro Devices	USA	186	997	997	100	March-87
Tandy	USA	187	986	3 794	26	June-87
Hoescht	Germany, Fed. Rep. of	188	983	20 561	5	
VNU	Netherlands	189	973	973	100	
Clarion	Japan	190	970	1 054	92	September-87
Matra	France	191	964	2 860	34	
Prime	USA	192	961	961	100	
SGS Micro-electronica	Italy	193	953	953	100	
Chrysler	USA	194	946	26 277	4	
Varian Associates	USA	195	940	1 171	80	September-88
United Newspapers	UK	196	935	1 215	77	
Gould	USA	197	933	933	100	
Mondatori	Italy	198	932	1 027	91	
Oce	Netherlands	199	902	902	100	
PBS (Public Broadcasting Serv.)	USA	200	900	900	100	86
Fininvest	Italy	201	899	2 012	45	86
CANTV	Venezuela	202	890	890	100	86
Dentsu	Japan	203	885	885	100	
Walt Disney	USA	204	876	2 877	30	September-87
Commodore	USA	205	871	871	100	June-88
Amstrad	UK	206	867	867	100	June-87
Southam	Canada	207	867	867	100	85
Nashua	USA	208	865	865	100	
Chinese Telecoms	China	209	852	852	100	86
McLean Hunter	Canada	210	848	848	100	
CBC/SRC (Can. Broadcasting Corporation)	Canada	211	843	843	100	87
The Telex Corp	USA	212	841	841	100	March-87
LTV	USA	213	840	7 582	11	
ZDF	Germany, Fed. Rep. of	214	830	830	100	86
BEZEQ	Israel	215	815	815	100	86
Mannesmann	Germany, Fed. Rep. of	216	808	9 266	9	
AGT	Canada	217	808	808	100	
Télémécanique	France	218	803	1 143	70	
Western Union	USA	219	802	802	100	
Olympus	Japan	220	795	795	100	October-87
BICC	UK	221	790	4 421	18	
Kenwood	Japan	222	787	787	100	November-87
SCI Systems	USA	223	774	774	100	June-88
Western Digital	USA	224	768	768	100	June-88
Turkish Telecoms	Turkey	225	764	764	100	86
Gakken	Japan	226	757	1 024	74	August-87
Lorimar Telepictures	USA	227	757	766	99	March-87
PTT Finland	Finland	228	756	1 512	50	
Storage Tek	USA	229	750	750	100	
Alltel	USA	230	736	736	100	
Young & Rubicam	USA	231	736	736	100	
Triangle Publications	USA	232	730	730	100	
Hardcourt Brace Jovanovich	USA	233	728	1 291	56	
Elsevier	Netherlands	234	725	725	100	
OTE	Greece	235	723	723	100	86
ANT	Germany, Fed. Rep. of	236	718	718	100	
Telecoms Colombia	Colombia	237	714	714	100	86
American Television and Communication	USA	238	714	714	100	
RTVE	Spain	239	711	711	100	
Computer Associates	USA	240	709	709	100	March-88
Wolters Kluwer	Netherlands	241	708	815	87	
Cap Gemini Sogeti	France	242	695	695	100	
Saatchi & Saatchi	UK	243	694	694	100	
Cray Research	USA	244	687	687	100	
KTAS (Kjobenhavns Telefon)	Denmark	245	686	686	100	
Media General	USA	246	686	715	96	
Telecom Eireann	Ireland	247	676	676	100	86

Table 3.7-cont.

Group	Country	Ranking-information and communication	Information and communication sales	Total sales	Information and communications (%)	Period
Macmillan	USA	248	668	956	70	
UA Communications	USA	249	657	657	100	
BET	UK	250	654	2 868	23	March-87
Media News	USA	251	650	nd	nd	
Shin Etsu Chemical	Japan	252	642	1 260	51	May-87
Intergraph	USA	253	641	641	100	
Grumman	USA	254	637	3375	19	
Boeing	USA	255	636	15 355	4	
Associated Newspapers	UK	256	634	763	83	September-86
Jabatan Telekom	Malaysia	257	619	619	100	86
ESD (Electronique Serge Dassault)	France	258	618	618	100	
SCI Holdings	USA	259	612	nd	nd	
Ingersoll Publications	USA	260	609	612	100	
Loral	USA	261	604	604	100	86
Backer Spielvogel Bates	USA	262	601	601	100	
Mitsumi Electric	Japan	263	599	599	100	January-87
Meredith	USA	264	599	599	100	June-87
Microsoft	USA	265	591	591	100	
Turner Broadcasting	USA	266	590	652	90	
Anritsu	Japan	267	589	589	100	March-87
ACTF (Local Telcos Association)	Finland	268	585	585	100	
Home Shopping Network	USA	269	582	582	100	
Nokia	Finland	270	579	2 174	27	85
Harte Hanks Communications	USA	271	579	576	101	86
Kyodo Printing	Japan	272	575	575	100	May-87
JWP	USA	273	573	637	90	
Gestetner	UK	274	572	572	100	October-86
Canal +	France	275	566	566	100	
Computervision	USA	276	564	564	100	
Opubco	USA	277	556	nd	nd	
Apollo Computers	USA	278	554	554	100	
Rohm	Japan	279	550	550	100	March-87
Nippon Columbia	Japan	280	542	645	84	March-88
Scientific Atlanta	USA	281	541	541	100	
Burda	Germany, Fed. Rep. of	282	539	539	100	
Sun Microsystems	USA	283	538	538	100	June-87
BBDO	USA	284	537	537	100	
CEP Communication	France	285	535	535	100	
Poland Telecoms	Poland	286	530	530	100	86
Ogilvy & Mather	USA	287	529	529	100	
Electrocomponents	UK	288	526	526	100	March-88
Dainippon Screen Mfg	Japan	289	525	525	100	March-87
Pacificorp	USA	290	525	2 163	24	
Coming Glass	USA	291	522	2 118	25	
Torstar	Canada	292	522	522	100	85
Advo-systems	USA	293	521	521	100	
Intelsat		294	519	519	100	
TF 1	France	295	518	518	100	
Aiwa	Japan	296	513	513	100	March-88
McCann Erickson	USA	297	513	513	100	
3 M	USA	298	512	9 429	5	
Granada	UK	299	501	1 729	29	September-87
IBL	UK	300	501	501	100	86
Globo	Brazil	301	500	500	100	86
Nippon Telecommunication Construction	Japan	302	500	500	100	March-87
Taft	USA	303	500	500	100	
JTAS (Jydske Telefon)	Denmark	304	500	500	100	

For source and notes, see introductory paragraphs preceding this table.

Table 3.8

Selected major information and communication groupings

Total media turnover (press and publishing, television, radio and cinema)

Group	Country	Ranking-media	Media sales	Press, publishing, recording (%)	Radio-TV, motion pictures (%)	Period
Capital Cities/ABC	USA	1	4 440	23	77	
Time	USA	2	4 193	61	39	
Bertelsmann	Germany, Fed. Rep. of	3	3 689	54	18	June-87
News Corp	Australia	4	3 453	58	32	June-88
Warner Communications	USA	5	3 404	49	51	
General Electric	USA	6	3 165		25	
Gannett	USA	7	3 079	88	12	
Times Mirror	USA	8	2 994	85	11	
Gulf+Western	USA	9	2 904	37	63	
Yomiuri Group	Japan	10	2 848	63	23	86
CBS	USA	11	2 762		100	
ARD	Germany, Fed. Rep. of	12	2 614		100	
NHK	Japan	13	2 541		100	March-88
Advance Publications	USA	14	2 397	92	8	
MCA	USA	15	2 052	8	92	
Knight Rider	USA	16	1 973	90	5	
Tribune	USA	17	1 961	68	22	
Asahi Group	Japan	18	1 840	69	17	85
Hearst	USA	19	1 835	79	16	
Fujl-Sankei	Japan	20	1 825	59	41	81
Reed International	UK	21	1 792	100		March-88
Tele-Communications	USA	22	1 709		100	
New York Times	USA	23	1 690	94	6	
BBC	UK	24	1 601		100	
RAI	Italy	25	1 591		100	
Hachette	France	26	1 536	84	16	
Cox Enterprises	USA	27	1 464	49	51	
Axel Springer Verlag	Germany, Fed. Rep. of	28	1 461	94		
Reader's Digest	USA	29	1 274	99		86
Washington Post	USA	30	1 240	77	21	
Scripps Howard	USA	31	1 129	73	27	
Mainichi Group	Japan	32	1 127	79	21	85
Tokyo Broadcasting System	Japan	33	1 120		100	March-88
Columbia Pictures Entertainment	USA	34	1 112		100%	
Thorn EMI	UK	35	1 101	86		March-88
Pearson	UK	36	1 093	100		
Hersant Group	France	37	1 082	100		
Nihon Keisai Group	Japan	38	1 068	65	25	85
Dow Jones	USA	39	1 062	81		
Maxwell Communications	UK	40	1 048	67	3	
International Thomson	Canada	41	1 043	100		
McGraw-Hill	USA	42	1 031	54	5	
Viacom	USA	43	1 011		100	
United Newspapers	UK	44	935	100		
Fiat	Italy	45	917	65		
PBS (Public Broadcasting Service)	USA	46	900		100	86
Finnivest	Italy	47	899	5	95	86
Walt Disney	USA	48	876		100	September-87
Southam	Canada	49	867	100		85
CBC/SRC (Canadian Broadcasting Corporation)	Canada	50	843		100	87
ZDF	Germany, Fed. Rep. of	51	830		100	86
VNU	Netherlands	52	815	84		
Dun & Bradstreet	USA	53	765	23		
Gakken	Japan	54	757	91	9	August-87
Lorimar Telepictures	USA	55	757		100	March-87
Triangle Publications	USA	56	730	100		
Harcourt Brace Jovanovitch	USA	57	728	100		
American Television and Communication	USA	58	714		100	
RTVE	Spain	59	711		100	
Elsevier	Netherlands	60	697	96		
UA Communications	USA	61	657		100	
Mondatori	Italy	62	656	70		
Media News	USA	63	650	100		
Associated Newspapers	UK	64	634	100		September-86
SCI Holdings	USA	65	612		100	
Ingersoll Publications	USA	66	609	100		

Table 3.8-cont.

Group	Country	Ranking-media	Media sales	Press, publishing, recording (%)	Radio-TV, motion pictures (%)	Period
MacLean Hunter	Canada	67	601	47	24	
Westinghouse	USA	68	601		33	
Turner Broadcasting	USA	69	590		100	
Canal +	France	70	566		100	
Wolters Kluwer	Netherlands	71	560	79		
Meredith	USA	72	559	73	20	June-87
Opubco	USA	73	556	22	78	
Burda	Germany, Fed. Rep. of	74	539	100		
CEP Communication	France	75	535	100		
Torstar	Canada	76	522	100		85
TF 1	France	77	518		100	
Taft	USA	78	500		100	

For source and notes, see introductory paragraphs preceding Table 3.7.

Table 3.9

Selected major information and communication groupings

Total turnover for services (informatics and telecommunications)

Group	Country	Ranking-services	Services sales	Total sales	Services as % of total sales	Period
NTT	Japan	1	40 926	40 926	100	March-88
ATT	USA	2	23 392	33 598	70	
Deutsche Bundespost	Germany, Fed. Rep. of	3	20 185	28 960	70	
France Telecom	France	4	16 650	16 650	100	
British Telecom	UK	5	16 598	17 344	96	March-88
Bell South	USA	6	12 269	12 269	100	
Nynex	USA	7	12 084	12 084	100	
GTE	USA	8	11 794	15 421	76	
Bell Atlantic	USA	9	10 298	10 298	100	
STET	Italy	10	9 737	12 519	78	
Ameritech	USA	11	9 536	9 536	100	
Pacific Telesis	USA	12	9 131	9 131	100	
US West	USA	13	8 445	8 445	100	
Southwestern Bell	USA	14	8 003	8 003	100	
Bell Canada Enterprises	Canada	15	5 826	11 051	53	
Dai Nippon Printing	Japan	16	4 630	4 630	100	May-87
Telefonica (CTNE)	Spain	17	4 606	4 606	100	
General Motors	USA	18	4 436	101 782	4	
Swiss PTT	Switzerland	19	4 026	5 768	70	
Telecom Australia	Australia	20	4 013	4 013	100	
MCI	USA	21	3 939	3 939	100	
Televerket	Sweden	22	3 242	3 242	100	
Dutch PTT	Netherlands	23	3 237	5 074	64	
United Telecom	USA	24	2 934	2 982	98	
Contel	USA	25	2 905	2 905	100	
OPT	Austria	26	2 865	2 865	100	
Dun & Bradstreet	USA	27	2 594	3 359	77	
US Sprint	USA	28	2 592	2 592	100	
Toppan Printing	Japan	29	2 584	3 800	68	May-87
Telebras	Brazil	30	2 479	2 479	100	86
Telecoms New Zealand	New Zealand	31	2 285	2 285	100	85
Korea Telecommunications Authority	Korea, Rep. of	32	2 178	2 178	100	
Televerket	Norway	33	2 134	2 134	100	
General Electric	USA	34	2 000	40 515	5	
RTT	Belgium	35	1 962	1 962	100	
KDD	Japan	36	1 796	1 796	100	
Automatic Data Processing	USA	37	1 549	1 549	100	June-88
SNET	USA	38	1 470	1 470	100	
Reuters	UK	39	1 469	1 469	100	
Cable & Wireless	UK	40	1 442	1 580	91	
Bertelsmann	Germany, Fed. Rep. of	41	1 408	5 096	28	June-87
Centel	USA	42	1 182	1 476	80	
Comdisco	USA	43	1 175	1 175	100	September-87
Computer Sciences Corp	USA	44	1 152	1 152	100	March-88
Telecoms Arabia	Saudi Arabia	45	1 116	1 116	100	86
DGT	Iran	46	1 110	1 110	100	86

Table 3.9-cont.

Group	Country	Ranking-services	Services sales	Total sales	Services as % of total sales	Period
Czechoslovakia Telecoms	Czechoslovakia	47	1 076	1 076	100	86
Telecoms Mexico	Mexico	48	1 038	1 038	100	86
Indian Telecoms	India	49	1 037	1 037	100	86
Martin Marietta	USA	50	939	5 165	18	
ITT	USA	51	896	19 525	5	
CANTV	Venezuela	52	890	890	100	86
Dentsu	Japan	53	885	885	100	
Chinese Telecoms	China	54	852	852	100	86
BEZEQ	Israel	55	815	815	100	86
AGT	Canada	56	808	808	100	
Western Union	USA	57	802	802	100	
IBM	USA	58	800	54 217	1	
Turkish Telecoms	Turkey	59	764	764	100	86
PTT Finland	Finland	60	756	1 512	50	
Alltel	USA	61	736	736	100	
Young & Rublican	USA	62	736	736	100	
OTE	Greece	63	723	723	100	86
McGraw-Hill	USA	64	721	1 751	41	
Telecoms Colombia	Colombia	65	714	714	100	86
Computer Associates	USA	66	709	709	100	March-88
Cap Gemini Sogeti	France	67	695	695	100	
Saatchi & Saatchi	UK	68	694	694	100	
KTAS (Kjobenhavns Telefon)	Denmark	69	686	686	100	
Telecom Eireann	Ireland	70	676	676	100	86
Jabatan Telekom	Malaysia	71	619	619	100	86
Backer Spielvogel Bates	USA	72	601	601	100	
Microsoft	USA	73	591	591	100	
ACTF (Local Telcos Association)	Finland	74	585	585	100	
Home Shopping Network	USA	75	582	582	100	
Kyodo Printing	Japan	76	575	575	100	May-87
JWP	USA	77	573	637	90	
BBDO	USA	78	537	537	100	
Poland Telecoms	Poland	79	530	530	100	86
Ogilvy & Mather	USA	80	529	529	100	
Pacificorp	USA	81	525	2 163	24	
TWR	USA	82	521	6 821	8	
Advo-Systems	USA	83	521	521	100	
Intelsat		84	519	519	100	
McCann Erickson	USA	85	513	513	100	
Globo	Brazil	86	500	500	100	86
Nippon Telecommunication Construction	Japan	87	500	500	100	March-87
JTAS (Jydske Telefon)	Denmark	88	500	500	100	

For source and notes, see introductory paragraphs preceding Table 3.7.

Table 3.10

Selected major information and communication groupings

Total turnover for equipment (telecommunications and electronics)

Group	Country	Ranking-Equipment	Equipment sales	Total sales	Equipment as % of total sales	Period
IBM	USA	1	53 417	54 217	99	
Matsushita	Japan	2	24 683	34 832	71	March-88
NEC	Japan	3	19 622	19 622	100	March-88
Philips	Netherlands	4	19 253	26 023	74	
Toshiba	Japan	5	16 106	17 824	90	March-88
Xerox	USA	6	15 125	15 125	100	
Fujitsu	Japan	7	14 565	14 794	98	March-88
Siemens	Germany, Fed. Rep. of	8	14 278	28 573	50	September-88
ATT	USA	9	14 066	33 598	42	
Hitachi	Japan	10	14 006	28 772	49	March-87

Table 3.10-cont.

Group	Country	Ranking-Equipment	Equipment sales	Total sales	Equipment as % of total sales	Period
CGE (Cie Générale d'Electricité)	France	11	11 018	21 208	52	
Eastman Kodak	USA	12	10 941	13 305	82	
Sony	Japan	13	10 063	10 345	97	March-88
Unisys	USA	14	9 713	9 713	100	
DEC	USA	15	9 389	9 389	100	June-87
Sharp	Japan	16	8 483	8 483	100	March-88
General Motors	USA	17	8 481	101 782	8	
Thomson	France	18	8 437	10 014	84	
Hewlett Packard	USA	19	8 090	8 090	100	October-87
General Electric	USA	20	7 500	40 515	19	
Canon	Japan	21	7 060	7 060	100	
GEC	UK	22	6 758	10 471	65	March-88
Motorola	USA	23	6 707	6 707	100	
Honeywell	USA	24	6 679	6 679	100	
Fiji Photofilm	Japan	25	5 890	5 890	100	October-87
Olivetti	Italy	26	5 691	5 691	100	
NCR	USA	27	5 641	5 641	100	
Texas Instruments	USA	28	5 437	5 595	97	
Ericsson	Sweden	29	5 110	5 110	100	
Rockwell	USA	30	4 902	12 123	40	
Ricoh	Japan	31	4 873	4 873	100	March-88
Bell Canada Enterprises	Canada	32	4 854	11 051	44	
Raytheon	USA	33	4 740	7 659	62	
Sanyo	Japan	34	4 699	8 575	55	
Mitsubishi	Japan	35	4 365	12 470	35	March-87
Fuji Electric	Japan	36	3 900	3 900	100	March-87
Daimler Benz	Germany, Fed. Rep. of	37	3 729	38 401	10	
Bayer	Germany, Fed. Rep. of	38	3 630	20 665	18	
STC	UK	39	3 503	3 503	100	
Allied Signal	USA	40	3 380	11 116	30	
Control Data	USA	41	3 367	3 367	100	
Oki	Japan	42	3 262	3 262	100	March-88
Bosch	Germany, Fed. Rep. of	43	3 105	14 112	22	
Bull	France	44	3 007	3 007	100	
Du Pont de Nemours	USA	45	3 000	30 468	10	
Wang	USA	46	2 837	2 837	100	
Nixdorf	Germany, Fed. Rep. of	47	2 821	2 821	100	
Lucky Gold Star	Korea, Rep. of	48	2 791	11 474	24	86
STET	Italy	49	2 782	12 519	22	
Apple	USA	50	2 661	2 661	100	September-87
TDK	Japan	51	2 586	2 586	100	November-87
Samsung	Korea, Rep. of	52	2 581	14 193	18	85
Pioneer	Japan	53	2 374	2 374	100	September-87
Zenith Electronics	USA	54	2 363	2 363	100	
ITT	USA	55	2 340	19 525	12	
Racal Electronics	UK	56	2 317	2 317	100	March-88
Plessey	UK	57	2 205	2 205	100	March-88
TRW	USA	58	2 200	6 821	32	
Alps	Japan	59	2 187	2 187	100	March-87
Minolta	Japan	60	2 104	2 104	100	March-88
Ford Motor	USA	61	2 100	71 843	3	
Harris	USA	62	2 063	2 063	100	June-87
Martin Marietta	USA	63	2 021	5 165	39	
Pitney Bowes	USA	64	2 009	2 251	89	
Litton	USA	65	1 969	4 864	40	July-88
Intel	USA	66	1 907	1 907	100	
National Semiconductor	USA	67	1 868	1 868	100	May-87
AMP	USA	68	1 854	2 318	80	
Konishiroku	Japan	69	1 835	1 835	100	March-86
Kyocera	Japan	70	1 809	2 171	83	March-88
Polaroid	USA	71	1 764	1 764	100	
Konica	Japan	72	1 760	1 760	100	April-87
Casio Computer	Japan	73	1 699	1 699	100	March-88
Omrom Tatesei Electronics	Japan	74	1 648	1 648	100	March-88
GTE	USA	75	1 572	15 421	10	
Murata	Japan	76	1 530	1 530	100	
Amdalh	USA	77	1 505	1 505	100	
BASF	Germany, Fed. Rep. of	78	1 500	22 387	7	
Avnet	USA	79	1 482	1 671	89	
Sagem	France	80	1 454	1 477	98	

Table 3.10-cont.

Group	Country	Ranking-Equipment	Equipment sales	Total sales	Equipment as % of total sales	Period
Singer	USA	81	1 431	1 725	83	86
Eaton	USA	82	1 411	3 138	45	
Tektronix	USA	83	1 352	1 352	100	86
Perkin Elmer	USA	84	1 334	1 334	100	
Data General	USA	85	1 304	1 304	100	
Lockheed	USA	86	1 302	11 321	12	
Schlumberger	USA	87	1 300	4 727	28	
Thorn EMI	UK	88	1 280	5 176	25	March-88
Ascom	Switzerland	89	1 262	1 262	100	
Ferranti International Signal	UK	90	1 250	1 390	90	March-88
E-Systems	USA	91	1 227	1 227	100	
Compaq	USA	92	1 224	1 224	100	
Teledyne	USA	93	1 222	3 217	38	
Westinghouse	USA	94	1 200	10 679	11	
General Signal	USA	95	1 200	1 603	75	
General Instrument	USA	96	1 155	1 155	100	February-88
Atlantic Computers	USA	97	1 069	1 069	100	
General Dynamics	USA	98	1 050	9 344	11	
Tandem Computers	USA	99	1 037	1 035	100	
Advanced Micro Devices	USA	100	997	997	100	March-87
Tandy	USA	101	986	3 794	26	June-87
Hoescht	Germany, Fed. Rep. of	102	983	20 561	5	
Clarion	Japan	103	970	1 054	92	September-87
Matra	France	104	964	2 860	34	
Prime	USA	105	961	961	100	
SGS Micro- electronica	Italy	106	953	953	100	
Chrysler	USA	107	946	26 277	4	
Varian Associates	USA	108	940	1 171	80	September-88
Gould	USA	109	933	933	100	
McDonnell Douglas	USA	110	926	13 345	7	
Commodore	USA	111	871	871	100	June-88
Amstrad	UK	112	867	867	100	June-87
The Telex Corp	USA	113	841	841	100	March-87
LTV	USA	114	840	7 582	11	
Mannesmann	Germany, Fed. Rep. of	115	808	9 266	9	
Télémécanique	France	116	803	1 143	70	
Olympus	Japan	117	795	795	100	October-87
BICC	UK	118	790	790	18	
Kenwood	Japan	119	787	787	100	November-87
SCI Systems	USA	120	774	774	100	June-88
Kenwood	Japan	119	787	787	100	November-87
SCI Systems	USA	120	774	774	100	June-88
Western Digital	USA	121	768	768	100	June-88
Nashua	USA	122	767	767	89	
Storage Tek	USA	123	750	750	100	
British Telecom	UK	124	746	17 344	4	March-88
ANT	Germany, Fed. Rep. of	125	718	718	100	
Penn Central	USA	126	709	1 421	50	
Cray Research	USA	127	687	687	100	
Shin Etsu Chemical	Japan	128	642	1 260	51	May-87
Grumman	USA	129	637	3 375	19	
Boeing	USA	130	636	15 355	4	
ESD (Electronique Serge Dassault)	France	131	618	618	100	
Loral	USA	132	604	604	100	86
Mitsumi-Electric	Japan	133	599	599	100	January-87
Anritsu	Japan	134	589	589	100	March-87
Nokia	Finland	135	579	2 174	27	85
Gestetner	UK	136	572	572	100	October-86
Computervision	USA	137	564	564	100	
Apollo Computers	USA	138	554	554	100	
Rohm	Japan	139	550	550	100	March-87
Scientific Atlanta	USA	140	541	541	100	
Sun Microsystems	USA	141	538	538	100	June-87
Electrocomponents	UK	142	526	526	100	March-88
Dainippon Screen Mfg	Japan	143	525	525	100	March-87
Corning Glass	USA	144	522	2 118	25	
Aiwa	Japan	145	513	513	100	March-88
Oce	Netherlands	146	508	902	56	
IBL	UK	147	501	501	100	86
Fiat	Italy	148	500	29 460	2	

For source and notes, see introductory paragraphs preceding Table 3.7.

4. Employment and training

Although intimately related, the twin themes of employment and training are dealt with separately in this chapter, largely because of different levels of data availability. In the case of *employment*, statistics–even estimates–could only be obtained for a limited number of countries, and no regional review could be completed. In the case of *training*, statistics proved even more difficult to secure, and the section is mainly devoted to a review of professional training opportunities, both international and regional, and to a survey of regional training arrangements in the developing countries.

Employment

Introduction

The extremely meagre data available, even in the industrialized countries, on employment in the communication and information professions reflect the lack of internationally standardized statistical collection in this field. In recognition of this situation, a few years ago the International Labour Organisation proposed a systematic survey of numbers in the journalistic professions, but was unable to proceed because of financial constraints.

Apart from the problems posed by the lack of a regular mechanism for data collection, the situation is exacerbated by the rapid informatization of many societies, particularly in the industrialized world, which is making traditional classifications of occupations rapidly obsolete. This difficulty is itself compounded by the fluid character of the production and distribution processes in the communication field, especially in work-places where roles and functions are themselves changing due to computerization, and where for example a distinction between journalists and other information producers is often difficult to establish.

The figures that follow should therefore be taken as no more than illustrative of the situation in a limited number of countries, mostly industrialized. A general mapping is followed by a more detailed presentation of numbers in journalism, as a limited case study of a specific field.

The information industries

It has already been demonstrated (Chapter 3) that, during the last two decades, there has been a considerable shift of manpower towards those occu-

pations which directly or indirectly take part in information gathering, processing and distribution. These changes in the social division of labour can be most clearly observed in the highly industrialized countries, but already, the developing countries are themselves showing signs of a transformation.

From Table 4.1 below, it will be seen that during the 1960s and 1970s the share of the information occupations in the economically active population increased to 30 per cent in Finland, to 35 per cent in the Federal Republic of Germany, to 36 per cent in Sweden and to 41 per cent in the United Kingdom. In Australia the share reached 42 per cent in 1981 and in the United States of America 46 per cent in 1980. For other parts of the world we only have fragmentary information. Calculations made in Hungary by the Central Statistical Office (using the same methodology as that of the OECD) revealed that the ratio of employees working in the information area to the total number of employees reached 32 per cent by the early 1980s. Moreover, in the rapidly industrializing countries of Asia one finds similar phenomena. A recent study of the changing occupational structure in Singapore, for example, revealed that the proportion of information workers there is generally comparable with that found in the OECD countries.

These observations, however, belong to the *information* industries as a whole. Since the media professions are among the most ancient of the information-related occupations, one could easily come to the conclusion that the share of these professions is also growing in the overall working force. In fact the data do not confirm this hypothesis, at least not in the case of the highly-developed industrial countries. The same OECD survey indicated that, while the share of the total information labour force in the economically active population showed an average quinquennial change of 2.58 per cent since 1950, in the case of twelve highly industrialized countries, the gain of the category "communication workers"[1] was only 0.04 per cent, the lowest average five-year change among all the information-related occupation categories.

Without over-interpreting these data, which refer only to one group of countries, it may nevertheless be suggested that the informatization of society does not necessarily lead to a significant shift of manpower towards the media professions. As reported in Chapter 3, the question of employment patterns and shifts in the media professions has to be related to the impact of automation, including the automation of information, upon social and economic organization as a whole.

Table 4.1

Components of the information labour force (percentage of economically active, selected years)

Country	Australia		Austria		Canada		Finland		France	
	1971	1981	1951	1971	1951	1971	1970	1980	1954	1975
Information producers	5.2	6.4	3.3	5.1	4.4	7.6	3.3	4.7	3.6	6.4
Scientific & technical	0.8	1.6	0.4	0.4	2.6	5.3	1.2	1.9	0.6	1.5
Consultative services	2.4	3.0	0.9	1.6			1.3	1.7	1.8	3.0
Information gatherers	0.3	0.2	0.6	1.2	0.8	1.1	0.1	0.2	0.3	0.5
Market search & co-ordination specialists	1.7	1.6	1.4	1.9	1.0	1.2	0.7	0.9	0.9	1.6
Information processors	26.7	27.1	10.7	17.8	20.1	25.2	12.7	18.1	13.4	19.7
Administrative & managerial	12.4	11.4	4.8	7.7	10.4	12.3	5.1	7.9	6.3	6.7
Process control & supervisory									1.5	3.2
Clerical & related	14.3	15.7	5.9	10.1	9.7	12.9	7.6	10.2	5.6	9.8
Information distributors	3.4	4.7	1.8	2.1	2.5	4.7	3.1	3.8	1.9	3.9
Educators	2.9	4.0	1.6	1.9	2.1	3.9	2.8	3.4	1.6	3.7
Communication workers	0.5	0.7	0.2	0.2	0.4	0.8	0.3	0.4	0.3	0.2
Information infrastructure	4.1	3.3	2.2	3.0	2.3	2.4	3.0	3.5	1.4	2.1
Information machine workers	2.3	2.9	0.7	1.2	0.9	1.3	1.3	1.7	0.6	0.7
Postal & telecommunications	1.8	1.4	1.3	1.8	1.4	1.1	1.7	1.8	0.8	1.4
Total information	39.4	41.5	18.0	28.0	29.3	39.3	22.1	30.1	20.3	32.1

1. According to ILO's classification the following occupations come under the heading "communication workers": journalists and related workers (except public relations officers), stage directors, motion picture, radio, television directors, story-tellers, producers in performing arts and radio, television announcers (cf. *Trends in the Information Economy*, p. 37, OECD, Paris, 1986; and *International Standard Classification of Occupations (ISCO)*, rev. ed., pp. 78-80, Geneva, ILO, 1986.

Table 4.1-cont.

Country	Germany, Federal Republic of			Japan		New Zealand		Norway	
	1950	1980	1982	1960	1975	1976	1981	1975	1981
Information producers	3.1	6.5	6.9	2.1	4.5	6.6	7.0	5.1	5.4
Scientific & technical		1.7	1.7	0.6	1.0	1.9	1.8		
Consultative services		2.4	2.7	0.5	1.1	2.9	2.9		
Information gatherers		0.3	0.3			0.3	0.4		
Market search & co-ordination specialists		2.1	2.2	1.0	2.4	1.5	1.9		
Information processors	11.2	19.6	10.3	12.3	20.8	25.7	25.6	10.2	10.8
Administrative & managerial		4.1	4.8	2.3	4.4	11.3	11.6		
Process control & supervisory		1.1	1.1			2.6	2.8		
Clerical & related		14.4	14.4	10.0	16.2	11.8	11.2		
Information distributors	1.1	2.8	3.0	1.9	2.4	4.0	4.1	4.5	5.1
Educators		2.7	2.9	1.8	2.2	3.6	3.4		
Communication workers		0.1	0.1	0.1	0.2	0.4	0.7	1.0	1.8
Information infrastructure	2.9	4.6	4.6	1.6	2.1	3.1	3.1		
Information machine workers		3.8	3.7	1.0	1.4	2.2	2.1		
Postal & telecommunications		0.8	0.9	0.6	0.7	0.9	1.0		
Total information	18.3	33.5	34.8	17.9	29.6	39.4	39.8	20.8	22.9

Country	Sweden		United Kingdom			United States			Average Quinquennial Change[1]	
	1960	1980	1951	1971	1981	1950	1978	1980		
Information producers	2.5	5.6	3.9	5.0	8.8	5.0	7.2	9.7	+0.68	(0.60)[2]
Scientific & technical	0.4	0.8	0.5	1.4	2.0	1.3	2.1	2.1	+0.17	(0.14)
Consultative services	0.5	1.4	1.1	1.5	3.3	1.9	2.7	3.9	+0.27	(0.20)
Information gatherers	0.1	0.2	1.0	0.9	1.3	0.3	0.3	0.4	+0.05	(0.05)
Market search & co-ordination specialists	1.5	3.2	1.3	1.2	2.3	1.5	2.1	3.3	+0.21	(0.18)
Information processors	17.0	21.2	18.3	23.5	24.1	21.2	26.5	28.6	+1.36	(1.65)
Administrative & managerial	3.1	3.2	4.5	6.6	7.0	8.6	8.1	11.5		
Process control & supervisory	6.0	7.5	3.2	3.7	3.6	1.4	2.0	4.0	+0.60	(0.54)
Clerical & related	7.9	10.7	10.6	13.2	13.5	11.2	16.4	13.1	+0.79	(1.08)
Information distributors	2.5	5.3	2.0	3.2	4.3	2.3	4.0	4.4	+0.38	(0.34)
Educators	2.3	4.9	1.7	2.9	3.9	2.1	3.8	4.2	+0.36	(0.35)
Communication workers	0.2	0.4	0.3	0.3	0.4	0.2	0.2	0.2	+0.04	(0.02)
Information infrastructure	3.9	4.0	2.5	3.9	3.6	2.2	3.4	3.1	+0.14	(0.24)
Information machine workers	1.3	1.8	1.4	2.3	1.7	1.0	2.3	1.7	+0.10	(0.14)
Postal & telecommunications	2.6	2.6	1.1	1.0	2.0	1.2	1.1	1.4	+0.05	(0.05)
Total information	25.9	36.1	26.7	35.6	41.0	30.7	41.1	45.8	+2.58	(2.83)

1. Average over all countries (with time series data) and dates indicated in the table. Note that the components in this column do not always add up to their main group totals. This is due to the fact that in obtaining an average of quinquennial change for each component we have a less complete data set than for each main group.
2. Figures in parentheses are those previously recorded in ICCP 6, Vol.I.

Source: *Trends in the Information Economy*, Paris, OECD, 1986.

Several Japanese experts in the field of information economy have suggested that the OECD survey underestimates the impact of the country's information industry on the composition of its labour force. A survey prepared by Dr Ohira (Ohira Gosie, *Joho Keizai Ron no Keifu [A Survey on Information Economics, Database Forum]*, (Tokyo), Vol. 1, No. 1, 1987) suggests that information occupations accounted for 29.4 per cent of the total labour force already in 1970 and that the proportion had reached 37.7 per cent in 1980.

The general situation revealed by Table 4.1 can be developed in greater detail in relation to only a few countries. Table 4.2 provides data on employment in communication industries in the United States, while Table 4.3 gives additional data on Canada. Both of these tables show the extreme importance of the informatics and telecommunications sectors, but at the same time a reasonable growth rate in the mass-media industries. Table 4.4 extends the analysis to Japan, but also includes a projection of employment trends to the year 2000, showing a predicted dramatic rise in the area of software development, and less spectacular rises in other areas (telecommunications being a preferred sector), leading to a projected overall 11 per cent share of the media industry in relation to industry as a whole.

Table 4.2

Employment in communications industries in the United States, 1983-87

Industries	Year	All employees (thousands)	Change 1983 = 100	Women employees (thousands)	Change 1983 = 100	Women as % of all employees	Composition of employment in communication industries, 1987
Printing and publishing							
Newspapers	1983	426.3	100.0	167.4	100.0	39.3	
	1984	440.0	103.2	175.9	105.1	40.0	
	1985	450.5	105.7	184.0	109.9	40.8	
	1986	457.5	107.3	190.7	113.9	41.7	
	1987	457.7	107.4	193.2	115.4	42.2	25.2
Periodicals	1983	100.3	100.0	59.7	100.0	59.5	
	1984	107.8	107.5	63.9	107.0	59.3	
	1985	113.0	112.7	66.7	111.7	59.0	
	1986	115.3	115.0	65.8	110.2	57.1	
	1987	119.1	118.7	67.7	113.4	56.8	6.6
Books	1983	98.2	100.0	53.7	100.0	54.7	
	1984	103.2	105.1	57.5	107.1	55.7	
	1985	107.1	109.1	59.4	110.6	55.5	
	1986	109.1	111.1	59.7	111.2	54.7	
	1987	113.3	115.4	62.3	116.0	55.0	6.2
Miscellanous publishing	1983	56.4	100.0	32.3	100.0	57.3	
	1984	65.8	116.7	37.7	116.7	57.3	
	1985	70.5	125.0	40.5	125.4	57.4	
	1986	71.5	126.8	41.7	129.1	58.3	
	1987	75.4	133.7	44.5	137.8	59.0	4.2
Communication							
Radio	1983	110.3	100.0	39.1	100.0	35.4	
	1984	111.7	101.3	39.8	101.8	35.6	
	1985	113.3	102.7	40.7	104.1	35.9	
	1986	112.8	102.3	40.6	103.8	36.0	
	1987	112.6	102.1	40.4	103.3	35.9	6.2
Television	1983	115.3	100.0	38.4	100.0	33.3	
	1984	121.4	105.3	41.2	107.3	33.9	
	1985	125.1	108.5	44.2	115.1	35.3	
	1986	125.0	108.4	45.2	117.7	36.2	
	1987	123.4	107.0	44.8	116.7	36.3	6.8
Business services							
Computer and data processing	1983	415.9	100.0	187.5	100.0	45.1	
	1984	475.1	114.2	213.3	113.8	44.9	
	1985	542.4	130.4	243.9	130.1	45.0	
	1986	591.2	142.1	266.9	142.3	45.2	
	1987	616.7	148.3	279.2	148.9	45.3	33.9
Advertising	1983	170.7	100.0	85.8	100.0	50.3	
	1984	183.5	107.5	95.0	110.7	51.8	
	1985	196.1	114.9	104.1	121.3	53.1	
	1986	201.5	118.0	108.9	126.9	54.0	
	1987	200.6	117.5	110.8	129.1	55.2	11.0

Source: Compiled by Unesco from figures supplied by contributors to *World Communication Report.*

Table 4.3
Employment in communication industries in Canada

Year	Press	Periodicals	Publishing	Broadcasting	Telecommunication	Informatics[1]
1971			37 887	19 789	79 728	61 015
1980	21 000[2]	6 414[3]				
1981			45 443	28 792[4]	124 697[5]	65 818
1984		7 247				

1. Comprising communication equipment, office equipment, and household terminals categories.
2. Of which 32.5 per cent editorial employees.
3. Of which 69 per cent in non-manufacturing functions.
4. In 1983: 28,905 (*Unesco Statistical Yearbook*).
5. Of which 89 per cent in the telephone and 11 per cent in the telegraph and cable sectors. Under the heading "Total Staff in Telecommunication Services", however, the ITU statistics present slightly different data: 108,593 in 1981 and 100,497 in 1984.

Sources: Contribution to *World Communication Report* from Canadian National Commission; Unesco and ITU statistics indicated.

Table 4.4
Number of employees in the media industry in Japan (1980 and forecast for 1990 and 2000)

	Number of employees (thousands)			Growth (factor)	
	1980	1990	2000	1980-90	1980-2000
Electronic media	1 546.3	2 165.8	2 979.5	1.40	1.93
Telecommunication	465.5	581.0	827.3	1.25	1.78
Type I	339.9	355.6	391.7	1.05	1.15
Type II	125.6	225.4	435.6	1.79	3.47
Broadcasting	59.8	67.7	69.3	1.14	1.16
Related industries	1 021.2	1 517.1	2 082.9	1.49	2.04
Equipment manufacturers	876.2	1 241.8	1 687.9	1.43	1.95
Cable manufacturers	48.9	44.2	44.4	0.90	0.91
Installation and construction	88.3	100.5	109.8	1.14	1.24
Software companies	16.8	130.6	240.8	7.77	14.33
Non-electronic media	2 969.0	3 157.9	3 294.9	1.06	1.11
Mail	170.0	172.5	170.0	1.01	1.00
Newspapers	87.6	87.9	88.2	1.00	1.01
Printing and publishing	520.6	572.7	601.3	1.10	1.16
Education	1 875.6	1 898.3	1 835.1	1.01	0.98
Cinema and theatre	62.7	63.8	71.7	1.02	1.14
Research	146.2	223.5	347.2	1.53	2.37
Advertising	106.3	139.2	181.4	1.31	1.71
Total media industry	4 515.3	5 323.7	6 274.4	1.18	1.39
Total all industries	39 964.8	43 574.9	46 658.8	1.09	1.17
Share of media industry	11.3%	12.22%	13.45%		

Source: Nojiri and Ito, 1987, p. 532. This table was originally compiled from: Yuseisho, Joho Tsushin Sangyo no Kodoka ni Kansura Iinkai [Ministry of Posts and Telecommunication, Study Committee for the Advanced Information and Communication Industry], 1985, pp. 96-7 and 104-5.

Occupation by media

The collection of employment data has been easiest in the area of *broadcasting* which, contrary to most other media fields, has in the past been limited in many parts of the world to a few national institutions (or to grouped networks). Table 4.5 provides aggregated time series data for employment in broadcasting, broken down in four categories, compiled from Unesco's yearly statistical surveys.

Table 4.5

Employment in broadcasting, 1977 and 1985

Country	Institution	Status	Programme and journalistic staff		Technical staff		Administrative staff		Other staff	
			1985	1977	1985	1977	1985	1977	1985	1977
Africa										
Botswana[3]	RADIO	GOVT[4]	65		30		29		101	
Burkina Faso[2]	RADIO	GOVT	92		50		12		10	
	TV	GOVT	10		32		5		5	
Chad[2]	RADIO	GOVT	68		38		8		12	
Ethiopia	RADIO	GOVT	212		148		205		177	
	TV	GOVT	22		120		156		147	
Ghana	RADIO+TV	GOVT	404		1 473		751		260	
Madagascar	RADIO	GOVT	197	49	56	80	0	8	0	120
	TV	GOVT	56	23	32	24	8	4	0	6
Malawi[2]	RADIO	PUB	169		212		52		0	
Mauritius[2]	RADIO+TV	PUB	60		52		32		36	
Reunion	RADIO+TV	PUB	38		43		24		9	
Rwanda[2]	RADIO	GOVT	42		17		10		15	
Senegal	RADIO+TV	PUB	340		450		15		15	
Sierra Leone[1]	RADIO+TV	GOVT	197	106	235	320	152	124	51	30
Sudan[2]	RADIO	GOVT	279		126		31		0	
	TV	GOVT	218	72	227	75	28	8	0	0
Swaziland	RADIO	GOVT	32		35		9		27	
America, North										
Bahamas	RADIO+TV	GOVT	45		55		20		86	
Belize[2]	RADIO	GOVT	20		20		6		12	
	RADIO	COMM	4	6	0	1	2	2	0	0
Cuba	RADIO	GOVT	NA[5]		3 039		823		2 284	
	TV	GOVT	NA		1 597		400		1 106	
Guadeloupe	RADIO+TV	PUB	33		58		7		11	
Honduras	RADIO	GOVT	17		17		8		9	
	RADIO	PUB	20		15		15		10	
	RADIO	COMM	899		659		509		899	
	TV	COMM	97		93		71		62	
Martinique	RADIO+TV	PUB	NA		NA		17		31	
Mexico[1]	RADIO	GOVT	307		140		139		153	
	RADIO	COMM	1 196		762		854		2 301	
	TV	GOVT	69		395		10		12	
	TV	COMM	3 467		2 253		2 639		3 327	
United States	RADIO	GOVT		698		243		626		173
	RADIO	COMM		32 555		7 502		20 007		24 596
	TV	GOVT		1 800		1 600		1 104		1 026
	TV	PUB		887		788		544		505
	TV	COMM		24 070		11 295		7 406		9 699
America, South										
Brazil	RADIO	GOVT		630		318		411		478
	RADIO	COMM		7 270		3 284		2 699		4 317
	TV	GOVT		138		271		85		141
	TV	PUB		104		160		235		304
	TV	COMM		910		2 404		1 761		4 859
Chile[1]	RADIO+TV	GOVT	291		291		291		131	
	RADIO+TV	PUB	52		80		33		310	
	RADIO+TV	COMM	286		447		357		679	
Colombia[2]	RADIO	PUB	19		78		0		0	
	TV	PUB	41	25	639	620	124	190	227	0
Guyana	RADIO	GOVT	25		32		7		60	
Asia										
Brunei Darussalam[2]	RADIO+TV	GOVT	327	206	394	185	25	36	92	80
Cyprus	RADIO	PUB	80	79	19	45	2	7	19	40
	TV	PUB	37	60	132	111	14	32	152	0
Indonesia	RADIO	GOVT	3 096		1 944		2 160		0	
	RADIO	PUB	20		20		43		28	
	RADIO	COMM	1 166		1 166		2 462		1 620	
	TV	GOVT	1 079		2 058		5 270		0	

Table 4.5-cont.

Country	Institution	Status	Programme and journalistic staff		Technical staff		Administrative staff		Other staff	
			1985	1977	1985	1977	1985	1977	1985	1977
Iran (Islamic Republic of)	RADIO+TV	GOVT	573		3 552		5 270		2 062	
Israel[2]	RADIO	PUB	615		184		119		0	
	TV	PUB	351		129		98		0	
Japan	RADIO+TV	PUB	5 961	4 740	4 350	5 050	1 611	1 930	4 350	4 840
	RADIO+TV	COMM	7 818	7 310	5 375	7 730	3 176	2 980	8 063	7 450
Jordan[2]	RADIO	GOVT	260		120		120		0	
	TV	GOVT	284		275		155		146	
Korea, Republic of	RADIO+TV	PUB	2 699	624	2 024	1 082	2 358	245	1 170	833
Kuwait	RADIO	GOVT	334		115		27		71	
	TV	GOVT	75		845		449		257	
Malaysia	RADIO+TV	GOVT	2 438	2 038	1 943	1 866	1 507	524	0	0
	RADIO	COMM	124		140		148		0	
	TV	COMM	124		140		148		0.00	
Maldives	RADIO	GOVT	40	17	28	13	28	15	16	10
	TV	GOVT	20	3	26	11	17	3	14	8
Oman	RADIO	GOVT	166		113		53		0	
	TV	GOVT	33		120		49		20	
Pakistan	RADIO	GOVT	1 238		1 520		2 195		675	
Qatar	RADIO	GOVT	86	273	102	27	84	58	55	20
	TV	GOVT	250	173	280	124	20	22	0	5
Singapore[2]	RADIO+TV	GOVT	626	660	451	475	551	310	876	25
Sri Lanka	RADIO	GOVT	440	140	371	339	1 506	318	0	1 053
	TV	GOVT	179		144		76		169	
Syrian Arab Republic[2]	RADIO+TV	GOVT	128		1 846		251		100	
Thailand	RADIO	GOVT	258		494		215		0	
	TV	GOVT	153		225		24		0	
Turkey	RADIO+TV	PUB	1 637		964		1 648		933	
United Arab Emirates[2]	RADIO	GOVT	69	64	85	65	33	9	36	58
	TV	GOVT	85	118	177	156	35	63	89	0
Europe										
Austria	RADIO+TV	PUB	835		1 157		418		803	
Belgium	RADIO+TV	PUB	1 507	1 359	2 240	1 549	430	1 103	1 131	140
Finland	RADIO+TV	PUB	1 333	1 102	2 272	1 650	582	558	394	369
	RADIO	COMM	176		303		225		0	
France[2]	RADIO	PUB	716	462	781	469	814	517	944	831
	TV	PUB	2 289	1 070	2 563	1 301	1 213	743	162	379
Gibraltar[2]	RADIO+TV	PUB	28	20	17	15	16	12	1	0
Hungary	RADIO	GOVT	735	693	457	159	417	423	378	363
	TV	GOVT	1 064		613		677		870	
Ireland	RADIO+TV	PUB	828		944		166		282	
Italy	RADIO+TV	PUB	3 110		6 139		3 762		570	
Malta	RADIO	GOVT	38		42		9		87	
	TV	GOVT	69		42		4		34	
Portugal	RADIO	PUB	710	684	487	490	264	749	568	464
	TV	PUB	576	323	888	583	696	396	240	275
Spain[2]	RADIO	PUB	1 012		1 093		608		278	
	TV	PUB	2 062		1 946		529		292	
Switzerland	RADIO+TV	PUB	1 404	1 206	1 371		424		65	
Yugoslavia	RADIO+TV	PUB	8 785	5 120	4 292	4 676	3 354	3 421	3 533	2 482

1. Data refer to 1984.
2. Data refer to 1983
3. Data refer to 1982.
4. GOVT = governmental; PUB = public; COMM = commercial.
5. Not available.

Source: *Unesco Statistical Yearbook*, 1984, 1987.

Outside broadcasting, the *audio-visual media* are very heterogeneous in organization, ranging from multinational media-conglomerates with several thousand employees, to cottage industries with little or no permanent staff. Employment in the film, video and music businesses are often, moreover, of a less permanent nature, and less unionized than other media fields. For this reason, it has not been possible to gather concise data on employment in these industries for even a minimum of countries.

Summary data on employment in the *postal and telecommunication services* are given in Chapter 9

(Table 9.4), and any more detailed presentation of data on employment in these areas would be outside the scope of this section.

Statistics relating to *printing and graphic workers* are also limited and the non-availability of time-series data which are important in view of the consequences of computerization and automation for the printing industry is to be regretted. However, Table 4.6 provides membership statistics from the International Graphic Federation in the countries where the IGF has members.

Table 4.6

Graphic workers in selected countries, 1987

Country: name of IGF member union	Total	Women	Men
Europe			
Austria:[1] Gewerkschaft Druck und Papier	23 124	5 943	17 181
Belgium: Centrale de l'Industrie du Livre de Belgique	13 070	2 570	10 500
Cyprus: Cyprus Industrial and Hotel Employees Federation	1 100	360	740
Denmark: Dansk Typograf Forbund; Dansk Bogbinder Forbund; Dansk Litografisk Forbund; The Faroese Typographer's Union	21 877	5 122	16 755
Finland: Finlands Bokarbetarförbund	30 054	15 296	14 758
France: FILPAC-CGT	26 500	5 565	20 935
Germany, Fed. Rep. of: IG Druck und Papier, BRD	144 434	33 220	111 214
Greece: Union of Technicians of Athens Daily and Periodical Press; Pan-Hellenic Union of Lithographic Workers	3 227	664	2 563
Ireland: Irish Print Union	2 392	234	2 158
Iceland: Félag Bokagerdarmanna	914	340	574
Luxembourg: Fédération Luxembourgeoise des Travailleurs du Livre	545	45	500
Netherlands: Druk en Papier	33 180	3 641	29 539
Norway: Norsk Grafisk Forbund	14 976	4 210	10 766
Portugal: Sindegraf	3 700	400	3 300
Spain: Federación de Communicación, Espectáculos y Oficios Varios, España; Federación de Información, Papel y Artes Gráficas, Bilbao	6 848	1 561	5 287
Sweden: Grafiska Fackförbundet; Sveriges Arbetsledareförbund GFT; Handelstjänstemannaförbundet	57 516	20 408	37 108
Switzerland: Gewerkschaft Druck und Papier; Schweizerischer Lithographenbund	19 030	2 817	16 213
United Kingdom: NGA '82	123 707	7 153	116 554

Table 4.6-cont.

Country: name of IGF member union	Total	Women	Men
Americas			
United States:[2] GCIU.	151 882		
Chile: Conagra	6 800	450	6 350
Guyana: Printing Industry and Allied Workers' Union	500	220	280
Venezuela: Federación de Trabajadores da la Industria Gráfica de Venezuela	5 100	1 508	3 592
Africa			
Côte d'Ivoire: SYPINCI, Côte d'Ivoire	200	7	193
Ghana: Industrial & Commercial Workers Union, Ghana	20 000		
Kenya: Kenya Union of Printing, Publishing; Paper Manufacturers and Allied Workers	8 916	348	8 568
Mauritius: Mauritius Printing Workers Union	100	5	95
Uganda: Uganda Printers, Journalists, Paper & Allied Employees' Union	1 362	326	1 036
Zimbabwe: Graphical Union	3 324	664	2 660
Asia and Oceania			
Australia: PKIU	7 700	1 460	6 240
Bangladesh: Press & Packaging Karmachari (Employees) Federation	3 219	165	3 054
India: Press Mazdoor Sabha, Bombay Government Central Press Union, Bombay	2 850	14	2 836
Israel: National Union of Printing Workers in Israel	3,728	852	2,876
Japan: All Printing Bureau	6 000	1 700	4 300
Lebanon: Printers and Bookbinders Union in the Lebanese Republic	300	80	220
Pakistan: All Pakistan Federation, Lahore	29 353	52	29 301
Republic of Korea: Korean Printing Workers Union	5 092	1 842	3 250
Sri Lanka: Jathika Sevaka Sangamaya	2 500	1 000	1 500
Thailand: Paper and Printing Thailand	5 855	1 927	3 928
Total	767 851	115 562	477 083

1. 1986 data.
2. In 1986, the total was 163,989 with 41,000 men and 122,989 women.

Source: Membership statistics for 1987 provided for *World Communication Report* from the International Graphic Federation for latest year available. IGF member unions do not organize all graphic workers in the listed countries, and the information should only be seen as indicative.

Journalism

Approached from a labour (rather than a media) perspective, the single most persuasive and influential occupation across the media could be argued to be that of the *journalist*: a key employee in radio and television as well as in the printed press. With well-established labour and professional organizations in many countries, and an elaborate regional and international network for co-operation, one could expect employment in journalism to be well researched. Unfortunately, however, this is not the case.

One of the reasons for the paucity of international statistics on the numbers of journalists is the very definition of the profession. An internationally accepted definition has not yet evolved and international collaboration between journalists' organizations is based upon such pragmatic grounds as recognizing as journalists those who can become members of the national journalists' unions. The estimates compiled in Table 4.7 should therefore be seen as a reflection of nationally accepted definitions of a journalist's profession rather than that suggested by the International Standard Classification of Occupations[1]. The latter, unlike many national definitions, does not require a minimum of regular work as a journalist as a prerequisite for inclusion.

Table 4.7

Estimated number of journalists in selected countries, 1988.

Country	Number of Journalists	Foreign Correspondents
Africa		
Algeria	1 500	35
Angola	1 000	3
Benin	1 000	1
Botswana	100	NA[2]
Burkina Faso	119	10
Burundi	220	-
Cameroon	350	3
Chad	30	1
Congo	280	1
Côte d'Ivoire	280	27
Djibouti	120	NA
Egypt	2400	120
Ethiopia	200	31
Gabon	25	2
Gambia	30	NA
Ghana	650	6
Kenya	450	159

Table 4.7-cont.

Country	Number of Journalists	Foreign Correspondents
Lesotho	100	-
Liberia	500	8
Madagascar	120	6
Malawi	60	-
Mauritania	100	2
Mauritius	75	-
Morocco	360	15
Mozambique	80	1
Namibia	60	NA
Niger	60	-
Nigeria	7 500	10
Rwanda	100	4
São Tome and Principe	20	NA
Senegal	200	21
Seychelles	25	5
Sierra Leone	200	2
Somalia	20	-
Togo	100	3
Tunisia	430	20
United Republic of Tanzania	300	6
Zambia	175	NA
Zimbabwe	200	62
America, North		
Bahamas	75	-
Barbados	200	-
Bermuda	20	-
Canada	4 300	30
Costa Rica	500	NA
Cuba	1 000	20
Dominican Republic	800	20
El Salvador	200	27
Guatemala	550	12
Haiti	300	6
Honduras	260	16
Jamaica	90	10
Mexico	15 000	250
Nicaragua	1 000	120
Panama	1 000	50
Trinidad and Tobago	100	6
United States	112 000	1000
America, South		
Argentina	18 000	80
Bolivia	2 000	NA
Brazil	30 000	150
Chile	4 000	83
Colombia	4 000	60
Ecuador	5 000	22
Guyana	90	4
Paraguay	90	6
Peru	3 000	55
Uruguay	1 500	7
Venezuela	5 000	50
Asia		
Bahrain	80	50
Bangladesh	1200	52
Bhutan	10	-
Burma	600	10
China	4000	120
Cyprus	140	192
India	80 000	135
Indonesia	2 150	35
Iraq	3 000	46
Israel	2 700	300

1. According to this definition a journalist is one who "collects, reports and comments on news and current affairs for publication in newpapers and periodicals or broadcasting by radio and television". (ILO, *ISCO*, Geneva, ILO, 1981, (rev. ed. 1986) Section 1-59. 15).

Table 4.7-cont.

Country	Number of Journalists	Foreign Correspondents
Japan	28 000	716
Jordan	200	22
Kuwait	150	15
Lebanon	800	20
Malaysia	1 200	20
Maldives	200	-
Nepal	480	20
Pakistan	2 500	50
Philippines	2 000	100
Qatar	20	10
Singapore	500	80
Sri Lanka	400	12
Syrian Arab Republic	1 100	30
Thailand	5 000	85
Turkey	4 000	65
United Arab Emirates	50	10
Europe		
Albania	2 000	-
Austria	4 000	293
Belgium	1 900	310
Bulgaria	10 650	75
Czechoslovakia	7 300	52
Denmark	5 400	110
Finland	8 000	23
France	22 000	NA
German Democratic Republic	10 000	150
Germany, Federal Republic of	40 000	315
Greece	5 000	136
Hungary	3 500	23
Iceland	350	1
Ireland	2 000	6
Italy	10 400	480
Luxembourg	200	NA
Malta	60	-
Netherlands	8 500	100
Norway	5 000	20
Poland	10 000	100
Portugal	1 500	50
Romania	3 100	27
Spain	5 000	252
Sweden	15 000	86
Switzerland	5 000	NA
United Kingdom	40 000	1 000
Yugoslavia	12 000	104
Oceania		
Australia	12 000	58
New Zealand	2 900	7
Papua New Guinea	100	2
Samoa	-	-
Tonga	30	-
U.S.S.R.	110 000	300

1. Foreign correspondents are defined as journalists working full-time for the foreign press, number not included in total number of journalists.
2. Not available.

Source: Data compiled from different sources, including *L'Information dans le Monde* (Observatoire de l'Information), an international comparative study conducted by the Polytechnic of Central London, United Kingdom, and the Faculty of Sociology, Political Science and Journalism, Ljubljana, Yugoslavia, and from IOJ, IJI and IFJ contributions to *World Communication Report*.

Journalistic employment includes a significant number of free-lance journalists who work without staff status and usually for a number of different employers. An IFJ survey conducted in 1987 found that the use of free-lance journalists is increasing and gave estimates for their number in selected countries including Australia: 2,900; Belgium: 350; Denmark: 430; Finland: 700; Federal Republic of Germany: 3,000; France: 2,650; Israel: 120; Netherlands: 640; Norway: 350; Peru: 2,000; Spain: 5,000; Sweden: 950; Switzerland: 1,000; United States: 2,000. Though the definition of a free-lance journalist varies, the estimated numbers indicate persons whose main occupation is journalism.

Training

For reasons of space, the account of training for communication given below is deliberately restricted. Focused on the needs of developing countries, it provides, at the *international* level, a select list of centres which organize or co-ordinate training courses for professionals in the area of mass media. The list is confined to institutions offering short-term professional training, mainly at the post-experience or advanced level, and it does not include the wide variety of institutions offering longer-term academic courses, leading to degrees or diplomas. Similarly, it does not include training in telecommunications or informatics.

It is followed, at the *regional* level, by a general survey of training arrangements in the developing country regions, and again, a select list of regional training centres and programmes.

International level

Name	*Address*	*Course*
Academy for Educational Development	1255 23rd Street N.W., Washington, DC 20037, United States	Organizes broadcast courses/workshops for radio and television journalists
Association for Education in Journalism and Mass Communication (AEJMC)	University of South Carolina-Journalism, 1621 College Street, Columbia, SC 29208, United States	Provides information on journalism courses in the United States
British Broadcasting Corporation, Engineering Training Department	Wood Norton, Evesham, Hereford and Worcester WR11 4TF, United Kingdom	Broadcast technical training
British Broadcasting Corporation, Radio Training Department	Grafton House, 379 Euston Road, London NW1 3AU, United Kingdom	Radio production, radio trainers, radio management. Theory and practice
British Broadcasting Corporation, Open University Production Centre	Walton Hall, Milton Keyes WR11 4TF, United Kingdom	Television production in education and development
British Council, Media Department	10 Spring Gardens, London SW1A 2BN, United Kingdom	Co-ordinates overseas training programmes, organizes consultancies, project management and on-site training courses and workshops
Centre for Foreign Journalists	11690-A Sunrise Valley Drive, Reston, VA 22091, United States	Established to exchange professional know-how between journalists of the developed and developing world on a strictly non-political basis by providing workshops, seminars, literature, contact information and consulting services.
Centre for Journalism Studies	University of Wales College of Cardiff, 69 Park Place, Cardiff CF1 3AS, United Kingdom	Newspaper and radio journalism; course for mid-career journalists
Commonwealth Press Union	184 Fleet Street, London EC4A 2DU, United Kingdom	Newspaper reporting, writing and editing; photojournalism; marketing, management
Commonwealth Journalists Association	Castle House, 25 Castlereagh Street, London W1H 5YR, United Kingdom	On-the-spot training in radio, television and print journalism for broadcasting and newspaper professionals in Commonwealth countries, especially the small South Pacific nations and South-East Asia
CREC-AVEX	B.P.70, 40 route de Dardilly, 69132 Ecully Cedex, France	Press, radio and television
Deutsche Welle Training Centre	Raderbergguertel 50, D-5000 Cologne 51, Federal Republic of Germany	Workshops and special courses for radio broadcasters from developing countries; radio journalism; communications technology and management; studio operations and maintenance and transmitter techniques
French Press Institute of Information Sciences; Institut Français de Presse et des Sciences de l'Information (IFP)	Université de Paris II, 83bis rue Notre Dame des Champs, 75006 Paris, France	Newspaper reporting, writing, radio and television journalism
GDR Press Agency - Allgemeiner Deutscher Nachrichtendienst (ADN)	Mollstrasse 1, 1026 Berlin, German Democratic Republic	Photojournalism and documentation courses

Name	*Address*	*Course*
Georgi Dimitrov International Institute of Journalism	c/o Union of Bulgarian Journalists, Ul. Graf Ignatiev 4, Sofia, Bulgaria	Theory and practice of the mass media: press, radio and television; history of the working class and trade union movements; problems of international relations and the developing countries; socialism in action; agrarian policy; agricultural development and journalism
Graduate Centre for Journalism, The City University	Northampton Square, London EC1V 0HB, United Kingdom	Newspaper, periodical and radio journalism
Postgraduate School for Journalism Studies; Ecole Supérieure de Journalism (ESJ)	50 rue Granthier de Chatillon, 59000 Lille, France	Journalism; reporting; editing; associated university subjects
Inter American Press Association (IAPA)	2911 N.W. 39th Street, Miami, FL 33142, United States	Journalism, newspaper design and layout, use of modern photography techniques, newspaper reporting, use of colour in modern newspaper research as a newspaper tool, readership studies, leadership in the newsroom, opinion journalism, advantages of a computerized newsroom, newspaper advertising advantages, creativity in the advertiser message, advertising strategies, market analysis, technical and management aspects of newspaper modernization, waste control, costs and production, newspaper management, circulation and promotion, production diversification, personnel training.
International Centre for the Training of Journalists (CFPJ); International Journalism Center (CIJ) - Centre de Formation et de Perfectionnement des Journalistes (CFPJ); Centre International de Journalistes (CIJ)	33 rue de Louvre, 75002 Paris, France	Newspaper reporting, writing and editing; news agency journalism; radio journalism; television journalism; communication technology; photojournalism; and a series of professional apprenticeships in EEC countries
International Institute for Journalism (IIJ)	Budapesterstr. 41, 1000 West Berlin 30	Interviewing; reporting and writing; editing; page make-up; specialized reporting in various fields; features; photo journalism; and legal and professional issues
International Institute for the Training of Journalists (IOJ)	Kapy Utca 49/B, H-1025 Budapest, Hungary	Journalism; typography and printing techniques; press photography; other mass communication media; psychology and logic; press law and ethics of journalism, etc.; emphasis on practical techniques
International Institute of Journalism "Werner Lamberz" (IIJB)	P.O.B. 20 or 36, 1162 Berlin, German Democratic Republic	Theory of journalism; main lines of the history of journalism; management and planning of journalistic work and journalistic institutions; journalistic practice; photojournalism and laboratory technology; journalistic technique; economics of the developing countries
International Journalist Training Centre	People's Palace of Culture, Pyongyang, Democratic People's Republic of Korea	Journalism and photojournalism courses for mid-career professionals in Asia and other developing countries
International Liaison Centre for Film and Television Schools/Centre International de Liaison des Ecoles de Cinéma et de Télévision (CILECT)	8 rue Thérésienne, 1000 Bruxelles, Belgium	Co-ordinating body for film and television schools, provides information on training opportunities worldwide; now developing a programme to assist with film training in developing countries; but does not itself offer courses.
International Mass Media Institute	P.O. Box 4084, Konigsgaard 4601, Kristiansand, Norway	Radio journalism; television journalism

Name	*Address*	*Course*
International Press Institute	London Secretariat, Dilke House, Malet Street, London WC1E 7JA, United Kingdom	Newspaper writing; reporting, editing; news agency journalism; radio and television journalism
International School of Cinema and Television in San Antonio de los Baños (The School of Three Worlds)	San Antonio de los Baños, Cuba	Basic training courses; experimental workshops; courses in direction, photography, sound and editing techniques for film, video and television
Institute of International Education	809 United Nations Plaza, New York, NY 10017, United States	Co-ordinates fellowship programmes in media fields.
José Martí International Institute of Journalism	Information Science Dept of the School of Journalism, Universidad de la Habana, Cuba	Theory and practice of journalism; editing and styling; theoretical and practical problems of the journalistic genres; photocopy—art and information; role of radio and television in Latin America at present; methods and techniques of journalistic work
Julius Fucik Solidarity School of the International Organization of Journalists	K Cervenému Vrchu 175/1b, 160000 Prague 6, Vokovice, Czechoslovakia	Social sciences; theoretical foundations of journalism; specialized courses on news service journalism
Karl-Marx University, Faculty of Journalism	Director of Journalism, Karl-Marx Platz 9, Leipzig 7010, German Democratic Republic	Theory and history of journalism; theory and methods of press, television, radio and agency journalism; photoreportage; journalism specializations; international trends in mass media development; journalism training combined with academic work
Ministry of Higher Education and Specialized Secondary Education	Ul. Lusinovskaia 51, 113093 Moscow, USSR	Theoretical studies on radio broadcasting, printing, journalism, producing, cinema production
National Institute for Audio-visual Communication - Institut National de la Communication Audiovisuelle (INA)	Tour Gamma A, 193 rue de Bercy, 75012 Paris, France	Radio and television courses for technicians and producers
Nuffield Press Fellowship Programme	Wolfson College, Cambridge CB3 9BB, United Kingdom	To allow fellows to pursue a plan of special study or engineering or follow up special interests related to journalistic work
Operation Crossroads Africa Inc.	150 Fifth Avenue, Suite 310, New York, NY 10011, United States	Brings senior African and Caribbean journalists to the United States for professional orientation tours
Polish Radio and Television - Polskie Radio i Telewizja	Skr. pocztowa 46, 00950 Warsaw, Poland	Journalism up-grading courses
Polymedia	The Polytechnic of Central London, 18/22 Riding House Street, London W1P 7PD, United Kingdom	Television news and television studio production
Radio Nederland Training Centre	P.O. Box 222, 1200 JG Hilversum, Netherlands	Courses for radio and television trainees from the developing world: production, news, drama, information, and training of trainers.
Reuter Fellowship Programme	The Reuter Foundation, 85 Fleet Street, London EC4P 4AJ, United Kingdom	To aid media of developing countries by providing opportunities for journalists to study at universities in Europe and United States
Sender Freies Berlin Television Training Centre	4-14 Masurenallee, 1000 West Berlin 19	In-house training for foreign broadcast journalists

Name	*Address*	*Course*
Solidarity School of the Iraqi Journalists' Union	Baghdad, Iraq	Seminars; special courses dealing with the press organizations
Thomson Foundation	Regent's College, Regent's Park, London NW1 4NS, United Kingdom	Newspaper reporting; newspaper writing; newspaper editing; news agency journalism; television journalism; communications technology; photojournalism; marketing; management; financial and agricultural reporting; development journalism
United States Telecommunication Training Institute	1255 23rd Street N.W., Washington, DC 20037, United States	Management and technical training programmes in telecommunications for foreign managers and engineers from the developing world
University Centre for the Teaching of Journalism; Centre Universitaire d'Enseignement du Journalisme (UER)	Université III de Strasbourg, 10 rue Schiller, 67000 Strasbourg, France	History, economy and cultures of African countries; journalism; reporting; editing
Visnews Fellowships, Visnews Limited	Cumberland Avenue, London NW10 7EH, United Kingdom	Allows for television journalists from the developing world to spend 12 weeks touring N. America, Europe and Japan, mostly observing television operations;electronic news gathering (ENG) and video field reporting
Voice of America, International Broadcasting Training Centre	330 Independence Avenue S.W., Washington, DC 20547, United States	Brings broadcasters to headquarters and sends experts abroad to give training courses in broadcast journalism, production technology, sales and management, studio design, operation skills
World Press Freedom Committee	The Newspaper Centre, P.O. Box 17407, Washington, DC 20041, United States	To assist news media and journalism schools in Africa, Asia, Latin America and the Caribbean, projects have included provision of trainers, grants for training programmes, provision of textbooks and other source materials, and preparation of practical journalism manuals
World Press Institute (WPI)	MacAlester College, 1600 Grant Avenue, St Paul, MN 55105, United States	Organizes professional seminars for print and broadcast journalists
Yugoslav Institute of Journalism; Yugoslovenski Institut za Novinarstrvo	Njegoseva 72, P.O.B. 541, 11000 Belgrade, Yugoslavia	Journalistic practice; mass communication; introduction to the history of journalism; forms of journalistic expression; non-alignment; international communication; agency journalism; radio and television journalism
Yugoslav Radio and Television	Boris Kidica 70, 11000 Belgrade, Yugoslavia	Television techniques

Regional level: A survey of training activities

The regional development of communication training institutions has been uneven, with some regions featuring a wide variety of training at all levels, and others still relying to a large degree on foreign training institutions. A recognition that the role of the media in development depends primarily on the skill and experience of its manpower seems to have been arrived at in all regions, but considerable differences in resources are also apparent. The rapid development of media technology poses special problems to all institutions; in many cases, no sooner has a specific new technology, be it in printing or in broadcasting, been assimilated, than it is rendered obsolete by new advances.

In the brief survey below, reference is made only to training programmes in developing countries; programmes in Europe and North America are included only in the previous subsection of the report, and only in so far as they afford opportunities for developing country participants.

Africa

The development of communication and telecommunications infrastructures in Sub-Saharan Africa has generated increasing efforts to educate and train practitioners, trainers and scholars. Communication education and training in the region date back to the late 1950s, when the first journalism training institutions, the Ghana Institute for Journalism and the Ecumenical Centre at Mindelo, Zambia, were founded. Since then there has been a rapid increase in the number of communication training programmes and by 1987 most African countries provided one form or another of education and training for communication scholars, researchers and professionals. These programmes include: (a) in-service training and "refresher" courses for media practitioners; (b) middle-level training in pre-university institutions; and (c) university-level degree and postgraduate programmes in journalism and communication.

A survey carried out by the International Association for Mass Communication Research in late 1986 in eight English-speaking countries in West, East and Southern Africa reported 35 institutions offering journalism and communication education and training at one level or another in the English-speaking part of Sub-Saharan Africa. The student enrolment in the 35 institutions at the time of the survey totalled 3,600, with the largest number of students in Nigeria, where 19 of the institutions are based.

Although most institutions in the region were set up primarily to serve national rather than regional communication training needs, regional co-operative efforts in communication education and training have been supported by a few institutions. Founded in 1976, the African Council on Communication Education (ACCE), based in Nairobi, Kenya, links 78 institutions which offer communication education and training at all levels in 33 English-, French- and Portuguese-speaking African countries. Among the objectives and concerns of the organization are to: (a) assess the training needs of African communication training institutions and suggest common solutions to those needs; (b) assist in curriculum development in African communication training institutions and encourage the dissemination of various curricula and course outlines among the training institutions; and (c) promote regional workshops, training courses and high-level training programmes for communication trainers and practitioners.

In the period 1985/86, ACCE collaborated with various agencies and organizations to run regional communication training programmes, seminars and workshops. These included: (a) a yearly two-month regional training programme in communication policy and planning for development; (b) regional seminars on communication policy and planning for development for senior government personnel; (c) a regional workshop on communication development and research (Harare, October 1986); and (d) a sub-regional news agency journalism trainers' workshop (Harare, June 1986). It has also produced media monographs intended for communication trainers and a set of simulation materials for use in communication planning courses.

Another organization concerned with communication education and training at the regional level is the Association of Francophone Journalism and Communication Institutions (Association des Institutions Francophones de Formation au Journalisme et à la Communication (AIFJC)) based in Dakar, Senegal. The AIFJC, founded in February 1987, embraces journalism and communication training institutions in French-speaking countries in Africa, Europe and Canada. The objectives of the association are: (a) to promote co-operation among training institutions, both at national and international levels; (b) to facilitate the circulation of teaching methods and more efficient use of financial and human resources in training; (c) to coordinate programmes that foster or require international co-operation among members; and (d) to encourage continued reflection on francophone journalism and communication training institutions.

Other training institutions with some degree of regional orientation in their programmes are:

The Inter-African Rural Radio Studies Centre (CIERRO) in Ouagadougou, Burkina Faso, established in 1978 by the Union of National Radio and Television Organizations in Africa (URTNA). The Centre offers two-year programmes and technical courses in rural broadcasting for URTNA member organizations. Since 1980, it has trained professionals from Benin, Burkina Faso, Cameroon, Chad, Central African Republic, Congo, Gabon, Mali, Senegal and Togo.

The Centre for Information Studies (Centre d'Etudes des Sciences et Techniques de l'Information, (CESTI)) in Dakar, Senegal, whose programmes are open to nationals from Benin, Burkina Faso, Côte d'Ivoire, Gabon, Guinea, Mali, Mauritania and Rwanda.

The Higher School of Sciences and Techniques of Information (Ecole Supérieure des Sciences et Techniques de l'Information, (ESSTI)) in Yaoundé, Cameroon, which runs a three-year programme open to nationals from Gabon, Central African Republic, Chad and Rwanda.

The Kenya Institute of Mass Communication, which offers 2-year diplomas in broadcast journalism and radio and television production and certificate programmes in film production and electronic media technical work.

The National Film and Television Institute (NAFTI), Accra, Ghana, established in 1978 to provide an advanced three-year diploma course (recognized by CILECT) in film and television production. Its programmes are open to nationals of other anglophone countries in the region and cover cinema, photography, film directing, script writing, editing, television production, set design, graphics/animation, production management and film sound recording.

The Division of Mass Communication, Harare Polytechnic, Harare, Zimbabwe, which offers diploma training programmes for nationals from Southern African countries and the national liberation movements in Namibia and South Africa.

Ghana Institute of Journalism (GIJ), Accra, Ghana, established in 1959 to provide basic professional training in journalism, photojournalism, public relations, and radio and television programming for nationals of Ghana and other African countries.

Practical training in news-agency journalism on the continent centres specifically upon:

The Panafrican News Agency (PANA) in Dakar, Senegal. Established in 1979 by the Organization of African Unity (OAU) as a continental news agency served by the national news agencies of Africa, PANA organizes annual training workshops and training attachments for African journalists.

The West and Central Africa News Agency Development Project (WANAD), Cotonou, Benin. Established in 1984 as a funds-in-trust project organized jointly by Unesco and the Government of the Federal Republic of Germany, WANAD is providing special technical and human resources development support to 13 African countries: Benin, Burkina Faso, Congo, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Mali, Niger, Nigeria, Sierra Leone and Togo. Three or four training workshops are organized every year in Cotonou in journalism geared to social and economic development.

The Department of Mass Communication, University of Lagos, Nigeria, which was set up with UNDP/Unesco assistance in 1973/74. The Department offers degree and diploma courses in journalism, research, broadcasting advertising and public relations for West Africans.

Southern and East Africa News Agency Development Project (SEANAD), Harare, Zimbabwe. Established in 1987 as a funds-in-trust project organized jointly by Unesco and the Government of the Federal Republic of Germany, SEANAD provides practical assistance to develop news agencies in Botswana, Madagascar, Malawi, Mauritius, Mozambique, Seychelles and Zimbabwe. Like WANAD, training courses are organized in Harare in various aspects of news agency operation.

A regional UNDP project is under way to establish an advanced-level telecommunications training centre in Nairobi, Kenya, to serve the high-level training needs of the telecommunications administrations of East and Southern African countries. The centre, to be known as the African Advanced-Level Telecommunications Institute (AFRALTI), will serve Botswana, Ethiopia, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Seychelles, Somalia, Sudan, Swaziland, United Republic of Tanzania, Uganda, Zambia and Zimbabwe.

The Arab States

In the Arab region, communication training and research are generally carried out either in departments or schools of journalism and communication studies, in social science departments, or in professional institutes. As yet there is limited co-ordination between the different Arab units involved in communication training, and research is concentrated in the area of audience research.

Egypt has five training and research programmes relating to communication; Iraq and Lebanon each have three such programmes; Jordan and Morocco have two programmes, while Algeria, Kuwait, Libyan Arab Jamahiriya, Saudi Arabia, and the Sudan each have only one programme in this field.

While all Arab broadcasting organizations have realized the need for training, they differ in the ways in which they have tried to satisfy this need. Some broadcasters have established training centres attached to their own broadcasting organizations, while others have supported the creation of communication training institutes which include broadcasting training as part of their general programmes. A third group only organizes irregular training activities, based on their needs and available resources, and several broadcasters rely on sending their staff on training missions abroad.

Broadcasting training has also been a major concern of the Arab States Broadcasting Union (ASBU) since it was established in 1969. This concern was translated, in 1972, into the establishment of the Arab Regional Broadcasting Training Centre in Damascus, which began operations in 1982. General communication training has been the subject of several meetings of communication research and training institutions in the Arab world (Cairo and Baghdad (1976), Riyadh (1978)) and as a result of these meetings the Association of Arab Communication Institutes and Training Centres was established in 1978 with the University of Benghazi, Libyan Arab Jamahiriya, as its headquarters.

In addition to ASBU's Arab Broadcasting Centre in Damascus, an Arab Centre for Audience Research was also established by ASBU in Baghdad. The Gulf States Broadcasting Training and Co-ordination Centre (in Doha, Qatar) also provides regional and sub-regional training courses. At the national level, the following institutions should be mentioned in relation to broadcasting training:

- Broadcasting Training Institute, General Institute of Broadcasting, Baghdad, Iraq.
- Broadcasting Training Centre, Ministry of Information, Doha, Qatar.
- Broadcasting Institute, Broadcasting Union, Cairo, Egypt.
- Al-Hassan Al-Thani Communication Broadcasting Institute, the Moroccan Broadcasting Corporation, Rabat, Morocco.
- Khalifah Broadcasting Institute, Ministry of Information, Sana'a, Yemen Arab Republic.
- Communication Training Centre, Directorate of Training and Developmental Communication, Ministry of Information, Amman, Jordan.
- Technical Institute for Telecommunication Studies, Ministry of Communications and ITU, Jeddah, Saudi Arabia.
- Communication Institute, Ministry of Information, Khartoum, Sudan.
- Communication Preparatory Institute, Ministry of Information, Damascus, Syrian Arab Republic.
- Ar-Raskalah Institute, Ministry of Information, Tunis, Tunisia.

Asia and the Pacific

Communication training in Asia has developed in a region of great diversity. Asia includes countries which have experienced accelerated economic growth, industrialization and urbanization, but also a number of the least developed countries, as well as the most populous countries in the world. In the Pacific, some of the world's smallest countries are scattered across vast expanses of ocean. The need for broadcasting training has become more acute in recent times for two main reasons: the rapid development in technology, and the increasing awareness by countries of the potential role of media, especially television, in political, cultural, social and economic development.

University programmes

With a long scholarly tradition and the early establishment of newspapers and the electronic media, journalism schools linked to universities were set up in the region as early as 1918 at the National Peking University in China, in 1919 at the University of the Philippines, and in 1920 at the University of Madras in India.

Journalism and communication subjects are now taught at 10 universities in China (as well as a four-year programme at the Broadcast College in Beijing for radio and television producers and technicians), in over 49 universities, colleges, or academic institutions in India, and at some 16 universities in the Philippines. In Australia there are 20 universities, advanced colleges of education or institutes dealing with practical training in journalism, film, video and radio. In the Pacific, the University of Papua New Guinea has conducted a diploma programme in journalism since 1975, and a Bachelor's degree programme in journalism from 1986. The University of the South Pacific, in Fiji, commenced a journalism diploma programme through its extension services in 1983. University-based or independent professional institutions also operate in Afghanistan, Bangladesh, Burma, Democratic People's Republic of Korea, Indonesia, Islamic Republic of Iran, Japan, Malaysia, New Zealand, Pakistan, Republic of Korea, Singapore, Sri Lanka, Thailand and Viet Nam.

Broadcasting training

To respond adequately to the manpower development needs of the region in the field of broadcasting, a Unesco Meeting of Training Experts and Managers, held in 1968, proposed the establishment of a regional broadcast training institution. In response to this recommendation, UNDP began providing assistance in 1972 through Unesco. The assistance was expanded in 1975 to cover a five-year period to support institutional as well as programme development of this regional organization, and the Asian Institute for Broadcasting Development formally came into being as a regional intergovernmental organization in August 1977.

This organization, with 20 member countries, is now known as the Asia-Pacific Institute for Broadcasting Development (AIBD) and is located at the Malaysian National Broadcasting Training Centre, IPTAR (Institut Penyiaran Tun Abdul Razak).

The term "training", as understood by AIBD, embraces all aspects and areas of broadcasting, both radio and television. It encompasses a broad canvas reflecting different emphasis and different understanding of the concept and need for training in the various broadcasting organizations in the region. Training is not limited to specific teaching courses but is also reflected in the many different seminars, workshops and meetings for, and among, broadcasters in the region. AIBD is the only regional training organization offering training in the field of broadcasting at regional, subregional and in-country levels in the Asia-Pacific region.

The broadcasting organizations in the region are themselves at different stages of development and thus training needs vary to a great extent. As the levels of technology, understanding, creativity and skills are not necessarily comparable or compatible among the different organizations in the region, AIBD has had to address these needs in many different ways and devise training at regional, subregional and in-country levels.

AIBD conducts an average of 50 training activities a year and organizes another 10 seminars and workshops on broadcasting dealing with development in the region, thus meeting the training needs of about 900 to 1,000 persons per year. From its inception until the end of 1987, AIBD has provided training for 9,448 participants from 38 countries within the region and 23 outside the region through 528 activities. The subject areas covered can be broadly described as: broadcast management, programming and production, engineering and operations, news and current affairs, audience research and programme evaluation, training methodology and training of trainers, and application of broadcasting for development (education, population, rural, environment, consumer affairs, women, health, etc.).

At the time of a Unesco survey carried out in 1967, hardly any country in the region had a national broadcasting training centre of its own. Today, at a national level, in-service broadcasting training is available in Australia, Bangladesh, India, Indonesia, Japan, Malaysia, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Singapore and Viet Nam. Of these Australia, India, Japan, Malaysia and New Zealand have accepted regional trainees.

The Asia-Pacific Broadcasting Union has some training functions and has been involved in several training courses for ASIAVISION including ENG news teams.

Press institutes

Initiatives by the press in Asia include efforts by the Japan Newspaper Publishers and Editors Association or Nihon Shinbun Koyokai (NSK), established in 1947, to improve the quality and working conditions of journalists. In the 1960s the International Press Institute and the Press Foundation of Asia (PFA) were instrumental in promoting and assisting the establishment of press institutes in Bangladesh, India, Indonesia, Malaysia, Nepal, Pakistan, the Philippines, the Republic of Korea and Thailand. The Philippines Press Institute, which closed its operations in 1973 upon the declaration of martial law, re-opened in 1986 with a programme for rural newspaper development. The Press Institute of Bangladesh features a microfiche laboratory and has installed its own printing presses in order to launch a publication programme and assist in technical training for regional and rural newspapers. The Press Institute of India (PII) has, from 1963 to 1988, organized 250 courses for 3,500 journalists including 200 women journalists. PII also publishes the bi-monthly media journal in English, named *Vidura*.

Regional training institutions

Alongside the growth of national training institutions in Asia, the 1960s saw the establishment of regional institutions covering most training areas.

The Press Foundation of Asia, based in the Philippines, was founded in 1967 by a group of editors and publishers. PFA's efforts in journalism training are oriented towards development journalism.

In 1968, the Chinese Language Press Institute (CLPI) was formed. Based in Hong Kong, the CLPI is unique in that it is organized on the basis of language and not geographical proximity. It serves Chinese language journalists in Hong Kong, Taiwan, Malaysia, Philippines, Singapore, Suriname, San Francisco and New York.

In 1971 the Asian Mass Communication Research and Information Centre (AMIC) was set up. Although basically oriented towards documentation, research and publications, it also organizes seminars and some training courses.

In New Delhi, the Indian Institute for Mass Communication, established in 1965, offers a five-month diploma course in news-agency journalism for the non-aligned countries, and a postgraduate diploma course for journalists from the region.

The principal training centre for Indian television, the Film and Television Institute of India (FTII) in Pune, provides one-year specialized courses and a three-year diploma course on all aspects of film-making. About 30 per cent of its students are from outside India. On the FTII premises can also be found the National Film Archives of India which offers courses in film archiving.

In 1965, the University of the Philippines Institute of Mass Communication (UPIMC) was established to provide graduate and postgraduate programmes in mass communication, research, broadcasting and journalism. Although intended primarily to serve national needs, this institute, with complete radio and television facilities, a photojournalism laboratory, basic film-production equipment, and one of the most complete and up-to-date communication libraries in the area, has attracted a large number of foreign students. In Los Baños, the University of the Philippines College of Agriculture has a Department of Development Communication specializing in graduate and postgraduate studies in media for agriculture and development.

The AIDAB Centre for Pacific Development and Training (formerly the International Training Institute) in Sydney, Australia, provides training opportunities for professionals (including those from media-related disciplines) in such areas as the design of training materials. For many years, the ITI had an extensive 10-week course (now discontinued) in media management for personnel from Asia, the Pacific and Africa. (The Centre is funded by the Australian International Development Assistance Bureau.)

Regional media training in the Pacific Islands

With the inception of the mass media in the Pacific region, first newspapers (dating back to the nineteenth century), then radio broadcasting (introduced in the 1930s and 1940s), the training of media personnel lay firmly with each individual organization and the national authorities.

There were efforts dating back to the 1950s and 1960s by the broadcasting organizations of Australia and New Zealand, Unesco and UNDP, but the thrust to regionalize training began in the 1970s when the Asia-Pacific Institute for Broadcasting Development (AIBD) extended its activities to the island countries and the South Pacific Commission (SPC) and broadened the programme of its Regional Media Centre to include radio production and later video production training.

In the 1980s these initiatives continued but, because of the extent of penetration of the media, additional inputs were required in the region and in 1985 training activities commenced under the Pacific Broadcasting Training and Development Project (PACBROAD), a project instigated through Unesco's International Programme for the Development of Communication (IPDC), jointly funded by IPDC and the Friedrich Ebert Stiftung (FES).

In recognition of printed media in-country/in-service training needs, IPDC also supported the Pacific Journalism Training and Development of the Printed Media Project (PACJOURN). In addition to PACJOURN, the University of the South Pacific (USP) introduced a diploma in journalism programme in 1987 through its "extension services" mode, a regional correspondence system available to students from the 11 countries the USP serves.

The New Zealand Section of the Commonwealth Press Union also contributes to the training of journalists in the Pacific by sponsoring journalists from South Pacific Island countries to undertake courses in journalism at selected polytechnics in New Zealand, and also by conducting regular training courses in South Pacific Island countries and in New Zealand.

In the area of television, 1986 saw the introduction of cable television to the island of Niue and 1987 the establishment of television broadcasting in Papua New Guinea. Prior to these developments, television in the developing island countries was confined to American Samoa, New Caledonia, French Polynesia and the Federated States of Micronesia. Regional training efforts involving these countries will require additional financial resources and planning, but the South Pacific

Commission's Regional Media Centre has taken a step in that direction by conducting video production training for its Pacific member states.

With well-developed national training institutions in Australia and New Zealand, the need in the Pacific subregion is to develop training for the smaller island states, most of which are not in a position to establish and develop their own national media training institutions. Papua New Guinea is the exception with its own broadcasting and journalism training programmes. A regional media training programme for the Pacific Island states has been established by the South Pacific Commission through its Regional Media Centre programme, but the effort requires considerable financial support for training courses, facilities development, management and planning, as well as co-operative media training efforts between the SPC and other international agencies and the more developed training institutions operating in the region.

Latin America and the Caribbean

Latin America has a lengthy tradition of communication teaching, going back more than twenty years, mainly organized along academic lines. The regional association of communication training schools, FELAFACS (Federación Latinoamericana de Asociaciones de Facultades de Comunicación Social), recently surveyed the communication journalism programmes offered by 220 schools and communication departments throughout the region. Tables 4.8 to 4.12 have been compiled from this survey, while data regarding the programmes offered derive from an earlier study prepared by FELAFACS in 1985 covering some 100 study plans.

The training programmes offered by these institutions range from three to five years' duration, and the composition of their programmes is reflected in Table 4.10. The numbers involved are estimated in Table 4.11.

Finally, in terms of subsequent employment, Table 4.12 illustrates eventual areas of professional activity.

Table 4.8

Latin American institutions of higher learning and professional schools in communication, 1986

Country	Number of institutions	Country	Number of institutions
Argentina	19	Honduras	3
Bolivia	5	Mexico	63
Brazil	69	Nicaragua	1
Colombia	12	Panama	2
Chile	5	Paraguay	2
Costa Rica	3	Peru	9
Cuba	2	Puerto Rico	2
Ecuador	5	Dominican Republic	6
El Salvador	2	Uruguay	2
Guatemala	3	Venezuela	5

Source: FELAFACS (Federación Latinoamericana de Asociaciones de Facultades de Comunicación Social) *Directory*, June 1987.

Table 4.9

Nature of the Latin American training institutions, 1986

Type	Number	Distribution (%)	Status	Number	Distribution (%)
School	45	20.45	Private	109	49.54
Faculty	39	17.72	Public	67	30.45
Department	38	17.27	Mixed	4	1.01
Career	27	12.27	No reply	40	18.20
Course	17	7.72			
Programme	3	1.36			
Institute	2	0.90			
No reply	49	22.27			
Total	220		Total	220	

Source: FELAFACS (Federación Latinoamericana de Asociaciones de Facultades de Comunicatión Social) *Directory*, June 1987.

Table 4.10
Distribution of Latin American academic training programmes, by areas of emphasis, 1985

Country	Basics	Methods	Socio-humanities	Practices	Instruction
Argentina	35	10	29	22	4
Brazil	44	9	23	23	1
Bolivia	32	9	27	30	2
Colombia	38	13	25	16	9
Chile	53	10	14	16	7
Costa Rica	44	15	26	10	4
Cuba	88	6	6	NA[1]	NA
Ecuador	33	15	22	24	1
Guatemala	46	12	29	12	NA
Mexico	42	12	25	18	2
Nicaragua	35	7	23	21	14
Panama	51	4	16	21	2
Paraguay	33	13	17	34	3
Peru	41	7	35	14	4
Puerto Rico	42	3	16	38	1
Dominican Republic	37	12	26	24	1
Uruguay	25	3	28	39	6
Venezuela	46	9	14	26	5

Notes: *Basics* = communication theories, communication ethics, semiology and linguistics, theoretical-technical subjects, mass media history and legislation.
Methods = research techniques and methods, logic and epistemology, applied mathematics, statistics, marketing.
Socio-humanities = humanities, social-economics and politics, pedagogy, administration, literature, history and visual communication.
Practices = practices in professional activities, technical and professional activities, technical and professional workshops and research practice.
Instruction = foreign languages, spelling, typing and shorthand, methodology of study and scientific work.
1. Not available.

Source: *Formación Profesional de Comunicadores Sociales en América Latina,* Bogotá, FELAFACS, 1985. This study was based on questionnaires concerning 112 study plans, of which 44 answers were complete.

Table 4.11
Approximate number of registered students in communications at the Latin American universities in 1985.

Country	Total programmes	Programmes surveyed	Number of students
Argentina	19	6	2 649
Bolivia	5	5	1 379
Brazil	69	45	27 716
Colombia	12	10	4 414
Chile	5	4	397
Costa Rica	3	1	400
Cuba	2	1	678
Ecuador	5	3	2 601
Guatemala	3	3	710
Mexico	63	39	13 393
Nicaragua	1	1	290
Panama	2	1	1 500
Paraguay	2	1	159
Peru	9	4	3 070
Puerto Rico	6	5	580
Dominican Republic	6	5	1 539
Uruguay	2	1	75
Venezuela	5	3	4 550
Total			66 092

Source: FELAFACS, *Directory*, June 1987; *Formación Profesional de Comunicadores Sociales en América Latina*, Bogotá, FELAFACS, 1985. This study was based on questionnaires concerning 112 study plans, of which 44 answers were complete.

Table 4.12

Areas of employment of graduates of Latin American communication programmes, 1985

Employment areas	Average percentage for all schools[1]
University	4.24
Journalism	16.24
Broadcasting	6.55
Television	4.46
Advertising	4.74
Film production	0.74
Audio-visual production	2.70
Government	6.59
Organizational communication	7.13
International organizations	0.55
No professional activities	0.54
Independent, work in communication	1.98
Independent, not communication	0.78
Unemployed	0.87
Research	0.53
Other	4.87

1. The percentages do not add up to 100, because averages were established from 118 out of 220 possible replies.

Source: FELAFACS *Directory*, June 1987.

In the Caribbean, an increasing number of institutions are specializing in communication training. These include the Caribbean Institute of Mass Communication (CARIMAC), the Creative Production and Training Centre (CPTC) and the College of Arts, Science and Technology (CAST), Jamaica; University of Guyana (UG), Guyana; Banyan Ltd and the John Donaldson Technical Institute, Trinidad and Tobago; Christian Action for Development of Communication, Barbados; and the Academy for Advanced Art and Culture Studies, Suriname.

Select listing of professional training programmes at the regional level

The following is a select list of centres and organizations at the regional level which organize, or co-ordinate, training courses for professionals in the area of mass media. A few national centres are also included which offer training places to foreign students. As before, the list is confined to institutions offering short-term professional training, mainly at the post-experience or advanced level, and it does not include the wide variety of institutions offering longer-term academic courses, leading to degrees or diplomas. Similarly, it does not include training in telecommunications or informatics.

Africa

Name	*Address*	*Course*
African Council on Communication Education (ACCE)	P.O. Box 47495, Nairobi, Kenya	Organizes and collaborates in the organization of advanced professional courses in news agency journalism, media management, communication policy and planning, media and development, professional seminars and workshops
Centre for Information Studies (CESTI)	University of Dakar, Dakar Fann, Dakar, Senegal	Newspaper writing; radio journalism, television journalism; photojournalism; management; photography; video production
Communications Training Centre	All-African Conference of Churches, Nairobi, Kenya	Occasional seminars and workshops on radio programming; script writing; drama and production techniques
Ghana Institute of Journalism	P.O.Box 667, Accra, Ghana	Journalism; English language; photojournalism; contemporary politics; public relations; economics; typing, advertising; radio production; newspaper development
Inter-African Centre for Studies in Rural Radio, Ouagadougou; Centre Interafricain d'Etudes en Radio Rurale, Ouagadougou (CIERRO)	B.P. 385, Ouagadougou, Burkina Faso	General courses in radio; special training in rural broadcasting; radio production; technical courses
Kenya Institute of Mass Communication	Ministry of Information and Broadcasting, P.O. Box 42422, Nairobi, Kenya	Two-year diplomas in broadcast journalism and radio and television production; certificate programmes in film production and electronic media technicial work
National Film and Television Institute (NAFTI)	Private Mail Bag, General Office, Accra, Ghana	Professional courses in cinema, photography, film directing, script-writing, editing, television production, set design, graphics/animation, production management, film sound recording
University of Nairobi School of Journalism	P.O. Box 30197, Nairobi, Kenya	Postgraduate diploma programme in mass communications; newspaper writing; news editing; journalism; law; communication; theory and research; journalism history; radio journalism, television journalism, photojournalism, editorial writing; media management; public relations
University of Yaoundé, Higher School of Sciences and Techniques of Information; Ecole Supérieure de Sciences et Techniques de l'information (ESSTI)	B.P. 1328, Yaoundé, Cameroon	Newspaper, radio and television journalism, practice and theory
Zambia Institute of Mass Communications	P.O. Box 50386, Lusaka, Zambia	Training centre offering programme in journalism; newspaper reporting, newspaper writing, newspaper editing, news agency journalism, radio and television journalism

Arab States

Name	*Address*	*Course*
African Centre for Journalists and Communications Training (CAPJC)	9 rue Hooker Doolittle, 1002 Tunis, Tunisia	Newspaper reporting; newspaper writing; news agency journalism; radio journalism; television journalism; word processing; desktop publishing
Arab Centre for Research into Radio and Television in the Arab States; Centre Arabe de Recherche sur la Radio et sur la Télévision dans le Monde Arabe	P.O.Box 27007, Baghdad, Iraq	Training for radio and television researchers

Name	Address	Course
Arab States Broadcasting Union Training Centre (ASBU training centre)	P.O. Box 5333, Damascus, Syria	Training for radio and television broadcasters and technicians; seminars and symposia on telecommunication development
Gulf Co-ordinating Centre for Radio and Television Training	P.O. Box 8223, Doha, Qatar	Vocational and professional courses in: engineering and technical subjects; programme courses in television and cinema production; radio production, presentation, children's programmes; scriptwriting for radio and television; direction and technical operations for television
Middle East News Agency	Hoda Sharawi Street, Cairo 1165, Egypt	Training and information services. Courses in news agency journalism, communications technology, photojournalism

Asia and the Pacific

Name	Address	Course
AIDAB Centre for Pacific Development and Training	Middle Head, Mosman, NSW 2091, Australia	Short-term courses and consultancy services in areas such as the design of training materials and curricula
Asian Mass Communication Research and Information Centre (AMIC)	39 Newton Road, Singapore 1130	News exchange; communication research; role of films and audio-visual media in development; educational media; social marketing; and development communication
Asian Institute of Journalism (AIJ)	Journal Building, Port Area, Manila, Philippines	Journalism, communications research (mainly to facilitate degrees for working journalists); media management
Asia-Pacific Institute for Broadcasting Development (AIBD)	P.O. Box 1137, Pantai, 50990 Kuala Lumpur, Malaysia	Programme production, presentation, scripting in radio, television and film planning, operation and maintenance in engineering; management, research, training methodology and specialized applications of broadcasting in support of development agriculture, health, population, environment; news and current affairs; graphics, design and animation; communication workshops
Australian Film, Television and Radio School	13-15 Lyon Park Road, North Ryde, Sydney, NSW 2113, Australia	Film, television, commercial radio, training for industry, documentary and television journalism
Australian Broadcasting Corporation	G.P.O. Box 9994, Sydney, N.S.W. 2001, Australia	Radio and television training (production and technical)
Centre for Development of Instructional Technology	D-1 Soami Nagar, New Delhi 110017, India	Training in communication and informatics; audio-visual programmes on development issues
Communications Foundation for Asia	44 Interior Old Sta. Mesa, Manila 2806, Philippines	Mass communication in general, also radio and video production printing, research
Development and Educational Communication Unit (DECU)	Space Applications Centre, P.O. Ahmedabad 380053, India	Television training (production and technical courses)
East-West Culture and Communication Institute, East-West Center	1777 East-West Road, Honolulu, HI 96948, United States	Specialist development programmes for journalists at all stages of professional accomplishment; occasional workshops on communication research and development
Film and Television Institute of Poona	Law College Road, Pune 441004, India	Film and television training (production and technical courses)
Indian Institute of Mass Communication	Sector XIII, Shaheed Jit Singh Marg, JNU Campus, New Delhi 110067, India	Training and research in mass communication; development journalism, news agency course, broadcast course

Name	*Address*	*Course*
Institute Penyiaran Tun Abdul Razak (IPTAR) Malaysian National Broadcasting Academy	Radio Television Malaysia Angkasapuri, Kuala Lumpur, Malaysia	IPTAR provides places for overseas participants on seminars and courses under Malaysian technical co-operation programmes
Jefferson Fellowships, East-West Center	1777 East-West Road, Honolulu, HI 96846, United States	Fellowship programme for Asia/Pacific journalists and news broadcasters and six American counterparts to study together at the East-West Center and then travel in mainland United States with Americans travelling in Asia
Korean Broadcasting Society	No. 18, Yoido-Dong, Youngdungpo-go, Seoul 150, Republic of Korea	Photojournalism training courses
Malaysian Press Institute	30-A, Pesiaran, Ara Kiri, Lucky Garden, Bangsar, 59100 Kuala Lumpur, Malaysia	Basic journalism, intensive practical training for mass communication graduates, economic and business writing, photojournalism, the press and the law
Manukau Polytechnic	P.O. Box 61066, Otara, Auckland, New Zealand	Journalism for Pacific Islanders; newspaper, radio and television; journalism theory and practice.
New Zealand Broadcasting Corporation (NZBC) Training School	P.O. Box 98, Wellington 1, New Zealand	Radio and television broadcasting training (production and technical courses)
Pacific Broadcasting, Training and Development Project (PACBROAD)	Pacific Broadcasting Training and Development Project, G.P.O. Box 15234, Suva, Fiji	Radio training (production, news and technical courses) given in different countries of the Pacific region
Philippine Press Institute	1500 Royas Boulevard (3/F), Manila, Philippines	Training programmes for working journalists, research
South Pacific Commission Regional Media Centre	Nabua, Box 5086, Raiwaqa Post Office, Suva, Fiji	Radio, graphic arts and video production
Sri Lanka Television Training Institute	100A Independence Square, Colombo 7, Sri Lanka	Television training (production and technical courses)
Press Foundation of Asia	P.O. Box 1843, Manila, Philippines	Co-ordinates courses for mid-career professionals in: newspaper reporting; newspaper writing; newspaper editing and management
Wellington Polytechnic	Private Bag, Wellington, New Zealand	Basic subediting; research; interviewing; reporting
Worldview International Foundation	10 Kincross Avenue, Colombo 4, Sri Lanka	Electronic media production (courses only on demand)

Latin America and the Caribbean

Name	*Address*	*Course*
Academy for Advanced Art and Culture Studies	20 Prins Hendrikstraat, Paramaribo, Suriname	Communication planning and research (Dutch language)
Banyan Limited	15 Cipriani Boulevard, Newtown, Port of Spain, Trinidad and Tobago, West Indies	All aspects of television production. Courses tailored to individual station needs
Caribbean Institute of Mass Communication (CARIMAC)	University of the West Indies, Mona Campus, Kingston 6, Jamaica	Newspaper reporting; newspaper writing; newspaper editing; radio journalism; television journalism and photojournalism

Name	*Address*	*Course*
Christian Action for Development of Communication	c/o Caribbean Conference of Churches, George Street, & Collymore Rock, Barbados, West Indies	General radio techniques
College of Arts, Science and Technology	237 Old Hope Road, Kingston 6, Jamaica, West Indies	Electronic/electrical engineering from elementary to advanced levels
Creative Production and Training Centre	37 Arnold Road, Kingston 4, Jamaica, West Indies	Television production/presentation techniques for general programming, including camera work, lighting, costume and set designing, script writing, directing and budgeting
International Centre of Advanced Studies in Journalism for Latin America (CIESPAL)	Diego de Almagro 2155, P.O. Box 584, Quito, Ecuador	Newspaper reporting; newspaper writing; newspaper editing; news agency journalism; radio journalism; television journalism; communication technology; communication planning, management and research
The John Donaldson Technical Institute	Wrightson Road, Port of Spain, Trinidad and Tobago, West Indies	Electronic/electrical engineering from elementary to advanced levels
Latin American Institute for Educational Communication; Instituto Latinoamericano de la Comunicación Educativa (ILCE)	J. Luis Vives 200, AP 94-328, Mexico 10 D.F., Mexico	Development and propagation of education within the media; research in communication for development; design of low-cost communication media; production of materials for open learning systems; new communication technologies
University of Guyana	Turkeyen Campus, Georgetown, Guyana, West Indies	Print journalism; radio journalism, television journalism: all with emphasis on development aspects of journalism

5. Information flow

Introduction

Unesco's annual statistical surveys collect data on international information flow as part of the organization's role in promoting "the free flow of ideas by word and image". The latest available statistical data regarding such areas as book production, book translations, newspaper circulation, film imports and availability of radio and television receivers are presented in Chapter 9. The purpose of this chapter is to supplement these data by describing the situation in areas where only limited information is available in Chapter 9, drawing upon special Unesco surveys as well as other recent research.

This chapter looks initially at the broad spectrum of news flow, then considers the flow of information within individual media. The generic term "flow" has deliberately been interpreted broadly, to cover not only the international and regional circulation of materials, but also, wherever possible, information sources, general patterns of content, and the distribution and consumption of information within countries. Unfortunately, very few surveys of media consumption exist outside industrialized countries. Information on national media usage, as provided by so-called "media-indices" for example, is also difficult to compare, since methodologies vary from country to country. So-called "time-budget" or "time-use" studies, which detail individual use of time over a 24-hour period, may eventually be extended to provide internationally comparable data on media consumption and demographic differences in media use. This kind of analysis would, however, have to be expanded to include far more countries if global media habits are to be better known.

The chapter begins with a consideration of news flow at the international and regional levels only, and provides profiles of the major international and regional news agencies and news-exchange arrangements. This is followed by information on content and sources of international news, and on newspaper circulation (as a guide to news consumption, on which available information is limited, except for a handful of industrialized countries). The chapter continues with a review of information flow (again in the broad sense described above) within the different media of television, radio, video, film, records and tapes, and data traffic.

It should be noted that a considerable amount of information on books is provided in Chapter 9: notably Table 9.4, which includes data on book production around the world, and Table 9.14, which gives information on the numbers of loans libraries process annually. The same is true for the readership of newspapers, magazines and other periodicals. No specific separation is made in this chapter between international and regional data, largely because of

limited information available on a regional level. Wherever regional data exist, they are incorporated into the general discussion.

News flow

A major aspect of the international flow of news is the functioning of the more than 100 national, regional and international news agencies and news-exchange arrangements in the world. Among these, five organizations–Reuters (United Kingdom), Associated Press (United States), United Press International (United States), Agence France Press (France) and TASS (USSR)–have a particular role in the international flow of news. While Reuters, AP, UPI and AFP are the dominant sources of foreign news for most countries in North America, Western Europe, Asia, Africa, and Latin America, the TASS news agency represents a major source of news for most of the socialist countries of Europe and elsewhere. An important development in international and regional news exchange occurred in the 1970s and 1980s with the emergence of international and regional co-operative news agencies and news-exchange agreements among national news agencies. Improved technical and professional co-operation between the various news organizations, especially in Asia, the Arab States, Africa and Latin America, led to the creation of the Non-Aligned News Agencies Pool and to the creation of regional news agencies. Brief descriptions of major actors in international news/exchange are provided below.

International news agencies and news-exchange mechanisms

Reuters, a public company registered in London, is the world's largest and oldest news agency. It supplies a wide range of services both to subscribers and to the news media. It obtains its information from around 137 exchanges and over-the-counter markets, from data contributed directly by more than 3,100 subscribers in 79 countries and from a network of over 1,100 journalists, photographers and cameramen. Reuters distributes its information via more than 145,000 terminals and teleprinters, directly into clients' computers. Services to the news media include general, economic and sports news, features and news pictures. The agency produces services in English, French, German, Spanish, Arabic, Japanese, Danish, Norwegian, Dutch, Portuguese, Swedish and Italian. Up to 5 million words a day of news-related text are processed through the message-switching computers in the London editorial centre alone. Another major editing centre is located in Hong Kong which, with London, edits the world news sequentially in a 24-hour cycle. New York edits news from the Western Hemisphere. Visnews, the world's biggest television news agency, is a subsidiary of Reuters (see below).

Associated Press (AP), a private non-profit co-operative incorporated in the state of New York, serves 84 per cent of all American newspapers and its members account for 96 per cent of daily newspaper circulation in the United States. It has the world's largest photographic service, a service providing audio news and a service devoted entirely to sport. It also has a service specializing in economic, financial, business and labour news; the "Wide World" photo library; an education department (educational films); a current-affairs books department; AP-D.J., a specialist economic and financial news service run jointly with Dow Jones Co., publishers of the *Wall Street Journal*. AP has a total workforce of 2,920 including 1,580 journalists and photographers around the world and 500 communication workers. AP supplies 112 countries in six languages: English, French, German, Spanish, Dutch, and Swedish. Its customers break down as follows: 1,500 daily newspapers and 6,000 radio and television stations in the United States and about 8,500 newspapers and radio and television stations around the world. Each of AP's services puts out 2 million words a day in English and 50,000 words in German, French, Dutch, Swedish and Spanish.

United Press International (UPI) is a privately held company which recently has been undergoing financial and operational restructuring. The agency employs around 2,000 full-time journalists worldwide and is first and foremost a world news and news-photo service, with dispatches produced in English, Spanish and Portuguese. Other services include: an international sports dispatch service; an international "science and technology" service; the "Custom Data" remote-access data service for media and non-media customers (e.g. banks and businesses); an international news service on video circuit for hotels and airports; and an international audio service. UPI produces a total of 14 million words a day in its different language services distributed to about 7,000 recipients in 100 countries. The news service includes a foreign news department and a national news department, which are split up on a geographical basis. The United States is divided into ten regions and there are six international divisions.

Agence France Presse (AFP) was created as an autonomous juridical body by law of 10 January 1957 (amended in March 1957, July 1965, and April 1975). The agency employs 870 journalists in France, while outside France 88 AFP networks and 850 journalists are located in 180 countries. There are nine departments: AFP News, AFP Economy, AFP Sport, AFP Magazine, AFP Audio, AFP Photo, AFP Video, AFP Agora Data Bank and AFP Publications. These departments put out a total of 1 million words a day in six different languages: French, English, Spanish, Arabic, Portuguese and German. The agency has three parallel transmission networks, using cable teleprinter, radio teleprinter and satellite. AFP has about 12,000 customers in 144 countries around the world: 2,000 non-media subscribers (banks, industrial and business firms, government departments and a variety of other bodies) and some 10,000 media customers. These include direct subscribers, in particular 500 newspapers, 350 broadcasting companies and stations, 200 television companies and 99 national press agencies, through which AFP reaches its indirect customers: approximately 7,000 newspapers, 2,500 radio stations and 400 television companies.

The Telegraph Agency of the Soviet Union (TASS) is a governmental agency under the USSR Council of Ministers. It has its central office in Moscow, which includes the main editorial departments for national news, foreign news, news from the socialist countries and news for circulation abroad, news photos, and editorial departments organized by topic, region and language. The Federal Republics' news agencies are part of the TASS system: RATAU (Ukrainian SSR); BELTA (Byelorussian SSR); OUZIRG (Uzbekistan); KAZIAG (Kazakhistan): GRUZINFORM (Georgia); AZIERINFORM (Azerbaijan); ELIA (Lithuania); ATEM (Moldavia); LATINFORM (Latvia); KIRTAG (Kirghizia); TADJIKTA (Tadjikistan); ARMENPRESS (Armenia); TURKMENINFORM (Turkmenistan); ETA (Estonia). TASS has offices in Leningrad, Kharavovsk and Vladivostock and 70 correspondents stationed across the USSR. A total of 1,500 journalists work for TASS in the USSR, and in TASS's 100 offices abroad. It produces 4 million words daily in seven languages: Russian, English, French, German, Spanish, Arabic and Portuguese. The Agency supplies news to some 4,000 Soviet newspapers and radio and television editorial services. More than 1,000 news agencies, newspapers, journals, television channels and radio stations and other subscribers in 115 countries receive written information and photos.

Xinhua News Agency, the governmental news agency of the People's Republic of China, with its headquarters in Beijing, operates increasingly as an international news agency, aiming to serve the developing countries. It employs some 1,000 correspondents in 30 branch offices in the different provinces and 400 correspondents in some 100 offices abroad. The agency has a domestic network of telecommunication lines (microwave and cable); satellite links between Beijing and New York, Paris, Tokyo and Hong Kong make up its international network. Xinhua News Agency exchanges material by telex with 70 news agencies worldwide and has more than 1,000 clients at home, and 300 direct subscribers and 3,000 indirect clients abroad, especially in developing coutries. In addition to a general news service, Xinhua transmits economic information in English and Chinese and offers feature stories in English, French, Spanish, Russian, Arabic and Chinese. It also operates a world-wide photo service. Xinhua's news service on average provides 1,000 items daily. Xinhua also publishes two daily newspapers and forty magazines, with a combined circulation exceeding 11 million.

The Spanish agency, *EFE*, based in Madrid, which especially serves clients in Spain and Latin America, may be considered together with the traditional "big five" agencies. It was founded in 1939 and is a public company with the government as the major shareholder. EFE employs 520 journalists and collaborates with an additional 837 correspondents and 560 free-lance contributors. It has 20 bureaux in Spain and 39 in other countries, mainly in Latin America, where its division collaborates with some 3,000 reporters. Clients include 157 newspapers, 30 magazines, 104 radio stations, 46 television stations, 14 press agencies and 74 other media customers; the central computer of EFE is connected directly to 52 agencies. EFE has departments for news (300 items daily) and sports with English and French language services, video, cable, wirephoto, radio, television, a special service for economic and financial information and a publishing house. The agency also has text and photo archives and a data bank including biographical and institutional data, plus features.

The News Agencies Pool of Non-Aligned Countries is not an international news agency, but rather a system of news-exchange between agencies, based on co-operation and co-ordination between its 90 different member agencies (1988). The creation of the Pool, which began its service early in 1975, was confirmed at a conference of Ministers of Foreign Affairs from Non-Aligned Countries held in Lima in August 1975. The aim of the Pool is to help improve the balance of

world news circulation, to increase news-exchange between non-aligned countries, and to provide a supplement to national news sources. The Pool also aims to foster the circulation of information on social and economic development, and to create an economic dispatch service, the Eco-Pool. The Pool is not based on formal affiliation, and national agencies can take part in its activities through one of its distribution centres (Havana, New Delhi, Belgrade, Tunis, Jakarta, Baghdad, Mexico, Rabat, Hanoi and Pyongyang) sending in their information for distribution to other member news agencies. Around 80,000 words a day are transmitted in English, French, Spanish, and Arabic. The Pool also contributes to an exchange of photographic services between the different member agencies. There is no single management centre; the Pool has no staff or budget of its own, and administrative costs are decided by the Chairman of the Co-ordinating Committee which monitors the Pool's activities; headquarters changes with the chairman and will be located in Luanda (Angola) from June 1989. Regional news agencies like PANA, FANA, OANA, ASIN and ALASEI also take part in the news-exchange of the Pool. Each member meets the cost of collection and transmission to other news agencies or redistribution centres. Each redistribution centre bears the cost of collection, distribution and exchange of news.

Inter Press Service (IPS) is a communications system whose organizational structure is that of an international non-profit co-operative of journalists, predominantly from developing countries. IPS, founded in 1964, was originally conceived as a news agency, but has diversified its activities and is today often described as a communications system for development. As a communications system, IPS, in addition to IPS News Agency, also manages IPS Communications and IPS Projects. IPS News Agency produces a news and feature service specifically committed to the process of development. The agency's international telecommunications centre is in Rome and regional centres are in Zimbabwe (Harare) for Africa, Costa Rica (San José) for Latin America, Sri Lanka (Colombo) for Asia, Rome for Europe and New York for North America and the United Nations. The subregional centres for the Arab States and for the Caribbean are respectively in Tunisia (Tunis) and in Jamaica (Kingston). IPS also has associates and subsidiary companies in several industrialized countries. The IPS network at present covers 91 countries. Some 840 media and non-media organizations receive IPS information services worldwide. IPS offers a daily news and feature service focusing on issues of the developing world distributed in English, Spanish, German, Dutch, Arabic, Portuguese, Norwegian, Finnish, Swedish and Hungarian. IPS also provides news in Swahili. In addition IPS offers special bulletins on issues related to women, population and development, investment and development, environment, energy, agriculture and religion. The daily output is about 160,000 words.

Several other international initiatives have been taken to improve news coverage of the developing world. One such initiative is *Gemini News Service* which was founded in 1967 with the aim of bringing about changes in the conventional pattern of international reporting. Gemini is owned by a non-profit Foundation controlled by 11 governors with its registered office in London. Some 130 correspondents from 50 countries currently contribute and regularly write for Gemini. The features are used by 150 magazines and newspapers and the agency dispatches 700 items a year to 140 subscribers, including special series, maps, graphics and illustrations. In addition to stories on politics and economics, correspondents provide coverage on environment, culture, sports, health, education, personalities and global trends. Gemini also finances a two-month stay by resident correspondents and local journalists in remote villages. By living full-time with the village people, they obtain an intimate knowledge and understanding of the country they are writing about. This initiative provides the input to Gemini's special feature series "View from the Village".

Visnews is the biggest enterprise in the world specializing in the gathering and distribution of television news for broadcasting companies. Its head office is in London for both Visnews Ltd and VisCentre; for the American continent the office is in New York (Visnews International (USA)) and the Far East office is in Hong Kong (Visnews Far East Ltd). Visnews distributes television news stories to 409 customers in 83 countries around the world, and the agency's daily services are broadcast on approximately 650 million television sets (1988 estimates). Visnews transmits mainly by satellite, Eurovision link and video-cassette. The agency covers all kinds of events; lead stories and miscellaneous events worldwide, political and economic news, social, cultural and scientific events, major arts and entertainment events, and a Sports News Service. Visnews services include a news library, with one of the world's largest collections of film and videotape covering events since the last century. It also operates extensive video facilities and crews on location throughout the world. The Visnews subsidiary, BrightStar, is the leading provider of satellite television transmission capacity between North America and

Europe. Visnews Ltd is a subsidiary of Reuters Holdings PLC. The British Broadcasting Corporation (BBC) has a minority holding in the equity of Visnews.

CBS News, an American firm specializing in the production of news and news films of American and international interest, mainly supplies the CBS television and radio networks, but it is the second largest enterprise of its kind in the world after Visnews. Its head office is in New York City and it has 15 regional offices around the world.

Regional news agencies and news-exchange mechanisms

By 1988, 35 countries in the *Sub-Saharan African region* had national news agencies. The main continental news agency is the *Panafrican News Agency* (PANA) based in Dakar, Senegal. The decision to set up PANA was taken in Addis Ababa in 1979 by the member states of the OAU, and PANA's first dispatch went out in May 1983. PANA's main aims are to promote the objectives of the OAU towards the consolidation of the independence, unity and solidarity of African states and the liberation struggle, and to ensure an effective exchange of information between African states. The Dakar centre can be reached by telex by all African countries. It has continuous direct-line links to Tunis, Lusaka and Lagos. Through radio, PANA receives news from the agencies of four North African countries: Sudan, Algeria, Egypt and Libyan Arab Jamahiriya. It covers Central, East and parts of West and Southern Africa by short-wave radio. In addition to functioning as a pool of national news agencies, PANA also operates as a classical news agency, directly covering major events, with its own staff of correspondents and editors. PANA has five regional pool centres in Lusaka, Khartoum, Kinshasa, Lagos and Tripoli and bureaux in Addis Ababa and Harare, and provides daily news and special reports, weekly features, sports, economic, health and science bulletins and reviews of the African press. It also transmits news from the Non-Aligned News Agency Pool, the information departments of the SWAPO and ANC liberation movements and from international organizations such as FAO, ILO, WHO, Unesco and EEC. Forty-three African national news agencies have participated in PANA activities so far. PANA transmits about 20,000 words in English and French for 10 hours daily and plans to do so in Arabic and Portuguese by 1990.

The *Organization of Asia-Pacific News Agencies* (OANA) is a regional news-exchange arrangement set up in Bangkok in 1961. The main aim of the agency is to foster professional contacts and technical co-operation between news agencies in Asia, with a view to stimulating their common interests and increasing the flow of news between the countries of the region. OANA has 25-member news agencies in Afghanistan, Bangladesh, China, the Democratic People's Republic of Korea, India, Indonesia, Iran, Japan, the Lao People's Democratic Republic, Malaysia, Mongolia, Nepal, Pakistan, Philippines, the Republic of Korea, Sri Lanka, Thailand, Turkey, USSR and Viet Nam. OANA has services broadcasting in English, a feature service, and a programme to exchange or share correspondents. It also has telecommunications services for transmitting press messages, allowing closer relations between Asia and the world news agencies and a photo service is under development. OANA circulates about 25,000 words per day.

In the Pacific, the *Pacific Islands News Association*, (PINA) was founded in 1974 by individual representatives of newspapers and broadcasting organizations in the region. PINA plans to operate news exchange in addition to training programmes and advisory services.

All *Arab States*, with the exception of Bahrain and Somalia, have official national news agencies, which were established after independence in the early 1950s. The Arab national news agencies are government agencies; Lebanon, however, has some 20 private local news agencies in addition to the national news agency. The first conference for the official Arab news agencies was held in 1965 and is now held regularly. The conference recommended the establishment of a regional news agency for the Arab States under the aegis of the Arab League. The recommendation is being considered by the Council of Arab Ministers of Information and a feasibility study has been commissioned.

The *Federation of Arab News Agencies* (FANA) also works toward this end. FANA began work in January 1975 and has its headquarters in Beirut. FANA's members include the national news agencies in Algeria, Democratic Yemen, Iraq, Jordan, Kuwait, Libyan Arab Jamahiriya, Lebanon, Mauritania, Morocco, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, the United Arab Emirates, Yemen and the Palestinian News Agency. The aim of the co-operation is to strengthen professional bonds between all the agencies, provide as wide a distribution of news as possible within the Arab world, and ensure that the

news reaches the outside world. FANA has relations with Latin American news agencies and an Asian bulletin is distributed via the Malaysian agency, Bernama. A daily bulletin of some 40 items submitted by member agencies is translated into English and transmitted to the International Press Centre in Vienna, where it is picked up by European agencies including Deutsche Presse Agentur (DPA) and Austria Presse Agentur (APA).

The governments of the Arab Gulf States have set up their own news agency, the *Gulf News Agency* (GNA) headquartered in Bahrain. It was founded in 1978 as an intergovernmental agency, and its member states include Bahrain, Iraq, Kuwait, Qatar, Saudi Arabia and the United Arab Emirates. GNA has a network of correspondents in a number of capital cities in Arab countries and around the world. The news is transmitted in Arabic (12,000 words a day) and English (6,000 words a day) by satellite and short-wave radio. GNA's customers are all the Arab news agencies of the Gulf and many national and international agencies. GNA also runs a photographic service.

Almost all of the *Latin American* countries have national news agencies, some of which possess considerable networks. The region's large private media sector is also served by the international agencies, which provide specialized services for the region. In addition there are news agencies of regional importance such as the Cuban agency, Prensa Latina, and ACAN, the Agencia Centroamericana de Noticias, for Central America. Set up in 1959, *Prensa Latina* has a staff of 180 at its headquarters in Cuba and some 40 offices around the world. Prensa Latina transmits in Spanish, English, French and Portuguese. The *Agencia Centroamericana de Noticias (ACAN)* is a subregional agency for Central America, supported by the Spanish news agency EFE. ACAN has its headquarters in Panama with branches in San José, Managua, San Salvador, Tegucigalpa, Guatemala and Belize City; it employs twenty journalists and transmits an average of 120,000 words daily in Spanish. *Agencia Latinoamericana de Servicios Especiales de Información* (ALASEI) provides features and specialized information on development, social, economic and cultural issues in Latin America and the Caribbean. It was inaugurated in 1983, with Mexico City as its headquarters. The initial signatory countries were Bolivia, Costa Rica, Cuba, Dominican Republic, Ecuador, Haiti, Mexico, Nicaragua, Panama and Venezuela; signatory bodies were the Latin American Association of Communication Researchers (ALAIC), the Latin American Federation of Social Communication Faculties (FELAFACS) and the Latin American Federation of Journalists (FELAP). In 1984 ALASEI was functioning on an experimental basis, setting up its network of correspondents and its headquarters staff; it started operation officially in January 1985. ALASEI supplies the market with three different products: a weekly features file (*Carpeta Latinoamericana*), a monthly file (*Tecnología, Desarrollo y Sociedad*) and a newsletter (*Semana Latinoamericana*). The first two are aimed at the mass media, while the third is geared towards individual or institutional subscribers. In addition ALASEI launched a new electronic information service in 1988. *Al Día* will be transmitted via computer in two editions daily. The service will include a daily synthesis of the Mexican press, as well as systematically surveying Latin America. ALASEI has correspondents in Havana, Santo Domingo, Bogotá, Caracas, Guatemala, Montevideo, Rio de Janeiro, New York, Paris, Bonn, Buenos Aires, Santiago de Chile, La Paz, Lima, Quito, Managua, Panama, and San José in Costa Rica. The Agency reaches 125 news media in the region and 250 individual subscribers in 18 countries. It is intended that ALASEI should be financed through member states' contributions and invoicing for ALASEI services.

Acción de Sistemas de Información Nacional (ASIN) is an organization for regional information, involving governmental information departments and directors of national news agencies of 16 Latin American and Caribbean countries. Its head office is in Peru, though its administrative centre is in San José, Costa Rica. ASIN produces a range of news daily (political, economic, cultural, social, etc.) and seeks to collaborate with the various national press agencies of Latin America and the Caribbean to help their development efforts by providing training in the communications professions.

The Caribbean News Agency (CANA) is an independent body supplying thirteen English-speaking countries in the Caribbean. It takes the form of a co-operative owned by sixteen communication organizations, based in six of the countries concerned. It has been in operation since January 1976 and originated in Reuters' Caribbean service. The Agency has its head office in Bridgetown, Barbados, and is registered as a limited company in all thirteen Commonwealth countries of the Caribbean. CANA's main source of international news is Reuters' world news service in New York. CANA has 45 subscribers in the Caribbean and employs 12 journalists; it broadcasts 16 hours a day for radio and 15 minutes a day for television. It produces 20,000-30,000 words a day in English. News is transmitted by teleprinter, telex, telephone and mail.

The regional broadcasting organizations have established their own mechanisms for programme exchange. *Eurovision*, which transmitted its first programmes in 1954 and was created as a permanent service in 1961, has 38 active members in 32 countries and an additional 62 associate members in 39 countries. The service offers five daily exchanges of news among members and includes material from international agencies such as Visnews and from other collaborating services such as Intervision and Asiavision. In 1987, a total of 10,750 items were offered. Exchanges, which take place by satellite links, also include sport and children's programmes, cultural events, documentaries and a number of direct or live broadcasts. In 1987, a total of 1,255 non-news programmes were exchanged, of which sport programmes accounted for some 90 per cent. Combined broadcasting of Eurovision programmes by members in 1987 totalled 16,500 hours. *Intervision*, established on 28 January 1960 in Prague, is an international system of exchanges of television programmes in the framework of the International Radio and Television Organization (OIRT). It offers more than 7,000 news items a year as well as a variety of other programmes: cartoons, feature films and sports programmes–in all more than 2,000 hours per year. Broadcasters in 24 countries and territories are members of Intervision. *Asiavision* was launched in 1984 by the Asia-Pacific Broadcasting Union (ABU) following a resolution at its 20th General Assembly in Auckland in October 1983. Asiavision presently includes 14 broadcasting organizations in the region as full members. The service is split into two sections. An area called Zone A has its co-ordination centre in Tokyo and caters largely for East Asia, while Zone B, with its co-ordination centre located in Kuala Lumpur caters for South and South-East Asia. Asiavision's News Exchange (AVN) collaborates with Eurovision and Intervision and offers a comparable number of news items.

URTNA (Union of National Radio and Television Organizations of Africa) is an association of national broadcasting institutions. URTNA was established in 1962 in Lagos and its current membership includes broadcasting organizations in 44 African countries. A Programme Exchange Centre was launched in 1977 in Nairobi and provides the essential instrument for the promotion and coordination of the exchange of radio and television programmes as well as broadcast information among URTNA members. *ASBU* (Arab States Broadcasting Union), founded in 1969, also has a regional broadcasting exchange service. In 1973, *Arabvision* news exchange was started in the three zones: Western or Maghreb, Eastern or Mashreq, and the Gulf. In the Pacific, *PIBA* (Pacific Islands Broadcasting Association) is an association of broadcasting organizations founded in 1988. PIBA provides training for the staff of broadcasting organizations under the PACBROAD (Pacific Broadcasting Training and Development) project and has established a system of programmes and news exchange (PACNEWS). The *Caribbean Broadcasting Union* (CBU) launched a television news exchange service, *Caribvision*, in 1988. CBU has also piloted a weekly Caribbean magazine, *Caribscope*, as a way to integrate smaller islands without access to the satellite-linked news exchange. Caribvision includes 20 regional television stations and eight telecommunication companies. It has established two co-ordination centres: one for programming in Barbados and one for transmission in Trinidad. The exchange transmits three to five days per week.

Content and sources of news

A recent bibliography on studies of international news flow (*International Flow of News, An Annotated Bibliography*, Paris, Unesco, 1985) lists more than 400 studies on this subject. Though certain general conclusions may be drawn from these studies, as suggested in *International Flow of Information: a Global Report and Analysis* (Unesco, RPMC, 99), many findings remain inconclusive. The study conducted for Unesco in the late 1970s and early 1980s by the International Association for Mass Communication Research (IAMCR), on reporting in 29 selected countries, still provides the most exhaustive research on the subject. *Foreign News in the Media: International Reporting in 29 Countries* (Unesco, RPMC, 93) drew six major conclusions regarding the content of international news flow: (a) criteria for the selection of foci in international news reporting appear to have become almost universal: this is especially true of the attention given to political news, both in terms of topics and actors; (b) the emphasis given to regional events, and to actors belonging to a region, is strong in all national media systems; (c) United States and Western Europe are consistently news-makers in all regions, even if the nature of the coverage varies; (d) the different "hot-spots", after regional stories and stories relating to the United States and Western Europe, are generally the third most important item in international news flow; (e) those areas of the developing world which are not covered as "hot spots" remain, together with the socialist countries of Europe, the least covered areas in international news reporting; (f) the national news agency, or the "own correspondent", is the most

important source for international news, followed by the major international news agencies: the national media systems are thus exercising important secondary gate-keeping functions in selecting, interpreting and processing news from external sources.

Table 5.1

Sources of international news (press only) sample week, 1979 (percentages[1])

	National agency	Reuters	UPI	AP	AFP	TASS	Other agency	Own staff	Other media int.	Other media ext.	Other source	Not given
North America	4	6	9	22	-	-	-	36	1	1	6	11
United States												
Latin America												
Argentina	-	-	11	8	14	-	20	1	-	1	11	40
Brazil	-	-	1	-	-	-	-	13	-	4	12	70
Mexico	-	-	19	13	22	-	30	12	-	1	13	8
Africa												
Algeria	32	4	-	-	8	-	-	4	-	2	-	54
Côte d'Ivoire	-	2	-	-	2	-	1	13	-	1	-	84
Kenya	2	3	6	6	3	-	-	11	-	1	18	44
Nigeria	2	3	1	2	13	-	-	9	2	12	5	52
Tunisia	2	-	-	-	3	-		3	-	-	-	92
Zaire	2	-	-	-	-	-	1	10	-	-	1	87
Zambia	40	24	-	-	9	-	1	11	-	2	10	40
Middle East												
Egypt	5	4	4	5	9	-	3	12	-	1	23	35
Iran	4	12	5	19	17	1	15	2	1	3	4	20
Lebanon	1	21	12	4	33	1	18	10	1	13	3	29
Asia												
Australia	19	11	7	1	-	1	41	-	-	5	16	8
India	21	15	-	15	9	1	3	21	-	11	5	16
Indonesia	26	5	2	13	31	-	4	27	-	-	6	
Malaysia	4	30	11	8	6	-	4	23	-	2	1	34
Thailand	1	-	-	28	5	-	-	18	-	1	15	
Socialist (in Europe)												
Hungary	16	3	2	2	4	6	3	12	1	6	1	54
Poland	49	-	-	-	-	-	2	39	5	-	1	5
USSR	-	-	-	-	-	55	-	23	-	1	15	10
Yugoslavia	24	4	5	3	5	1	4	14	-	4	2	37
Western Europe												
Germany, Fed. Rep. of	27	11	1	12	5	-	-	30	5	5	17	17
Finland	9	23	11	3	7	5	6	27	-	3	2	28
Greece	3	7	7	27	5	-	3	11	-	6	15	22
Iceland	-	26	-	18	-	-	1	26	-	4	2	29
Netherlands	6	12	6	9	8	-	3	34	-	1	5	23
Turkey	42	3	-	14	13	-	3	36	-	6	1	4

1. Multiples coding; totals may exceed 100 per cent.

Source: International Association for Mass Communication Research, *Foreign News in the Media: International Reporting in 29 Countries*, Paris, Unesco, 1985 (Reports and Papers on Mass Communication, 93).

Newspaper distribution

Information on the sources and content of news should be reviewed together with data on the consumption of news through the different media. Unfortunately, the latter are scarce and available mainly for the market-based industrialized countries. To supplement the available indicators for newspaper consumption given in Chapter 9 (cf. Table 9.1. providing numbers of newspapers and Table 9.2. providing daily circulation per thousand inhabitants), Table 5.2 has been included as an illustration of newspaper circulation in selected countries.

Table 5.2
Circulation of major daily newspapers in selected countries, 1981-88

Country/Newspaper	1981		1985		1988	
	Total circulation	Circulation per thousand inhabs.[1]	Total circulation	Circulation per thousand inhabs.[1]	Total circulation	Circulation per thousand inhabs.[1]
Egypt[2]						
Al Akhbar	723 921	31.2	751 155	28.4	900 305	33.3
Kenya[2]						
Daily Nation	97 956	12.6	111 492	12.0	150 815	15.6
Taifa Leo	55 668	7.2	55 289	5.9	57 047	5.9
The Standard	56 495	7.3	50 002	5.4	39 574	4.1
Zambia[2]						
Times of Zambia	57 119	20.6	60 698	17.7	41 415	11.6
Zambia Daily Mail	NA	NA	31 717	9.2	28 953	8.1
Canada[2]						
Toronto Star	489 246	30.1	484 764	28.1	503 313	28.9
Montreal Herald	283 558	17.5	322 301	18.7	NA	NA
The Globe and Mail	310 034	19.1	310 689	18.0	318 300	18.3
Vancouver Sun	227 034	14.0	227 034	13.1	271 744	15.6
Toronto Sun	205 651	12.7	222 784	12.9	248 184	14.3
United States[2]						
The Wall Street Journal	NA	NA	714 902	4.5	1 869 950	11.7
USA Today	NA	NA	-	-	1 338 734	8.4
New York Daily News	NA	NA	1 554 604	9.8	1 281 706	8.0
Los Angeles Times	NA	NA	1 024 322	6.5	1 116 334	6.9
The New York Times	914 938	6.1	963 442	6.1	1 038 829	6.5
The Washington Post	654 314	4.3	960 120	6.0	769 318	4.8
Brazil[2]						
Folha de São Paulo	NA	NA	280 000	3.5	280 000	3.4
O Estado de São Paulo	NA	NA	179 000	2.2	187 000	2.3
Folha de Tarde	NA	NA	180 000	2.2	90 000	1.1
Diario de Noticias	NA	NA	201 000	2.5	NA	NA
Jornal do Brasil	NA	NA	179 000	2.2	NA	NA
India[2]						
Malayala Manorama	478 108	1.2	500 673	1.1	614 237	1.3
Ananda Bazar Patrika	417 091	1.1	425 396	0.9	421 833	0.9
The Hindu	333 740	0.8	339 868	0.8	401 959	0.8
Jugantar	302 276	0.8	327 023	0.7	NA	NA
Hindustan Times	282 606	0.7	NA	NA	260 178	0.6
The Statesman	252 864	0.6	244 296	0.5	201 906	0.4
Japan[2]						
Yomiuri Shimbun	8 388 315	106.5	8 704 470	105.7	8 923 543	107.6
Asahi Shimbun	7 502 150	95.3	7 485 632	90.9	7 590 987	91.5
Mainichi Shimbun	4 585 316	58.2	4 250 278	51.6	4 179 975	50.4
Nihon Keizai Shimbun	1 805 086	22.9	2 013 156	24.5	2 223 809	26.8
Sankei Shimbun	1 940 149	24.6	1 960 954	23.8	NA	NA
Bulgaria[5]						
Rabotnichesko Delo	NA	NA	812 000	115.1	850 000	120.5
Otechestven Front	NA	NA	268 000	37.9	280 000	39.7
Trud	NA	NA	295 000	41.8	125 000	17.7
Narodna Miladezh	NA	NA	225 000	31.9	NA	NA
Kooperativne Selo	NA	NA	195 000	27.6	NA	NA
Czechoslovakia[5]						
Rude Pravo	NA	NA	NA	NA	1 101 000	94.0
Slovenska Pravda	NA	NA	NA	NA	407 000	34.7
Zemjedelskaja Novini	NA	NA	NA	NA	381 500	32.6
Prace	NA	NA	NA	NA	353 500	30.2
Mlada Fronta	NA	NA	NA	NA	330 000	28.2
France[2]						
Ouest France	665 819	19.4	707 661	19.5	729 428	19.9
France Soir	460 493	13.4	410 679	11.3	460 040	12.6
Le Figaro	468 811	13.7	361 363	9.9	394 517	10.8
La Voix du Nord	374 020	10.9	367 855	10.1	376 073	10.3
Le Monde	440 360	12.8	405 674	11.2	363 663	9.9
German Democratic Republic[4]						
Junge Welt					1 400 000	125.4
Neues Deutschland					1 100 000	98.5
Berliner Zeitung					425 000	38.1
Tribune					412 000	36.9

Table 5.2-cont.

Country/Newspaper	1981		1985		1988	
	Total circulation	Circulation per thousand inhabs.[1]	Total circulation	Circulation per thousand inhabs.[1]	Total circulation	Circulation per thousand inhabs.[1]
Germany, Fed. Rep. of[2]						
Bild Zeitung	4 892 694	119.8	5 466 369	128.5	5 124 887	120.0
Westdeutsche Allgemeine	NA	NA	1 281 949	30.1	1 222 967	28.6
Hannover Allgemeine	NA	NA	538 161	12.6	533 335	12.5
Rheinische Post	403 225	9.9	507 474	11.9	402 942	9.4
Suddeutsche Zeitung	NA	NA	347 843	8.2	378 420	8.9
Sudwest Presse	349.644	8.6	358 783	8.4	361 924	8.5
Frankfurter Allgemeine	329 449	8.1	345 194	8.1	NA	NA
Hungary[5]						
Neepszabadsaag	NA	NA	NA	NA	699 000	83.6
Neepszava	NA	NA	NA	NA	280 000	33.5
Esti Hirlap	NA	NA	NA	NA	189 000	22.6
Magyar Nemzet	NA	NA	NA	NA	98 000	11.7
Magyar Hirlap	NA	NA	NA	NA	79 000	9.4
Italy[2]						
La Stampa	350 582	9.6	358 005	9.3	546 166	14.0
La Gazetta dello Sport	265 850	7.3	361 047	9.3	522 801	13.4
Corriere della Sera	575 665	13.8	533 615	13.8	468 072	12.0
Resto del Corlino	207 409	5.7	203 936	5.3	300 949	7.7
Poland[3]						
Trybuna Ludu	NA	NA	700 000	25.3	919 000	33.2
Express Wieczoruny	NA	NA	490 000	17.7	554 000	20.0
Zhycie Warsawy	NA	NA	350 000	12.6	366 000	13.2
Trybuna Robotnicza	NA	NA	NA	NA	NA	NA
Glos Robotniczy	NA	NA	NA	NA	NA	NA
Spain[2]						
El Pais	128 338	5.4	296 167	11.8	347 512	13.7
ABC	135 652	5.8	127 260	5.1	218 739	8.6
La Vanguardia	186 173	7.9	276 500	11.0	194 189	7.7
As	153 158	6.5	156 405	6.2	143 341	5.7
United Kingdom[2]						
The Sun	3 837 215	106.4	4 170 026	112.2	4 021 122	107.7
Daily Mirror	3 650 636	101.2	3 365 293	90.6	3 130 734	83.8
Daily Mail	1 984 804	55.0	1 800 783	48.5	1 794 458	48.1
Daily Express	2 325 099	64.5	1 981 675	53.3	1 675 070	44.9
Daily Star	1 033 168	28.6	1 370 942	36.9	1 239 699	33.2
Daily Telegraph	1 445 833	40.1	1 259 942	33.9	1 171 291	31.4
The Times	315 724	8.8	381 075	10.2	446 790	12.0
Yugoslavia[6]						
Vecernje Novosti	342 367	20.4	364 662	20.8	330 467	18.8
Vecernji List	300 675	17.9	370 166	21.1	314 509	17.9
Politika Ekspres	252 455	15.1	227 648	12.9	269 265	15.4
Politika	280 413	16.7	256 201	14.6	236 668	13.5
Sportske Novosti	157 463	9.4	173 069	9.9	129 253	7.4
Australia[2]						
Sun Herald	404 912	42.3	317 227	30.4	568 287	53.6
Sun News Pictorial	637 332	66.6	577 979	55.3	541 977	51.1
Daily Mirror	361 520	37.8	329 472	31.5	273 248	25.8
Daily Telegraph	315 692	33.0	299 797	28.7	264 517	25.0
Sun	342 284	35.8	310 871	29.8	234 910	22.2
USSR[3]						
Trud	NA	NA	13 500 000	74.8	18 500 000	102.0
Komsomolskaya Pravda	NA	NA	9 000 000	49.8	15 000 000	82.7
Pravda	NA	NA	10 100 000	55.9	11 500 000	63.4
Izvestia	NA	NA	6 700 000	38.2	7 000 000	38.6
Selskaya Zhizn	NA	NA	9 200 000	50.9	NA	NA
Sovietskaya Rossiya	NA	NA	3 200 000	17.7	NA	NA

1. Population data include only population over 15 years old. Population data source: United Nations, *Statistical Yearbooks* (data for 1980, 1985, 1986).
2. Circulation figures compiled from: *Benn's Press Directory*, 129th ed., London, 1981; 133rd ed., 1985, and 136th ed., 1988. The year refers to Benn's publication year, not to the year of circulation survey (which varies in *Benn's* according to the data available from the countries). For the United States, circulation figures are compiled from *ANPA: Facts About Newspapers*, Washington, D.C., 1989, and reflect the situation in 1988.
3. Circulation figures compiled from: International Journalism Institute documents, Prague, 1986 and 1987.
4. Source for circulation figures: German Democratic Republic contribution to *World Communication Report*.
5. Circulation figures obtained for *World Communication Report* from Hungarian Institute of Public Opinion Research; the figures relate to 1987 data.
6. Circulation figures obtained for *World Communication Report* from the Association of Newspaper Editors of Yugoslavia and refer to average printed dailies.

Television flow: sources of programming

Global production of television programmes is surveyed in the third section of Chapter 9, where Table 9.20. provides total annual broadcasting hours and breakdowns of content categories. The following tables summarize recent surveys of international programme exchange and so report on foreign programme sources in selected countries, while at the same time giving a picture of overall international television traffic.

Research on the international flow of television programmes traditionally measures imported programmes as a percentage of total programmes broadcast. The United States, for instance, which in absolute terms is one of the biggest importers of television programmes, is one of the smallest importers in relation to its total television programme output. It should also be borne in mind that television flow research does not usually indicate the audiences of programmes, be they imported or domestic; consequently such research, which is carried out in difficult data-gathering conditions, should be seen as indicative rather than definitive.

A study undertaken for Unesco in 1972/73 found two major trends in the international flow of television programmes and news: (a) a one-way traffic from big exporting countries to the rest of the world, and (b) a predominance of entertainment material in this flow. A 1983 study showed that no major change in the international flow of television programmes and news had taken place since 1973, but did indicate a trend towards increased regional exchanges. Tables 5.3 to 5.8 detail these findings and also provide an estimate based on several recent reports on the subject.

Table 5.3

Imported television programmes in 1973 and 1983 and in prime time, 1983 (as percentage of total programming)

Country/Institution	1973	1983	1983 prime time
North America			
Canada/CBC	34	32	24
Canada/RC	46	38	31
United States/commercial TV	1	} 2	} 2
United States/educational TV	2		
Latin America and the Caribbean			
Argentina/Canal 9	10	49	53
Brazil	-	30	23
Chile	55	-	-
Colombia	34	-	-
Cuba	-	24	9
Dominican Republic	50	-	-
Ecuador	-	66	70
Guatemala	84	-	-
Mexico	39	34	44
Uruguay	62	-	-
Venezuela	-	38	42
Western Europe			
Austria	-	43	61
Belgium/BRT	-	28	33
Belgium/RTBF	-	29	28
Denmark	-	46	32
Germany, Fed. Rep. of /ARD	23	13	7
Germany, Fed. Rep. of /ZDF	30	23	23
Germany, Fed. Rep. of /Regional	-	24	-
Finland	40	37	37
France	9	17	17
Greece	-	39	-
Iceland	67	66	66
Ireland	54	57	58
Italy	13	18	19
Netherlands	23	25	24
Norway	39	30	28
Portugal	35	39	-
Spain	-	33	35
Spain/EIT.B Regional	-	74	-
Sweden	33	35	28
Turkey	-	36	49
United Kingdom/BBC	12	15	21
United Kingdom/ITV	13	14	20
United Kingdom/Channel 4	-	26	15
Eastern Europe			
Bulgaria	45	27	21
Czechoslovakia	-	24	25
German Democratic Republic	26	30	39
Hungary	24	26	35
Poland	17	-	-
Romania	27	-	-
USSR	5	8	18
Yugoslavia	27	29	22

Table 5.3-cont.

Country/Institution	1973	1983	1983 prime time
Asia and the Pacific			
Australia	57	44	46
Brunei	-	60	28
China	1	8	-
Hong Kong/Asia TV Chinese	31	24	16
Hong Kong/Asia TV English	40	64	72
Hong Kong/Asia TV Ltd	-	27	9
India/Calcutta	-	3	6
India/Delhi	-	11	10
Japan/NHK general	4	4	-
Japan /NHK educational	1	4	-
Japan/commercial	10	4	-
Republic of Korea/Tong-yang	31	-	-
Republic of Korea/Munhwa TV	-	16	0
Malaysia	71	54	31
New Zealand/One	75	72	64
New Zealand/Two	75	75	66
Pakistan	35	16	12
Philippines	29	12	20
Philippines/Metro Manila	-	40	-
Singapore/Channel 8	78	55	70
Singapore/Channel 5	78	70	66
Sri Lanka	-	24	22
Thailand	18	-	-
Viet Nam	-	34	-
Near East and Arab Countries			
Algeria	-	55	55
Egypt	41	35	41
Israel	55	-	-
Kuwait	56	-	-
Lebanon	40	-	-
Saudi Arabia/Riyadh TV	31	-	-
Saudi Arabia/Aramcu TV	100	-	-
Syria	-	33	35
Tunisia	-	55	35
Democratic Yemen	57	47	-
Africa			
Ghana	27	-	-
Côte d'Ivoire	-	49	59
Kenya	-	52	42
Nigeria	63	31	21
Senegal	-	51	50
Uganda	19	83	88
Zambia	64	-	-
Zimbabwe	-	65	52

Source: Tapio Varis, *International Flow of Television Programmes*, Paris, Unesco, 1985 (Reports and Papers on Mass Communication, 100); Japanese data from contribution to *World Communication Report* by Keio University, Japan.

Some countries in *Latin America* are emerging as important international exporters of television programmes. The region has traditionally shown a high percentage (about 50 per cent) of imported programming, mostly from the United States. There is, however, an increasing exchange of programming going on within the region - and to Spanish-speaking audiences in the United States, mainly of so-called soap operas. Increasingly, television drama is also exported to other regions. The major exporters in the region are Mexico and Brazil, followed in descending order by Venezuela, Peru and Colombia. Mexico's media conglomerate, *Televisa*, is the region's largest television production company. Televisa produces approximately 7,000 hours annually to supply its four national channels and about 70 per cent of this production is aimed at international and regional sales. Televisa maintains an archive of 400,000 hours and exports 20,000 hours of television programming a year. In 1986, the revenue from foreign sales of Brazil's *Globo* organization was over $10 million. About 85 per cent of exports were soap operas, the rest were series, mini-series, news, sports, music and specials. Globo exports were divided among Western Europe, North and South America, and Portuguese-speaking countries. Venezuela's *RCTV* is also a major exporter of television programming throughout Latin America. Foreign sales are mainly soap operas and in 1986 RCTV's export sales equalled those of Globo (data from *Variety*, 25 March 1987).

In addition to programming exports, privately-owned and commercial satellite dishes connected to cable systems have spread all over Latin America and the Caribbean, permitting a significant leap in television exchange in the region. In Bolivia, for example, approximately 35 private television stations have been set up since 1984, broadcasting almost exclusively imported, mainly Latin American, television from neighbouring countries.

Table 5.4

Main sources of imported programmes, 1983 (percentages)

Programmes from: \ Programmes to:[1]	USA	Canada	Latin America/ Caribbean	Western Europe	Eastern Europe	Soviet Union	Arab Region	Africa
United States		70	77[2]	44	5	6	32	47
Mexico	24	-	-	-	-	-	-	-
Latin America (excl. Mexico)	30							
Latin America			12					
Austria						1		
Belgium		1						
France		8		5	11	22	12	4
Germany, Fed. Rep. of		1		7	16	23	6	4
Italy		4			4			
Norway						3		
Spain						2	1	
Switzerland							1	
United Kingdom	25	6		16	8	4	7	25
Western Europe (excl. France, UK, Germany, Fed. Rep. of)				8				
Western Europe			4					
Bulgaria						1		
Czechoslovakia					3	14	1	
German Democratic Republic					4	1		
Hungary					4	4		
Poland		1				3		
Yugoslavia					3	6		
Eastern Europe			1					
Europe (excl. UK)	21							
Eastern Europe and Soviet Union				3				
USSR					24		3	
Japan		2					6	
Mongolia						6		
Sri Lanka						3		
Egypt							6	
Kuwait							4	
Lebanon							2	
Libyan Arab Jamahiriya							1	
Saudi Arabia							4	
Tunisia							1	
United Arab Emirates							10	
Compagnie du Golfe							2	
Australia		2						1
Co-production				4				
Eurovision				7				
News films/News agencies								15
Other countries		5	5	6	18[3]		1	3

1. Regional data are based on samples of selected countries in the region and can only be seen as indicative of overall trends.
2. Includes productions by transnational companies.
3. Including foreign co-productions.

Source: Tapio Varis, *International Flow of Television Programmes*, Paris, Unesco, 1985 (Reports and Papers on Mass Communication, 100)

Table 5.5

Estimates of imported television in selected countries, 1986 (as percentage of total programming)

Below 10%			
USA	2	India	8
Japan	6	USSR	8
China	8		
Between 11 and 30%			
Indonesia	12	Netherlands	25
Philippines	12	Hungary	26
Republic of Korea	12	Bulgaria	27
Pakistan	16	Viet Nam	28
France	17	Belgium	29
United Kingdom	17	Yugoslavia	29
Italy	18	Ethiopia	30
Germany, Federal Republic of	20	German Democratic Republic	30
Australia	21	Norway	30
Cuba	24		
Czechoslovakia	24		
Between 31 and 50%			
Canada	32	Portugal	39
Syria	33	Turkey	39
Venezuela	33	Argentina	40
Mexico	34	Nigeria	40
Egypt	35	Sri Lanka	40
Sweden	35	Denmark	43
Finland	37	Austria	43
Kenya	37	Chile	44
Spain	37	Democratic Yemen	47
Uganda	38	Malaysia	48
Brazil	39	Côte d'Ivoire	49
Greece	39		
Over 50%			
Senegal	51	United Arab	
Algeria	55	Emirates	65
Singapore	55	Ecuador	66
Tunisia	55	Iceland	66
Ireland	57	Brunei	70
Mauritius	60	Peru	70
Cyprus	60	Zaire	70
Zimbabwe	61	New Zealand	73

Source: Dietrich Berwanger, *Television in the Third World, New Technology and Social Change*, Bonn, Friedrich Ebert Stiftung, 1987. The table was compiled from surveys and reports on the subject published prior to October 1986, and gives an overall estimation of the import level in selected developing and industralized countries.

Table 5.6

Source of television fiction in selected countries, 1984 (percentage)[1]

Percentage of total	Asia			Europe			Latin America		North America		
TV fiction programming	Bangladesh	Malaysia	Thailand	TV Belgrade	Denmark	United Kingdom	Chile	Colombia	Canada	Mexico	United States[2]
Domestic	25	18	20	30	9	47	8	27	22	28	87
Imported	75	82	80	70	91	53	92	73	78	72	13

1. The table indicates the percentage distribution between imported and domestic television fiction in sample weeks in 1984.
2. Refers to prime time only.

Source: Unesco study on the International Flow of Television Fiction, 1988 (in press).

Television distribution

The coverage or audience aspect of television flow is an important dimension in determining the real significance of television exchange patterns. Unfortunately, data on television usage are available only for a limited number of countries, and information on the audiences for imported programmes is even more limited.

To supplement information given in Chapter 9 on the global availability of TV receivers (Tables 9.23 and 9.24), Tables 5.7 and 5.8 have been compiled. Table 5.7 summarizes growth in the availability of television receivers since 1965 and thus gives a general impression of the evolution of television distribution. Table 5.8 provides a survey of actual television usage in a limited number of countries.

In reviewing Table 5.8, however, caution is advised when comparing viewing time across different countries. The methodologies employed differ from country to country. There are considerable age ranges in the surveyed populations, and some countries traditionally measure household usage, so that data relating to individual use may therefore be less reliable.

Table 5.7

Television receivers, 1965-86

Continents, major areas and groups of countries	Total television receivers (in millions)			Television receivers per thousand inhabitants		
	1965	1975	1986	1965	1975	1986
World total	192.0	414.0	710.0	57.0	102.0	145.0
Africa	0.6	2.5	15.0	1.9	6.2	25.0
Americas	84.0	160.0	268.0	182.0	286.0	397.0
Asia	24.0	57.0	138.0	13.0	25.0	48.0
Europe (incl. USSR)	81.0	189.0	280.0	120.0	260.0	362.0
Oceania	2.4	5.5	9.0	137.0	262.0	360.0
Developed countries	181.0	373.0	564.0	177.0	325.0	472.0
Developing countries	11.0	41.0	146.0	4.7	14.0	39.0
Africa (excl. Arab States)	0.1	0.6	5.7	0.4	2.0	13.0
Asia (excl. Arab States)	24.0	56.0	130.0	13.0	25.0	45.0
Arab States	0.9	3.4	17.0	8.4	24.0	85.0
North America	76.0	133.0	209.0	355.0	564.0	783.0
Latin America and the Caribbean	8.0	27.0	59.0	32.0	84.0	145.0

Source: *Unesco Statistical Yearbook*, 1988.

Table 5.8

Individual television usage in selected countries in Europe, United States, and Japan, 1987/88[1]

Country	Daily reach (%)[2]		Average viewing time[3] (minutes per day)	
	National TV	Foreign TV	National TV	Foreign TV
Austria	71	7	107	8
Belgium				
- BF	73	22	54	83
- BFL	-	-	-	-
Bulgaria	87	-	-	-
Denmark	72	-	90	-
Finland	67	5	99	-
France	-	-	262 [5]	5
Germany, Fed. Rep. of	60/59/34 [4]	10	137	4
Hungary	74	-	143	-

Table 5.8-cont.

Country	Daily reach (%)[2]		Average viewing time[3] (minutes per day)	
	National TV	Foreign TV	National TV	Foreign TV
Ireland	71	37	108	-
Netherlands	80	15	112	24
Norway	77	11	112	10
Poland	87	1	172	-
Spain	87	0	211	0
Sweden	78	6	105	6
Switzerland				
- Deutsche Schweitz	47	60	58	9
- Suisse Romande	51	78	43	23
- Suizzera Italiana	44	89	58	13
Turkey	-	-	46	-
United Kingdom	218	-	44	-
Japan	90	-	198	-
United States	NA [6]	-	430 [5]	-

1. Where several numbers are given, the first figure refers to the television station first mentioned in the country column, the second to the next, etc.
2. "Daily reach" is defined as the proportion of the population which is exposed to a television service at least one a day.
3. "Average viewing time" indicates the average number of minutes an individual (or the household when indicated) is exposed daily to television programmes; viewing may be a secondary activity.
4. ARD/ZDF/Third Programme.
5. Data refers to household usage.
6. Not available.

Source: Information compiled for *World Communication Report* from broadcasters or from their yearly research surveys. Figures for United States from A.C. Nielsen's 1987 *Report*.

New television channels

The 1980s have witnessed a sharp rise in the number of television channels, especially in Europe and North America, due to the advent of new technologies (satellites, cables, video) and to deregulating initiatives in many countries. Since these initiatives are focused on the industrialized world, information on their character and content is restricted here, but it may be of interest to present a limited amount of illustrative data, which at the same time details television flow patterns in this part of the world.

In Western Europe some 30 different satellite channels are currently being offered, though many are on a trial basis. A comparable number have been operating in the United States for several years, offering a mix of 24-hour news, feature films, sports programming, and other entertainment. Table 5.9 details programme origination in selected countries in Western Europe and includes data for some major satellite channels beaming to this region. Indications of contemporary development in programme profiles following the ongoing proliferation of channels are given in Table 5.10. Since most satellite channels so far are dependent on cable distribution, the audience varies according to the current penetration of cable in each country, (cf. Table 5.11).

Geographical proximity in Europe often provides an opportunity to watch neighbouring countries' television programmes, and this part of the regional television flow is to some extent, for the Western European countries, included in Table 5.8. In most of the European socialist countries, it is also possible to watch the television systems of neighbouring countries. In Poland, 15 per cent of the viewers have access to broadcasts from other socialist countries, while in Hungary this figure is about 30 per cent. The first programme of Soviet television can be received in almost the whole region, though the size of the audience depends on how many viewers understand Russian. In Hungary, for example, about 2 per cent of adults watch Soviet television, whereas in Bulgaria, where most people understand Russian and reception is facilitated by ground relay stations in the Sofia region, the audience is much larger. The possibility of direct reception has an impact on programme imports in the region so that in Bulgaria, for example, the share of Soviet imports has dropped to 1 per cent since 1985, as a result of improved ground reception. In the case of Poland, Eurovision and Intervision accounted for about 70 per cent of imports of television news and actualities, while the total amount of imports for Polish

television was about 26 per cent (1988), drawn from a wide variety of television systems and distributors around the world.

In addition to increased possibilities for viewing foreign television programmes, the new transmission technologies have also given rise to some regional concerns regarding the lack of common standards for advertising, copyright regulation, right to reply etc. In Western Europe, the Council of Europe has organized a series of ministerial conferences on transborder television (Vienna, December 1986; Stockholm, November 1988; Cyprus, scheduled for 1991), and a European Convention on Transfrontier Television was agreed on 15 March 1989. In parallel to the Council of Europe initiatives, the European Cultural Fund, in collaboration with the European Institute for the Media, presented a report in June 1988 on transborder television flow: *Europe 2000: What Kind of Television?* (EIM, Manchester University, UK, 1988). The report provides an in-depth account of developments in the emerging European television landscape, and proposes the creation of a European Television Forum, which would provide a framework for collaboration, encouragement of competition and discussions of programme quality developments. In the framework of the European Community a Common Position was also adopted on 13 April 1989 "with a view to the adoption of a Council Directive on the co-ordination of certain provisons laid down by law, regulation or administrative action in Member States concerning the pursuit of television broadcasting activities."

Table 5.9

Television flow in selected Western European countries (percentage distribution of all programming between imported and domestic programmes), 1987

Percentage of total television programming from	Austria		Belgium				Luxembourg	Denmark	Finland			France					
	FS1	FS2	BRT1	BRT2	RTBF1	RTBF2	RTL	DR	YLE/M TV1	YLE/M TV2	KOL-MOS-KA-NAVA	TF1	A2	FR3	CA-NAL +	La 5	TV6
Domestic[1]	59 (62)	55 (65)	74 (65)	71 (58)	83 (72)	100	43 (24)	68 (NA)	62 (54)	58 (63)	44 (28)	82 (77)	85 (NA)	93 (84)	53 (72)	69 (72)	52 (22)
Austria			2	13						9							
Australia				8			1		1			1	1				
Brazil			1					2							4		
Canada			1				2		1	2	1						
China							2								1		
Denmark	1	3							4	2							
France	1	5	3		10		10	3	1								
Germany, Fed. Rep. of	20	13	1	3			2	1	1	7	3				1		1
Italy	1	1								1					4		3
Japan	2		1	5													
Netherlands			2						1								
Norway							2										
Sweden								3	2								
Switzerland								1		1							
United Kingdom	3	3	1		5		3	7	9	6	14	1	4	2			8
United States	13	20	14		2		35	13	16	10	37	17	10	5	37	31	36
Others								2	2	5[2]							

Table 5.9-cont.

Percentage of total television programming from	Germany, Fed. Rep. of						Italy						Netherlands		Nor-way	Spain			
	ZDF	ARD	SAT 1	3 SAT	EINS PLUS	RTL PLUS	RAI 1	RAI 2	RAI 3	ITA-LIA 1	RETE 4	CANA-LE 5	NL 1	NL 2	NRK	TVE 1	TVE 2	TV 3	TVG
Domestic[1]	80 (90)	82 (76)	24 (22)	62 (59)	76 (88)	71 (58)	72 (81)	52 (54)	90 (76)	43 (9)	30 (36)	43 (46)	75 (74)	74 (75)	51 (60)	69 (71)	89 (78)	54 (45)	74 (67)
Austria				12															
Australia			2										1			1			
Brazil															2	2			
Canada																			
China															1				
Denmark															2				
France	3	2	9		5	2	1	3			5	1	2		3	1		3	
Germany, Fed. Rep. of													1	2	1				
Italy	4	1	8	4	5	11									4	5		2	
Japan									1	2						1			
Netherlands	1																		
Norway																			
Spain	1					1													
Sweden	1														3	1	1		
Switzerland				12	5			1	2										
United Kingdom	2		2				2	3	6	2	10	2	1	1	9		3	5	6
United States	5	13	57	4	9	15	15	35	3	51	55	54	20	23	11	20	4	34	20
Others	3	2		6[3]				6[4]							14		3[5]	2	

Percentage of total television programming from	Sweden		Switzerland			United Kingdom				Pan European	
	STV 1	STV 2	DRS	TSR	TSI	BBC 1	BBC 2	ITV	CH 4	SKY CHANNEL	SUPER CHANNEL
Domestic[1]	71 (67)	88 (82)	79 (77)	70 (60)	68 (72)	78 (93)	88 (74)	74 (84)	68 (79)	54 (27)	91 (90)
Austria					1						
Australia	2			1		3	1	3		7	4
Brazil									1		
Canada				1						1	
China											
Denmark			2								
France		3	4	9	6		2	1	1	1	
Germany, Fed. Rep. of											
	1		5	3	3				8	2	
Italy	1	2		1	3				1		
Japan	2								5		
Netherlands				1					1	2	
Norway											
Spain					1		1			2	
Sweden											
Switzerland											
United Kingdom	10	3	1	4	1						
United States	6	4	5	9	17	19	8	22	14	31	5
Others	7		4	1					1		

1. The figures in parentheses represent prime time (1830 to 2230 hours local time). The survey does not distinguish between re-transmitted and first-run programming. On Pan-European channels, domestic programmes correspond to productions originating from the country transmitting (i.e. United Kingdom).
2. All 5% from USSR.
3. All 6% from German Democratic Republic.
4. All 6% from Hungary.
5. All 3% from Cuba.

Source: *TV programming in Europe No.3*. Summary Report 1987/88, London, Horizons Media International, September 1988. (Horizons Media International is a subsidiary of Young & Rubicam International.) The table reflects programming in sample week in September 1987 gathered from locally published sources.

Table 5.10

Entertainment as part of total television programming in Western Europe (selected television stations), 1985-87 (percentage)[1]

Station Type	1985	1986	1987
Public service non-commercial	43	46	54
Public service commercial	50	52	58
Private commercial	78	86	81
Satellite channels	94	88	75

1. The analysis covers prime time only (i.e. 1830 to 2230 hours local time) and includes only programmes clearly identifiable as "entertaining" or "serious": regional, sports and chidren's programmes were not counted as "entertainment". "Commercial" in this context refers to whether the station transmits advertising or not.

Source: *TV programming in Europe, No.3.* Summary Report 1987/88, London, Horizons Media International, September 1988 (Horizons Media International is a subsidiary of Young & Rubicam International.)

Table 5.11

Estimated cable penetration in selected countries in Europe, North America and Japan, 1987/88[1]

Country	Number of households (millions)	Cable TV[2] penetration as % of households	Common Antenna[2] as % of households	MATV[2] as % of households	Aggregated penetration of cable TV as % of households
Austria	2.8	15	16	1	32
Belgium					
- French	1.5	83[4]	0	0	93[4]
- Flemish	2.0	94[4]	-	-	94[4]
Denmark	2.2	7	36	11	54
Finland	1.9	18[4]	-	-	18[4]
France	23.7	1[4]	6	-	7[4]
Germany, Fed. Rep. of.	24.2	12	41	-	53
Hungary	3.8	-	-	-	4
Ireland	1.0	29	29	-	58
Italy	19.9	0	37	-	37
Netherlands	5.6	65	13	-	78
Norway	1.5	19	14	-	33
Spain[3]	10.5	-	4	4	8
Sweden	3.7	9	41	-	50
Switzerland					
- Deutsche Schweiz	1.8	50[4]	18[4]	-	68[4]
- Suisse Romande	0.6	25[4]	39[4]	-	64[4]
- Svizzera Italiana	0.1	28[4]	26[4]	-	54[4]
United Kingdom	21.3	1	5	-	6
United States	92.0	57	-	-	57
Canada	9.5	67	-	-	67
Japan	39.0	NA[5]	-	-	16.6

1. Different estimations of cable penetration show large variations, probably due to the different kinds of cable systems, c.f. note 2, which may or may not be included in a given survey.
2. Common-antenna or master-antenna television (MATV) indicates cable systems limited to an apartment building or a given housing locality, while cable TV signifies larger systems.
3. Cable is practically non-existent in Spain. However, MATV is developing in Catalonia (48 per cent of households are connected).
4. Percentage relates to total persons.
5. Not available.

Source: Compiled from trade magazines and information obtained from national PTTs and contributors to *World Communication Report.*

International radio broadcasting

Since its origins in the 1920s, international radio broadcasting has become a significant channel of international information flow. Looking at world totals of major radio stations, international broadcasting grew from 7,834 hours per week in 1960 to 16,092 hours per week in 1988. Similarly, the number of transmitters has increased steadily, from 1,482 in 1976 to 1,666 in 1986. The number of nations broadcasting internationally has also grown considerably over the last 30 years. Since 1960, this number has almost doubled, from 47 to 86, but growth slowed somewhat between 1980 and 1986. International broadcasting was at its peak in Europe in the 1960s, with steady growth witnessed in Asia; the 1970s saw substantial growth in Africa and the Middle East; and in the early part of the 1980s new international broadcasters emerged in the Americas. In Chapter 9, Table 9.19 details total annual hours of radio broadcasting and provides a breakdown by content categories, while Table 9.21 surveys the number of radio transmitters around the world. The following data describe the development in international broadcasting since 1960.

The United States of America, the USSR and China have consistently been the major broadcasters since the 1950s. Voice of America (VOA) is the major service operated from North America. Broadcasting 2,360 hours per week in 44 languages in 1988, Voice of America is administered by the United States Information Agency and is funded by the United States Government. Radio Moscow, also a government-operated organization, is the external service of the USSR and in 1987 broadcast 1,714 hours per week in 64 languages. In addition, 11 Soviet republics have their own external services, broadcasting primarily in the language of the republic and in languages of bordering countries. In 1988 all Soviet external broadcasting services totalled 2,257 hours per week in 81 languages. Radio Beijing, the Chinese external service, has also increased substantially since 1960. Concentrated mainly in Asia, but heard around the world, it has more than doubled its weekly hours, from 687 in 1960 to 1,412 in 1986. Beijing now broadcasts in 43 languages, as compared with 25 in 1960. In 1988, all Chinese external services totalled 1,517 hours per week in 47 languages. The British Broadcasting Corporation, has increased its international services from 589 hours per week in 1960 to 756 per week in 36 languages in 1988. The BBC is at present the fifth largest international broadcaster with the Federal Republic of Germany the fourth largest, broadcasting a total of 831 hours in 1988.

Table 5.12

Growth of international broadcasting nations with external services (number of services by region), 1960-86

Region	1960	1970	1980	1986
Europe	19	28	27	26
Africa	3	5	18	17
Middle East	7	9	12	12
Asia	13	16	20	21
Americas[1]	5	6	5	10
Total	47	66	82	86

1. Includes Canada, the United States and Latin America as grouped in source.

Source: *World Radio and TV Handbook*, 1961, 1971, 1981, 1987.

Table 5.13

Growth of international broadcasting by major broadcasters, 1960-88 (hours per week)

Country	1960	1970	1980	1988
Europe				
Albania	63	487	560	459
Bulgaria	117	164	236	297
Czechoslovakia	178	202	255	259
Germany, Fed. Rep. of.	315	779	804	831
France	326	200	125	302
German Dem. Rep.	185	274	375	480
Hungary	120	105	127	84
Italy	205	165	169	173
Netherlands	178	335	289	316
Poland	232	334	337	298
Portugal	133	295	214	145
Romania	159	185	198	170
Spain	202	251	239	319
Sweden	114	140	155	209
United Kingdom	589	723	719	756
USSR	1 015	1 908	2 094	2 257
Yugoslavia	70	76	72	88
Total	4 219	6 623	6 968	7 443
Asia and Oceania				
Australia	257	350	333	345
China	687	1 267	1 350	1 517
India	157	271	389	444
Japan	203	259	259	301
Korea, Dem. People's Rep. of	159	330	597	548
Far East Broadcasting (Philippines)	NA[2]	NA	317	368[1]
Korea, Rep. of	NA	NA	300	431[1]
New Zealand	84	120	250	NA
Total	1 547	2 597	3 795	3 954

Table 5.13-cont.

Country	1960	1970	1980	1988
Middle East				
Egypt	301	540	546	549
Iran, Islamic Rep. of	24	155	175	390
Israel.	91	158	210	223
Turkey	77	88	199	305
Total	493	941	1 130	1 467
Africa				
Nigeria	NA	62	170	322
Total	NA	62	170	322
Americas				
Canada	80	98	134	166
Cuba	NA	320	463	369
United States	1 495	1 907	1 901	2 360
Total	1 575	2 325	2 459	2 906
World totals	7 834	12 548	14 522	16 092

1. Voice of America, 1987.
2. Not available.

Source: *BBC Annual Report and Accounts, 1987-88*, London, BBC.

Table 5.14 details international broadcasting from a regional perspective. In *Africa*, radio stations in Angola, Congo, Côte d'Ivoire, Ethiopia, Ghana, Liberia, Madagascar, Malawi, Mozambique, Nigeria, Senegal, United Republic of Tanzania, Togo, Uganda and Zambia operate external broadcasting services. Most of these services broadcast only for a few hours a week and in only a few languages. Nigeria is the only Sub-Saharan African country whose external broadcasts may be classified as a major external service. Radio Nigeria broadcasts about 322 hours a week in Arabic, English, French, Hausa, German and Swahili to West, Central, East, North and Southern Africa as well as outside the region. Few radio stations in the *Arab region* have international external broadcasting services. However, almost all Arab stations broadcast in foreign languages. The first external broadcasting service, the Voice of the Arabs from Cairo, was set up during the Egyptian revolution of Jamal Abdul Nasser. It supported liberation movements all over the world, particularly in the Arab States, Africa and Asia. In the mid-1960s it was among the biggest in the world in terms of its power and hours of transmission. In the late 1970s, Saudi Arabia developed an external radio service to reach the Muslim world, and it now covers most of East Africa, the Middle East and West Asia. The United Arab Emirates is developing its external service and improving the transmission power of its stations in Abu Dhabi.

Table 5.14

International broadcasting by selected regional broadcasters, 1986 (hours per year)[1]

To / From	Europe/ USSR	Africa	Asia	Middle East	Americas[2]	World Total
Europe	2 707	666	1 061	714	615	
Africa	-	203	-	-	-	
Asia	265	154	2 768	226	290	
Middle East	584	342	-	864	-	
Americas	1 552	246	311	282	872	
Total	5 108	1 611	4 140	2 086	1 777	14 722

1. In this table the regions are limited to include only the following countries and stations. *Europe*: USSR, United Kingdom, Federal Republic of Germany, German Democratic Republic, Albania, Poland, Radio Monte Carlo. *Africa*: Nigeria. *Asia-Pacific*: Democratic People's Republic of Korea, China, Japan, Far East Broadcast Co., Australia, India, Republic of Korea. *Middle East*: Egypt, Turkey, Iran. *Americas*: the United States, Cuba, Voice of the Andes.
2. Excludes programmes directed only to North America.

Source: *VOA Handbook*, 1988

Radio distribution

The availability of radio receivers around the world is surveyed in the third section of Chapter 9, where Table 9.23 describes the total number of receivers and receivers per 1,000 inhabitants by 1985. To supplement this table, Table 5.15 below summarizes the increase of radio receivers by world region since 1965.

Detailed information on radio listening is limited, unfortunately, to few countries in the world, as audience research is regularly conducted mainly in Europe and North America. For selected countries in these two regions, Table 5.16 gives data on the average time devoted to radio listening. Tables 5.17 to 5.20 summarize audience surveys of listening to international and regional broadcasters in selected countries in developing regions.

Table 5.15

Radio broadcasting receivers, 1965-86

Continents, major areas and groups of countries	Number of radio broadcasting receivers total (in millions)			Per thousand inhabitants		
	1965	1975	1986	1965	1975	1986
World total	573	1 032	1 776	170	255	362
Africa	10	28	94	32	69	164
America	285	505	666	617	903	984
Asia	53	138	468	28	60	164
Europe (incl. USSR)	222	348	523	272	478	676
Oceania	3	13	25	171	619	1 000
Developed countries	498	841	1 182	486	762	988
Developing countries	75	191	594	32	66	160
Africa (excl. Arab States)	6	17	62	26	56	142
Asia (excl. Arab States)	51	132	452	27	58	162
Arab States	6	17	48	56	121	247
North America	251	424	532	1 173	1 797	1 992
Latin America and the Caribbean	34	81	134	137	251	327

Source: *Unesco Statistical Yearbook, 1988.*

Table 5.16

Individual radio usage in selected countries in Europe, North America and Japan, 1986/87

Countries	Daily reach (%)[1]		Average listening time[2] (minutes per day)	
	National[3] radio	Foreign radio	National[3] radio	Foreign radio
Austria	74	4	147	6
Belgium				
- French	-	-	125	28
- Flemish	-	-	-	-
Bulgaria	74	-	-	-
Denmark	77	-	113	-
Finland	70	-	174	-
German Democratic Republic	54	20	-	-
Hungary	86	3	127	-
Ireland	71	-	140	-
Netherlands	80	3	159	10
Norway	-	-	118	4
Poland	60	-	91	-
Spain	55	0	116	0
Sweden	76	1	129	-
Switzerland				
- Deutsche Schweiz	58	9	147	16
- Suisse Romande	43	23	79	40
- Suizzera Italiana	58	13	88	19
United Kingdom	44	-	76	-
United States	68	-	170	-
Japan	29	-	37	-

1. "Daily reach" is defined as the proportion of the population which is exposed to a radio service at least once a day.
2. "Average listening time" indicates the number of minutes an individual is exposed to radio programmes (daily average); listening can be a secondary activity.
3. "National radio" signifies radio with national coverage. Due to different methodologies in different countries, caution is advised when comparing listening time as reported here.

Source: Information provided to *World Communication Report* by national broadcasters or obtained from their yearly research surveys; data relate to 1986 or 1987 depending on time of national research.

Table 5.17

Regular audiences for international radio in selected African countries (adult population only, in percentages), 1984-86[1]

Country	BBC	VOA	Radio Moscow	RFI	Deutsche Welle	Africa No. 1	Other significant regional broadcasters
Cameroon	3.7	11.7	1.5	27.9	2.4	59.2	-
Ethiopia	5.4	2.3	1.5	NA[3]	0.5	NA	-
Gabon	3.0	6.0	*[2]	15.0	NA	82.0	-
Ghana	40.0	33.2	2.0	*	2.8	21.2	7.3 (ELWA)
Kenya	3.8	1.9	1.8	-	18.6	-	26.8 (Radio Tanzania)
Mauritania	34.3	27.8	5.3	30.7	16.1	21.3	44.5 (Radio Senegal)
Nigeria	20.6	11.4	3.4	1.1	6.9	NA	3.3 (ELWA)
Senegal	6.1	16.2	5.4	39.1	4.8	17.5	2.4 (Radio Canada)
Sierra Leone	37.2	20.2	3.0	*	2.3	15.2	21.6 (Liberia) 15.7 (ELWA)
Zaire	5.8	16.1	4.7	27.3	10.6	29.1	26.9 (Radio Brazzaville)
Zambia	11.3	4.7	-	*	1.2	*	7.6 (Radio Angola) 5.7 (Zimbabwe B.C.) 2.0 (Malawi B.C.)

1. Surveys covered different parts of the population: Cameroon 1986, in six towns; Ethiopia 1987, only Addis Ababa; Gabon 1984, all urban areas; Ghana 1985, only Accra English-speaking adults; Kenya and Nigeria 1983, nationwide; Mauritania 1986, only Nouakchott; Senegal 1987, only Dakar; Sierra Leone 1985, only Freetown; Zaire 1984, in four towns; and Zambia 1986, in urban areas.
2. * = not asked.
3. Not available.

Source: Graham Mytton and Carol Forrester, "Audiences for International Radio Broadcasts", *European Journal of Communication*, Vol. 3, 1988.

Table 5.18

Regular audiences for international radio in the Arab States (adult population only, in percentages), 1983-86[1]

Country	BBC	VOA	Radio Moscow	Deutsche Welle	Radio Monte Carlo	Voice of Arab B.S.	Saudi Arabia B.S.	Other significant regional broadcasters
Bahrain	21.2	2.7	0.1	*[2]	6.9	2.3	33.3	64.4 (Radio Kuwait) 37.9 (Radio Qatar)
Egypt	9.1	6.4	0.7	0.6	9.8	*	7.4	8.5 (Kol Israel)
Kuwait	6.2	2.3	*	-	9.2	6.6	15.0	24.4 (Radio Baghdad)
Morocco	15.3	1.8	1.2	0.9	0.4	7.4	*	10.2 (Radio Algiers)
Tunisia	6.2	1.0	0.3	2.2	0.6	11.9	1.9	30.3 (Radio Algiers) 17.9 (Radio Libya)
United Arab Emirates	21.5	1.2	*	*	3.1	5.9	30.0	30.9 (Radio Kuwait) 30.6 (Radio Qatar)

1. Surveys were conducted in 1983 for Kuwait, in 1985 for Egypt and in 1986 for other countries; only urban areas were covered in Egypt, Morocco, and Tunisia.
2. * = not asked.

Source: Graham Mytton and Carol Forrester, "Audiences for International Radio Broadcasts", *European Journal of Communication*, Vol. 3, 1988.

Table 5.19

Regular audiences for international radio in selected Asian countries (adult population only, in percentages), 1981-86[1]

Country	BBC	VOA	Radio Moscow	Deutsche Welle	All India Radio	Radio Australia	Radio Beijing	Other significant regional broadcasters
Bangladesh	33.2	25.0	3.5	0.9	31.3	-	8.3	-
India	24.2	2.4	3.8	0.7	*	-	1.4	-
Indonesia	3.7	1.3	*2	0	0	4.0	*	1.1 (Radio Malaysia)
Japan	0.4	-	0.5	0.1	-	0.3	0.4	-
Malaysia	1.6	0.6	-	-	0.6	0.8	0.2	16.2 (Radio Singapore)
Pakistan	46.8	2.7	2.9	0.6	58.5	-	1.8	11.1 (Radio Tehran) 5.9 (Radio Afganistan)
Philippines	0.5	3.8	0.2	0	0	0.4	0.1	-
Thailand	0.3	0	0	-	*	0.1	0	-

1. Surveys cover different parts of population: Bangladesh 1983, in six towns; India 1981, only Uttar Pradesh and Rajasthan; Indonesia 1987, in urban areas; Japan 1983, nationwide; Malaysia 1987, Peninsular; Pakistan 1982, urban areas; Philippines 1985, nationwide; Thailand 1986, nationwide.
2. * = not asked.

Source: Graham Mytton and Carol Forrester, "Audiences for International Radio Broadcasts", *European Journal of Communication*, Vol. 3, 1988.

Table 5.20

Regular audiences for international radio in selected Latin American countries (adult population only, in percentages), 1983-87[1]

Country	BBC	VOA	Radio Moscow	RFI	Deutsche Welle	Radio Netherlands	HCJB	Radio Havana	Radio Canada International	Radio Exterior España
Argentina	1.2	0.7	0.5	0.1	0.4	0.6	0.3	0.3	0.1	0.3
Brazil	0.8	0.8	0.4	0.1	0.2	0.1	*2	0.1	0.4	*
Chile	3.7	2.5	1.7	*	0.8	0.5	0.3	0.4	0.2	0.4
Colombia	1.1	1.7	0.4	0.3	0.4	0.3	0.2	*	0.1	0.6
Guatemala	0.8	2.2	1.1	0.1	0.3	0.4	1.0	1.9	0.8	0.5
Peru	4.2	2.7	1.8	0.4	1.6	0.8	7.0	2.7	0.9	1.4
El Salvador	2.8	10.0	0.6	0.2	0.1	0.7	0.9	1.3	0.7	1.1
Venezuela	0.5	0.5	0.1	-	-	0.3	0.2	0.2	-	0.1

1. Survey covers urban areas for Argentina (1985), Brazil (1983), Chile (1983), Peru (1983), El Salvador (1984), Venezuela (1986) and is nationwide for Colombia (1986) and Guatemala (1987).
2. * = not asked.

Source: Graham Mytton and Carol Forrester, "Audiences for International Radio Broadcasts", *European Journal of Communication*, Vol. 3, 1988.

Video flow

The video-cassette market became statistically relevant only in the late 1970s and its late entry into the world market, together with its extraordinary growth rate in some regions, is the reason for the very limited amount of data available.

A recent report prepared by Unesco in collaboration with the London-based Broadcasting Research Unit, *Video World-wide*, (John Libbey/Unesco Press, 1988), which provides information about the expansion and development of video in 39 selected countries around the world, was unable to collect precise and comparable data in the majority of surveyed areas. There are, according to the report, four "video rich" areas of the world: Japan and South-East Asia; the Arab countries; Western Europe; and North America. The video markets in these regions vary significantly in growth rates, in the way video technology is being

used, and in ultimate levels of penetration, but the markets in these areas have expanded far beyond those of Eastern Europe, Africa and Latin America. After a remarkably slow start in the mid-1980s, the United States became the world's largest market, with an estimated 12.5 million video-cassette recorders (VCRs) and some 290 million blank video-cassettes sold in 1988 (*Consumer Electronics*, Electronics Industries Association, 1988). Software piracy is widespread in many areas of the world, and a survey in 1987 found that software piracy accounted for very significant parts of the video-cassette market: 90-95 per cent in the Philippines and Indonesia, 70-75 per cent in Venezuela and Brazil, and 30-60 per cent in the Netherlands and Italy (*Screen Digest*, November 1987).

The Unesco/BRU report found four key variables in the diffusion of video: price; government restrictions and taxes; income distribution; and the content of broadcast television. The research also defined the three main uses of video as being, in descending order of importance: time-shifting (recording transmitted television programmes for later viewing); viewing non-broadcast professional material (primarily, but not solely, feature films); and viewing non-broadcast, non-professional material, (i.e. "home movies" featuring family gatherings and other events).

As time-shifting of regular television programmes, together with viewing of feature films on video-cassettes, are the most important uses of video, the consumption ratio between imported and domestic material via video may be believed to reflect the general situation regarding television and film flow. However, a principal characteristic of video is its ability to allow the individual household to select its programming, and this may well result in a menu with an above-average proportion of imported, or of endogenous productions.

While in the case of non-broadcast professional material, films clearly dominate the field, certain "hobbies" types of videos and "pop videos" have nevertheless enjoyed large international circulation. It is important to note that if one looks at the migrant communities, the situation is different. For Asians working in the Gulf States, for groups of Yugoslavs in different countries, or for Indians living in minority communities in a country like the United Kingdom, video is a way of helping them to maintain close links with their home culture. To some extent this is also the case with the third main use of video–for example, recording weddings and other special events: this represents a way of keeping in touch with home.

Table 5.21 gives an estimate of video availability in selected countries.

Table 5.21

Estimated availability of video-cassette recorders in selected countries, 1988

Country	Video-cassettes[1] as % of television households	Annual increase[2] 1987 to 1988 %
Argentina	7.3	37.70
Australia	62.6	11.38
Austria	29.8	30.13
Bahrain	63.8	5.28
Barbados	3.5	34.61
Belgium	26.3	20.09
Bermuda	54.8	17.59
Brazil	15.0	28.20
Brunei Darussalam	48.6	50.00
Bulgaria	3.9	39.28
Canada	58.1	13.92
Chile	5.0	21.95
China	1.5	7.14
Colombia	39.2	17.36
Costa Rica	9.5	31.94
Cyprus	51.9	10.42
Denmark	38.3	15.36
Ecuador	17.1	17.93
Egypt	13.8	23.21
El Salvador	8.7	27.94
Finland	38.5	20.31
France	38.0	26.66
Germany, Fed. Rep. of	51.1	15.34
Ghana	9.4	4.92
Greece	37.8	30.34
Guatemala	9.8	16.66
Hong Kong	64.0	14.91
Hungary	8.5	32.81
Iceland	60.0	15.83
India	49.3	10.78
Indonesia	21.9	8.95
Iran	25.2	8.15
Iraq	31.9	7.40
Ireland	49.5	11.23
Israel	56.6	9.26
Italy	16.9	39.66
Japan	70.0	6.06
Jordan	17.8	4.70
Kenya	28.2	19.49
Korea, Rep. of	23.4	7.83
Kuwait	78.0	2.36
Lebanon	64.7	2.53
Luxembourg	46.4	17.46
Malaysia	44.2	9.67
Mexico	19.4	22.01
Netherlands	49.4	14.61
Neth. Antilles	51.1	12.30
New Zealand	51.7	15.40
Nigeria	16.9	3.04
Norway	40.9	14.88
Oman	36.3	-4.47
Panama	43.0	10.53
Peru	37.8	12.83
Philippines	35.8	-15.36
Poland	7.1	14.51

Table 5.21-cont.

Country	Video-cassettes[1] as % of television households	Annual increase[2] 1987 to 1988 %
Portugal	39.6	10.61
Qatar	68.7	4.09
Saudi Arabia	51.7	9.76
Singapore	39.0	11.11
Spain	34.6	21.40
Sri Lanka	33.8	4.64
Sweden	37.9	12.79
Switzerland	35.8	14.74
Thailand	12.2	4.27
Turkey	34.4	5.19
United Arab Emirates	75.9	3.97
United Kingdom	60.3	8.06
United States	59.0	14.11
Uruguay	6.2	5.12
USSR	0.9	28.57
Venezuela	38.8	7.77
Zimbabwe	30.7	42.12

1. Reading the figures in column 2 it has to be considered that in Western Europe and North America most households are equipped with television sets, whereas in other countries the number of television sets is very small; for example, in Nigeria, there are only 5.3 television receivers per thousand inhabitants; in Zimbabwe, 14; in China 9.4; in India 4.6.
2. The figures in column 3, annual increase, are based on data provided in *Screen Digest* November 1988, and indicate in per cent the increase in number of television households equipped with video recorders from 1987 to 1988. *Screen Digest* under the heading "annual growth" provides data for the increase in yearly sales, which obviously differ from the figures given in this presentation.

Source: *Screen Digest*, November 1988.

Few surveys exist on the content of pre-recorded video-cassettes, and those which do exist unfortunately use different forms of categorization. Table 5.22 provides an estimate of the total number of titles available in selected countries, and of the number of new titles issued annually. Until now, rentals have dominated the market for prerecorded video-cassettes due to their high retail price. Income from rentals in the United States, in 1985, amounted to 69.4 per cent of retail revenues, against 30.6 per cent from sales. The sales share rose to 38 per cent in 1986 and is projected to equal rental income at the end of the decade (*Channels Field Guide*, 1988).

Table 5.22

Availability of video titles in selected countries (estimates), 1986

Country	Total number	New titles (Issued in 1985)
Argentina[1]	500	NA[4]
Australia[1]	4 000	NA
Austria	5 000	NA
Belgium	5 300	800
Finland	4 400	700
France[1]	7 000	NA
Germany, Fed. Rep. of	5 500	800
Greece	3 000	1 000
Hong Kong	4 000	500
Ireland	7 000	500
Italy	2 000	NA
Japan	12 000	2 137
Netherlands	7 000	500
New Zealand	3 000	1 500[2]
Norway	4 500	1 200
Philippines	20 000[3]	NA
Portugal	300	200
Singapore	300	NA
Spain	8 000	1 500
Sweden	6 000	1 000
Switzerland	8 000	600
Turkey[1]	2 000	NA
United Kingdom	8 000	500
United States	40 111	NA

1. End of 1985.
2. Figures for 1984.
3. Industry estimate.
4. Not available.

Source: International Federation of Phonogram and Videogram Producers (IFPI), National Groups and Affiliated Organizations.

Film exhibition

In Chapter 9, the second section provides relatively complete global data for film production (Table 9.16) and for the importation of films (Table 9.17) as well as for film attendance in cinemas (Table 9.18). It is estimated that global production of long films varies between 3,400 and 3,500 per year, but this figure does not indicate the number of films distributed and exhibited internationally. In fact, it can be stated that most film-producing countries have little international distribution for their products, which are mainly shown nationally or regionally. Among the film-producing countries, the United States of America has had a dominant role in the distribution of its films and, combined with films from France, Italy, the United Kingdom and the Federal Republic of Germany, is estimated to provide between 80 and 90 per cent of all

imported films in non-socialist countries. A 1986 study describing the international flow of information reported general trends in the international film situation thus: "Although statistics on world film production are sketchy and imprecise, available data show two Asian countries in the top position, India and Japan each producing more than 400 films a year. A second group of producers includes Italy, the United States of America and the Soviet Union, which are each credited with 250 to 300 films a year. Countries producing up to 200 films a year include France, the Republic of Korea, Greece, Hong Kong and Spain, and those nearing 100 films per year are Mexico, the Federal Republic of Germany, the United Kingdom and Pakistan." (Hamid Mowlana, *Global Information and World Communication: New Frontiers in International Relations*, p. 76, White Plains, N.Y., Longman 1986.)

In terms of world regions, the *African* film industry is relatively young. The most established film industry in this region is in Egypt which is estimated to produce some 50 films a year. Countries south of the Sahara each produce no more than one or two films a year, if any. The predominance of films from the United States of America is somewhat less pronounced here than in other regions of the world. For example, France outstrips the United States in most of the French-speaking countries in terms of importation. Another major source of film importation, especially in anglophone Sub-Saharan Africa, is India.

Much of the intra-regional exchange of information in *Asia* is due to the presence of significant ethnic minorities in the different countries of the region. Minority audiences like the Chinese and Indians in Malaysia, for example, are reported to account for 54 and 12 per cent respectively of the total films screened in Malaysian cinemas in the 1970s. But ethnic minorities are present in many other countries of the region and their information demands in general account for much of the information flow within Asia. An important source of information flow is the major regional producers and exporters of films: India, probably the world's largest film producer with more than 900 films (1985), Japan (319 films in 1985) and Hong Kong (118 films in 1983). Indian films are exported to 80 countries and generated gross box-office receipts of $447 million in 1981 and the country has 11,682 cinemas, two-thirds in the urban areas. Cinema facilities differ widely in this region ranging from one seat per 1,000 inhabitants in Afghanistan to 40 in Israel.

Brazil and Mexico are the leading *Latin American* film producers with over 80 films a year. They are followed by Argentina with about 15-25 films a year. These three countries are also the leading exporters of films in the region. On average, between 10 and 15 per cent of the films shown in Latin American cinemas are imported from other countries of the region. In all countries in this region the majority of foreign films are imported from the United States of America, except in Brazil during 1975-80 where American films were second to Italian films. Since the 1970s this region outshines all other regions, including Europe, in seating capacity per inhabitant.

Film production in *Europe* amounts to about one-third of the world total. France and Italy are the two leading countries in the European film industry, in terms of production and exportation, and next to them come Spain, the United Kingdom, and the Federal Republic of Germany. The majority of the films imported into Western Europe are produced by the United States of America, whose share in total European film importation ranges between 40 and 70 per cent. However in socialist countries in Europe, more than one-quarter of the film importation is from the USSR, and about another quarter from other socialist countries in the region. In the 1960s the number of cinema facilities in Europe declined and then stabilized beginning in the 1970s. In the case of the USSR, its share in total world film production ranges from 4 to 5 per cent. In the 1970s, the USSR produced annually more than 200 films, but the last fifteen years show a decline in their production to around 150 in the mid-1980s.

In the *United States of America*, annual production of feature films in the late 1980s came to around 290, of which approximately 120 films were released by the so-called major distributors. Imports in 1987 totalled 157 films, of which 28 came from the United Kingdom, 23 from France, 18 from Canada, 12 from Australia, 11 from Italy, 10 from Japan, 9 from the Federal Republic of Germany, 8 from the USSR, and 6 from Brazil (*Variety*, 4 May and 2 November 1988).

Most film material distributed in *Canada* is of foreign origin. In 1982, 503 first-run films were released in Canada; of these, 35 were Canadian. Of the 1,520 imported films in 1984, 38.5 per cent were from the United States of America, and 17 per cent from France.

International flow of records and tapes

Sound recordings (in the form of records, cassettes and compact discs) have become a major channel of distribution for the dissemination of musical culture. Table 5.23 gives an overview of sales world-wide, and Table 5.24 illustrates the flow between selected countries. The latter table does not, however, reflect accurately the international trade in sound recordings. Whereas Table 5.24 shows the imports and exports of finished products, very often *matrices* are exported and the manufacture of records and tapes takes place under licence in the country of sale.

Record companies maintain a large varied repertoire in their catalogues, and each year many new titles are released as is shown in Table 5.25, thus giving the public an increased access to musical works.

The recording industry is currently going through an exceptionally dynamic phase of its development with the recent introduction of digital technology. Compact discs, which appeared on the market at the beginning of the 1980s, have achieved significant commercial success and are expected to play a major part in the dissemination of music, including historic records and folk music.

The imminent introduction of Digital Audio Tape (DAT) which, like the analogue cassette, is also a recording medium, has been seen as a potential threat to the record industry. Digital tape can be used to make a perfect "clone" of recordings on compact disc: this may exacerbate the private copying problem and could deprive copyright owners of their incentive to create.

Table 5.23
World sales of (audio) records and tapes, 1985[1]
(in millions)

Country	Trade deliveries				
	Units				Retail value[2]
	Singles & EPs,[3] maxi singles	LPs	Tapes[4]	CDs	$ US[5]
Argentina	0.01	2.7	12.2	0.01	74.2
Australia	6.2	9.1	13.4	2.2	228.8
Austria[8]	3.6	5.3	2.0	0.65	80.0
Belgium[8]	9.0	4.4	1.5	1.02	90.3
Brazil	2.1	53.1	15.8	-	239.1
Indonesia	-	-	34.1	-	41.0
Cameroon[9]	.12	0.1	0.3	-	1.0
Canada	10.5	22.5	42.6	3.3	487.2
Chile[11]	NA[13]	NA	NA	-	11.0
China[9]	40.0	-	70.0	-	112.0
Colombia[9]	-	9.0	6.0	-	65.0

Table 5.23-cont.

Country	Trade deliveries				
	Units				Retail value[2]
	Singles & EPs,[3] maxi singles	LPs	Tapes[4]	CDs	$ US[5]
Czechoslovakia	2.1	10.0	1.9	0.01	93.8
Denmark[8]	1.3	5.0	2.0	0.9	72.0
Ecuador[9]	1.3	1.4	0.1	-	10.0
Egypt[11]	-	[6]	10.0	-	34.0
Finland	0.6	4.9	4.9	0.3	87.0
France	54.8	28.0	22.0	6.2	678.6
Germany, Fed. Rep. of	43.4	68.8	50.6	13.3	1 199.6
Greece	-	5.9	5.6	-	42.1
Hong Kong[8]	-	2.1	3.4	0.7	30.3
Hungary	0.4	5.9	3.0	0.01	27.9
Indonesia	-	-	34.1	-	41.0
India[9]	-	3.0	5.0	-	17.8
Ireland[9]	1.2	1.3	1.4	-	18.8
Israel[10]	-	2.5	0.35	-	16.0
Italy	8.0	15.9	16.0	2.0	137.7
Japan	50.6	34.2	56.7	36.1	1 972.9
Kenya	1.0	0.1	0.1	-	0.9
Korea, Rep. of	-	4.1	15.4	[7]	31.0
Malaysia	-	0.04	4.4	0.03	12.7
Mexico	-	12.5	8.0	-	150.0
Netherlands	11.9	13.6	4.8	3.2	232.7
New Zealand	0.7	1.8	3.3	0.4	37.3
Nigeria	-	2.5	3.0	-	26.0
Norway	1.3	3.3	4.4	1.05	98.2
Peru	3.3	1.2	0.7	-	19.0
Philippines	1.3	0.6	2.6	[7]	7.1
Poland[10]	3.1	7.6	0.9	-	59.4
Portugal	2.2	3.0	1.1	0.08	34.4
Singapore	-	0.1	2.9	0.5	15.4
Spain	3.0	14.3	19.8	0.3	171.5
Sweden[8]	4.7	10.0	4.6	0.85	148.8
Switzerland	4.7	6.8	4.9	3.2	153.9
Thailand	-	0.2	29.0	[7]	53.0
USSR[9]	37.6	90.3	8.1	-	384.9
United Kingdom	67.4	52.3	69.6	8.4	1 089.1
United States	93.9	125.2	346.2	53.0	4 651.1
Uruguay[10]	-	0.1	0.25	-	3.5
Venezuela[9]	-	12.5	8.0	-	90.0
Yugoslavia[10]	12.0	6.5	5.0	-	38.0
Zimbabwe	1.0	2.0	1.0	-	69.8
World total[14]	490	690	970	140	14 000.0

1. These are legitimate sales and therefore exclude sales of pirate records and tapes. Exchange rates: Average rates for the year to which the figures relate.
2. Retail value includes taxes.
3. Singles also include maxi singles. EPs have become insignificant in most countries.
4. Tapes mean cassettes and 8 track cartridges. 95 per cent of tapes now sold in the world are cassettes.
5. Average exchange rates for 1985.
6. 3,000 units for international repertoire, 500 units for Arabic repertoire.
7. Units of CDs sold in the Republic of Korea 2,000; Philippines 2,000; Thailand 5,000.
8. IFPI members only: representing e.g. 90 per cent of market in Belgium and 80 per cent of market in Denmark.
9. 1985 figures.
10. 1983 figures.
11. 1982 figures.
12. Nil or insignificant.
13. Not available.
14. Estimated.

Source: IFPI National Groups and affiliated organizations.

Table 5.24

Value of imports and exports of audio records and pre-recorded tapes in selected countries, 1985 (in $ millions)[1]

Country	Year		Imports	Exports
Austria	1983	Total	18.8	4.7
		from/to Europe	18.7	4.5
		from/to USA	0.3	0.1
Belgium	1982	Total	54.9	20.1
		from/to Europe	52.0	19.4
Canada	1983	Total	27.4	6.7
Denmark	1982	Total	5.5	0.7
		from/to Europe	3.4	0.4
Finland	1983	Total	9.6	NA[3]
		from/to Europe	8.5	NA
		from/to USA	0.5	NA
		from/to Canada	0.5	NA
France	1983	Total	43.8	44.3
		from/to Europe	36.9	34.4
		from/to USA	5.0	3.3
Germany, Fed. Rep. of	1983	Total	124.6	160.9
		from/to Europe	90.6	135.4
		from/to USA	30.2	12.4
Ireland	1981	Total	11.8	4.8
		from/to Europe	9.7	4.5
Italy[2]	1981	Total	35.4	13.0
		from/to Europe	24.7	6.9
Hong Kong	1983	Total	5.5	1.7
		from/to Europe	1.1	0.2
		from/to SA	0.4	0.4
		from/to Asia	3.9	1.0
Japan	1983	Total	23.1	9.3
		from/to Europe	7.2	2.3
		from/to USA	15.0	4.3
Netherlands	1983	Total	56.4	123.4
		from/to Europe	49.8	87.6
		from/to USA	3.5	NA
New Zealand	1983	Total	1.0	1.7
Sweden	1982	Total	42.0	NA
		from/to Europe	22.5	NA
Switzerland	1983	Total	27.6	NA
		from/to Europe	27.0	NA
		from/to USA	0.5	NA
United Kingdom	1983	Total	64.1	63.0
		from/to Europe	51.1	32.0
		from/to USA	10.0	20.6
United States	1983	Total	86.1	64.9
		from/to Europe	45.1	24.2
		from/to Canada	13.4	11.4
		from/to Asia	22.6	15.2

1. The conversions to US$ have been established for the preparation of *World Communication Report* and are based on exchange rates from the *Unesco Statistical Yearbook*, 1987, which are in turn based on figures from the International Monetary Fund.
2. Estimate.
3. Not available.

Source: International Federation of Phonogram and Videogram Producers

Table 5.25

New releases on audio market, 1986-87

	Analogue discs		Cassettes	Compact discs
	Singles	LPs		
Japan (1987)	6 208		9 392	8 772
France (1986)	2 161	5 561	3 646	2 459
Italy (1987)	949	1 928	NA[1]	2 612
Germany (1987)	3 055	2 518	2 660	4 105
USA (1986)	2 730	2 345	2 260	2 365
United Kingdom (1987)	4 140	4 915	NA	1 944

1. Not available.

Source: International Federation of Phonogram and Videogram Producers.

Data flow

Data communication has been one of the most important international economic activities since the late 1970s and information-intensive industries such as banking, insurance, airlines and other transnational businesses are heavily dependent on the transmission of data around the world. These types of international flow of information (commonly known as transborder data flow, or TDF), are made possible by the development of computer communication systems and transmission technology, linking computers in each country to affiliated computers in others. The flow of this information can range from financial information to data on scientific and educational activities. Database industries have a large growth potential and the volume of TDF has been increasing rapidly over the last decade, as have the number of laws passed concerning citizens' rights as regards data protection and data access.

As there are no accurate international statistics on the individual or total amount of such transfers of information across national boundaries, quantifiable information in this area is virtually non-existent, due to both methodological problems and institutional policies.

Table 5.26

Number of data terminals installed in selected countries since 1976

Country	Period	Number of terminals	
		First year of period	Last year of period
Africa			
Burkina Faso	1976-84	0	30
Ghana	1977-86	7	1
Kenya	1980-86	127	285
Malawi	1980-86	2	52
Swaziland	1981-84	2	2
Tunisia	1980-86	22	304
United Rep. of Tanzania	1982-86	1	2
Zimbabwe	1977-86	1	962
Asia			
Hong Kong	1980-85	56	284
Japan	1983-85	519	500
Macau	1982-86	3	641
Oman	1981-86	3	1 623
Philippines	1982-85	17	4 424
Qatar	1980-85	2	148
Singapore	1977-86	10	3 276
Thailand[1]	1982-85	3	163
Europe			
Austria	1977-86	1 604	10 300
Belgium[2]	1977-86	2 470	7 082
Cyprus	1982-86	15	307
Czechoslovakia	1977-86	611	2 835
Denmark	1977-83	2 508	5 300
Finland	1977-86	2 800	28 900
France[3]	1977-86	10 748	40 386
German Dem. Rep.	1977-83	400	904
Germany, Fed. Rep. of	1981-86	46 351	105 563
Greece	1977-86	24	388
Hungary	1977-86	72	376
Ireland	1977-85	502	7 467
Italy	1977-86	10 380	41 313
Norway	1977-84	1 958	9 823
Spain[4]	1977-86	1 510	12 889
Sweden[5]	1977-83	15 153	67 591
Switzerland	1977-86	2 900	18 700
United Kingdom	1978-83	49 800	98 600
Latin America			
Chile	1982-86	150	364
Colombia[6]	1977-86	602	3 820
El Salvador	1981-86	1	1
Panama	1982-86	42	98
Peru	1980-85	200	42
Oceania			
Australia	1977-86		3 700
Fiji	1983-86		0
Kiribati	1982-85		0
Nauru	1980-86		1
New Zealand	1981-85		749
Vanuatu	1982-86		0

1. Terminals equipment provided by RTT.
2. As from 1981, including Caducée and Transpac.
3. Only terminals connected to the automatic telephone network.
4. Total number of modems.
5. Modems in use: supplied by administrations.
6. Data only for Bogotá.

Source: *Yearbook of Common Carrier Telecommunication Statistics*, 15th ed., Chronological Series 1977-86, Geneva, ITU, 1986.

For example the International Telecommunication Union Supplement to the World Plan 1982-89 includes a list by country of the volume of outgoing traffic in paid minutes by thousands and categories such as telephony, telex telegraphy and broadband circuits. However, this type of statistic does not distinguish between flow which is processed or stored by computer, and actual live telephone conversations. Similarly, Intelsat's *Facts and Figures* provides information on how many full-time half-circuits a country owns or leases, as well as cumulative billable minutes, but makes no distinction as to the type of utilities or the system.

At the national level, data are also difficult to obtain for a number of reasons. Inasmuch as data are transported by mail services, the confidentiality of correspondence makes it impossible for PTTs to calculate data volume. Data carried across national borders on material-support media (discs, cards and tapes) also present problems, because customs statistics do not distinguish between data traffic and computer materials.

In the main, therefore, the rise in TDF can only be correlated with other indices, such as the distribution of computers, increased use of telecommunication services, and the rapid development of software services, which are reported upon in Chapters 2 and 3. Table 5.26 provides an indication of the recent increase in the number of data terminals throughout the world, to give a basic idea of the expansion in the data services sector.

6. Developments in regulation

Introduction

In recent years, important regulatory concerns have been confronted in a variety of communication activities. The most prominent of these concerns are highlighted in this chapter, which is introduced by short descriptions of recent developments in the areas of freedom of information, protection of intellectual property, telecommunications, and protection of privacy with regard to automatic data processing. This overview is followed by a comprehensive survey listing the most important regulatory instruments in the communication field.

The survey

The regulatory environment and its development are linked to the emergence of concerns requiring amendments to instruments already in existence, or the introduction of new instruments. This survey of regulatory measures focuses on *multilateral* efforts at the *universal* and the *regional* level. The term *universal* is used to refer to the regulatory instruments adopted by governmental or non-governmental organizations that represent various regions of the world. The term *regional* has been interpreted flexibly to refer to geographical regions, geopolitical regions, and regions as defined by international organizations. The survey distinguishes between regulatory activities by intergovernmental organizations and non-governmental organizations. The regulatory instruments are categorized according to the general field or the specific sector to which they apply. The general fields which have been identified are: human rights, freedom of information, protection of intellectual property and trade in services. The sectors are: mass communication, telecommunication and informatics. Within these categories there are both general and specialized regulatory instruments. General instruments cover a wide range of social issues and, although not specifically designed to address communication, may contain pertinent references to both the content and infrastructure of communication. Specialized instruments are designed to cover communication issues in particular.

The survey orders the regulatory instruments according to their legal validity. This implies that in general, legally binding instruments (treaties) will be followed by non-binding instruments (resolutions, recommendations). In the various categories, instruments are listed in chronological order.

Regulatory agencies

The regulatory environment for communication is shaped by numerous agencies that set standards or

issue prescriptive rules of conduct with varying degrees of legal significance. These agencies conduct their activities within the framework of their internal regulations, which are themselves embodied in binding charters, constitutions, and statutes. In the survey only the most prominent regulatory agencies are mentioned with reference to their legal basis. As can be seen from the listing of regulatory instruments several more agencies are involved in regulatory activities than are mentioned.

Without claiming comprehensiveness, mention should also be made of the international non-governmental organizations like the professional journalists' associations (International Federation of Journalists (IFJ); International Organization of Journalists (IOJ)); industry associations, like the International Advertising Association (IAA); the International Public Relations Association (IPRA); the International Federation of Phonogram and Videogram Producers (IFPI); and associations of users, such as the International Chamber of Commerce and the International Telecommunication Users Group (INTUG). Moreover, at the regional level many organizations are operating that have regulatory significance, e.g. the postal and telecommunication unions, the bodies for space communications, broadcasting organizations, and the regional associations of professional journalists.

Categories of regulatory instruments

The categories in which the regulatory instruments have been divided can be described as follows:

1. *Human Rights*. This category refers in a broad sense to all those instruments that address the protection and/or promotion of human rights.
2. *Freedom of information*. This category includes instruments that seek to strengthen the free and balanced flow of information, facilitate the circulation of cultural materials, foster the exchange of official publications and reinforce the contribution of communication to peace and international understanding.
3. *Protection of intellectual property*. This category refers to those instruments that regulate the protection of industrial property, of copyright and of neighbouring rights.
4. *Trade in services*. This category contains those instruments that address the emerging issue of international trade in such services as telecommunications, data processing, advertising, and intellectual property.
5. *Mass communication*. This category is subdivided into instruments addressing: (a) general mass media policy; (b) broadcasting, film and the press; (c) journalism; (d) advertising, marketing, consumer information; and (e) public relations.
6. *Telecommunication*. This category is subdivided into instruments addressing: (a) postal communication; (b) telegraph, telephone, and radio communication; (c) satellite broadcasting; (d) remote sensing; and (e) transborder data flows.
7. *Informatics*: this category is subdivided into instruments addressing: (a) privacy protection; (b) computer abuse; (c) electronic funds transfers; and (d) computer evidence.

An index of contents of the survey is given at the beginning of the actual listing of regulatory instruments (see footnote, page 177). Highlights of recent regulatory developments are discussed below.

Freedom of information

Access to government information

The basis for this concern is the right of citizens to inspect the records of government and government agencies. So far, only a limited number of countries have introduced freedom of information or public access legislation. Table 6.1 summarizes the present situation.

Table 6.1

Access to information acts: the enactment of access to information legislation

Country	Year of enactment
Australia	1982
Austria	1973
Canada	1983
Denmark	1964/Amended 1970
Finland	1951
France	1978
Netherlands	1979
New Zealand	1983/Amended 1987
Norway	1970
Sweden	1949/Amended 1976
United States	1967

Source: Compiled for *World Communication Report* by the Institute of Social Studies, The Hague.

A number of major issues have been raised in relation to access-to-information legislation.

The cost factor

Public access rights inevitably entail costs that the public budget must bear. In Australia for example, the costs of information requests in 1983/84 were $17.6 million. This raises questions about the beneficiaries of the access facilities and whether there might be abuse by certain social actors. In turn, this leads to the question of a differential costing for various user groups.

The technology factor

Increasingly government agencies are using electronic means for information storage. The electronic format of information sought by the public has raised the issue of the requester's access to the technology necessary to read documents in such formats.

The national security factor

There is a concern that the notion of national security can easily be extended to include documents that governments wish to be kept secret. Governments invoke national security to justify restrictions on the freedom of information in cases of unlawful disclosure of government secrets. But this raises questions about what information can be considered to be in the public domain, and whether such information can be totally exempt from official restrictions. Intelligence agencies in particular have argued that access requirements undermine their security arrangements.

Freedom of commercial speech

A new issue is that of extending freedom of expression to include commercial advertising. In most countries restrictions exist for commercial advertising in terms of the media available, time limits, taxes, rules on products, restrictions of advertising on religious or official holidays etc. In addition to national laws and administrative rules, there often exist self-imposed advertising codes. In a number of countries (Table 6.2) the advertising industry has a central self-regulatory body that uses advertising codes to define what is, and what is not acceptable in advertising. Most of these codes are modelled on the International Code of Advertising Practices sponsored by the International Chamber of Commerce (published in 1937 and revised in 1973). Other countries have different forms of self-regulation, whether associations of mass media (Finland, India, the Republic of Korea, Lebanon), associations of advertising agencies (Ecuador, Greece, India, Iran, Israel, Lebanon, Mexico, New Zealand), associations of advertisers (Israel, Mexico, Nigeria), or consumer ombudsmen (Denmark, Norway, Sweden). The European Human Rights Commission and Court have developed case-law indicating that commercial speech can be protected under Article 10 of the European Convention for the Protection of Human Rights and Fundamental Freedoms. In its decision of 1 March 1983 the European Human Rights Commission stated, "The Commission has earlier expressed the opinion that commercial advertisements and promotional campaigns are as such protected by Article 10(1) of the Convention" (Application No. 9664/82).

Table 6.2

Regulation in advertising: countries with central self-regulatory bodies

Countries	Year created
Argentina	1969
Australia	1974
Austria	1971
Belgium	1967
Brazil	1978
Canada	1957
France	1971
Germany, Fed. Rep. of	1949
Ireland	1967
Italy	1966
Japan	1974
Netherlands	1967
Philippines	1974
Singapore	1976
Spain	1977
Switzerland	1967
United Kingdom	1962
United States	1971

Source: Compiled for *World Communication Report* by the Institute of Social Studies, The Hague

Freedom of information and the journalistic profession

In a number of countries (listed in Table 6.3) the journalistic profession has adopted self-regulatory instruments and codes of conduct.

Table 6.3
Self-regulatory codes of conduct in journalism

Country	Since
Austria	1971
Canada	1964
Costa Rica	1973
Czechoslovakia	1977
Egypt	1972
Finland	1984
France	1918/Revised 1938
Germany, Fed. Rep. of	1973
Greece	1971
Hungary	1974/Revised 1985
Israel	1946
Italy	1957
Japan	1946
Lebanon	1965
Nigeria	1970
Norway	1936/Amended 1966
Poland	1896/Revised 1945
Sweden	1968
Switzerland	1972
United Kingdom	1939
United States	1939
Yugoslavia	1965/Amended 1969, 1973

Source: Compiled for *World Communication Report* by the Institute of Social Studies, The Hague

Important regulatory areas relating to the journalistic profession are as follows:

Licensing of journalists

Compulsory licensing of journalists is practised in many countries, whether by governments to control information (in which case licenses may be revoked when governments are criticised) or by journalists to enhance their professional status. Some contend that licensing is a means of protecting journalists, while others argue that it tends to foster government intervention. Different opinions exist on the advisability of trying to define the journalistic profession in legal terms.

An example of relevant case-law is the decision of the Inter-American Court of Human Rights in November 1985. The Government of Costa Rica had asked the Court to interpret Articles 13 and 29 of the American Convention on Human Rights in view of the compulsory membership of journalists in the Colegio de Periodistas for the exercise of the journalistic profession. The government also sought the opinion of the Court on the compatibility of Law No. 4420 of 22 September 1969 (Organic Law of the Colegio) with Articles 13 and 29. The Court concluded:

> It follows from what has been said that a law licensing journalists, which does not allow those who are not members of the 'colegio' to practice journalism and limits access to the 'colegio' to university graduates who have specialized in certain fields, is not compatible with the Convention. Such a law would contain restrictions to freedom of expression that are not authorised by Article 13(2) of the Convention and would consequently be in violation not only of the right of each individual to seek and impart information and ideas through any means of his choice, but also the right of the public at large to receive information without any interference.

The opinion of the Court was, furthermore, "The compulsory licensing of journalists is incompatible with Article 13 of the American Convention on Human Rights in so far as it denies some persons access to the full use of the news media as a means of expressing themselves or imparting information." The Court's opinion on Law No. 4420 was that ". . . the Organic Law of the Association of Journalists of Costa Rica, the subject of the instant advisory opinion request, is incompatible with Article 13 of the American Convention on Human Rights in that it prevents certain persons from joining the Association of Journalists and, consequently, denies them the full use of the mass media as a means of expressing themselves or imparting information".

Protection of journalists

By virtue of the four Geneva Conventions of 1949 and the Additional Protocol I of 1977, journalists are considered by states to be civilians (Article 79, Protocol I) and must be protected as such. Special status is given to war correspondents who accompany armed forces, but if they fall into enemy hands, they are considered prisoners of war (Article 4.4. of the Third Geneva Convention). Within the framework of non-international armed conflicts, a general protection is given to all non-combatants, including journalists (Article 3 of the four Geneva Conventions, 1949 and the Additional Protocol II, of 1977). On the basis of these international legal provisions the International Committee of the Red Cross is entitled to intervene. The so-called Hot Line was developed to facilitate humanitarian intervention in case a journalist disappears, is captured, arrested or held in detention while exercising his professional activity. The professional organizations themselves have recently concentrated their efforts on monitoring and documentation activities.

News media and remote sensing data

In 1986, a new issue emerged–the use by the mass media of remote sensing imagery. Sparked off by satellite photography of the Chernobyl incident, space-based news-gathering technology was demonstrated to be feasible and important. There is, however, a potential conflict between the news interest of the media and national security/foreign policy interests of governments.

In the United States, the Land-Remote Sensing Commercialization Act (enacted into law on 17 July 1984) imposed a licensing scheme for companies interested in space photography. Licenses can only be awarded when national security or foreign policy interests are not jeopardized. The law enables the United States Government to seize any imagery that violates the Act, creating a potential conflict with the First Amendment of the Constitution that, as the Supreme Court has ruled, also pertains to the right to gather information. Therefore, remote-sensing news-gathering could be protected under the First Amendment. In May 1986, the Radio-Television News Association proposed that the Landsat Act should be brought into line with the First Amendment and in February 1987, this association and NBC filed comments with the Department of Commerce concerning the application of the Landsat Act to media remote sensing.

Asserting freedom rights

An important aspect of the recognition of freedom of information rights is the development of the possibility for international litigation in cases where the freedom of expression has been violated. This is important because it allows an independent examination of claims brought against governments. On the international level one should note that 38 of the 84 states that ratified the International Covenant on Civil and Political Rights recognize the right to petition the United Nations Human Rights Committee. The conclusions of the United Nations Human Rights Committee are not binding but they can lead to legislative changes or compensatory measures. At the regional level, 19 states recognize the right to petition the Inter-American Commission on Human Rights under the American Convention on Human Rights. The judgements of the Inter-American Court are not binding but can lead to legislative change and compensatory measures. Under the European Convention of Human Rights, 20 of the 21 member states of the Council of Europe recognize the right to petition the European Commission of Human Rights. Member states comply with judgements of the European Court of Human Rights through compensation, amendment of legislation, or change of administrative practice. Case-law is also developing in the European region (and to a lesser extent in the American region) in relation to freedom of information. This is particularly relevant with regard to those countries that have constitutional codes or fundamental rights which are modelled on the international human rights instruments.

The protection of intellectual property

In recent years several countries introduced changes in copyright legislation. The major concerns of these changes are the protection of computer software; the protection of semiconductor products; piracy; home-taping; satellite broadcasting; folklore; and works in the public domain. Each of these areas is surveyed below, while Table 6.4 provides a summary of such amendments.

Table 6.4

Recent changes in copyright legislation

Austria	Federal Law on Copyright in Works of Literature and Art, modified by the Act of 19 February 1982
Australia	Copyright Amendment Act No. 43, 1984
Bangladesh	The Copyright (Amendment) Ordinance, 1985
Benin	Law on the Protection of Copyright No.84-008, 1984
Brazil	Law No. 712 repealing Article 93 and paragraph 1 Article 120 of Law No. 5988 of 14 December 1973, 1983
Burkina Faso	Ordinance affording Protection to Copyright (No 83-16. CNR.PRES. of 29 September 1983) as rectified by Ordinance No. 84-12, 1984

Table 6.4-cont.

Central African Republic	Ordinance No. 85002 on Copyright, 1985
Finland	Act amending the Copyright Act, No.54 of 24 January 1986. Act amending para.10 of the Act on Rights in Photographic Pictures, N.55. Act amending the Act relating to Copyright in Literary and Artistic Works (No. 442 of 8 June 1984). Act amending the Copyright Act (No. 578 of 27 July 1984). Act amending the Act on Rights in Photographic Pictures (No. 443 8 June 1984). Act amending para. 6 of the Act on Rights in Photo-pictures (No. 579 of 27 July 1984)
France	Law on Author's Rights and on the Rights of Performers, Producers of Phonograms and Videograms and Audio-visual Communication Enterprises, No. 85,660, 3 July 1985
Germany Fed. Rep. of	Law amending Act dealing with Copyright and Related Rights of 9 September 1965, 24 June 1985
Ghana	Copyright Law, 1985
Iceland	Copyright Act of 29 May 1972, amended by the Act of 30 May 1984
India	The Copyright (Amendment) Act, 1983 (No. 23), The Copyright (Amendment) Act, 1984 (No. 65) An Act Further to Amend the Copyright Act, 1957
Ireland	Copyright Act of 8 April 1963, amended by the Act of 11 December 1987
Israel	Performers' Rights Law (No. 5744), 1984
Italy	Law on Provisions concerning the Unlawful Duplication, Reproduction, Import, Distribution and Sale, Public Showing and Transmission of Cinematographic Works, 20 July 1985. Decree-Law on Urgent Measures Concerning Commercial Distribution, 26 January 1987
Japan	Law to Take Interim Measures for the Protection of Authors etc. with Respect to the Lending of Commercial Phonograms to the Public, No.76, 1983. Law for Partial Amendments to the Copyright Law, No. 46, 1984. Law for Partial Amendments to the Copyright Law, No. 62, 1985
Madagascar	Ordinance amending Certain Parts of Law No.57-298 of 11 March 1957, on Literary and Artistic Property, No.82-031, 1982
Netherlands	Copyright Statute of 23 September 1912, amended by the Royal Decree No. 307 of 30 May 1985, of Adjustment of the Copyright Act to the Paris Instrument of the Berne Convention.
Norway	Act of 12 May 1961, relating to Property Rights to Literary, Scientific or Artistic Works, amended 21 June 1985
Portugal	Code of Copyright and Related Rights, 17 September 1985. Decree-Law of 6 February 1988 (revoking Decree-Law of 29 July 1985)
Rwanda	Law governing Copyright, No. 27/1983
Spain	Organic Law of 11 November 1987, modifying Section III of Ch. 4, Title XIII, Book II of the Penal Code. Law concerning Intellectual Property, 11 November 1987
Sweden	Act on Copyright in Literary and Artistic Works, 30 December 1960, amended by the Acts of 19 May 1982, 9 December 1982 and 5 June 1986
Turkey	Copyright Statute, Law on Artistic and Intellectual Works as amended by Law of 1 November 1983
United Kingdom	Copyright Act 1956, (Amendment) Act 1982, Copyright (Amendment) Act 1983, Copyright (Computer Software) Amendment Act 1986
Uruguay	Law introducing Criminal Provisions for the Protection of the Rights of Producers of Phonograms against Unauthorized Reproduction, 1982

Source: Compiled for *World Communication Report* by the Institute of Social Studies, The Hague

Protection of computer software

The main legal concepts in software protection are copyright, trademark, trade secret and patents. The traditional protection offered by copyright and patent law is based on the distinction between authorship and inventor. With technological development this distinction is disappearing, particularly in the field of computer software. A computer program can be seen as writing, but it also runs devices and controls processes, and one may ask if it is appropriate to protect software under copyright law as has been done by some countries, for example, the United States in 1980, followed in 1985 by the United Kingdom, France, the Federal Republic of Germany, and Japan. It remains questionable, however, whether, despite this trend, software can definitely be protected under the law of copyright. The Berne Convention and the Universal Copyright Convention protect copyright based upon the notion of software being in a format readable by human beings. Many computer programs, however, cannot be read by humans. Some pertinent questions raised in copyright protection for computer programs are: When does software represent an individual identity? When is it more than mere technological development of what already exists? When does it exceed, in choice and systematization of information and instructions, the normal crafts of the average computer programmer? Copyright protects the expressions of ideas and not the ideas themselves. However, ideas could be described in such detail that this would amount to copying. Therefore, the tendency emerges to protect the structure or pattern of a work. Another pertinent question is whether the copyrighting of systems software could lead to monopolization of hardware. This raises the issue of whether anti-trust law would be applicable or whether those who abuse copyright law to strengthen their economic position could invoke such law against infringement of their rights.

Protection under patent law is possible in Panama and probably in Canada, Israel, Japan, the United Kingdom and the United States. The European Patent Convention explicitly excludes computer software. Protection under copyright law, under trademark registration or under trade secret in selected countries is summarized in Table 6.5. Computer software is protected under *sui generis* legislation in Bulgaria.

Table 6.5

Protection of computer software as of end 1986

Country	Copyright	Trade mark	Trade secret
Australia	X	X	X
Austria	X		
Belgium		X	X
Canada	X	X	X
China		X	
Dominican Republic	X		
Finland			X
France	X		
Germany, Fed. Rep. of	X		X
Hong Kong	X		
Hungary	X		X
India	X		
Israel	X		
Italy	X		X
Japan	X		
Malaysia	X		
Mexico	X	X	
Netherlands	X	X	X
Norway		X	
Philippines	X		
Portugal	X		
Republic of Korea		X	
Switzerland		X	
United Kingdom	X	X	X
United States	X	X	X

Source: Compiled for *World Communication Report* by the Institute of Social Studies, The Hague

Protection of semiconductor products

A special question has been raised by the protection of semiconductor chips. The United States has enacted a *sui generis* protection since the existing legal regimes were considered insufficient. The main impetus for the *sui generis* legislation was the fear that other countries would not protect mask works through copyright and, moreover, that on the basis of the principle of assimilation (as established in the Universal Copyright Convention) the United States would have to extend its national protection to foreign producers of semiconductor chips. The American Law (the Semiconductor Chip Protection Act) was passed on 8 November 1984. Japan followed suit with similar legislation on 31 May 1985. Meanwhile, France, the Federal Republic of Germany, Italy and the Scandinavian countries have drafted legislation. The countries with chip-producing industries are interested in adequate protection. Since the United States Act is based on the principle of reciprocity it will only extend protection to foreigners whose countries consider or enact equivalent legislation.

In June 1985 the Council of European Communities issued a directive to Member States to enact equivalent legislation and on 16 December 1986, the Council approved the Directive on the Legal Protection of Topographies of Semiconductor Products.

Work has been commenced by the World Intellectual Property Organization (WIPO) on an international treaty. It convened a committee of experts in November 1985 which has studied a draft treaty for the protection of intellectual property in respect of integrated circuits.

Piracy

The unauthorized illegal reproduction of copyrighted works continues to be of grave concern. In many countries existing legislation is inadequate to combat piracy. Several nations have stepped up activities against piracy through modified regulation, information campaigns, training of law-enforcement officers, and increased penalties.

The WIPO/Unesco Committee of Governmental Experts on Audio-visual Works and Phonograms, meeting in Paris in June 1986, adopted a resolution related to piracy. This states among other things that piracy is an illegal activity–a form of theft–and, as such, thoroughly antisocial and contrary to the public interest and not merely a matter affecting the private rights of individuals. The manufacture, distribution, import and export of pirated copies of audio-visual works and phonograms should be expressly forbidden by law and, where such acts are perpetrated, penalties of sufficient severity should be imposed to act as a deterrent. The committee of experts also proposed a resolution for endorsement by the governing bodies of the Berne Convention and the Universal Copyright Convention. The resolution, recognizing that the enormous growth of the worldwide commercial piracy of audio-visual works and phonograms is posing a danger to national creativity, to cultural development, to local industry, and to intellectual property rights, urged that states should introduce in their national laws the rights guaranteed under the international conventions in this field. The resolution also invited the states which are not parties to these conventions to adhere to them and bring their legislation up to date so as to take fully into account the new technological uses of intellectual property. The resolution expressed the strong conviction that the adequate and effective protection of all rights holders under the conventions requires the provision of criminal sanctions in national law of sufficient severity to punish and deter piracy as well as the effective enforcement of such criminal sanctions. It acknowledged that such sanctions should include fines and/or terms of imprisonment appropriate to other serious thefts of property in the country concerned; provisions for the seizure and destruction of infringing copies and the equipment used in their production; measures to prevent importation into Convention States; and procedures to facilitate the detection and proof of piracy.

Hometaping

Copying of copyrighted material, both sound recordings and audio-visual materials, takes place on a large scale in the private home.

It has been argued that the home copying of music from broadcasts and recordings is a cause of a decline in record sales, which in turn results in a decline of new releases, especially in the field of classical music. Hometaping is seen by some as an infringement of the rights of authors and other rights owners and, therefore, persons making copies of musical performances should pay a royalty. These royalties should be collected by the organizations representing the owners of rights: the collecting societies. Obviously, the collection of royalties in respect of private taping poses practical problems and raises the question whether this could be done without seriously violating individual privacy. Another opinion holds that hometaping for private purposes is legal and, therefore, if compensation is desired, special legislation is needed, like taxes on blank video-cassettes. Consumer organizations tend to oppose any form of compensation by private people using their recording equipment and question the claims about damage done to rights holders by hometaping. An increasing number of countries, however, are introducing legislation to provide for a royalty on blank audio and video tapes and/or hardware to remunerate rights owners for the private copying of their works. Such legislation at present exists in Austria, the Congo, Finland, France, the Federal Republic of Germany, Hungary, Iceland, and Portugal. Similar legislation has been proposed in Belgium, Czechoslovakia, Italy, the Netherlands, Spain and the United Kingdom.

In the audio field new problems have been raised by the introduction of digital audio tape (DAT). Digital audio-cassette recording makes it possible to copy music from compact discs without loss of quality. The producers of phonograms fear that this could lead to infringement of their rights of copyright and of the rights of performers and to decreasing sales of compact

discs. The representatives of the music industry have forwarded proposals to the United States Congress and the European Commission for protective measures, e.g. the obligation to have all DAT recorders equipped with a technical device to prevent the copying of similarly encoded software.

Satellite broadcasting

When, in addition to the existing fixed satellite services (FSS) that allow for satellite-to-cable transmission, direct broadcasting services (DBS) by signals from geostationary satellites become available, copyright questions will need to be answered. DBS is defined in the ITU Radio Regulations by Rule 37: "A radio communication service in which signals transmitted or re-transmitted by space stations are intended for direct reception by the general public". The issue of proprietary rights is not yet resolved.

It has been debated whether the Universal Copyright Convention and the Berne Convention need revision or whether an updated interpretation is required. The crucial question is whether DBS should be considered as conventional broadcasting.

One problem arises from the fact that DBS involves two stages: the up-leg or up-link, i.e. the transmission of a signal from an earth station to the satellite; and the down-leg or down-link, i.e. transmission from the satellite to receivers. The latter is generally considered broadcasting, but the former is a focus of controversy. One opinion holds that the up-leg does not constitute broadcasting since it is not intended for reception by the public. In this view transmission of copyrighted signals without payment of royalties would not constitute an infringement. Copyright owners could demand royalties for the down-leg only. Another view proposes bringing the up-leg under appropriate protective legislation since there is the possibility that the up-leg and the down-leg parties are not the same or reside in different countries. In this case the copyright owner could lose control. Loss of control could also occur in cases where the receiving country does not have adequate intellectual property protection.

Folklore

This area addresses the need to recognize folklore as an important cultural phenomenon. Technological development may lead to its improper exploitation such as commercialization without respect for the interests of the communities where folklore originates. To foster folklore as a source of cultural creativity, special legal solutions must be designed for its protection. In certain countries, the attempt to protect folklore under copyright law has not been very effective. Works protected by copyright law must bear the decisive mark of individual creativity, whereas folklore results from continuous, collective efforts. The possibility has also been explored of protecting folklore by so-called neighbouring rights, but this would not prevent the copying of folkloric expressions. It would seem that a *sui generis* regulation is needed. Since 1980, WIPO/Unesco have worked on the elaboration of Model Provisions for National Laws on the Protection of Expressions of Folklore. The Committee of Intergovernmental Experts on the Intellectual Property Aspects of the Protection of Expressions of Folklore (1982) adopted such model provisions against illicit exploitation and on other prejudicial actions. The question whether an international instrument on this subject should be adopted remains on the agenda of Unesco and WIPO.

Works in the public domain

As soon as they cease to be protected by copyright, literary, scientific and artistic works fall into the public domain and form part of the heritage of mankind, without anyone exercising any further monopoly on them. From that time, the use of these works is in principle free and unremunerated, as opposed to the situation in force when copyright applies. At the present time, there is an increasing number of operations, considered questionable by many people, in relation to works in the public domain: reproduction of a work or a part of it without attribution of the author's name, adaptation and transformation without notification to the public, distortion of the essence and spirit of the original work. While the use of a work in the public domain is free and unremunerated, except in relation to remuneration under legislation which has established a *domaine public payant*, this freedom should not permit the distortion of a work or the suppression of the name of its author. Freedom should be taken to mean that reproduction, performance, translation or adaptation are permitted without the consent of the author, but on the condition that the essence of the work is not distorted or lost. Freedom does not include the right to destroy the work or impair its nature. A work of art is not an object which may be used in any manner without qualification. At present, however, apart from legislation which protects moral rights in perpetuity,

the status of works in the public domain is characterized by a legal vacuum. A comparison between the right of ownership of the state or of public bodies in respect of goods which are theirs by natural attribution or by legal assignment, and the status of works in the public domain, shows that only the former is organized. The latter does not exist. This is why many governments have expressed the need for a special legal system to protect intellectual work from the pillage and distortion that erode them and to enable them freely to enter the common heritage of the community to which they belong. The General Conference of Unesco at its twenty-fourth session in 1987 decided that the questions of safeguarding of works in the public domain should be regulated at the international level by means of a recommendation to Member States. It requested the Director-General of Unesco to convene a special expert committee with instructions to draw up the final draft recommendation on this matter for submission to the General Conference at its twenty-fifth session in 1989.

Developments in telecommunications

Deregulation

Decisions by the United States Federal Communication Commission (FCC) have been important for international developments as well. These decisions have been motivated by the stated long-term goal "to create a viable international market in which users and carriers make facility-use decisions with as little regulatory intervention as possible". The FCC gave itself the mandate to promote deregulation and promote competition in international telecommunications on the basis of technological innovation and user demands.

FCC decisions relating to satellite communications are exemplary. In 1966, the FCC ruled in its Authorized User Decision that access to Comsat would be limited to international carriers. This was intended to protect the revenues of the international carriers and Comsat. In 1982, the Comsat Structure Order permitted Comsat to enter the retail telecommunications market through a separate subsidiary (which would separate monopoly operations from competitive activities) and to liberalize access to its facilities.

In another FCC decision on modification of policy on ownership and operation of earth stations that operate within the Intelsat Global Communications System, a change in the dominant share of Comsat in access to earth stations was proposed. In March 1984 the FCC approved a change in the corporate structure of Comsat, to liberalize access to the Intelsat space segment and to lessen regulation of Intelsat earth station ownership.

This introduced competition in international satellite services by allowing private firms to compete with Comsat and facilitated the creation of alternative systems, applications for which were filed with the FCC during 1983 and 1984. The main question this raised was how far it would undermine the efficient and effective co-operation currently practised under the Intelsat arrangement ("skimming the cream" from the profitable North Atlantic routes) and endanger cross-subsidy from such dense traffic to routes involving developing countries. The push for deregulation is based on the complaint that national telecommunications authorities add considerable charges to Intelsat costs for transmissions from earth stations to users in order to subsidize national and local telecommunications. The pressures force PTTs to consider the adjustment of prices to actual costs. Deregulation aims at the creation of private systems that own up-links, space segments and down-links which would bypass Intelsat and the PTTs.

Most West European countries are engaged in a process of reflection and revision *vis-à-vis* their telecommunication structures. The trend is towards liberalization. This refers to the de-monopolization of telecommunication authorities and to the introduction of competition in the supply of services and equipment. However, as distinct from the United States (and Japan), the West European countries have not liberalized the provision of basic transmission and switching services. Only the British Government has allowed a second major basic services supplier, while in the other EEC member states the basic services networks remain state monopolies. At the same time, in the field of enhanced or value-added services the situation is more diverse. In general, such services as videotex and electronic mail are liberalized in the United Kingdom and France. Liberalization has been proposed in Belgium, Denmark, Greece, Italy and the Federal Republic of Germany. Regarding the liberalization of subscriber equipment, all EEC member states are moving from monopoly control to competition.

New telecommunication services and networks

In Nairobi in 1982, the ITU adopted a resolution stating that "a new regulatory framework to cater for the new situation in the field of new telecommunication services" would be needed. The existing general regulatory framework was created by the World Administrative Telegraph and Telephone Conference, WATTC-49 and the WATTC-73. In December 1988, the world's first international treaty for integrated global telecommunications networks and services was signed by representatives of 112 nations at Melbourne, participating in WATTC-88. The new International Telecommunication Regulations will provide the basic administrative and implementation provisions for global integrated telecommunication networks and services for the next decade. Key features include: concrete steps to maximize interconnectivity among all networks and services offered to the public; provisions, where allowed, for specialized networks and services; potential consultative mechanisms for facilitating interconnectivity between national networks; accounting practices for transferring revenue for these services; and various rights of users with respect to the provision of telecommunications capabilities made available to them. The new treaty will take effect on 1 July 1990.

The key regulatory agency with regard to the development of new networks and services is the International Telecommunication Union. Its regulatory function is embodied in the Plenipotentiary Conference and the Administrative Conferences. The essential international administrative rules issued by these conferences are the Telegraph, the Telephone, and the Radio Regulations. The Telegraph and Telephone Regulations set standards and procedures for networks and the Radio Regulations deal with allocations in the radio frequency spectrum. The International Frequency Registering Board (IFRB) is responsible for the implementation of the latter regulations. These regulations are binding on members of the ITU. Technical standards are established by two consultative bodies, the International Telegraph and Telephone Consultative Committee (CCITT) and the International Radio Consultative Committee (CCIR). These bodies produce non-binding recommendations.

The central international regulatory agency for standardization is the International Organization for Standardization (ISO) comprising the national standards bodies of 89 countries. The ISO is the major forum for international standards for information processing systems and telecommunications and information exchange between such systems. The other international forum for telecommunication networks is the International Electrotechnical Commission which is responsible for electric and electronic engineering standards.

Trading of telecommunication services

Special concerns have surfaced with regard to the trading of telecommunications and telematics services. This has become part of the debate on internationally traded services.

In 1986, the GATT ministerial conference in Puenta del Este, Uruguay, initiated the first global round of negotiations on trade in services. Starting in early 1987, twenty sectors were to be explored, among them telecommunications, information services, motion pictures, advertising, and such information communication-intensive areas as banking, education, insurance, legal services, and travel. The proposal to start preparatory work on trade in services stems from 1982. The GATT ministerial meeting of November 1982 decided to invite the contracting parties to undertake national examinations of the question of services. Some countries are intent upon developing a multilateral regulatory framework for the liberalization of services. The United States, for example, seeks a binding agreement in the GATT that will prescribe practices for services trading and for the settlement of disputes. For such an agreement the GATT regime would apply. This includes national treatment (the application of identical regulation to nationals and foreigners), fair market access, right of local presence for foreign suppliers, dispute settlement and the need for transparent procedures.

Trade barriers are a major concern. Regulation of service activities is often closely related to specific national goals. This is evident in such cases as the regulation of banking and insurance and the operation of telecommunications and airlines. A principal question is when are national regulations reasonable, and when do they constitute protectionism? Discrimination against foreign suppliers may be considered inappropriate and protectionist. However, particular countries may intentionally discriminate against foreign suppliers of cultural goods (films/television programmes/advertising) that can be seen as eroding their cultural identity.

Protection of privacy

In many countries important regulatory developments are currently taking place with regard to the protection of privacy to take into account the increased automatic processing of personal data. International instruments include the OECD Guidelines governing the Protection of Privacy and Transborder Flows of Personal Data (1980) and the Council of Europe Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data (1980). By 1987, 24 countries had signed the OECD Guidelines and six countries had ratified the Council of Europe Convention (Table 6.6).

In 1986, the Subcommission on Prevention of Discrimination and Protection of Minorities of the United Nations Commission on Human Rights prepared guidelines for the protection of computerized personal data. The text contains several principles similar to those in the Council of Europe Data Protection Convention, and recommends that such principles should constitute a minimum standard and apply at all times.

A number of countries have enacted privacy legislation as Table 6.6 shows. Recently privacy laws were proposed in Greece, Finland, the Netherlands, Japan and Switzerland.

Table 6.6
Status of data protection/privacy legislation, September 1987

Country	National	Subnational	OECD guidelines	COE convention	
				Signed*	Ratified
Australia		L	X		
Austria	CL		X	X	
Belguim	La		X	X	
Canada (Rev)	La	L	X		
Cyprus				X	
Denmark	L		X	X	
Finland	L		X		
France	L		X	X	X
Germany, Fed. Rep. of (Rev.)	L	L	X	X	X
Greece	(P)		X	X	
Guernsey	L				
Hungary	L				
Iceland	L		X	X	
Ireland			X	X	
Isle of Man	L				
Israel	L				
Italy			X	X	
Japan		L	X		
Jersey	L				
Luxembourg	L		X	X	
Netherlands	CL		X		
New Zealand (Rev.)	La		X		
Norway	L		X	X	X
Portugal	C(P)		X	X	
Spain	C(P)		X	X	X
Sweden	L		X	X	X
Switzerland	(P)	L	X		
Turkey			X	X	
United Kingdom	L		X	X	X
United States	LP	L	X		

Code:
- a — Applies to central government only
- L — Law adopted
- C — Constitutional provision
- P — Parliament (Congress) consideration
- (P) — Draft legislation prepared
- (Rev.) — Law being revised
- * — By signing the Data Protection Convention, countries indicate their intention to adapt domestic law so as eventually to ratify the agreement.

Source: Compiled for *World Communication Report* by the Institute of Social Studies, The Hague

Regulatory instruments[1]

Internal rules of regulatory agencies

United Nations: Charter of the United Nations, adopted at San Francisco on 26 June 1945.
Unesco: Constitution of the United Nations Educational, Scientific and Cultural Organization, adopted at London on 16 November 1945.
Universal Postal Union: Constitution of the Universal Postal Union signed at Vienna on 10 July 1964.
International Telecommunication Union: International Telecommunication Convention signed at Malaga-Torremolinos, 1973.
World Intellectual Property Organization: Convention establishing the World Intellectual Property Organization signed at Stockholm on 14 July 1967.
Intersputnik: Agreement on the establishment of the Intersputnik International System and Organization of Space Communications (Intersputnik Agreement) signed at Moscow on 15 November 1971.
Intelsat: Agreement Relating to the International Telecommunications Satellite Organization "Intelsat" signed at Washington on 20 August 1971; entered into force on 12 February 1973.
OECD: Convention of the Organisation for Economic Co-operation and Development (OECD) signed at Paris on 14 December 1960.
GATT: The General Agreement on Tariffs and Trade signed at Geneva on 30 October 1947.
Comecon: Charter of Comecon (Council for Mutual Economic Assistance) signed at Sofia on 14 December 1949.
Council of Europe: Statute of the Council of Europe signed at London on 5 May 1949.
European Economic Community: Treaty Establishing the European Economic Community signed at Rome on 25 March 1957.
Arab League: Pact of the League of Arab States signed at Cairo on 22 March 1945.
OAS: Charter of the Organization of American States adopted at Bogotá in 1948.
OAU: Charter of the Organization of African Unity signed at Addis Ababa on 25 May 1963.
ASEAN: The Association of South East Asian Nations Declaration signed at Bangkok on 8 August 1967.

Human rights

Universal human rights instruments pertinent to communication

Treaties

International Convention on the Elimination of All Forms of Racial Discrimination. Opened for signature on 7 March 1966. Entered into force on 4 January 1969.
International Convention on the Suppression and Punishment of the Crime of Apartheid. Adopted in 1973. Entered into force in 1976.
International Covenant on Civil and Political Rights. Opened for signature on 19 December 1966. Entered into force on 23 March 1976.
International Covenant on Economic, Social and Cultural Rights. Opened for signature on 19 December 1966. Entered into force on 3 January 1976.
Convention on the Elimination of All Forms of Discrimination Against Women. Opened for signature on 18 December 1979. Entered into force on 3 September 1981.

1. Within each category the order is: Intergovernmental Universal; Intergovernmental Regional; Non-Governmental Universal; Non-Governmental Regional. In the main, the instruments are listed according to legal significance and chronological order. The index of contents is as follows:
Internal rules of the major universal and regional (multilateral) organizations.
Human rights. (1) Universal. (2) Regional.
Freedom of information. (1) Free and balanced flow of information. (2) Circulation and exchange of cultural materials and documents. (3) Contribution to peace and international understanding.
Protection of intellectual property. (1) Protection of industrial property. (2) Protection of copyright. (3) Protection of neighbouring rights. (4) Protection *sui generis*.
Trade in services. (1) General trade instruments. (2) Specific services-related instruments.
Mass communication. (1) General instruments. (2) Specialized instruments: (a) general mass media policy; (b) broadcasting, film and the press; (c) journalism; (d) advertising, marketing, consumer information; (e) public relations.
Telecommunication. (1) General instruments. (2) Specialized instruments: (a) postal communication; (b) telegraph, telephone, radio communication; (c) satellite broadcasting; (d) remote sensing; (e) transborder data flows.
Informatics. (1) General instruments. (2) Specialized instruments: (a) privacy protection; (b) computer abuse; (c) electronic funds transfers; (d) computer evidence.

Declarations

Universal Declaration of Human Rights adopted by the United Nations General Assembly on 10 December 1948.

Declaration on the Granting of Independence to Colonial Countries and Peoples adopted by the United Nations General Assembly Resolution 1514 (XV) on 14 December 1960.

Proclamation of Tehran. Adopted by the International Conference on Human Rights at Tehran 22 April - 13 May 1968.

Declaration on Social Progress and Development. Proclaimed by the United Nations General Assembly in Resolution 2542 (XXIV) on 11 December 1969.

Programme of Action for the Full Implementation of the Declaration on the Granting of Independence to Colonial Countries and Peoples. United Nations General Assembly Resolution 2621 (XXV) 1970.

Declaration on the Use of Scientific and Technological Progress in the Interests of Peace and for the Benefit of Mankind. Proclaimed by the United Nations General Assembly in Resolution 3384 (XXX) on 10 November 1975.

Declaration on Race and Racial Prejudice adopted by the Twentieth session of the General Conference of Unesco, 1978.

Declaration on the Right to Development. United Nations General Assembly Resolution 41/128 Annexe adopted on 4 December 1986.

Resolutions

United Nations General Assembly Resolution 2450 (XXII), 1968. Human Rights and Scientific and Technological Development.

United Nations General Assembly Resolution 2621 (XXV), 1970. Programme of Action for the Full Implementation of the Declaration on the Granting of Independence to Colonial Countries and Peoples.

Unesco General Conference Resolution 12.1, 1976. Contribution of Unesco to Peace and its Tasks with Respect to the Promotion of Human Rights and the Elimination of Colonialism and Racialism.

Twenty-second session of the General Conference of Unesco, Resolution 3.2, Right to Communicate. Adopted 1983.

Recommendations

Recommendation Concerning Education for International Understanding, Co-operation and Peace and Education Relating to Human Rights and Fundamental Freedoms. Adopted by the Eighteenth session of the General Conference of Unesco, 1974.

Non-governmental organizations on the universal level

Universal Islamic Declaration of Human Rights. Adopted by the Islamic Council, on 19 September 1981.

Regional human rights instruments pertinent to communication.

Treaties

Convention for the Protection of Human Rights and Fundamental Freedoms signed at Rome on 4 November 1950. Entered into force on 3 September 1953.

American Convention on Human Rights adopted by the Inter-American Specialized Conference on Human Rights held at San Jose from 7 to 22 November 1969, signed at San Jose on 22 November 1969. Entered into force on 18 July 1978.

African Charter on Human and Peoples' Rights. Signed at Nairobi, June 1981.

Declarations

Declaration on Mass Communication and Human Rights adopted by the Council of Europe in Strasbourg on 23 January 1970.

Final Act of the Conference on Security and Co-operation in Europe signed at Helsinki on 1 August 1975.

Resolutions/recommendations

By the Parliamentary Assembly of the Council of Europe:

Resolution containing a Declaration on Communication Media and Human Rights. Resolution 428 (1970) adopted on 23 January 1970.

Recommendation on Human Rights and Mass Communication Media. Recommendation 582 (1970) adopted on 23 January 1970.

Freedom of information

Free and balanced flow of information

Intergovernmental organizations on the universal level

Treaties

Draft Convention on the Gathering and International Transmission of News. Submitted by the Economic and Social Council to the United Nations General Assembly, 1948.

Convention on the International Right of Correction adopted by the United Nations General Assembly in Resolution 630 (VII) on 16 December 1952. Opened for signature in New York on 13 March 1953. Entered into force on 24 August 1962.

Vienna Convention on Diplomatic Relations adopted in Vienna on 18 April 1961. Entered into force on 24 April 1964.

Vienna Convention on Consular Relations adopted in Vienna on 18 April 1961. Entered into force on 24 April 1964.

Draft Convention on Freedom of Information as adopted by the Third Committee, 1973.

Declarations

Final Declaration, Political Part, XXXIV on the New International Information and Communication Order. Adopted by the Conference of Ministers of Foreign Affairs of Non-Aligned Countries at Luanda, September 1985.

Political Declaration of the Eighth Summit Conference of the Non-Aligned Countries, Harare, 6 September 1986.

Resolutions

United Nations General Assembly Resolution 59 (I), 1946. Calling of an International Conference on Freedom of Information.

United Nations General Assembly Resolution 424 (V), 1950. Interference with Radio Broadcasts and the Freedom of Information.

United Nations General Assembly Resolution 1313 (XIII), 1958. Freedom of Information.

United Nations Economic and Social Council Resolution 756 (XXIX), 1960. Draft Declaration on Freedom of Information.

United Nations General Assembly Resolution 2448 (XXIII), 1968. Freedom of Information.

United Nations General Assembly Resolution 2879 (XXVI), 1971. Dissemination of Information on Decolonization.

United Nations General Assembly Resolution 127 (II), 1947. False or Distorted Reports.

United Nations General Assembly Resolution 634 (VII), 1952. Question of False or Distorted Information.

Resolution IV on Co-operation in Information Dissemination and Mass Media Expansion. Adopted by the Conference of Ministers of Foreign Affairs of the Non-Aligned Countries at Lima, August 1975.

United Nations General Assembly Resolution 33/115, 1978. Questions Relating to Information. A: Co-operation and Assistance to the Application and Improvement of National Information and Mass Communication Systems for Social Progress and Development. B: International Relations in the Sphere of Information and Mass Communications.

Twenty-first session of the General Conference of Unesco, Resolution 4.19, 1980. International Commission for the Study of Communication Problems.

Twenty-first session of the General Conference of Unesco, Resolution 4.21, 1980. International Programme for the Development of Communication.

United Nations General Assembly Resolution 36/149, 1981. Questions Relating to Information.

Resolution on IPDC adopted by the fifth Meeting of the Inter-Governmental Council for the Co-ordination of Information among Non-Aligned Countries at Georgetown, May 1981.

Resolution on the Role of Unesco in the Establishment of NIIO. Adopted at the fifth Meeting of the Intergovernmental Council for the Co-ordination of Information among Non-Aligned Countries at Georgetown, May 1981.

Resolution on the Participation of the Non-Aligned Countries in the Struggle for a New International Information and Communication Order, adopted at the fifth meeting of the Inter-Governmental Council for the Co-ordination of Information among Non-Aligned Countries at Georgetown, May 1981.

United Nations General Assembly Resolution 37/94 A and B, 1982. Questions Relating to Information.

United Nations General Assembly Resolution 38/82 A and B, 1983. Questions Relating to Information.

United Nations General Assembly Resolution 39/98 A and B, 1984. Questions Relating to Information.
United Nations General Assembly Resolution 40/164 A and B, 1985. Questions Relating to Information.
United Nations General Assembly Resolution 41/68 A, B, C, D, E, 1986. Questions Relating to Information.
United Nations General Assembly Resolution 42/162 A and B, 1987. Questions Relating to Information.
Resolution on the Non-Aligned Countries News Agencies Pool, adopted at the Second Conference of Ministers of Information of the Non-Aligned Countries at Harare, June 1987.
United Nation's General Assembly Resolution 43/60, 1988. Questions Relating to information.

Recommendations

Statement of the Rights, Obligations and Practices to be included in the Concept of Freedom of Information, adopted by the Sub-Commission on Freedom of Information and the Press, United Nations General Assembly, Second session, 19 January - 3 February 1948.

Intergovernmental organizations on the regional level

Declarations

Declaration on the Freedom of Expression and Information adopted by the Committee of Ministers of the Council of Europe in Strasbourg on 29 April 1982.
Final Act of the Conference on Security and Co-operation in Europe signed at Helsinki on 1 August 1975.

Recommendations

By the Committee of Ministers of the Council of Europe:
Recommendation on the Access to Information Held by Public Authorities. Recommendation No.R (81) 19 adopted on 25 November 1981 at the 340th Meeting of Ministers' Deputies.
Resolution on the Right of Reply. Position of the Individual in Relation to the Press. Resolution (74) 26 adopted on 2 July 1974 at the 233rd Meeting of Ministers' Deputies.
By the Parliamentary Assembly of the Council of Europe:
Recommendation on Freedom of Expression and the Role of the Writer in Europe. Recommendation 815 (1977) adopted on 6 October 1977.
Recommendation on Threats to the Freedom of the Press and Television. Recommendation 834 (1978) adopted on 28 April 1978.
Recommendation on International Means to Protect Freedom of Expression by Regulating Commercial Advertising. Recommendation 952 (1982) adopted on 2 October 1982.
Recommendation on Data Protection and Freedom of Information. Recommendation 1037 (1986) adopted on 3 July 1986.

Non-governmental organizations on the universal level

Resolutions

Resolution on the New International Information and Communication Order, adopted by the Tenth Congress of the International Organization of Journalists at Sofia, 25 October 1986.

Circulation and exchange of cultural materials and documents

Intergovernmental organizations on the universal level

Treaties

Convention A for the International Exchange of Official Documents, Scientific and Literary Publications. Concluded in Brussels on 15 March 1886.
Convention B for the Immediate Exchange of Official Journals, Public Parliamentary Annals and Documents. Concluded in Brussels on 15 March 1886.
Agreement for the Suppression of the Circulation of Obscene Publications, signed in Paris on 4 May 1910.
International Convention for the Suppression of the Circulation of and Traffic in Obscene Publications, signed in Geneva on 12 September 1923. Entered into force on 7 August 1924.
Convention for Facilitating the International Circulation of Films of an Educational Character signed in Geneva on 11 October 1933.

Procès-verbal concerning the Application of Articles IV, V, VI, VII, IX, XII XIII and of the Convention for Facilitating the International Circulation of Films of an Educational Character, signed in Geneva on 12 September 1938.

Agreement for Facilitating the International Circulation of Visual and Auditory Materials of an Educational, Scientific and Cultural Character (Beirut Agreement), adopted by the Third session of the General Conference of Unesco in 1948. Opened for signature from 15 July to 31 December 1949. Entered into force on 12 August 1954.

Agreement on the Importation of Educational, Scientific and Cultural Materials (Florence Agreement), adopted by the Fifth session of the General Conference of Unesco, 1950.

International Convention to Facilitate the Importation of Commercial Samples and Advertising Material, signed in Geneva on 7 November 1952.

Convention Concerning the International Exchange of Publications, adopted by the Tenth session of the General Conference of Unesco, 1958.

Convention Concerning the Exchange of Official Publications and Government Documents between States, adopted by the Tenth session of the General Conference of Unesco, 1958.

Convention Concerning the Protection of the World Cultural and Natural Heritage, adopted by the Seventeenth session of the General Conference of Unesco, 1972.

Protocol to the Agreement on the Importation of Educational, Scientific and Cultural Materials, adopted by the Nineteeth session of the General Conference of Unesco, 1976.

Declarations

Declaration of the Principles of International Cultural Co-operation, adopted by the Sixteenth session of the General Conference of Unesco, 1966.

Recommendations

Recommendation on Participation by the People at Large in Cultural Life and their Contribution to it. Adopted on 26 November 1976, at the Nineteenth session of the General Conference of Unesco.

Intergovernmental organizations on the regional level

Treaties

Inter-American Convention for the Exchange of Official, Scientific, Literary and Industrial Publications, concluded in Mexico on 27 January 1902.

Inter-American Convention on the Exchange of Publications, concluded in Buenos Aires on 23 December 1936.

Convention Concerning Facilities for Artistic Exhibitions adopted by the Inter-American Conference for the Maintenance of Peace, signed in Buenos Aires on 23 December 1936.

Recommendations

Recommendation on Aid for Artistic Creation. Recommendation No.R (85) 6, adopted on 14 May 1985 at the 385th Meeting of Ministers' Deputies.

Contribution to peace and international understanding

Intergovernmental organizations on the universal level

Treaties

International Convention Concerning the Use of Broadcasting in the Case of Peace, signed at Geneva on 23 September 1936.

Declarations

Declaration on the Promotion among Youth of the Ideals of Peace, Mutual Respect and Understanding between Peoples. United Nations General Assembly Resolution 2037 (XX), 1965.

Declaration on the Use of Scientific and Technological Progress in the Interests of Peace and for the Benefit of Mankind. United Nations General Assembly Resolution 3348 (XXX), 1975.

Declaration on the Preparation of Societies for Life in Peace. United Nations General Assembly Resolution 33/73, 1978.

Declaration on Disarmament. Final Document of the Tenth Special Session of the United Nations General Assembly as contained in its Resolution S-10/2, 1978.

Resolutions

United Nations General Assembly Resolution: 110 (II), 1947. Measures to be taken Against Propaganda and the Inciters of a New War.

Unesco General Conference Resolution 4.301, 1970. Public Information and Promotion of International Understanding.

Unesco General Conference Resolution 13.1, 1976. Role of Unesco in Generating a Climate of Public Opinion Conducive to the Halting of the Arms Race and Transition to Disarmament.

Unesco General Conference Resolution 11.1, 1978. Role of Unesco in Generating a Climate of Public Opinion Conducive to the Halting of the Arms Race and Transition to Disarmament.

Resolution on the Use of Radio as an Instrument of Dissemination of Hostile Propaganda Against the Non-Aligned Countries. Adopted at the Second Conference of Ministers of Information of the Non-Aligned Countries at Harare, June 1987.

Protection of intellectual property

Protection of industrial property

Intergovernmental organizations on the universal level

Treaties

Paris Convention for the Protection of Industrial Property concluded at Paris on 20 March 1883, revised at Brussels in 1900, at Washington in 1911, at The Hague in 1925, at London in 1934, at Lisbon in 1958 and at Stockholm in 1967. Amended in 1979.

Patent Co-operation Treaty concluded at Washington on 19 June 1970. Entered into force 1978.

Madrid Agreement for the Repression of False or Deceptive Indications of Source of Goods, concluded at Madrid on 14 April 1891. Revised at Washington in 1911, at The Hague in 1925, at London in 1934, at Lisbon in 1958 and at Stockholm in 1967.

Nairobi Treaty on the Protection of the Olympic Symbol, concluded at Nairobi on 26 September 1981.

Budapest Treaty on the International Recognition of the Deposit of Micro-organisms for the Purposes of Patent Procedure, concluded at Budapest on 28 April 1977. Amended in 1980.

Madrid Agreement Concerning the International Registration of Marks, concluded at Madrid on 14 April 1891. Revised at Brussels in 1900, at Washington in 1911, at The Hague in 1925, at London in 1934, at Nice in 1957 and at Stockholm in 1967. Amended in 1979.

Trademark Registration Treaty, concluded at Vienna on 12 June 1973. Amended in 1980.

Lisbon Agreement for the Protection of Appellations of Origin and their International Registration, concluded at Lisbon on 31 October 1958. Revised at Stockholm in 1967. Amended in 1979.

The Hague Agreement concerning the International Deposit of Industrial Designs, concluded at The Hague on 6 November, 1925. Revised at Stockholm in 1967. Amended in 1979.

Strasbourg Agreement concerning the International Patent Classification, concluded at Strasbourg on 24 March 1971.

Nice Agreement concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks, concluded at Nice on 15 June 1957. Revised at Stockholm in 1967 and at Geneva in 1977. Amended in 1979.

Locarno Agreement establishing an International Classification for Industrial Designs, concluded at Locarno on 8 October 1968. Amended in 1979.

Vienna Agreement establishing an International Classification of the Figurative Elements of Marks, concluded at Vienna on 12 June 1973.

International Convention for the Protection of New Varieties of Plants, concluded at Geneva on 2 December 1961.

Vienna Agreement for the Protection of Type Faces and Their International Deposit, concluded at Vienna on 12 June 1973. The agreement has not yet entered into force.

Intergovernmental organizations on the regional level

Treaties

Convention on Patents of Invention, Drawings and Industrial Models, Trade Marks and Literary and Artistic Property. Signed at Rio de Janeiro on 23 August 1906.

Convention on the Grant of European Patents (The European Patent Convention) signed at Munich on 5 October 1973. Entered into force on 7 October 1977.

The Community Patent Convention, signed at Luxembourg on 15 December 1975. Not yet entered into force

Protection of copyright

Intergovernmental organizations on the universal level

Treaties

Berne Convention for the Protection of Literary and Artistic Works. Berne Convention of 9 September 1886, completed at Paris (1896), revised at Berlin (1908), completed at Berne (1914), revised at Rome (1928), at Brussels (1948), at Stockholm (1967), at Paris (1971).

Universal Copyright Convention, adopted by the Intergovernmental Copyright Conference at Geneva, 1952. Opened for signature on 6 September 1952. Entered into force on 16 September 1955. Revised at Paris 1971.

Multilateral Convention for the Avoidance of Double Taxation of Copyright Royalties. Madrid Convention 1979. The Convention has not yet entered into force.

Intergovernmental organizations on the regional level

Treaties

Treaty on Literary and Artistic Property, signed at Montevideo on 11 January 1889.

Convention on Literary and Artistic Copyrights, signed at Mexico City on 27 January 1902.

Convention on Patents of Invention, Drawings and Industrial Models, Trade Marks and Literary and Artistic Property, signed at Rio de Janeiro on 23 August 1906.

Convention on Literary and Artistic Property, signed at Buenos Aires on 11 August 1910.

Convention of Buenos Aires on the Protection of Literary and Artistic Copyright as revised by the Sixth International Conference of American States, signed at Havana on 18 February 1928.

Inter-American Convention on the Rights of the Author in Literary, Scientific and Artistic Works, signed at Washington on 22 June 1946.

Arab Copyright Convention adopted by the Third Conference of Arab Ministers of Culture, meeting at Baghdad on 5 November 1981.

Recommendations

By the Committee of Ministers of the Council of Europe:

Recommendation on Principles Relating to Copyright Law Questions in the Field of Television by Satellite and Cable. Recommendation No.R (86) 2 adopted by the Committee of Ministers on 14 February 1986 at the 393rd meeting of Ministers' Deputies.

Recommendation on Copyright and Cultural Policy. Recommendation No.R (86) 9 adopted by the Committee of Ministers on 22 May 1986 at the 397th Meeting of Ministers' Deputies.

Recommendation on Sound and Audio-visual Private Copying. Recommendation No. R (88)1. Adopted by the Committee of Ministers.

Recommendation on Measures to Combat Piracy in the Field of Copyright and Neighbouring Rights. Recommendation No. R (88) 2 adopted by the Committee of Ministers.

Protection of neighbouring rights

Intergovernmental organizations on the universal level

Treaties

International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations. Rome Convention 1961. Signed at Rome on 26 October 1961.

Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of their Phonograms. Phonograms Convention, Geneva 1971. Signed at Geneva on 29 October 1971.

Convention Relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite. Satellites Convention, Brussels 1974. Signed at Brussels on 21 May 1974.

Resolutions/recommendations

Recommendation on the Legal Protection of Translators and Translations and the Practical Means to Improve the Status of Translators, adopted by the Nineteenth session of the General Conference of Unesco, Nairobi, 22 November 1976.

Recommendation Concerning the Status of the Artist, adopted by the Twenty-first session of the General Conference of Unesco, Belgrade, 27 October 1980.

Recommendation for the Safeguarding and Preservation of Moving Images, adopted by the Twenty-first session of the General Conference of Unesco, 27 October 1980.
Resolution on the Desirability of Adopting an International Instrument on the Protection of Works in the Public Domain, adopted by the Twenty-fourth session of the General Conference of Unesco, 1987.

Protection sui generis

Intergovernmental organizations on the universal level

Draft Treaty for the Protection of Expressions of Folklore Against Illicit Exploitation and Other Prejudicial Actions, prepared by WIPO/Unesco Group of Experts, December 1984.
Draft Treaty on the Protection of Intellectual Property in Respect of Integrated Circuits, prepared by WIPO/Unesco Group of Experts, 28 June 1985.

Intergovernmental organizations on the regional level

Council Directive on the Legal Protection of Topographies of Semiconductor Products, adopted by the Council of European Communities at Brussels on 16 December 1986.

Trade in services

General trade instruments

Intergovernmental organizations on the universal level

Treaties

The General Agreement on Tariffs and Trade, concluded at Geneva on 30 October 1947. Supplemented by the following codes: Government Procurement Code, Geneva, 11 April 1979; Subsidies and Countervailing Duties Code, Geneva, 12 April 1979; Anti-Dumping Code, Geneva, 12 April 1979; Customs Valuation Code, Geneva, 12 April 1979; Licensing Code, Geneva, 12 April 1979.
Convention Establishing a Customs Co-operation Council. Signed in Brussels, 1950.

Resolutions

United Nations General Assembly Resolution 1995 (XIX), 1964. Establishment of the United Nations Conference on Trade and Development.

Codes of conduct

Draft International Code of Conduct on the Transfer of Technology. In preparation by the United Nations Conference on Trade and Development, Geneva.
Draft United Nations Code of Conduct on Transnational Corporations. In preparation by the United Nations Centre on Transnational Corporations, New York.

Intergovernmental organizations on the regional level

Charter of the Council for Mutual Economic Assistance, agreed at Sofia on 14 December 1959. Amended by Protocols of 21 June 1974 and 28 June 1979.
Treaty Establishing the European Economic Community, signed at Rome on 25 March 1957.

Services-related instruments

Code of Liberalization of Current Invisible Operations, adopted by OECD Member States at Paris on 12 December 1961.
Ministerial Declaration on the Uruguay Round of Negotiations on Trade in Services. Adopted by Ministers Participating in the GATT Conference at Puenta del Este, 1986.

Mass communication

General mass media policy

Intergovernmental organizations on the universal level

Declarations

Declaration on Fundamental Principles Concerning the Contribution of the Mass Media to Strengthening Peace and International Understanding, to the Promotion of Human Rights and to Countering Racialism, Apartheid and Incitement to

War, proclaimed by the Twentieth session of the General Conference of Unesco on 28 November 1978.
Jakarta Appeal to the Mass Media issued by the General Conference of the Ministers of Information of the Non-Aligned Countries at Jakarta, January 1984.
Harare Appeal to the Mass Media issued by the Second Conference of the Ministers of Information of the Non-Aligned Countries at Harare, June 1987.

Resolutions

Seventeenth session of the General Conference of Unesco, Resolution 4.113, 1972. Preparation of a Draft Declaration Concerning the Fundamental Principles Governing the Use of the Mass Media.
Resolution IV on Co-operation in Information Dissemination and Mass Media Expansion, adopted by the Conference of Ministers of Foreign Affairs of the Non-Aligned Countries at Lima, August 1975.
Twenty-first session of the General Conference of Unesco, Resolution 4.20, 1980. Application of the Mass Media Declaration.

Intergovernmental organizations on the regional level

Treaties

Convention of the Panafrican News Agency adopted at the Second Session of the Conference of African Information Ministers at Addis Ababa, April 1979.
Statutes of the Union of Radio and Television Organizations of Africa (URTNA) adopted by the URTNA General Assembly at Brazzaville, January 1985. Entered into force on 30 January 1985.

Resolutions/recommendations

Recommendation on Equality between Women and Men in the Media. Recommendation No. R (84) 17 adopted on 25 September 1984 at the 375th Meeting of Ministers' Deputies (Council of Europe).
Resolutions of the European Ministerial Conference on Mass Media Policy, adopted at Vienna on 9-10 December 1986 (Council of Europe).
Recommendation on Relations of National Parliaments with the Media. Recommendation 820 (1984), adopted on 7 May 1984, (Council of Europe).
Recommendation on Council of Europe Work Relating to the Media. Recommendation 996 (1984), adopted on 3 October 1984.
San José Declaration adopted by Unesco Member States in the Latin America and Caribbean Region, 12-21 July 1976.
Kuala Lumpur Declaration adopted by Representatives of the States of Asia and Oceania, Members of Unesco, 5-14 February 1979.
Yaoundé Declaration adopted by the Representatives of the African States, Members of Unesco, 22-31 July 1980.
Declaration by the European Ministerial Conference on Mass Media Policy at Vienna, December 1986.
Khartoum Declaration adopted by the Representatives of the Arab States, 19-23 July 1987.

Broadcasting, film, and the press

Intergovernmental organizations on the universal level

Treaties

International Convention Concerning the Use of Broadcasting in the Cause of Peace, signed at Geneva on 23 September 1936.

Resolutions

Resolution on the Use of Radio as an Instrument of Dissemination of Hostile Propaganda Against the Non-Aligned Countries. Adopted at the Second Conference of Ministers of Information of the Non-Aligned Countries at Harare, June 1987.

Recommendations

Recommendation Concerning the International Standardization of Statistics Relating to Book Production and Periodicals. Thirteenth session of the General Conference of Unesco, 19 November 1964.
Recommendation Concerning the International Standardization of Library Statistics. Sixteenth session of the General Conference of Unesco, 13 November 1970.
Recommendation Concerning the International Standardization of Statistics on Radio and Television. Nineteenth session of the General Conference of Unesco, 22 November 1976.

Recommendation for the Safeguarding and Preservation of Moving Images. Twenty-first session of the General Conference of Unesco, 27 October 1980.
Recommendation Concerning the International Standardization of Statistics on the Production and Distribution of Books, Newspapers and Periodicals. Twenty-third session of the General Conference of Unesco, 1 November 1985.

Intergovernmental organizations on the regional level

Treaties

European Agreement Concerning Programme Exchanges by Means of Television Films, adopted at Paris on 15 December 1958.
European Agreement on the Protection of Television Broadcasts, adopted at Strasbourg on 22 June 1960. Protocol adopted at Strasbourg on 22 June 1960. Additional Protocol adopted at Strasbourg on 22 January 1965. Entered into force on 1 January 1985.
European Agreement for the Prevention of Broadcasts Transmitted from Stations Outside National Territories adopted at Strasbourg on 22 January 1965.
European Convention on Transfrontier Television, adopted at Strasbourg on 15 March 1989.

Resolutions/recommendations

By the Committee of Ministers of the Council of Europe:
Resolution on the Exchange of Television Programmes. Resolution (61) 23, adopted by the Committee of Ministers on 15 September 1961.
Resolution on the Press and the Protection of Youth. Resolution (67) 13, adopted by Ministers' Deputies on 29 June 1967.
Resolution on Educational and Cultural Uses of Radio and Television in Europe and the Relations in this Respect between Public Authorities and Broadcasting Organisations. Resolution (70) 19, adopted by Ministers' Deputies on 5 June 1970.
Resolution on the Right to Reply-Position of the Individual in the Relation to the Press. Resolution (74) 26, adopted by the Committee of Ministers on 2 July 1974.
Resolution on Press Concentrations. Resolution (74) 43, adopted on 16 December 1974 at the 240th Meeting of Ministers' Deputies.
Recommendation on Sport and Television. Recommendation No. R (80) 1, adopted on 24 January 1980 at the 313th Meeting of Ministers' Deputies.
Recommendation on Principles on Television Advertising. Recommendation No. R (84) 3, adopted on 23 February 1984 at the 367th Meeting of Ministers' Deputies.
Recommendation on the Conservation of the European Film Heritage. Recommendation No. R (85) 8, adopted on 14 May 1985 at the 385th Meeting of Ministers' Deputies.
Recommendation on the Promotion of Audio-visual Production in Europe. Recommendation No. R (86) 3, adopted on 14 February 1986 at the 393rd Meeting of Ministers' Deputies.
Recommendation on Press Concentrations. Recommendation 747 (1975), adopted on 23 January 1975.
Recommendation on the Role and Management of National Broadcasting. Recommendation 748 (1975), adopted on 23 January 1975.
Recommendation on European Broadcasting. Recommendation 749 (1975), adopted on 23 January 1975.
Recommendation on Cinema and the State. Recommendation 862 (1979) adopted on 11 May 1979.

By the Commission of the European Communities:
Television Without Frontiers: Green Paper on the establishment of a common market for broadcasting, concerning cable and satellite in particular. Com (84) 300 Final EEC Commission, June 1985.
Council Directive Concerning Broadcasting Activities. Draft Directive on the Coordination of Certain Provisions Laid Down by Law, Regulation or Administrative Action in Member States Concerning the Pursuit of Broadcasting Activities. Sent to the Council of Ministers by the EEC Commission on 29 April 1986.
Common Position on the Co-ordination of Certain Provisions Laid Down by Law, Regulation or Administrative Action in Member States Concerning the Pursuit of Television Broadcasting Activities, adopted on 13 April 1989 by the Council of the EEC.

Journalism

Intergovernmental organizations on the universal level

Resolutions

United Nations Economic and Social Council Resolution 442B(XIV), 1952. Draft International Code of Ethics.
United Nations General Assembly Resolution 2673(XXV), 1970. Protection of Journalists Engaged in Dangerous Missions in Areas of Armed Conflict.

Non-governmental organizations on the universal level

Charter of the International Court of Honour, 1931 adopted in The Hague in 1931.
Principles adopted by the Congress of the International Union of Press Associations. Adopted in Prague in 1936.
Professional Code of Honour adopted by the International Federation of Journalists, 1939.
Declaration of Principles on the Conduct of Journalists adopted by the International Federation of Journalists at its second World Congress, Bordeaux, France, April 1954.
Mexico Declaration adopted by representatives of International and Regional Organizations of Professional Journalists in Mexico City on 3 April 1980.
International Principles of Professional Ethics in Journalism issued by the Fourth Consultative Meeting of International and Regional Organizations of Working Journalists, held in Prague and Paris in 1983.
Talloires Declaration adopted by Independent News Organizations at the Voices of Freedom Conference in Talloires, France on 15-17 May 1981.
Declaration of London adopted by the Voices of Freedom Conference convened at London, January 1987 by the World Press Freedom Committee.
Position of the International Catholic Union of the Press on International Principles of Professional Ethics in Journalism, approved by the Council of ICUP at Boston on 1 June 1988.

Non-governmental organizations on the regional level

Code of Journalistic Ethics adopted by the Pan American Press Conference, Washington, 1926.
Code of Ethics. Inter-American Press Association, New York, 1950.
Declaration of Ethical Principles adopted by the Inter-American Association of Broadcasters at Lima, Peru, 1955.
Declaration of Principles adopted by FELAP at Caracas, 1977.
Declaration of Rights and Obligations of Journalists, approved by Representatives of the Journalists Unions of Six Countries of the European Community at Munich on 23-24 November 1971.
Code of Professional Ethics for Arab Journalists adopted by the Arab League in August 1977.

Advertising, marketing, consumer information

Intergovernmental organizations on the universal level

Resolutions

United Nations Resolution 1981/62, 1981. Guidelines for Consumer Protection.
United Nations General Assembly Resolution 37/137, 1982. Consolidated Directory listing Products Harmful to Health and the Environment.
International Code of Conduct on the Distribution and Use of Pesticides. Resolution 10/85 passed by the United Nations Food and Agriculture Organization Conference, at Rome on 28 November 1985.

Recommendations

International Code of Marketing of Breast-Milk Substitutes, adopted by the World Health Organization in Geneva on 21 May 1981.
United Nations Consumer Protection Guidelines, passed by the General Assembly without vote, April 1985.

Intergovernmental organizations on the regional level

Resolutions

By the European Communities:
Council Resolution on a Preliminary Programme of the European Economic Community for a Consumer Protection and Information Policy, adopted on 14 April 1975. Council Resolution on a Second Programme of the European Economic Community for a Consumer Protection and Information Policy, adopted on 19 May 1981.
Council Directive Relating to the Approximation of the Laws, Regulations and Administrative Provisions of the Member States concerning Misleading Advertising, adopted on 10 September 1984.

Recommendations

Recommendation of the Committee of Ministers to Member States Concerning Consumer Education of Adults and Consumer Information. Recommendation No. R(79)1 adopted on 6 February 1979 at the 299th Meeting of Ministers' Deputies.
Recommendation on Principles on Television Advertising. Recommendation No. R (84) 3 adopted on 23 February 1984 at the 367th Meeting of Ministers' Deputies.

Non-governmental organizations on the universal level

International Code of Advertising Practice, adopted by the International Chamber of Commerce in 1937, and revised in 1973.

Public relations

Non-governmental organizations on the universal level

International Public Relations Association Code of Conduct, adopted at Venice, May 1961.
International Code of Ethics, adopted by the International Public Relations Association at Athens on 12 May 1965. Modified at Tehran on 17 April 1968.

Telecommunications

General instruments

Intergovernmental organizations on the universal level

Treaties

Convention on the Continental Shelf signed at Geneva on 29 April 1958. Entered into force on 10 June 1964.
Convention on the High Seas signed at Geneva on 29 April 1958. Entered into force on 30 September 1962.
Operating Agreement Relating to the International Telecommunications Organization "Intelsat" signed at Washington on 20 August 1971. Entered into force on 12 February 1973.
Convention on the International Maritime Satellite Organization (INMARSAT) signed at London on 3 September 1976. Entered into force on 16 July 1979.
Operating Agreement on the International Maritime Satellite Organization (INMARSAT) signed at London on 3 September 1976. Entered into force on 16 July 1979.
Protocol on the Privileges and Immunities of the International Maritime Satellite Organization (INMARSAT) signed at London on 1 December 1981.
Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space Including the Moon and Other Celestial Bodies (Outer Space Treaty) opened for signature at Washington, London and Moscow on 27 January 1967. Entered into force on 10 October 1967.

Resolutions

United Nations General Assembly Resolution 1721 (XVI), 1961. International Co-operation in the Peaceful Uses of Outer Space.
United Nations General Assembly Resolution 1802 (XVII), 1962. International Co-operation in the Peaceful Uses of Outer Space.
United Nations General Assembly Resolution 1962 (XVIII), 1963. Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space.

United Nations General Assembly Resolution 2733 (XXV), 1970. International Co-operation on the Peaceful Uses of Outer Space.
Final Acts adopted by the First Session of the World Administrative Radio Conference on the Use of the Geostationary-Satellite Orbit and the Planning of Space Services Utilizing It, signed at Geneva on 15 September 1985.

Intergovernmental organizations on the regional level

Treaties

Convention for the Establishment of a European Space Agency, signed at Paris on 30 May 1975.
The Agreement of the Arab Corporation for Space Communications, signed at Cairo on 14 April 1976.
Convention Establishing the European Telecommunications Satellite Organization "Eutelsat". Opened for signature at Paris on 15 July 1982. Entered into force on 1 September 1985.
Operating Agreement Relating to the European Telecommunications Satellite Organization "Eutelsat", signed at Paris on 15 July 1982. Entered into force on 1 September 1985.

Declarations

Arusha Declaration on Worldwide Telecommunications Development, adopted at the First World Telecommunications Conference at Arusha, May 1985.

Recommendations

Recommendation Concerning the Practical Application of the European Convention on Mutual Assistance in Criminal Matters in Respect of Letters Rogatory for the Interception of Telecommunications. Recommendation No.R(85) 10 adopted by the Committee of Ministers of the Council of Europe on 28 June 1985.

Specialized instruments

Postal communication

Intergovernmental organizations on the universal level

Treaties
Universal Postal Convention signed at Lausanne, 1974.

Intergovernmental organizations on the regional level

Treaties
Asian-Pacific Postal Convention, signed at Bangkok, on 4 December 1985.

Declarations
Havana Postal Declaration Regarding the Priorities of the Postal Union of the Americas and Spain for the Next Five-Year Period, adopted at the Thirteenth Congress of the Postal Union of the Americas and Spain at Havana on 25 and 26 March 1985.

Telegraph, telephone, radio communication

Intergovernmental organizations on the universal level

Treaties
Convention for the Protection of Submarine Cables, signed at Paris on 14 March 1884.
Telegraph Regulations contained in Final Acts of the World Administrative Telegraph and Telephone Conference, Geneva, 1973, signed at Geneva on 11 April 1973.
Telephone Regulations contained in Final Acts of the World Administrative Telegraph and Telephone Conference, Geneva, 1973, signed at Geneva on 11 April 1973.
Radio Regulations as revised by the World Administrative Radio Conference, 1979, Geneva, and as partially revised by the World Administrative Radio Conference for the Mobile Services, 1983, Geneva, and as partially revised by the First Session of the World Administrative Radio Conference on the Use of the Geostationary-Satellite Orbit and the Planning of Space Services Utilizing It, 1985, Geneva.
Final Acts of the World Administrative Radio Conference to Deal with Matters Relating to the Maritime Mobile Service; Inter- national Telecommunication Union, signed at Geneva, 1967.
Final Acts of the World Administrative Maritime Radio Conference. International Telecommunication Union, signed at Geneva, 1974.
Final Acts of the World Administrative Radio Conference on the Aeronautical Mobile Service. International Telecommunication Union, signed at Geneva, 1978.
Final Acts of the World Administrative Radio Conference for the Mobile Services. International Telecommunication Union, signed at Geneva, 1983.

Intergovernmental organizations on the regional level

Treaties

Inter-American Radio Agreement between the United States and other American Republics, signed at Washington on 9 July 1949. Entered into force on 13 April 1952.

North American Regional Broadcasting Agreement, signed at Washington on 15 November 1950. Entered into force on 19 April 1960.

Regional Agreement For the European Broadcasting Area, Stockholm Agreement, 1961.

Regional Agreement For the African Broadcasting Area. International Telecommunication Union, Geneva, 1963.

Final Acts of the African VHF/UHF Broadcasting Conference. International Telecommunication Union, Geneva, 1963.

Final Acts of the African LF/MF Broadcasting Conference. International Telecommunication Union, Geneva, 1966.

Agreement on a Unified System of Connection Technology signed by Comecon Member States 1981.

Agreement on a Unified System of Digital Transmission Technology signed by Comecon Member States in 1981.

Final Acts of the Regional Administrative Broadcasting Conference. International Telecommunication Union, at Rio de Janeiro, 1981.

Convention of the Pan African Telecommunications Union, adopted by the Plenipotentiaries of Governments Members of the Pan African Telecommunications Union at Kinshasa, January 1982. Amended at Arusha, 1986.

Final Acts of the Regional Administrative Radio Conference of the Members of the Union in the European Broadcasting Area to revise certain parts of the Stockholm Agreement, 1961. International Telecommunication Union, Geneva, 1985.

Final Acts of the Regional Administrative Conference for the Planning of the Maritime Radionavigation Service (Radiobeacons) in the European Maritime Area. International Telecommunication Union, Geneva, 1985.

Agreement on a Unified System for Transmission by Optical Cables, signed by Comecon Member States in 1985.

Final Acts of the Regional Administrative Conference of the Members of the Union in the African Broadcasting Area to Abrogate Certain Parts of the Geneva Agreement. International Telecommunication Union, Geneva, 1985.

Agreement on a Unified Mobile VHF Radio Telephone System, signed by Comecon Member States in 1986.

Resolutions/recommendations

By the Commission of the European Communities:

Towards a dynamic economy: Green Paper on the Development of the Common Market for Telecommunication Services and Equipment. Com (87) 290 at Brussels, on 30 June 1987.

Towards a competitive community-wide telecommunications market in 1992. Programme of action, implementing the Green Paper (1987), at Brussels, on 9 February 1988.

By the Council of the European Economic Community:

Recommendation 84/549/EEC Concerning the Implementation of a Common Approach in the Field of Telecommunications, at Brussels, on 12 November 1984.

Recommendation 84/550/EEC Concerning the First Phase of Opening up Access to Public Telecommunications Contracts, at Brussels, on 12 November 1984.

Council Decision on a Definition Phase for an R&D Programme in Advanced Communications Technologies for Europe. 85/372/EEC/, at Brussels, on 25 July 1985.

Recommendation on the Co-ordinated Introduction of the Integrated Services Digital Network (ISDN) in the European Community. 86/659/EEC, at Brussels, on 22 December 1986.

Directive on the Initial Stage of the Mutual Recognition of Type Approval For Telecommunications Terminal Equipment. 86/361/EEC, at Brussels, on 24 July 1986.

Resolution on the Use of Videoconference and Videophone Techniques for Intergovernmental Applications. 86/C/160/01, at Brussels, on 9 June 1986.

Regulation Instituting a Community Programme for the Development of Certain Less-favoured Regions of the Community by Improving Access to Advanced Telecommunications Services. 86/3300/EEC, at Brussels, on 27 October 1986.

Directive on the Adoption of Common Technical Specifications of the MAC/Packet Family of Standards for Direct Satellite Television Broadcasting. 86/529/EEC, at Brussels, on 3 November 1986.
Decision on Standardisation in the Field of Information Technology and Telecommunications. 87/95/EEC, at Brussels, on 22 December 1986.
Proposals before the Council of the European Economic Community:
Proposal for a Council Regulation of 29 October 1986 on a Community Action in the Field of Telecommunications Technologies (RACE).
Proposal for a Council Regulation of 1 December 1986 Introducing the Preparatory Phase of a Community Programme on Trade Electronic Data Interchange Systems (TEDIS).
Proposal for a Council Regulation of 30 January 1987 on the Co-ordinated Introduction of Public Pan-European Digital Mobile Communications in the European Community and Proposal for a Council Directive on the Frequency Bands to be Made Available for the Co-ordinated Introduction of Public Pan-European Digital Mobile Communications in the European Community.

Non-governmental organizations on the universal level

Policy statements by the International Chamber of Commerce on Telecommunication. Position Paper No.6: ISDN-A Future Universal Telecommunications Network: a Business User's View, adopted November 1985. Position Paper No.9: Telecommunication Standards–a new Dimension for International Business, adopted December 1986. Position Paper No.10: Worldwide Information Technology without Barriers–a Business User's Goal, adopted December 1987.
European Telecommunications Users' Association. The European Telecoms Users' Credo, adopted October 1987.

Satellite broadcasting

Intergovernmental organizations on the universal level

Declarations

Declaration of Guiding Principles on the Use of Satellite Broadcasting for the Free Flow of Information, the Spread of Education and Greater Cultural Exchange, adopted by the Seventeenth session of the General Conference of Unesco, 1972.

Resolutions
United Nations General Assembly Resolution 2916 (XXVIII), 1972. Preparation of an International Convention on Principles Governing the Use by States of Artificial Earth Satellites For Direct Television Broadcasting.
United Nations General Assembly Resolution 37/92, 1983. Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting.

Intergovernmental organizations on the regional level

Resolutions/recommendations
Recommendation on Questions Raised by Cable Television and by Direct Satellite Broadcasts. Recommendation 926 (1981), adopted on 7 October 1981 (Council of Europe).
Recommendation of the Committee of Ministers of the Council of Europe on Satellite Use, adopted by the Committee of Ministers on 7 December 1984 at the 378th Meeting of Ministers' Deputies.
Recommendation on the Use of Satellite Capacity for Television and Sound Radio. Recommendation No.R. (84) 22 adopted by the Committee of Ministers on 7 December 1984 at the 378th meeting of Ministers' Deputies.
Resolution on the Use of Regional Satellite Communications Systems, adopted by the Second Conference of the Ministers of Information of the Non-Aligned Countries at Harare on 10-12 June 1987.

Remote sensing from space

Intergovernmental organizations on the universal level

United Nations General Assembly Resolution 41/65, 1986. Principles Relating to Remote Sensing of the Earth from Space.

Intergovernmental organizations on the regional level

The Bogotá Declaration signed in Bogotá, by the States participating in the First Meeting of Equatorial Countries, 3 December 1976.

Transborder data flows

Guidelines Governing the Protection of Privacy and Transborder Flows of Personal Data. Organisation for Economic Co-operation and Development, adopted at Paris on 23 September, 1980.
Declaration on Transborder Data Flows. Adopted by OECD Ministers at Paris on 11 April 1985.

Informatics

General instruments

Constitution of the International Criminal Police Organization, adopted at Paris, 1956.
Convention of the Intergovernmental Bureau For Informatics established at Paris on 11-13 December 1974, by United Nations General Assembly Resolution.
Declaration of Mexico on Informatics, Development and Peace, adopted during the Preparatory Meeting for SPIN 1983. Sponsored by the Intergovernmental Bureau for Informatics at Mexico City on 22-23 June 1981.

Intergovernmental organizations on the regional level

Agreement on a Unified Microcomputer System, signed in 1971 by Comecon Member States.
Reflections from Cali. Meeting on Informatics and Sovereignty: Informatics, Strategy for Regional Integration, at Cali (Colombia), on 10-12 May 1984. Sponsored by the Government of the Republic of Colombia and the Intergovernmental Bureau for Informatics.
The Declaration of Yamoussoukro adopted at Yamoussoukro on 29 March 1985. Meeting on Informatics and Sovereignty sponsored by the Intergovernmental Bureau for Informatics.

Specialized instruments

Privacy protection

Guidelines Governing the Protection of Privacy and Transborder Flows of Personal Data. Organisation for Economic Co-operation and Development, adopted at Paris on 23 September 1980.
Convention for the Protection of Individuals with Regard to Automatic Processing of Personal Data. Council of Europe, adopted at Strasbourg on 28 January 1981.
Guidelines on the Use of Computerized Personal Files, prepared by the United Nations Commission on Human Rights Sub-Commission on Protection of Discrimination and Protection of Minorities, adopted by the Commission on 29 August 1985.

Resolutions/Recommendations

By the European Parliament:
Resolution Relating to the Protection of the Individual Against the Technical Evolution of Informatics, adopted on 8 April 1976.
Resolution Relating to the Protection of the Rights of the Individual in the Face of Technical Developments in Data Processing, adopted on 8 May 1979.
Resolution Relating to the Protection of the Rights of the Individual in the Face of Technical Developments in Data Processing, adopted on 9 March 1982.

By the Parliamentary Assembly of the Council of Europe:
Recommendation on Data Protection and Freedom of Information. Recommendation 1037 (1986) adopted on 3 July 1986.
By the Committee of Ministers of the Council of Europe:
Resolution on Protection of Privacy of Individuals *vis-à-vis* Electronic Data Banks in the Private Sector. Resolution No.(73) 22, adopted on 26 September 1973.
Resolution on the Protection of the Privacy of Individuals *vis-à-vis* Electronic Data Banks in the Public Sector. Resolution No.(74) 29, adopted on 20 September 1974.
Recommendation on Exchange of Legal Information Relating to Data Protection. Recommendation No.R (80) 13, adopted on 18 September 1980.
Recommendation on Regulations for Automated Medical Data Banks. Recommendation No.R (81) 1, adopted on 23 January 1981.

Recommendation Concerning the Protection of Users of Computerized Legal Information Services. Recommendation No.R (83)3, adopted on 22 February 1983.

Recommendation on the Protection of Personal Data Used for Scientific Research and Statistics. Recommendation No.R (83) 10, adopted on 23 September 1983.

Recommendation on the Protection of Personal Data Used for Social Security Purposes. Recommendation No.R (86) 1, adopted on 23 January 1986.

Recommendation Regulating the Use of Personal Data in the Police Sector. Recommendation No.R(87)15, adopted on 17 September 1987.

Non-governmental organizations on the universal level

Policy statement by the Council of the International Chamber of Commerce. Position Paper No.5: Privacy Legislation, Data Protection and Legal Persons, adopted June 1984.

Protection of Privacy and Transborder Data Flows of Personal Data used in International Air Transport of Passengers. Recommended practice adopted by the IATA Passenger Services Conference, at Miami, September 1987.

Computer abuse

Recommendations of the OECD Working Group on Computer Crime, Paris, 1985.

Electronic funds transfers

Draft Recommendation Regarding a European Code of Conduct Relating Electronic Payment. Commission of the European Communities 87/598/EEC, at Brussels on 8 December 1987.

Draft Proposal for a Council Directive Concerning the Consumer and Modern Means of Payment. Commission of the European Communities, April 1988.

Computer evidence

Convention on Facilitation of International Maritime Traffic, adopted by the International Maritime Organization at London on 9 April 1965.

Convention on the Carriage of Goods by Sea, adopted by the United Nations Conference on the Carriage of Goods by Sea at Hamburg on 31 March 1978.

Resolution A 452 (XI) of the Assembly of the International Maritime Organization, on 15 November 1979.

Recommendation on the Harmonization of Laws Relating to the Requirement of Written Proof and to the Admissibility of Reproduction of Documents and Recordings on Computers. Recommendation No.R (81) 20 of the Committee of Ministers of the Council of Europe, adopted on 11 December 1981.

Recommendation of the Customs Co-operation Council Concerning the Transmission and Authentication of Goods Declarations which are Processed by Computer, adopted at Brussels on 16 June 1981.

Recommendation No.13 adopted by the Working Party on Facilitation of International Trade Procedures of the United Nations Economic Commission for Europe, at Geneva, March 1979.

Recommendation No.18 adopted by the Working Party on Facilitation of International Trade Procedures of the United Nations Economic Commission for Europe, at Geneva, September 1982

Recommendation on Automatic Data Processing by the United Nations Commission on International Trade Law. 18th Session June 1985.

Resolution of the Customs Co-operation Council Concerning the Use of Computer-readable Data as Evidence in Court Proceedings, adopted at Brussels, June 1986.

7. New communication approaches and audiences

Most of the information contained in the earlier chapters of the Report has been concerned with "mainstream" media, mass communication channels and their audiences, and the development of information industries. The statistical information provided later in Chapter 9 is also focused primarily on the production, distribution and circulation of mass information.

There have, however, been numerous attempts to create alternative communication channels and opportunities for those whose needs are not satisfied by mass media, or who are in some way excluded from their current structure and output. Many individuals and institutions seek to enlist the media in support of developmental programmes of various kinds, to enlarge their range of media outreach, and to secure greater understanding of the ways in which information transmitted by the mass media is received and applied in various social contexts.

The field of social communication is vast, and in this chapter no more than a cross-section of alternative approaches can be described.

The first section looks at varied attempts that have been made in recent years to extend the range of communication media, and to provide alternative channels for specific audiences. In a second section, an account is given of particular approaches to the question of women in communication, and of positive attempts and actions to increase women's access and opportunity, both with regard to media content, and to their participation in media production and management. Finally, the third section looks at the increasing number of efforts being made, by Unesco and others, to promote media education, i.e. efforts to increase the perception, understanding and interpretative skills of those regularly exposed to the mass media.

Alternatives to mainstream media

New communication approaches and audiences may be conveniently grouped in four general categories: *community media*; *alternative communication*; *access to mainstream media*; and *participation in media management and production*. At the level of concrete experiences, however, these categories are often overlapping. For example, community media are also sometimes seen by their protagonists as "alternative" to mainstream media and as a model of participation in media management and production. Likewise, a common theme running through most of the new communication approaches, in contrast to what is termed mainstream media, is some form of participation by media users.

"Community" is understood in its sociological and geographic meaning as the base unit of horizontal social organization. *Community media* are those media which are designed to encourage participation by a broad, representative cross-section of socio-economic levels, organizations and minority or subcultural

groups within a community. In some cases, community media can refer to a specific geographic or geo-cultural group: a mountain valley, a particular ethnic community.

Community communication is present in all regions of the world. In Africa, Asia, Latin America and the Caribbean it is closely linked to development programmes and to a rich and diverse cultural heritage. In Europe and North America it stems from traditions of local government and regional and ethnic autonomy.

Alternative communication refers to those communication structures and traditions that are established as a supplement to the mainstream tradition, because the latter does not fully satisfy the communication needs of certain groups.

Access to mainstream media refers to established processes which permit users to provide relatively open and unedited input into the mass media. Many experiences of access to mainstream media have occurred in Canada and the United States, either as a result of the development of cheap presses, local radio and cable technologies, or where local government encourages citizens' access to mainstream media.

Participation in media management and production refers to practices which give media users a voice in the functions of the media. Participation is present in almost all forms of community media, alternative communication and, by definition, access to mainstream media.

New communication approaches and audiences exist in almost every region of the world, from industrialized European cities to small rural villages in Africa. The experiences vary greatly in size and impact. Their life-spans can stretch from a couple of months to a generation or more. Some of the experiences operate in virtual isolation; others are closely tied to national, regional, and international networks of meetings, publications, shared interests and activities. Some of the new communications approaches are encouraged by churches (e.g. the World Association for Christian Communication, the World Council of Churches, the Lutheran World Foundation, the International Catholic Association for Radio and Television - UNDA), political parties, and development organizations. Others survive with modest contributions from their own members.

New communication approaches and audiences range from age-old practices of songs and dances in India, contemporary political theatre in South Africa, to sophisticated networks of alternative data bases in Brazil and the United States of America. The field is as vast as mainstream communication itself.

Some characteristic experiences, on a region-by-region basis, are recorded below; they are, however, only a handful of the many experiments in this field.

Africa

In spite of Africa's rich and varied cultural heritage, new communication approaches and audiences have been relatively scarce in the last few years. This is partly the result of the slow economic growth (and in some cases decline) of the region and the difficulty of obtaining technical equipment and ensuring a constant supply of raw materials, particularly newsprint and spare parts. It is also the consequence of central governments' increasing use of the media to achieve national unity in linguistically and culturally fragmented societies and consequently their discouragement of autonomous, regional and local development of newspapers, radio or television. Though the exceptions to this view are rare, they are often significant.

Community media

The adoption of European models of broadcasting in much of Africa, often coupled with an effective central governmental control over media, has not been conducive to the establishment of local and community radio. The exceptions to government radio are usually attempts to use radio for development education rather than as genuine community media.

For example, in 1964/65, Ghana experimented with radio farm forums based on Canadian experience; in the Gambia, between 1982 and 1984, a project to promote oral rehydration used radio, posters and interpersonal channels. In *Kenya*, from 1980 to 1985, a radio-based experience taught English to school children in selected rural communities. In *Mali* a network of rural audio libraries began in 1980. The cassettes, recorded in local languages, enabled rural populations to learn about their histories and traditions, primary health care and agricultural techniques. In the *Congo*, Radio Rurale conducts health campaigns, seminars with women and training for farmers.

Some countries have experimented with the expansion of community access to radio. In *Kenya* the Homa Bay Pilot Community Radio Station operated from 1982 to 1984. It used a simple, low-powered VHF transmitter and audio mixer to broadcast development-oriented programmes mainly in the Luo language. Local community radio stations have since been set up in Apam, a small fishing community in

Ghana; in *Burkina Faso*; and in *Burundi*. *Liberia* began a rural communications network and inaugurated the first community radio stations in 1986.

Côte d'Ivoire, *Kenya*, *Niger* and *Zimbabwe* have programmes to extend television services to the rural communities. In *Zimbabwe* television sets and video cassette recorders were installed in community centres at various district "growth points" throughout the country. Video tapes of development projects as well as entertainment programmes were recorded in rural areas and circulated to all growth points.

Though drama is more properly an interpersonal medium, theatre has nonetheless been a central forum for socio-political development and contemporary African cultural expression. As early as the 1950s, the agricultural extension systems in *Ghana* and *Uganda* trained extension workers to portray through drama the financial losses from pests and plant diseases and persuade farmers to join production schemes. The programmes' success influenced the Ministry of Agriculture in *Malawi* to set up an agricultural information programme based on 13 mobile puppetry vans that toured the country putting on 4,000 puppet performances a year for about 1.5 million people. Later, countries in Central and Southern Africa trained agricultural extension staffs to use theatre as a communication tool. In *Botswana* popular theatre taught farming methods and improved the organizational ability of farmers.

University theatre departments in Ibadan, *Nigeria* and Kampala, *Uganda* established a tradition of promoting local cultural centres for artists and theatre workers. In *Zambia*, the university's theatre and extra-mural department organized annual travelling drama workshops in the rural areas to transfer skills to local people. In *Botswana*, the university's adult education institute used theatre for community development. In northern *Nigeria* the theatre department in Ahmadu Bello University organized community-based theatre workshops for farmers. In the *United Republic of Tanzania* the university theatre department promoted theatre for development programmes in rural villages. Theatre groups in *Kenya* helped peasants and workers form community organizations and foster social change.

Popular or community theatre has undergone a revival in recent years in *Zimbabwe* (Zimbabwe Foundation for Education with Production), *Zambia* (Lusaka-based groups), *Sierra Leone* (Fourah Bay College) and several groups in *Botswana*, *Nigeria* and *Ghana*.

Alternative communication

The theatre and the performing arts are also sometimes a form of alternative communication. For example, People's Street Theatre has spread widely in black townships of *South Africa* in a context where blacks are often denied access to other forms of media. The trade union movement is the main centre of the popular theatre movement in South Africa.

The most successful form of alternative communication in Africa, however, is alternative newspapers. There is a heavy concentration of alternative newspapers in southern Africa and South Africa in particular. *Grassroots*, a community newspaper in Cape Town, is completely owned and managed by anti-apartheid organizations. Set up in 1980, *Grassroots* has organized workshops and given technical assistance to similar papers in South Africa and elsewhere.

The alternative media played a significant role in the liberation struggle of *Zimbabwe*. After liberation, many rural newspapers were set up in the country and the government established a rural news service.

Rural press

In the late 1970s, there was not a single news service in Africa managed by Africans whose distribution was primarily aimed at Africa. The All-African Press Service, starting in 1979 with headquarters in Nairobi and international church support, was the first and in many ways can be now considered an alternative service.

The rural newspaper in Africa is unlike newspapers intended for rural readers in other regions of the world. It is neither a metropolitan-based newspaper with a wide circulation, nor a provincial city-based newspaper with a regional outlook. The African rural newspaper is usually found in a rural community. Its content and style are oriented to the specific information and learning needs of that community. Its sophistication is determined by the prevailing literacy levels; in fact, most newspapers were launched as tools for literacy retention.

The growth of these rural newspapers has been slow, but the very phenomenon of rural newspapers must be seen in the context of low literacy levels, wide variety of languages and the unavailability of basic infrastructures (roads, electricity, and services) in the areas beyond the capital. And yet there have been a number of rural newspapers, many of them successful in their own right.

Rural newspapers in Africa are recent and innovative. A few years ago, the expression "rural press" was simply a neologism. The earliest newspapers began in Liberia in 1963 and in Niger in 1964 in the form of mimeographed bulletins in support of literacy. Today, many rural newspapers have become active sources for self-education and information.

In the past few years, one or more rural newspapers have been established in *Burkina Faso*, *Comoros*, *Ghana*, *Liberia*, *Madagascar*, *Mali*, *Rwanda*, the *United Republic of Tanzania* and *Togo*.

Mali was the first country to set up a rural newspaper in accordance with guidelines suggested by communication and development specialists. Consequently, *Kibaru* was launched in the Bambara language in March 1972, under the direction of the Mali National Agency of Information (ANIM) and of the daily newspaper, *l'Essor*. Its initial circulation increased rapidly from 5,000 to 10,000 copies, indicating an early success.

Mali's venture in rural journalism encouraged other African countries to follow suit. Six months later, in September 1972, *Game Su* was published in Togo under the joint sponsorship of the Ministry of Social Affairs and the Ministry of Information, with the assistance of Unesco. The papers presented portrayed a rich variety of experiences and circumstances in the operations and management of the rural press in Africa.

A great deal of experimentation with rural newspapers has taken place in *Zambia*, more recently under the auspices of the Journalism School of the University of Zambia.

In almost all African countries, rural newspapers are publications of the government or of public agencies. This sponsorship has, to a large measure, made for a clear delineation of development objectives for them. While almost all the early newspapers were intended to promote literacy and provide reading material for new literates, many later expanded their objectives to include one or several of the following:

- To ensure continuing education for the rural population.
- To keep the rural population regularly informed of local, regional and national events.
- To provide readers with practical information to improve cultural techniques, health, economic and social conditions.
- To encourage the habit of newspaper reading.
- To initiate the establishment of a decentralized local press and to help the rural population to learn to express itself in that press.
- To ensure the participation of the readers in the process of economic and social development.
- To provide an instrument for dialogue between the administration and the rural population.

Most of these rural newspapers are published monthly or weekly though seldom on a regular date. Circulation ranges from 1,000 to 10,000 copies, and even more in a few cases.

Early newspapers began with the objective of literacy retention and gradually widened their development objectives over the years. Most newspapers do not own their own printing facilities but are offered access to offset presses by agreement or subcontract. At present, none of these newspapers is economically autonomous.

The creation of rural newspapers will continue to have an important and lasting impact, as they add a significant dimension to the "free flow of information" and the "free access to the media" in the African region.

Table 7.1

Rural newspapers in Africa

Country	Name of newspaper	Language	Circulation	Launching date
Benin	*Kparo*	Bariba	1 000	March 1972
		Adja	2 500	March 1974
		Yoruba	2 500	March 1974
		Fon	2 500	March 1978
Burkina Faso	*Fasobaara*	Jula	3 000	1973
	Manegre	Moore	1 250	1975
	Manegda			
Burundi	*Ubumwe*	Kirundi	3 000	March 1978
Central African Republic	*Linga*	Sengo	1 000	September 1976
Ghana	*Kpodoga*	Ewe	5 000	February 1976

Table 7.1-cont.

Country	Name of newspaper	Language	Circulation	Launching date
Kenya	*Kisomo*	Kikuyu	10 000	November 1975
	Sauti ya Kericho	Kiswahili	6 000	April 1980
	Sauti ya Gusii	Kiswahili	6 000	1980
	Sauti ya Pwani	Kiswahili	8 000	1980
	Nyota ya Mashiriki	Kiswahili	5 000	January 1984
	Sauti ya Meru	Kiswahili	5 000	1984
	Nyota ya Magharibe	Kiswahili	5 000	May 1985
	Jicho	Kiswahili	5 000	March 1986
	Nuru	Kiswahili	5 000	December 1986
	Maarifa	Kiswahili	5 000	April 1988
	Mwangaza	Kiswahili	5 000	May 1988
Liberia	*Bong County News*			
Madagascar	*Rasavolana*	Malagasy	3 000	June 1986
	Antsiva	Malagasy	2 000	February 1987
	Farafangana	Malagasy	2 000	January 1989
Mali	*Kibaru*	Bambara	12 500	March 1972
Niger	*Gangaa*	Hawsa Djerma	2 500	June 1974
	Saabon Ra'yii	Hawsa	200	
	Kasaa May Albarka	Hawsa	1 000	
	Muryar Damagaram	Hawsa	100	
	Amfaanin Kay	Hawsa	500	
	Alpishirinku	Hawsa Tamasheq	250	
	Is lan Dagn Tamajeq	Tamasheq	350	
	Tarmaamum Aasar	Hawsa	100	
	Boro Coyo Gati Borcin Tarey	Hawsa/Zarma	1 000	
	Jine Koy Yan	Zarma	175	
	Mangaari Kuu Ye	Kanuri	500	
	Billi Arzikin Kasaa		100	
	Albarkar Tsirkaw		100	
Rwanda	*Hobe*	Kinyarwanda	57 000	1955
	Imvaho	Kinyarwanda	5 000/6 000	
	Kinyamateka	Kinyarwanda	9 500	1933
Tanzania	*Elimu Haina Mwisho*	Swahili	50 000	1974
	Tujielimishe		45 000	1979
	Jiendeleze		45 000	1979
	Tujifunze		45 000	1980
	Nuru Yetu		45 000	1980
	Elimu Yetu		45 000	1980
	Elimu Ni Bahari		45 000	1981
	Jipatie Maarifa		20 000	1982
Togo	*Game Su*	Ewe	2 500	September 1972
	Tew Ferna	Kabye	2 500	January 1977
Zambia	*Imbila*	Bemba	27 000	
	Intanda	Tonga	7 000	
	Lisela-Zambia	Lozi	6 700	
	Lukanga	Bemba/Lenje	6 500	
	Ngoma	Lunda/Luvale	3 000	
	Tsopano	Nyanja	12 000	

Source: P. Ansah, C. Fall, B. Chindji Kouleu, and P. Mwaura, *Rural Journalism in Africa*, Paris, Unesco, 1981 (Reports and Papers on Mass Communication, 88).

Arab States

Community media

The government set up the first local radio station in *Egypt* in 1954 in Alexandria. Its objectives were to strengthen local government, encourage growth and development, and raise the standards of living of the region. Daily transmission extended for an hour in Arabic and for half an hour each in Greek, Italian and French. Since 1955, the station has transmitted only in Arabic.

In 1981, Egypt adopted a system of seven broadcasting networks, one of which was made up of local stations. These stations were responsible for transmitting programmes dealing with social issues of relevance to the community, fostering the concept of local government, exploring human resources within

the community and encouraging their development. The local network consisted of stations in Alexandria, Greater Cairo, the Mid-Delta station, the station in the north of Upper Egypt, North Sinai, South Sinai, Al Shabab Wal Riada, and Al Shaab.

A regional station in *Oman*, the Al Salala station, was established in the southern region in 1970, initially transmitting five hours a day in Arabic as well as in the local dialect. Most of the programmes were locally produced with the exception of programmes supplied by the national station in Muscat. Programmes cater for the needs of the local agricultural and fishing community and help to identify local artistic talent. In 1979, both the radio and television stations were linked to the national services in Muscat via satellite. Salala radio now broadcasts 19.5 hours daily, and Salala television 10 hours.

The Sanala Radio Station in *Yemen* started operation in 1955. In 1965, a station was installed in Taaz to serve the region with six blocks of programmes directed to various audience groups during four hours of transmission a day. In 1970, a local broadcasting station was established in the city of Hudayeda located by the Red Sea.

In the *Syrian Arab Republic*, a local station was established in the mid-1950s in the city of Aleppo with the aim of serving the local community which has particular cultural characteristics and constitutes one-tenth of the population.

There are some local television networks, like the Kirkuk station in *Iraq* that transmits programmes in Kurdi directed to Iraqi Kurds, and the recently inaugurated Channel 3 of the Egyptian Television Network.

Asia and the Pacific

Community media

Similarly, in Asia and the Pacific where governments own, manage and control most media, particularly radio and television, the attempts to organize community or alternative media are few but significant. It should also be noted that many countries have commercial non-government broadcasting as well, thus providing a kind of "alternative media". Some countries have introduced this only in the last ten years, notably Sri Lanka and Malaysia.

At Ahmedabad, *India*, community television has been operating since 1983 and has been awarded the IPDC rural communication prize. As of December 1987, a total of 24,000 community viewing television sets were in position in different parts of the country. Most provincial newspapers of India, though community oriented, are actually province-wide tabloids or broadsheets, some attaining over 100,000 circulation daily.

In addition to these, the popular performing arts have been considered as the language and medium of public communication from time immemorial. Folk theatre, folk songs, narrative ballads and puppet shows have been adapted as one of the most important media for development and social change both directly and in the mass media.

The independence movement of India generated widespread use of popular dramatic forms for national mobilization. The tradition was maintained by official and private agencies to motivate people to participate in five-year plans, national unity and programmes such as family planning campaigns.

The Song and Drama Division of the Ministry of Information and Broadcasting maintains an administrative staff of 250, some 750 performers, producers and musicians and has a regional office in each major linguistic-cultural region of the country. In 1981, the Division had 40 travelling troupes and a register of more than 400 private troupes contracted for specific performances. Folk media were also used in rural areas by other government divisions and non-governmental development agencies.

Community participation theatre is used in community or group-based processes of learning and development and emphasizes participation and co-operative action. Popular education/community theatre is similar to community participation theatre but emphasizes critical analysis of problems, voicing frustrations and aspirations, examining relationships of dependence and exploitation and coming up with solutions. The goal is not just local solidarity and co-operation, but social and economic change involving the people themselves.

Indonesia has been concerned about newspaper development in the isolated and less-developed regions. Preparations have been made to establish decentralized printing facilities on at least two major island centres (Sumatra and the Moluccas) and to organize independent editorial press centres to be put at the disposal of both government and commercial newspapers in the area.

Innovations in radio have been slow in *Nepal*, though one significant effort has been made by the Ministry of Agriculture. Using low-cost equipment and a lot of native ingenuity, the Senior Agricultural Officer has created and aired weekly a special drama programme on agricultural topics through the radio personality of an "old woman".

Since 1983, there has been a boom in small newspapers, most of them in Kathmandu, many of them only one page with a weekly circulation of less than 1,000. Informal counts have identified some 300 such newspapers, many of them short-lived. The Nepal Press Institute also surmises that most of these newspapers were established by individuals who had no education in journalism. The Institute projects that commercial competition will eventually reduce these to about eight viable newspapers.

In the *Philippines*, in addition to the mainstream radio (over 500 stations) and television networks (six nation-wide) which cover most of the country, there are some 35 local radio stations run by community groups, church associations, or educational institutions.

One of the stations, DZJO is run almost entirely by the Community of Infanta, Quezon, and caters directly for the social and economic needs of the immediate region of Quezon province. DZLB, operating under the auspices of the Department of Development Communication, University of the Philippines, Los Baños, has launched a programme called Radyo Pintig (radio heartbeat) which puts farmers and villagers in touch with various research organizations, especially the International Rice Research Institute, enabling the station to disseminate highly technical information in a format and language understandable to farmers.

Alongside the twelve national dailies (with a total daily circulation of over a million), there are some 100 provincial newspapers whose circulation ranges from 5,000 to 60,000.

There have been at least two short-lived experiments to set up community-based television, but these have lacked sustained financing to continue operation.

In *Sri Lanka*, in the face of massive movements of settlers down river as the dams of the Mahaweli River System are opened, the Ministry of State for Information and Broadcasting approved a project for the Mahaweli Community Radio. Though its main purpose was to assist the settlers in the process of migration to newly-opened areas, Mahaweli Radio also became a focal point for development information, folk music and village lore. It now runs two community stations (Mahaillupalama and Guirandurokotte, which also edits an experimental community newspaper) and will soon open a third in Welikande, an area inhabited by both Sinhalese and Tamils.

The Mahaweli Community Radio has also sponsored the organization of a new Street Theatre Group which works with talented villagers to create new dramas, mimes and folk music around developmental themes. Their work is integrated into the weekly radio programmes.

In northern *Thailand*, the Chiengmai Hilltribes station has for several years been producing and airing programmes about alternative cropping, as part of the government's programme to reduce and eventually eliminate the cultivation of drug-producing poppies.

In *Western Samoa*, an attempt was made in 1976-79 to initiate village programming when the station 2AP organized a special production unit for Development Programmes. The unit visited different villages and prepared weekly programmes on various issues of community development.

In preparation for eventual community programmes, the *Kingdom of Tonga* has already established a basic network of FM transmitters and one HF relay in the northernmost island. Using low-cost transmitters specially designed under contract with Unesco, Tonga has a complete network to all islands for one tenth the cost of a medium-wave network.

Community radio in *Australia*, known as "Public Radio", was legalized on an experimental basis in 1974 and is officially referred to as the "Third Sector" to distinguish it from the Australian Broadcasting Corporation and the commercial media. Legislation stipulates that stations are to be operated by non-profit organizations serving geographically defined or special interest sections of the community. The stations are self-supporting, ideally by contributions from the community. While commercial advertising is not allowed, the stations are allowed to broadcast short messages acknowledging the names of corporate sponsors. In 1986, there were 65 stations on the air with about 150 requests for new stations pending before the Department of Communications.

There are three categories of licences: (a) licences issued to educational bodies intending to provide programmes of continuing and adult education including material to enrich the cultural life of the audience; (b) licences issued to groups intending to provide programmes serving a particular interest such as music, sports, religion, and 30 different ethnic groups; and (c) licences issued to community groups intending to provide programmes serving a particular geographical community.

Community radio in Australia has a national association, the Public Broadcasting Association of Australia, and is expanding by 10 to 12 new licences every year.

Alternative media

Establishing and running alternative media has proved difficult in most Asian countries. Alternative communication is therefore expressed mostly through art, poetry and theatre. Most of the theatre groups created in the last twenty years in the *Philippines*, for example, could be labelled as "alternative".

In the Philippines, however, mainstream media can also be considered "alternative", when management so decides or if their philosophy so orients it. One radio station at Cebu, supported by a Labour party, has been outspokenly "alternative" throughout its history. Despite several arrests and threats to close it down, the station has nonetheless continued to operate throughout the martial-law period. Though not so labelled, the University of the Philippines' Diliman station, DZUP, has always been known to be the voice of the students and a generally oppositionist faculty. It has been raided at least twice by the military during martial law, as was Radio Veritas, owned and managed by the Archdiocese of Manila.

Europe

The growth of local broadcasting in Europe illustrates that changes in communication systems are often brought about by dynamic elements situated at the margins of or immediately outside the broadcasting or political establishment. They may be opposition political parties denied fair access to government-controlled media or regional, ethnic, cultural, linguistic, religious or political minority groups, trade unions; community and voluntary groups; students and the young, all outside the political system with little direct access to established media. Young people, in fact, provide a majority of the audience and the greater part of local radio's personnel.

Until 1980, radio in *France* could be only national, Parisian, and government controlled. By 1985, the traditional handful of Radio France stations had been joined by 1,100 stations described as *radios privées d'expression locale*.

The pirate pioneers, or *radios libres*, went on the air in the late 1970s. Some of the stations were a neighbourhood medium, providing local news and telephone call-in programmes with some representation of local organizations. Others emerged from a specific social conflict like a major steel strike with workers giving their own points of view and analysis of events. Still other stations were the voice of militant groups like ecologists, feminists, radical left-wing organizations, and some migrant or minority groups.

Between 1982 and 1984, a new audio-visual order gradually regulated and licensed existing stations. The new rules forbade advertising or open association with political parties. By 1984, recognizing a *de facto* situation, approval was given for a controlled amount of regional and local advertising. Legislation required stations to choose their status as commercial, non-profit and eligible for grants, or mixed income.

In 1986, *Hungary* had 17 community cable systems with local production facilities. The local systems reached about 7,700 households on average and transmitted two or three hours a week of local programming in addition to other content. Several local studios were operated by volunteers and the initiative came from the people in the local community. Some of the systems adopted an "open studio" policy for individuals, groups, formal associations and grassroots movements. In 1987, cable television reached 300,000 households, which represents approximately 10 per cent penetration of the population. At present, 25 local studios are in operation in 23 towns, but more are planned.

The local channels primarily broadcast local news, or more general information that may be of interest to the local community. They transmit one hour a week of local programming in addition to other content, and this programme is repeated four times in the same week. The local programme is edited by a voluntary editorial board, representing individuals, groups, formal associations and grassroots movements.

The development of cable television is faced by a number of difficulties, especially economic. Government directives do not allow cable systems to collect more than 12.14 forints ($25) per household per month as a fee for the service. Consequently, local cable television systems have very limited financial resources. Moreover, advertising revenues are not enough to finance the local channel since each system is only authorized to allot 7.10 per cent of its broadcast time to commercials.

The "free radio" movement developed in *Italy* in the early 1970s as a reaction against the government broadcasting monopoly (RAI). The political and cultural movements of the late 1960s and early 1970s seeking forms of public expression and communication were important in the growth of free radio. Public support and a lack of political will to control the free radios led to their legalization in 1976,

so long as it was local and did not interfere with the RAI channels. By 1978, Italy had 2,500 free radio stations and 600 community television stations.

The great majority of the free radios eventually became commercial. They were supported by advertising and provided mainly music and occasional national news bulletins. A significant minority maintained some of the features of community radio like a co-operative, non-profit structure, some participatory amateur productions, alternative programming, open access and time slots for various community organizations.

The Italian community radios increasingly became the voice of a specific constituency such as a political party or a church group and often formed part of national or regional federations. The stations that appealed to the young, non-parliamentary left were stronger in their amateur productions and gave time to different movements like the feminists, labour unions and co-operatives.

In the early 1970s, the *Netherlands* experimented with six small non-profit community cable television and radio programmes. In 1984, new legislation for cable broadcasting provided for licences to municipalities. By 1986, 78 cable systems providing community media services had been licensed. Some systems broadcast only radio, and 10 only television. Although programming time and content varied, the local character of programming dominated with local news and information, and, in some cases, local poets, musicians and entertainers. There was no advertising allowed and support came from local authorities and contributions from subscribers. Most of the staff was volunteer.

Because of the Netherlands' important ethnic minority populations, between 1984 and 1986, the Ministry of Culture provided funds to produce minority programmes and authorized a one-hour television broadcast per month through local television cable systems for each of the major ethnic groups. The Ministry also provided funds to train members of minority groups to participate in the production teams and in the selection of content.

There are estimates of from 3,000 to 8,000 illegal pirate radio stations in the Netherlands. Some broadcast pop music to the local neighbourhood. Others are special interest, counter-culture groups. There are also some fairly significant commercial broadcasters.

After the death of General Franco in 1975, there was a rapid development of free, pirate radio stations in *Spain*, and especially in Catalonia, similar to the movement in Italy. Although almost all the first free radios disappeared, in 1979 they resulted in the first municipal radio stations. By 1985, there were 103 municipal stations under a legal tradition that grants authority to villages to have their own media. Especially in the larger towns, the municipal radios increasingly followed the programming format of commercial radio. However, they continued to emphasize local citizen access, local problems, and local cultural issues. The municipality provided the basic facilities and more than 70 per cent of the stations had only negligible advertising income. Approximately 100 "free radios" continue to broadcast, generally within the larger Spanish cities.

Local television stations also began in Catalonia around 1979. By 1985, there were approximately 42 stations, 22 of which were formerly registered in the federation of community television stations. Some of the stations were similar to private television and used externally-produced programming. Others did not rebroadcast programmes and carried their own productions of local interest. Transmissions were irregular and production was in the hands of young amateurs. Under national law there was no legal provision for such community television initiatives. There are approximately 100 local television stations throughout Spain, broadcasting two or three times a week to about 800,000 households. Most of the local television stations are non-commercial and receive subsidies from the local communities or administrations.

The 1987 law regulating the development of telecommunications in Spain profoundly affects the approximately 1,000 free radios, community radios, and unlicensed independent radios, as well as the local television stations, by placing them outside legal broadcasting operations.

In 1978, the *Swedish* government authorized an experiment in neighbourhood radio, Närradio, in 15 different areas. The aim was to allow local transmissions by groups such as trade unions, political parties, religious organizations, sports clubs, arts and culture groups, consumer and tenant associations, environmentalists, ethnic and language groups. Access to a transmitter broadcasting within a three-mile radius was guaranteed to all groups that could maintain at least one broadcast a week and pay for the time they used on the air. The service was non-profit and no advertising was allowed.

In 1985, Närradio existed in 75 localities, some 1,400 organizations broadcast 90,000 hours per year, about 40 per cent of which were sponsored by different churches. By 1986, the Swedish parliament had given neighbourhood radio permanent status.

In the area of print media, in *Western Europe* a number of alternative channels have developed specifically in association with the women's movement, as surveyed in the section below on *Women in Communication*. On a smaller scale, different aspects of youth culture have served as focal points for specialized magazines, and a number of weekly papers or periodicals have been created by ethnic and migrant groups. In *Eastern Europe*, alternative newspapers and magazines, often published in no more than a few hundred copies, are distributed through non-offical channels. In *Poland*, the alternative press seems especially diversified and is estimated at more than 500 titles. In *Hungary*, an estimated eight alternative periodicals are published regularly, some of them since the beginning of the 1980s and in *Czechoslovakia* a few thousand copies of general specialized periodicals are regularly distributed. The religious press often serves as an alternative media channel in the region, including, for instance, more than 33 titles in Poland.

Latin America and the Caribbean

Community media in Latin America

The Latin American media system of commercial and mixed public broadcasting has engendered many local radio stations under either commercial or private auspices. Most of the stations have commercial licences, although many have a special category of educational-cultural licence. Inexpensive local radio, financed by advertising and using modest equipment and local personnel is often used by grassroots movements.

The costs of establishing the stations and the educational programmes that require a teaching and supervisory staff are often provided by sponsoring organizations with the help of international agencies, especially European church-related foundations. The stations have non-formal and some formal educational programmes and regular time slots for different community organizations, local news, music, radio drama, and personal and public service announcements.

Many of the small local radio stations have offset presses and accompany broadcast programmes with print materials. Some stations distribute audio cassettes and slides. Most of the stations work with listener groups and prepare local leaders to be radio monitors and to relate their local community organizations to the radio stations.

ALER, the *Asociación Latinoamericana de Educación Radiofónica*, founded in 1972, groups together approximately 60 local educational radio stations in virtually all countries of Latin America. ALER affiliates have more than a million students registered in radio school courses with an additional 15 million following open university broadcasts dealing with agriculture, health and other development programmes.

The community radio stations in *Costa Rica* and the radio stations of the tin-miners' unions in *Bolivia* are two examples of somewhat different local radio experiences. In 1983, the Instituto Costarricense de Educación Radiofónica began a programme of 24 community-based radio stations. Most of the stations are governed by an association of community organizations. They are staffed by volunteers and supported by local subscriptions, some advertising and occasional subsidies from the local government. The programming generally includes news, productions by youth groups, time for various community organizations, music and live programmes. The project has received the full backing of the Ministry of Communications and its own category of radio licence.

The Radio Mineras, owned and financed by the Bolivian tin-miners' unions, began in 1947. In the 1980 Bolivian military coup, the 25 miners' radios formed a Chain of Democracy. Five days after the army had taken over the rest of the country, the miners' radios continued to broadcast until the military defeated the mining communities and captured their radio stations.

In *Peru*, the communication experiments of the Centro de Comunicación Popular of Villa El Salvador in Lima use community-based press and video as well as comic books.

The cassette forum, developed in *Uruguay* and *Venezuela* by Mario Kaplun is another specifically Latin American group and community communication system. The forum links together grassroots organizations and provides a line of communication with directors of rural co-operatives or peasant unions.

Popular theatre is found in Latin America among many community groups such as students, parent-teacher associations, churches, sports and recreational clubs, co-operatives, political parties and unions. A major goal of popular theatre is to enable lower status people to be the authors of their own stories. Emphasis is placed on preserving their language and forms of expression. Typical themes of popular theatre are unemployment, family relations, alcoholism and authoritarianism.

Alternative communication in Latin America

Labour unions and farmer-peasant organizations in Latin America often have their own internal means of communication, usually print-based. In some socio-political contexts, such internal publications become the principal and most trusted sources of information. In *Brazil*, from about 1975 to 1982, the alternative press played an important role in the political democratization of the country. The tradition goes back, however, to the popular education movements of the early 1960s. Between 1964 and 1972, neighbourhood centres of popular education and documentation were set up throughout Brazil to provide communication facilities like a small press, camera and cassette recorder to community and special interest groups.

Alternative newspapers began to appear after 1970 with the gradual relaxation of government controls. In the late 1970s, as workers began to regain control of union groups, young professional journalists joined the union press departments. The union newspapers became a forum in which all workers could express their opinions. They became an important part of the unions' struggle to regain their rights. By the early 1980s, the labour movements had developed a popular grassroots communication system centred in São Paulo with daily and regional newspapers, a national popular news service, film clubs and a popular theatre movement.

Under the recent military regime in *Argentina* an alternative press developed, for the most part run by independent journalists often working with community organizations, women's groups, human rights commissions and Indian communities. In *Uruguay* the alternative press appeared in full force in 1980, although since 1978, weeklies had sustained independent and critical editorial lines against the military regime.

In *Chile* magazines like *Apsi*, *Análisis* and *Mensaje*, some of which are church-related, have consistently provided an alternative press and form of communication to much of the officially sanctioned media. The more recent *TeleAnálisis* presents an alternative vision of the month's news in video form that is presented and discussed with over 300 social organizations and community groups throughout the country.

Chasquihuasi Comunicaciones is a small private research and production centre, located in Santiago de Chile. Its main activity is the production and distribution of *Tercer Mundo*, an international news programme for educational, cultural and participatory Latin American radio stations. The programme is addressed to poor rural and urban audiences and its main goals are to educate by attacking the roots of underdevelopment, and to highlight the efforts that organized communities make in order to overcome the impact of poverty.

The programme is distributed every two weeks on cassettes, via airmail. Each cassette contains two programmes, half an hour each, and its contents are roughly composed of: 27 per cent news on action within wide social sectors (women, Indians, peasants, union workers, youth etc.); 30 per cent devoted to basic needs (food, shelter, employment, health etc.); 20 per cent international economic news (Third World, raw materials, external debt, agriculture, industry, energy etc.) and 23 per cent politics (human rights, arms race, international co-operation, domestic politics etc.).

In August 1988, *Tercer Mundo* was broadcast by 205 radio stations in 20 Latin American countries, 76 per cent located in remote provinces, highlands and forests. 127 stations were paid subscribers receiving copies straight from Chile, whereas the other 78 stations received regular news thanks to agreements with subscribers in their own countries.

Tercer Mundo's main source is Inter Press Service Third World News Agency, complemented by *Noticias Aliadas*, ALAI, ALASEI, *Foro del Desarrollo*, *Informe Latinoamericano*, *South* and other national and international sources. Further, 15 per cent of its news normally comes from Chasquihuasi's own subscribers in various Latin American countries. *Tercer Mundo* is thus far the only radio news service of its kind in Latin America, and it is financed by small subscription fees and by external support from international co-operation agencies.

Many Latin American countries have developed independent or alternative video production groups often linked to grassroots and community organizations. In Chile, for example, documentary film and video producers have made documentaries on important events in Chile's recent history and a great number of these documentaries have been exhibited on closed-circuit television to small groups of students, workers and other grassroots organizations.

Alternative video production in *Brazil* was in the cultural and political vanguard during the 1970s. Independent producers experimented with new uses of the media that changed the traditional vertical relationship between producers and audiences. The work of the alternative producers attempted to reduce the homogeneity of commercial television by presenting the cultural, linguistical, ethnic and religious diversity of the Brazilian people.

The wide diffusion of Paulo Freire's methods of popular education have made group communication one of the most distinctive and important forms of alternative communication in Latin America. Group communication is a method of dialectical group discourse under the guidance of a trained animator. The methods use combinations of slides, audio cassettes, charts, dramatic skits and video as a thematic starting point for socio-cultural analysis, consciousness raising and group decisions for social action. Group communication has been applied to virtually every socio-cultural context and to problems from drug addiction to land reform. It has had its greatest development among lower-status groups preparing for organized action. Group communication has been actively promoted by groups like PROA, Servicio Radiofónico para América Latina.

Community media in the Caribbean

There are many community media experiences in the Caribbean with its strong oral tradition and history. These initiatives include community-based media, new media formats, and access to the mainstream media and many are church-linked.

In the Caribbean context, the term "popular theatre" is a means of harnessing all available popular cultural forms to create a process of community/social interaction, dialogue and learning, so discovering popular pathways to social change and community development. It is popular because it involves people's participation at all levels in animation programmes of communication and exchange. By presenting social drama for discussion and action, it aims at assisting in the solution of problems which affect people's lives. In the Eastern Caribbean, four cultural organizations which began experimenting with this theatre technique met in Saint Vincent in April 1983, to form the Eastern Caribbean Popular Theatre Organization (ECPTO). At present, ECPTO has a membership of six island groupings: Harambee Open Air Theatre of Antigua; Movement for Cultural Awareness (MCA), Dominica; Teat Pepla of Saint Lucia; New Artists Movement (NAM), Saint Vincent and the Grenadines; the Barbados Community Theatre Group and the Grenada Popular Theatre Organization. ECPTO is now leading efforts to develop popular theatre work in Grenada, Barbados, Antigua and Barbuda.

Popular Caribbean theatre and oral music traditions are now being used to educate young people about AIDS.

A half-hour magazine programme for television entitled Caribbean Vision is now being distributed throughout the region. This Caribbean co-production emerged from a Unesco project aimed at strengthening television production capability in the Eastern Caribbean. The project was facilitated by members of Banyan, an independant company housed in Port of Spain, Trinidad. Co-producers were six television stations involved in the project: SVGTV, Saint Vincent and the Grenadines; HTS, Saint Lucia; Video One, Dominica; ABSTV, Antigua; Antilles TV, Montserrat; and ZIZTV, Saint Christopher and Nevis.

In *Belize*, Radio Belize can be heard nationally. People in the cities and towns use the radio to relay messages to friends and relatives in remote areas of the country. Some religious and ethnic leaders communicate through daily and weekly radio programmes.

In *Saint Vincent and the Grenadines*, groups employ dialectic and street theatre using community channels as news sources.

Montserrat pursues its own alternative communication through the formal media. Some examples are the projection of its own cultural forms and traditions, educational programmes in prime time and the work of the performing arts. Groups in the country focus on radio for alternative media and adult education.

Jamaica has a long experience of alternative communication based on the use of traditional communication forms. In *Saint Lucia*, alternative communication forms like the *Balata* newspaper are related to the Creole language. In *Trinidad and Tobago* the weekly programme *Gayelle* of the Banyan group uses national television to focus on cultural and social themes not covered by commercial television. Banyan is currently working on a series of co-produced programmes with the National Film and Television Institute (NAFTI) in Ghana.

North America

United States of America

In 1949, station KPFA in Berkeley, California, was one of the first stations in the United States to implement the principles of community radio. KPFA began as an independent non-profit station sponsored by subscribers, many of whom were pacifists or identified with alternative political and cultural movements.

Community radio underwent rapid growth in the 1960s especially among counter-cultural groups that were often affluent and university educated. As community radio spread throughout the country in the 1970s and 1980s, however, it increasingly reflected a wider variety of communities and regions. In 1975, the community radios formed the National Federation of Community Broadcasters, NFCB.

Community radios have various forms of participatory management. They emphasize the role of volunteers in production, and stations average about eight full-time staff and depend largely on young amateur producers drawn from the community. About 60 per cent of the programming is music featuring local artists. Many community radios provide alternative viewpoints on the news and allow community spokespeople uncensored commentary.

The number of community radio stations has not grown significantly in the 1980s. The 60 or 70 stations are a small percentage of the 8,000 or more radio stations in the United States. Community radios, however, tend increasingly to be ethnic minority stations and in some communities, such as Harlem in New York, they can be a significant community institution.

Local programming on community cable systems in the United States started in the early 1950s. By the late 1960s, there were at least 30 cable systems in the country with studios producing local programming. The major impetus for community access channels came in the late 1960s with the introduction of low-cost portable cameras and demands for access from civil rights, peace and student movements, the elderly and environmental groups. Regulation was largely in terms of local municipal franchises. Where there was local community pressure, franchises included agreements for local programming and community access maintained at the cost of the cable operator.

By the early 1970s, a wide spectrum of citizens' movements had organized to improve the quality of broadcasting and assert the principle of responsibility of broadcasting to the public and the public's right to participate in policy-making and programme production. In 1972, the Federal Communication Commission required that all cable systems with more than 3,500 subscribers establish a local origination channel–under operator control and accepting advertising support–and a public access channel, an educational channel, and a government channel offering at least five minutes of free production time and channel space weekly to any group or individual for non-commercial messages.

In the early 1970s, a number of national-level organizations were formed, with the backing of major foundations, churches and political interests, to help local citizens' groups form public access organizations and train them in local programme production. In 1976, about 100 community access sponsorship groups formed the National Federation of Local Cable Programmers.

The Cable Television Information Center, also a private centre founded by major foundations, provided a broad advisory service for local governments trying to incorporate public service requirements in their franchising of local cable operators. The Center assisted some 2,500 local governments between 1972 and 1982.

In the mid 1970s, with an economic downturn, many cable systems found that local origination was not commercially viable and that public-access studios were too much of a financial burden. In 1979, new federal regulation struck down the mandatory public-access provisions and left regulation to the local municipal governments. With the development of public-access channels left to local municipal franchising agreements and local initiatives, an immense variety of local organizational structures emerged corresponding to local needs, opportunities and interests.

Cable systems expanded rapidly in the 1980s and, with them, public access cable television centres. The national federation estimates that there were at least 1,200 access centres in 1986 operating with some combination of independent citizens' groups, local institutions, sponsorship of local cable operators, and access management corporations. The centres, run mainly by volunteers, provided free production facilities and access. The cable operator was not reponsible for the content of the programmes and the only norms were those of common law (e.g. in relation to libel and decency). Much of the programming focused on community activities, sports and religious events and local arts and music. Some were highly creative and technically innovative experimental productions.

In May 1987, cable reached 49.2 per cent of all households in the United States. There were 7,800 operating cable systems for which the average subscriber base was approximately 5,500 households. It is estimated that 4,200 of the systems originated programming at the local level.

In 1985/86, for the first time, a national community television audience survey was carried out. Preliminary results indicated that access was found in more medium-size and large cable markets than in very small

communities. The systems profiled had an average of 3.59 channels devoted to various community programming services. Slightly over half (57.8 per cent) of the subscribers had watched the community channels.

Canada

In Canada, according to the *Report of the Task Force on Broadcasting Policy*, at the end of 1985 there were 21 community radio stations operating in Quebec and six more being organized. In addition to the Quebec stations, there were six AM and 55 VHF/FM community radio stations serving small and isolated communities in the Canadian North. There were also 18 student FM stations, one AM and 14 closed circuit, one station in Kitchener, Ontario and one in Vancouver, British Columbia. There was one community television broadcasting station in Quebec. Virtually all the stations were sponsored by community associations and had a policy of volunteer staffing and citizen access to programme production.

Since 1968, the Canadian Radio-Television and Telecommunications Commission has required that all but the smaller cable operators set aside a community channel. Community television has experienced the most spectacular expansion in Quebec thanks to the provincial government's financial support of the community television associations. In 1986, 33 community television associations were in full operation and four more were in the planning phase. There were 149 cable television companies in Quebec.

By 1986, Canada had more than 1,200 licensed cable systems. Virtually all of these supported a community channel. Outside Quebec, community television was much less organized and developed. The degree of cable operators' involvement, the extent of local community participation and the quality of programming varied considerably from place to place. In many remote and underserved areas, the Canadian Broadcasting Corporation made its own transmitter available to local community television associations.

With the exception of Quebec, few local cable systems were established by community-based co-operatives. There were virtually no community umbrella commissions to co-ordinate and represent the whole community in the development of the community channel and no national association of community programming organizations.

Most programming represented the mainstream of community activities and public affairs. Audiences were likely to represent an activist community elite or the elite of their ethnic or special interest circle. Lower status and minority groups were less likely to take advantage of community channels unless they were fairly well organized. Likewise, community channels were less likely to provide a voice for smaller, highly critical groups or groups wishing to project an alternative life-style.

Women in communication

Introduction

The development of the international women's movement during the 1970s, combined with the impact of International Women's Year (1975) and of the United Nations Decade for Women (1976-85), led to action by women in a number of different spheres: (a) monitoring the portrayal of women in the traditional media, and lobbying for a more realistic presentation; (b) pressuring the traditional media to employ more women, and especially to increase the number of women in decision-making and management positions; (c) creating alternative women's media (newspapers, journals, audio-visuals, books and publishing houses–at first in North America and West European countries then spreading during the early 1980s to other regions, especially Latin America and Asia); (d) establishing women's networks, news and press agencies across the globe to help increase the flow of information and news about women within and between all parts of the world; (e) conducting research, not simply into the portrayal and participation of women in the media, but into media policies and structures and new media technologies affecting women.

The Forward Looking Strategies (FLS) for the Advancement of Women, adopted at the World Conference to Review and Appraise the Achievements of the United Nations Decade for Women (Nairobi, 1985), gave priority to increasing the participation of women at all levels within the communication media, to help eliminate stereotyped images and to improve women's access to information. The FLS also emphasized the importance of alternative forms of communication for women and called on governments and others to provide financial support for such projects (paragraph 206).

The data which follow cover both mainstream mass media and alternative media for women. In each case an attempt has been made to indicate trends, for instance, with reference to women as actors in and users of the media and with regard to the presentation of women in media content.

The *international* section emphasizes what appear to be global tendencies in, for example, the portrayal and participation of women in the media and highlights developments in new approaches which seem to be of international significance.

The section dealing with individual *regions* provides more detailed information on each of these aspects: the portrayal of women in media content; women as media employees; training of women for the communication professions; the impact of new media developments; and women's new media.

International

Developments in mainstream media

Portrayal of women in media content

A global review of the portrayal and participation of women in the media, published by Unesco in 1981, concluded that overall, media presentation of women can best be described as narrow; at worst, it is unrealistic, demeaning and damaging.

> On film, in the press and the broadcast media, women's activities and interests typically go no further than the confines of home and family. Characterized as essentially dependent and romantic, women are rarely portrayed as rational, active or decisive .... Prevalent news values define most women, and most women's problems, as unnewsworthy .... As the "bait" through which products are advertised, women are exploited in terms of their sexuality and physical appearance.

No major differences between the media were found in this respect, though the smaller, local media tended to present a more positive picture. Although certain cultural differences were noted in the dominant media images of women, the overall situation was said to be remarkably consistent from one country to another. An up-date of this study, published by Unesco in 1985, reported that the intervening years were not characterized by any radical change in the portrayal of women in the mass media.

On the other hand, this second Unesco report drew attention to new research from Africa, the Middle East and Eastern Europe–sparsely documented in the earlier review–and to a continuing proliferation of studies from Asia, the Caribbean and Latin America as well as from Western Europe and North America. While early studies tended to be dominated by simple quantitative analyses of media content, much of the recent research is relatively sophisticated. By examining the women and media relationship in the context of national and international social, economic and political processes, these later studies have highlighted some of the reasons behind the persistence of existing patterns in media images of women.

A further focus of some of the more recent studies has been the attempt to establish whether, and in what ways, an increase in the number of women employed in the media leads to a change in media content. The general answer, for the moment, appears to be "not necessarily": many factors push women who work in the media to become "one of the boys" in order to achieve recognition and status within the profession. However, studies carried out in, for example, Denmark and the Netherlands, have suggested that in certain circumstances women do perceive, organize and execute their work differently from men. This may involve, for instance, a conscious seeking out of female sources and experts, giving priority to topics of importance to women, or attempting to bring a women's "perspective" to the treatment of all topics and issues. Thus there seems to be some hope of positive change, as more women move into the profession, although existing structures, institutional practices and professional values make such initiatives difficult to sustain.

Employment of women in the media

The studies published by Unesco in 1981 and 1985 both remarked that, although figures showing the overall proportion of women among media employees are available from certain countries, there is little detailed global information about the extent and nature of women's employment in the media industries. This was reinforced by the lack of relevant statistical data provided by governments in response to a questionnaire distributed to Member States of the United Nations as part of the review and appraisal of achievements during the United Nations Decade for Women. On the basis of the data available, however, it is clear that both in terms of overall numbers and of their distribution across and within specific occupations, women's participation is limited. In particular–and even taking into account differences of educational level, length of service and range of experience–women are disproportionately excluded from key decision-making posts.

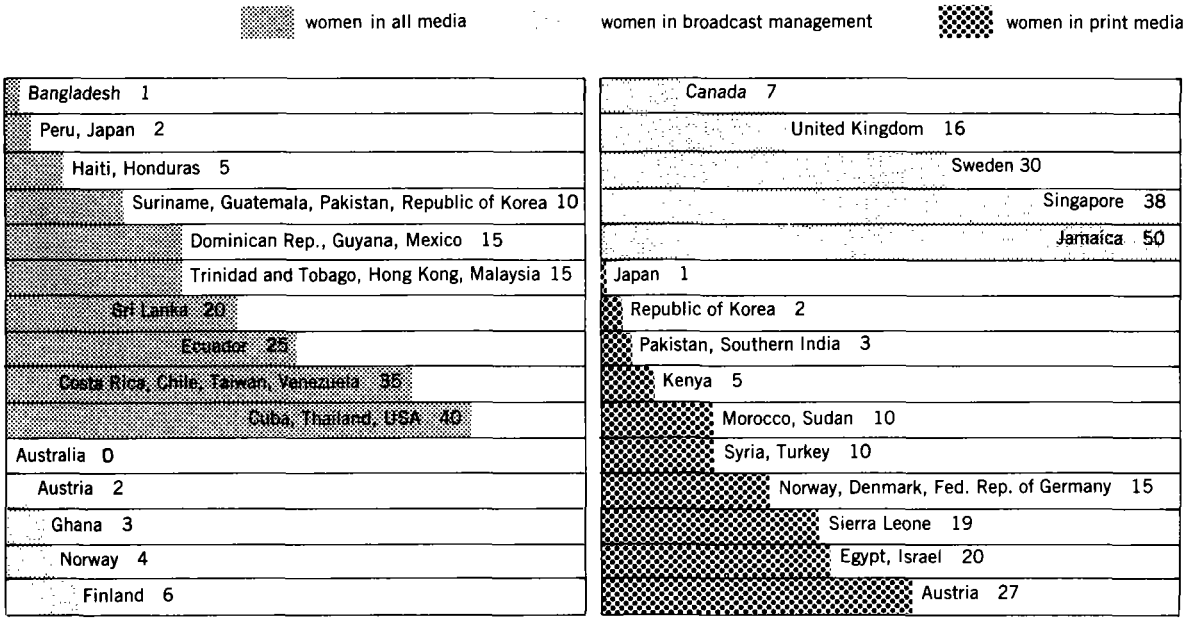


Figure 7.1.

Media workers
Women as a proportion of workers in media where known, most recent year since 1970 (percentages)

Source: J. Seager and A. Olsen, *Women in the World: An International Atlas*, London, Pan, 1986.

The absence of a broadly-based body of reliable data on women's employment in the media has made it particularly difficult to challenge existing practices or to develop proposals for change. However, a start has been made with a series of case studies from Canada, Ecuador, Egypt, India and Nigeria, commissioned by Unesco and published in 1987, which provide a basic statistical profile of sections of the broadcasting workforce in each country, and which highlight obstacles to the movement of women into management and decision-making positions. There are important differences in the size, structure and objectives of the broadcasting systems, as well as in the status of media employment, in the five countries; these variations are of course reflected in the results and conclusions of the individual studies. However, despite the differences, it is remarkable that in each case the situation of female employees follows a similar pattern. For example, in overall terms women are very much a minority presence in what several of the studies describe as the "man's world" of the media; technical jobs are almost exclusively the preserve of men, and women are poorly represented in senior management; conversely, women are very much in evidence in certain on-screen jobs such as presentation and announcing; a kind of sex-stereotyped segregation operates in production so that women tend to dominate in educational and children's programme departments but are rarely to be found in others, such as news and current affairs. As the Indian study points out, these facts and figures belie widespread impressions that, for example, women are well represented in all areas of the profession and that there is no difference in the treatment of male and female employees.

Table 7.2

Women as a proportion of broadcasting employees

Country	Year	Sector	Staff (%)	Management (%)
Canada	1975	TV/radio		9.1
	1985			21.0
Ecuador	1985	Radio	9.4	8.9
Egypt	1984	TV/radio	31.7	26.8
India[1]	1982	TV	25.7	
	1985			5.8
Nigeria[2]	1975	Radio	10.1	6.4
	1985		20.2	25.0

1. India: "staff" category covers senior-level creative posts (e.g. producers, camera operators, announcers) in 15 production centres throughout India; "management" category is confined to senior staff in Delhi and Madras.
2. Nigeria: 1975 figures cover radio staff employed throughout Nigeria; 1985 figures are restricted to radio staff employed in the Lagos zone.

Source: *Women and Media Decision-Making: The Invisible Barriers*. Paris, Unesco, 1987.

The studies are not strictly comparable. Each is based on a different universe of employees and definitions of "management" positions vary from one to another. But taken as a whole they establish a relatively reliable factual base in a field previously characterized mainly by anecdote and subjective opinion. Beyond this, however, the case studies provide analyses of male and female perceptions of the obstacles to women's access to, and performance in, media management posts.

Again, there is a surprising degree of consistency across the different countries. Despite the media organizations' formal adherence to national legislative requirements covering equal pay and equal treatment of women and men, the studies reveal a whole battery of attitudes, beliefs and even organizational procedures which amount to indirect discrimination against women. For example, the belief that certain types of job are unsuitable for women; the view that women expect too many concessions at work, are unreliable and given to absenteeism; the opinion that women are ineffective in taking and implementing decisions; the feeling among men that it is easier, more "comfortable", to work with other men; a lack of sensitivity to the physical and emotional burden on women who must reconcile professional and domestic responsibilities, in societies where little or no social support is provided for the care of children. All this adds up to a situation in which women face not so much overt discrimination, which is relatively easy to challenge, but a series of "invisible barriers" to their career development within the media.

Partly in response to the priority given, in the various action plans and programmes of the United Nations Decade for Women, to the need for more women to be appointed to posts in the media, some organizations have developed equal opportunities policies or even positive action projects for women. These have often included the establishment of special training schemes. Improved access to training of all kinds may be the foundation for a future increase in the numbers of women employed, and the range of occupations they hold, in the media.

For example, an international comparison of women in journalism (Table 7.3) shows the situation in 1987. These data show that, with the exception of the Federal Republic of Germany, the proportion of female journalism students is very much higher than the percentage of female working journalists. Consequently, it may be supposed that–other things being equal–women's share of jobs in journalism will gradually increase in the coming years. However, it cannot be assumed that the proportion of female journalists will altogether faithfully reflect women's growing share of journalism education. The earlier Unesco studies both drew attention to a range of structural, professional and attitudinal blockages which impede women's entry into and career development within the media industries. The most recently published case-studies indicate that the removal of obvious obstacles, such as inadequate training, will not necessarily demolish the "invisible barriers"–attitudes, biases, presumptions–which may continue to obstruct women's access to media posts, particularly at decision-making and management levels.

Table 7.3

Women in journalism, 1987 (percentages)

Country	Women journalists		
	Print media only	Print and electronic media	Full-time journalism students
Australia	37	NA[1]	62
Austria	NA	20	54
Brazil	-	45	59
Canada	NA	19[2]	51[3]
Finland	47	45	58
Germany, Fed. Rep. of	40	NA	38
German Democratic Rep.	NA	36	60
Nigeria	NA	5	38
New Zealand	-	46	-
Norway	NA	25	72
Spain	17	-	-
United Kingdom	NA	30	50
United States	41	NA	71

1. Not available
2. French-speaking community.
3. Both communities.

Sources: Column 2, Contributions to *World Communication Report* by IFJ and IOJ and Member States. Columns 3 and 4, International comparative survey (estimates for 1987) prepared by the Polytechnic of Central London in collaboration with the Faculty of Sociology, Political Sciences and Journalism, University of Ljubljana.

New media developments

Developments in communication technologies such as cable television, satellite transmission and computerization are likely to have specific implications for women. At present these developments affect women in the industrialized countries more directly than those in the developing world. But given the increasingly global nature of communication systems, they are of potential concern to women everywhere.

Access

The pattern of ownership of both cable and satellite television indicates a tendency for small, local initiatives to be either taken over or marginalized by large companies or communication consortia. In most cases, development and operating costs are prohibitive. This means that, despite early optimistic predictions, women are unlikely to have any more production or editorial control within the new systems than they have had within the traditional media. In fact, research in the United States of America during 1982 found that women hold only 15 per cent of posts in the top four job categories in cable television, compared with 21 per cent of equivalent posts in broadcasting. This imbalance will inevitably affect the output of the new media, the issues covered and the way in which they are treated.

Employment

The new technologies are changing traditional employment patterns, usually at the cost of women's jobs. A study of technological change at American Telephone and Telegraph (AT&T) in the late 1970s, for instance, found that while 13,000 new jobs were created for men, 22,000 women were made redundant. At the same time, the development of broadband telecommunications systems which integrate television, telephone and computerized data bases is opening up the possibility of home-based "teleworking". Particularly in the climate of economic recession in the West, teleworking is likely to increase. This may offer women greater flexibility to combine household work with paid employment and may, incidentally, encourage teleworking men to share in household tasks (though not all women are optimistic about this: Japanese research shows that 60 per cent of women are opposed to the idea of their husbands teleworking, fearing that it will simply place an additional burden on home-based wives). On the other hand, home-based work has traditionally been associated with low wages, poor working conditions, lack of job protection and isolation. The new teleworkers are also likely to be vulnerable in these respects.

Advertising

The growing trend towards privatization and commercialization in the new media systems, particularly satellite television, implies a heavy reliance on advertising revenue. With the advent of direct broadcasting by satellite (DBS), controls are weakening and foreign-generated advertising is now a feature of the media menu in countries which had previously operated non-commercial national broadcasting systems. Moreover, there is a move away from the short advertising "spots" which have typified traditional commercial broadcasting towards longer "infomercials" and sponsored programmes. These developments are likely to lead to an intensification and reinforcement of traditional stereotypes of women. On the other hand there are indications that advertising

has become responsive to the changing image of women and that in some countries self-regulation by advertising agencies has proved effective in this area.

Content

Research in Spain, the United Kingdom and the United States of America shows that the typical user of the new video technologies and television-based information services is young, well-educated, affluent and male. Women are relatively light users partly because of the high costs of the systems, and partly because the new services are designed primarily with men in mind. One attempt in France by a women's press agency, Agence Femmes Information, to develop a teletext service specifically aimed at women did succeed in attracting a higher than average proportion of women users. But, since men still formed the majority of users, those aspects of the service designed for women (information on women's health and rights, a baby-sitting service, contacts with women's groups) were gradually dropped in order to maintain the commercial viability of the service. Other developments, such as the growth of "adult messaging" pay services by telephone and teletext, videogames based on violent action, and violent pornography on video, are more sinister and have provoked protests and lobbying by women's groups in many countries.

Women's alternative media

Over the past fifteen years, important attempts have been made worldwide to develop media controlled and operated by women themselves. The supposition is that these media will present information and perspectives which are more closely attuned to the reality of women's lives.

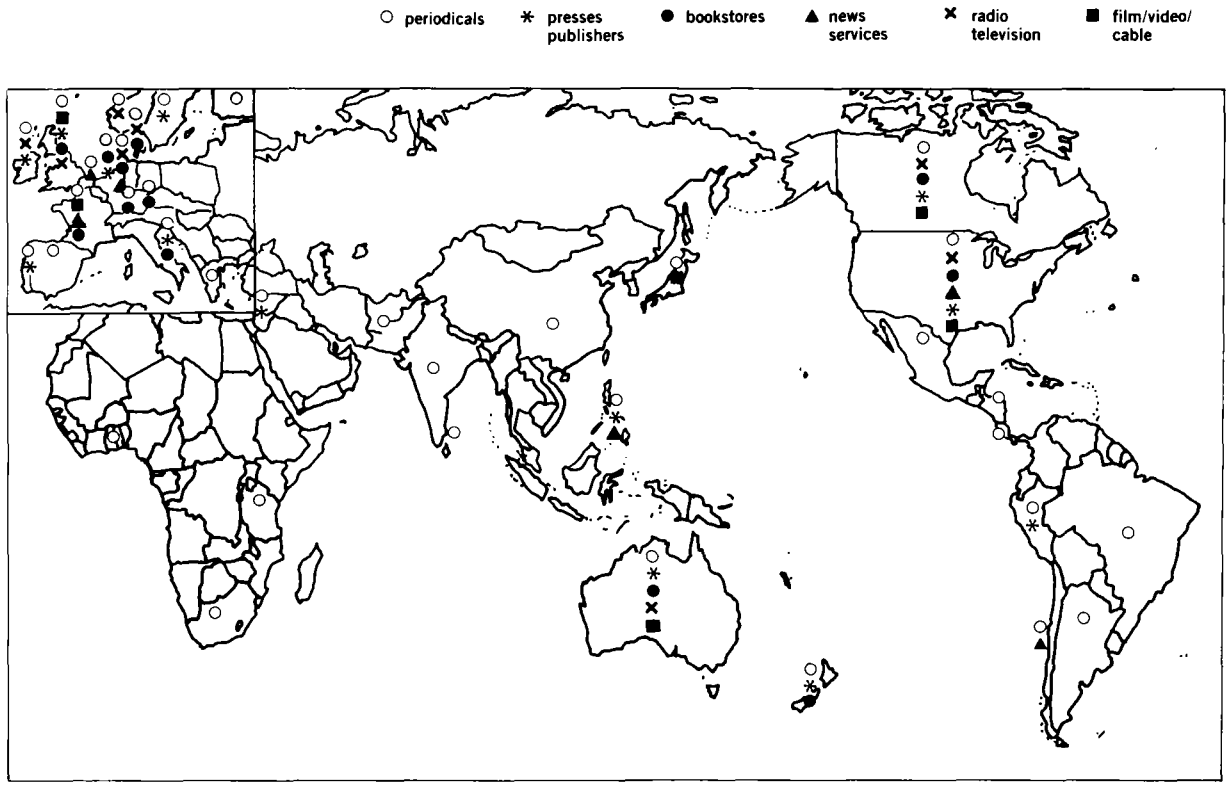


Figure 7.2

Women's alternative media: the global picture, 1985

Source: J. Seager and A. Olsen, *Women in the World: An International Atlas*, London, Pan, 1986.

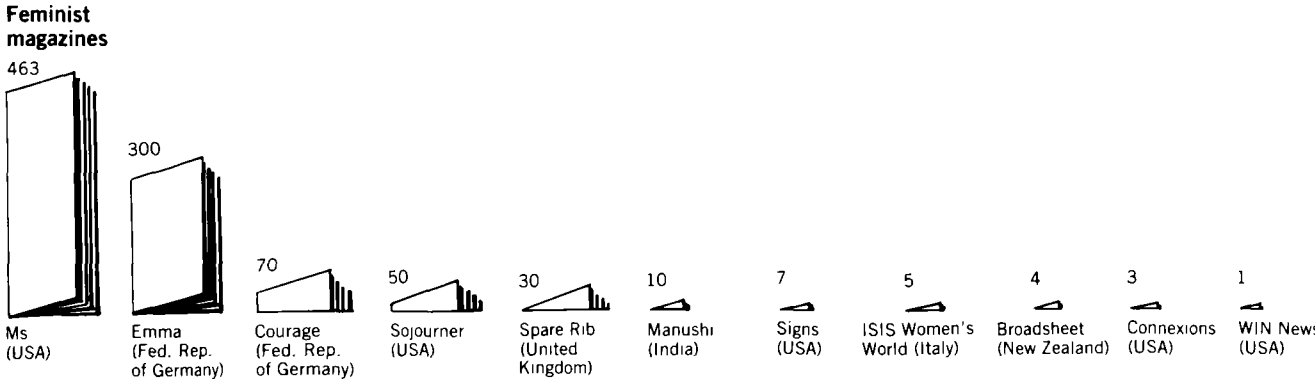


Figure 7.3

Circulation of selected feminist magazines (in thousands)

Source: J. Seager and A. Olsen, *Women in the World: An International Atlas*, London, Pan, 1986

Women's publications

These can be distinguished from mainstream women's magazines in both content and circulation. Women's alternative publications usually make a conscious attempt to cover issues directly relevant to women–for example, reproductive health, violence against women, discrimination in its various forms–and to provide news about women's actions, projects and networks. Their circulation is generally relatively small, although some of the longer established magazines such as *Emma* in the Federal Republic of Germany and *Ms* magazine in the United States, have circulations as large as traditional women's magazines like *Vogue* (USA) or *Bella* (FRG).

The number of such publications is growing globally, with a particularly sharp increase in Latin America, Asia and Africa. From 1985 to 1986 there was a 6 per cent increase in women's publications in North America, and a 3 per cent increase in Europe, but increases of 53 per cent in the South Pacific, 33 per cent in the Middle East, 61 per cent in Asia, 143 per cent in Latin America and the Caribbean, and an extraordinary 266 per cent in Africa. But the overall number of publications produced in the developing regions remains relatively low: under 50 for Asia, Africa, the Middle East and the South Pacific, in comparison with 365 for North America and 76 for Europe. However, these statistics should be treated with some caution: data-gathering is much easier in North America and Western Europe than in other regions, and the definition of "women's alternative publications" may vary in different countries.

Women's audio-visuals/videos/films

In 1986 a women's guide to audio-visual resources, was published by Isis International, a global women's network. The guide, called *Powerful Images*, lists more than 600 audio-visuals–mainly videos, slideshows and films–about women. Most of these have been made by women. Of the materials covered by the guide, 167 come from Asia and the Pacific, 43 from Australia and New Zealand, 35 from Africa and the Middle East, and 24 are in a general "worldwide" category. These figures reflect a certain amount of selection, in particular a screening out of material from industrialized countries so as to emphasize that from developing regions. Other sources indicate a very large amount of material for certain countries. For instance, Cinema of Women, a British film distributing group, lists in its catalogue 100 titles for the United Kingdom alone. An international women's film festival in Paris in March 1987, showed 80 recent full-length features, documentaries and

videos made by women from Canada, France, Hungary, Mexico, Sweden, the United Kingdom, United States of America, USSR and Federal Republic of Germany. However, the festival catalogue noted that "women's films are only a small percentage of what each culture produces–5 per cent maximum".

The major themes of the audio-visuals in the Isis guide are: images and culture (including identity, roles, relationships, migration) 32 per cent; work 18 per cent; health (including reproductive rights and sexuality), 16 per cent; women's struggles, women's history, 11 per cent; sexual violence, prostitution, pornography, 9 per cent; empowering women for development 8 per cent; racism 4 per cent; peace 2 per cent.

Generally speaking, the most frequently recurring themes in Asia and Latin America are images of women, work, and women's struggles though there is nothing on peace and very little on racism; in Africa more audio-visuals deal with development, racism and apartheid.

European and North American film-makers dominate the listing, especially for materials from Africa and the Middle East where, of the 35 audio-visuals listed, only five were actually made by women from the region. For Asia, 44 per cent were made by Asian women, while Latin American and Caribbean film-makers produced up to 95 per cent of the material listed for their region. Distribution of women's audio-visuals follows a similar pattern. Few distribution companies, in any part of the world, are owned or managed by women. The Isis guide and the 1987 Directory of Women's Media together identify eight in North America, eight in Europe, three in Latin America, two in Asia and two in Australia/New Zealand. By far the largest percentage of women's audio-visuals listed in the Isis guide emanates from North America, Western Europe and Australia/New Zealand; only 26 per cent is distributed from Asia, Africa or Latin America, with the latter accounting for 92 per cent of this distribution.

Women's radio

Women's alternative radio differs from much of the programming for women commonly transmitted by the mainstream mass media. Historically, the latter has tended to concentrate on comfortable topics, such as cookery, fashion, home decoration and beauty care, conceived in the image of a leisured middle-class listener. This emphasis in mainstream radio programming is not, of course, static and the "traditional" women's programme has sometimes evolved into a more vigorous entity. Nor are such topics always completely ignored by alternative women's programming, although this will generally tend to cover more controversial issues such as violence, rape, economics, politics, legal rights and so on. Moreover, as a rule the "alternative" approach aims to give a voice to ordinary women themselves, encouraging them to speak about their lives and problems, rather than invariably inviting "experts" to address the woman listener.

The appearance of women's radio programmes and stations over the past decade has been primarily a European and North American phenomenon, linked in many cases to the general call for greater public access to radio for community radio stations. The first women's radio stations in the late 1970s and early 1980s were often illegal: for example, Les Nanas Radioteuses (France), Radio Donna (Italy), and Vrouwenradio (Netherlands). Although community radio has subsequently been legalized in certain countries, most of these early autonomous women's radio stations no longer exist.

However, there are now women's radio groups which produce regular programmes for transmission by community radio stations in many countries. These include Libre à Elles (Belgium), Kvindeboluerne (Denmark), Radio Pleine Lune (France), Frauenfunk (Federal Republic of Germany), Radio Ellen (Ireland), Radio Lilith (Italy), Radiorakel (Norway), Radio Klara and Radio Ellen (Sweden), Women's Airwaves (United Kingdom). In the United States and Canada, public and private radio stations transmit women's programmes made by women's groups. In 1986 there were at least seven regular women's radio groups in different parts of the region, and more than 40 regular radio programmes produced by women. The Australian Broadcasting Corporation has, for some years, had Women's Radio Collective and a special unit in Sydney comprised solely of women which produces a weekly nationally broadcast programme called *The Coming Out Show*. Most public community radio stations in Australia broadcast regular programmes produced by women, specifically for women.

The strong tradition of community radio in Latin America has generated many programmes for and by women. Since 1985, the Unidad de Comunicación Alternativa de la Mujer, a regional women's information network based in Chile, has been building up a women's radio network–Red Radiofónica de Mujeres–to exchange such programmes. Two catalogues have been produced, in 1986 and 1987, giving detailed information about 80 programmes from 14 countries in the region.

A recent initiative to create a women's international radio news source was launched in 1986. The Women's International News Gathering Service (WINGS) was founded out of Western Public Radio in San Francisco to be a clearing-house and distribution point for radio news stories about women. Its major objective is to produce a regular weekly, half-hour news programme distributed by satellite to 320 public radio stations in the United States, and on tape to other English-language broadcasters in the United States and elsewhere. WINGS covers topics of international interest such as the legal status of women, peace and war, indigenous women's struggles, the environment, employment and economics, health and reproduction, childrearing, gender research and women's culture.

Finally, the International Association of Women in Radio and Television (IAWRT), was founded in 1951 for the purpose of bringing together women working in radio to share their professional interests and experience and to extend their influence within broadcasting organizations in Europe and the United States. In 1955 the Association was widened to include television and has attracted members from all over the world, in both media. Since August 1988, the IAWRT has been publishing *Network*, an index of international media women willing to work overseas on projects for women, or in training for women, either on short- or long-term contracts. It covers most regions of the world and is open to any organization wishing to make use of the journalistic skills and media experience of these professional women. It is also open to broadcasting organizations in need of professional assistance in a particular geographical area.

Women's press agencies

At the international level a major project was launched by Unesco in 1978, with funding from UNFPA. The aim was to develop women's features services in each world region, so as to promote a regular international flow of news and information on issues of concern to women. Between 1978 and 1980 regional services were established (and continue) in Latin America, the Caribbean, Africa and Asia, although a project begun in the Arab States in 1981 did not survive. One of the agencies which played a major role in the early stages of the Unesco/UNFPA venture was Inter Press Service (IPS), a news agency dedicated to the provision of information which emphasizes development. Initially, IPS was contracted to establish and operate women's features services in Latin America and Africa. These proved to be a rapid success. When several years later the UNFPA funding terminated, IPS determined to continue and indeed expand its part of the project into a truly international Women's Features Service. Development of the service has been made possible by the financial support of a number of agencies including, since 1986, Unesco's International Programme for the Development of Communication (IPDC).

The IPS Women's Features Service (WFS) currently puts out two feature articles per day on the regular IPS wire. The service accepts articles only from women journalists, who are recruited through regional co-ordinators in Latin America (Costa Rica), South Asia (Delhi), South-East Asia (Manila) and Africa (Zimbabwe). These co-ordinators also edit the material for regional distribution. The service is centrally managed from the IPS international communication centre in Rome, and editorial and operational co-ordination is entirely in the hands of women. WFS focuses on development issues, though always from the specific perspective of women. Typical features might range from a story on family law in Malaysia, to the effects of skin bleaching in Nigeria, to the situation of women working in the free trade zones of Central America.

The features go out in English and Spanish (translated into Arabic, Hindi and various European languages in the user countries), and a French service went into operation in 1988, to be followed eventually by services in Swahili and Hindi. Pick-up rate for the WFS is 80 per cent from the IPS wire. In addition a bi-monthly *Bulletin*, containing a selection of features, is distributed in 500 copies to each world region. Future plans include expansion of the service to the Pacific region and to Francophone Africa.

Women's networks and data bases

The emergence of women's networks was a major feature of the United Nations Decade for Women. Such networks are a response to women's need for information not provided by mainstream media channels and for increased communication among women and across national boundaries. Information collection and dissemination, whether by electronic or manual methods, is thus the central purpose of almost all networks. Some have already computerized their data bases, and this is leading to an exploration of means by which different networks might link up through computer systems. However, these attempts are still in their infancy.

The first international women's network to emerge was ISIS Women's International Information and Communication Service, launched in 1974. Based in Geneva and Rome, it published a quarterly *International Bulletin* between 1976 and 1983, first in English and later in English and Spanish. The *Bulletin* covered issues such as the media, violence against women, tourism and prostitution, migrant women, nuclear power, peace, sexuality, health, feminism and socialism, and new technology. By 1983 ISIS had a network of 10,000 contacts–women's groups, development groups, non-governmental organizations, libraries, documentation centres, women's sections of unions, and individuals in 140 countries, and a documentation pool of around 100,000 items.

In 1984 ISIS was transformed into two independent organizations: Isis Women's International Cross Cultural Exchange (WICCE) in Geneva and Isis International in Rome, which subsequently opened an office in Santiago. Both organizations still operate from the documentation collection and data base built up by ISIS.

Isis-WICCE has three major activities: a documentation/information service, a quarterly publication called *Women's World*, and a cross-cultural exchange programme. The exchange programme is an international networking venture designed to give an opportunity for women activists anywhere in the world to work and learn with a women's group in another country. The programme lasts four months in each year, starting with an "orientation course" where all participants (between 15 and 20 women per year) come together to exchange ideas, experiences and skills. For the following three months each participant goes to a "receiving group" which has been specially matched with her present skills and desire for new skills. The programme usually focuses on a specific theme each year, such as communication, health or appropriate technology. The experience of the programme and the information gathered on each theme are disseminated through *Women's World*, which is published in English with some Spanish articles, and reaches some 100 countries in all world regions.

Isis International–the other organization to emerge from the original ISIS–publishes the bi-annual *Isis International Women's Journal* and a quarterly supplement called *Women in Action*, in English and Spanish. Each issue of the journal is produced jointly with one or more women's groups in the Third World on themes such as health, media, rural women, strategies for action, and consumers, while the supplement gives news and information about women's groups and resources internationally.

Another international women's network has been built up by the International Women's Tribune Centre in New York, United States. The IWTC aims specifically to support and strengthen the efforts of women in developing countries to set up and expand their own regional communication networks. It publishes the quarterly *Tribune* in English, Spanish and French; organizes workshops and staff exchanges; helps women's groups to produce communication materials (such as regional resource books, slide/tape presentations, and other low-cost media); and produces development education materials which it distributes free in developing countries. In 1987 IWTC started an electronic data base of current women's information (events, news, addresses) with on-line telephone facilities. It is too early to assess outreach or user frequency of this service.

The Women's Global Network on Reproductive Rights in Australia links up some 400 groups in 74 countries for the purpose of sharing information, taking international action and organizing solidarity around women's access to safe means of fertility control and against coercive or unsafe population control policies. It has a quarterly newsletter in English and Spanish which is disseminated to members, and, on an exchange basis, to other groups.

The Women and Global Corporations Network links up individuals and organizations concerned about the impact of multinationals on the human and economic rights of women. The Nationwide Women's Programme of the American Friends Service Committee in Philadelphia, United States, acts as a clearinghouse of information and contact point for the network. Its focus is on exchanging information and co-ordinating action compaigns in six major global industries where women are concentrated as workers or as targets of consumer culture: electronics, agribusiness, textiles and garments, tourism, media and pharmaceuticals.

Only one international network focuses exclusively on women and the media. This is the network on Sex-roles Within Mass Media based in Stockholm which is composed mainly of media researchers. Its purpose is to disseminate research on sex-roles within mass media; to exchange information on efforts to improve equal treatment of women and men in media employment and in media content; and to inform members of the network about relevant conferences, seminars and other meetings. Established in 1981, by 1987 the network consisted of some 350 members, spanning Africa (13), Asia (49), Australia (15), Europe (about 200), Latin America (23), and North America (53). It publishes an occasional newsletter in English.

Regional aspects

Presentation of the regional data on women in communication follows the same organizational pattern as that adopted in the section on international aspects.

Developments in mainstream media

Portrayal of women in media content

Africa

A general report on African women in the media presented at a Unesco/ECA regional seminar on "Women and Decision-Making in the Media" in 1985, states that the portrayal of women in the media changed somewhat during the United Nations Decade for Women: there was a shift from the traditional emphasis on fashions and cosmetics towards the depiction of women in a range of occupations, and a conscious effort was made to promote positive images of women. Nevertheless, the report states that negative portrayals are still evident, particularly in advertising. In the daily press, women's news and features remain confined to the women's column, and several countries stress the need for more air time for women's programmes on the radio. The report points out that women's magazines do not play a strong role in changing social attitudes. In summary, says the report, African women are portrayed in the media as weak, emotional, inferior and unintelligent. In general, these conclusions follow those of a series of case studies (including Niger and Sierra Leone) on women and mass media, published by the Africa Training and Research Centre for Women, Addis Ababa, in 1981.

Arab States

A content analysis of three Egyptian dailies, *Al Ahram*, *Al Akhbar* and *Al Jumhouria*, examined their standpoints on women's issues between International Women's Year (1975) and 1979. Women's news appeared on the inside pages of all three papers. The three dailies showed interest in the activities of prominent women, women's organizations, family health and welfare, personal statute legislation, women's news, work problems and labour laws related to women. The Egyptian press, the analysis concludes, tends to highlight the traditional roles of women at the expense of other roles, and seems to pay little attention to rural women. Similar conclusions were reached in a 1984 study of the image of women in the Algerian press and television. This found that the media address themselves to middle-class, apolitical women, projecting a fantasy image which distances women from their own–and other women's–reality.

The Gulf press too is said to be geared towards urban, educated women. Western lifestyles and patterns of consumption are highlighted in advertisements. The traditional, religious approach to women prevails in the print media of the Gulf area. But interest in specific women's issues finds expression in magazines like *Al Azmina Al Arabia*. A study of the image of Iraqi women in the press during the war revealed that between 1980 and 1983, women's contribution to the war effort was recognized and emphasized through studies and interviews in magazines like *Al Mar'a*, although other newspapers and magazines presented women more as social workers than as active participants.

Arab films basically present women in traditional roles. A study of 16 feature films produced between 1972 and 1983 stated that in ten of the sample films women are featured as workers; but the interpretation of work includes entertainment (singing, dancing etc.) which is the sphere in which the films depicted women. Depiction of women in documentary films is no better. Out of 472 documentaries produced in a four-year span during the 1970s, only 3 per cent dealt with women.

A sample survey of the image of women on television and radio in Egypt reveals that though they are present more than 50 per cent of the total transmission time, women mainly occupy marginal and stereotyped roles. Women's programmes on Egyptian radio constituted 1.15 per cent of total transmission time in 1984/85 compared with 0.3 per cent in 1974. But the main themes once again revolved around home-based activities.

Asia and the Pacific

Generally speaking, sex and violence have increased in the mainstream media of the Asia and Pacific region. Women, in romantic, subordinate or subservient roles, are essentially insignificant. However, some of the newer soap operas in countries like India are reported to provide apparently non-stereotypical female characters along with the familiar stereotypes. By far the largest body of recent Asian research on media imagery of women comes from India, covering feature films, magazines, newspapers, television and advertising. Generally speaking, this indicates a trend towards more negative, narrow portrayals of women.

become advertising targets: 71 per cent of commercials analysed in the study advertised grooming aids for women.

The 1983 study of the Indian news media found that although issues of direct concern to women such as dowry death, wife beating and rape were widely covered in the mainstream media, particularly newspapers, social concern was not emphatic enough. None the less, the study concluded that the press has played a significant role in exposing offences against women. Other studies indicate a sharp increase in press coverage of women's issues and actions in India during the 1980s. However, there is still criticism of the absence of "ordinary" women's concerns in media content–the wage labourer, the bonded labourer, the factory worker–or of any comment on sexual inequality.

A very detailed study of the portrayal of women in the media of Pakistan (1986) covered advertising, films and television drama, as well as school textbooks. The overall conclusion is that the fundamental image underlying all media output is that of the desirable but mythical woman of male fantasy. This image is structured across a whole series of contradictory, female attributes. Simultaneously strong and weak, visible and invisible, foolish and wise, hard-working and helpless, asexual and sexually irresistible, the fantasy woman projected in media imagery is both desired and feared. The study contends that this imagery is functional in maintaining male supremacy and women's subordination within the social system.

In Sri Lanka a study of the press in 1983 found that coverage of the women's movement appeared mainly in the English-language press, but that it was almost always portrayed in terms of ridicule. Sinhala and Tamil publications were more accurate and less strident, but did not necessarily treat the issues of the women's movement as politically important. On the other hand in Bangladesh, the national television station introduced in 1985 a series of progressive programmes for women to commemorate the end of the United Nations Decade for Women. A public debate on prostitution was also aired at great length during 1985/86. But here too the overall media emphasis remained focused on broader political issues, rather than those of specific concern to women.

Other recent studies from the Asian region indicate no really positive trends in media portrayal of women. For instance, a study published in 1987 by the Women's Development Institute in the Republic of Korea states that although the number of female characters in television programmes had increased since 1983, men still clearly outnumber women in major roles. Moreover, both men and women continue to be projected in typically stereotyped roles. In the Philippines, a study of women in newspaper coverage (1985) found that women make news almost entirely as rape victims or when involved in some kind of scandal. There was little attempt to view rape as a serious issue, and much stress on such aspects as the victims' "attractive" appearance. In Thailand a similar finding was made by women journalists in 1987, although the inside pages of publications were said to carry news on women's development and careers.

Recent activity in Australia has centred on lobbying for change. In 1983 the Office of the Status of Women published a set of guidelines, entitled *Fair exposure*, for the constructive portrayal of women in the media. The Australian Broadcasting Tribunal set up a committee in 1984 to gauge public concern and consider action to be taken about the portrayal of women in radio, television and advertising. When this project was shelved in 1985, the Women's Electoral Lobby followed it up by issuing a *Sexism Complaints Checklist*, containing advice on how to take action against offensive treatment of women in the media.

Latin America and the Caribbean

Specialized women's magazines of the traditional kind are an important vehicle for advertising and related information throughout the region. Argentina, for example, has *Vosotros*, *Claudia*, *Mujer*, *Viva*, *Emmanuelle* and *Para Tí*. *Para Tí* is the largest, with a circulation of 105,000 in 1986. A great deal of research has focused on the content of such magazines, and of the popular *fotonovelas*, which are said to revolve around romance, fantasy and escapism.

Mainstream newspapers in this (and other) regions devote little attention to women or women's issues. In Argentina, for instance, *La Razón* has a women's page of the conventional type. *La Nación* periodically devotes a page to women's fashion, and the weekly supplement of *Clarín* has some notes on cooking, fashions, cosmetics and advice. The daily *Ambito Financiero* runs two pages in every edition on massage parlours and prostitution services.

Many television channels too have women's programmes–or items–of the purely traditional kind: for example exercise and cooking classes. However, in 1986 an official Commission on the Image of Women and the Family in the Mass Media was established in Argentina. One of its first activities was to produce a series of 45-minute television programmes to improve the image of women in the media. Another positive

development is in Brazil, where in 1987 one of the large national commercial television networks, Rede Machete, began a special daily feature show concerning women. Topics include legislation, sexuality, politics, economics and health.

Europe

A 1985 study of prime-time television programmes on 25 channels in 10 countries of the European Economic Community (EEC) showed that in news programmes male journalists outnumber females by six to one. Only 1.4 per cent of the news items dealt with specifically women's issues. In drama serials, the same study found that roles of women and men are still strongly differentiated, with women identified primarily by their family status and circumstances. In television advertising, the study concludes, men advise and women buy.

Among the East European countries, in Hungary in 1981 66 per cent of radio broadcasters were men. It was also men who dealt with the more important tasks, covering foreign and domestic politics as well as the scientific and technical areas. Forty-nine per cent of the programmes transmitted presented a traditional image of the woman. These findings were echoed in a later (1984) study of television programming in Hungary.

As for attempts within the mainstream media to develop alternatives to the depiction of women in traditional programming, these seem to have gone through several stages in Europe. A study carried out for the Commission of the European Communities (1985) found that by the early 1980s most of the more forward-looking women's programmes initiated in the mid-1970s had vanished from the screens (in, for example, Belgium, France and Italy), while others were under constant threat of cancellation. For example in the United Kingdom, Channel 4 (launched in 1982) commissioned two all-women production companies to produce current affairs programmes for prime-time transmission in 1983, but the commissions were not renewed. In 1985 a weekly series of magazine programmes for women was also broadcast by Channel 4 but, again, the series was not repeated. Following lobbying from groups such as the Women's Film and Television Network, which protested that none of these programmes had been given a chance to establish itself, another women's series was commissioned by Channel 4 for transmission in 1988. New television series - generally aimed at the "modern" professional woman - were also launched during 1988 by ZDF (Federal Republic of Germany) and RAI (Italy).

Recently, there have been a number of initiatives within the context of the European Community to encourage more positive approaches to the portrayal of women. In 1987 the European Parliament adopted a report by its Committee on Women's Rights and a number of resolutions on the subject of women and the media. Among its recommendations was the creation of a European prize for the broadcast which does most to portray women in a realistic light. The Commission (DG X: Information, Communication and Culture) responded by creating the Nike Prize. This was awarded for the first time in October 1988 when first, second and third prizes went respectively to the BBC (United Kingdom), RTBF (Belgium) and ZDF (Federal Republic of Germany). It is anticipated that the prize will become a regular feature within the Commission's programme of activities. The Commission has already set in motion a project in which a television programme on women in society is to be produced in each Member State, for transmission on the national networks. Several projects, including international women's film and video festivals, were organized within the framework of European Cinema and Television Year in 1988.

North America

In Canada, an active programme aimed at eliminating sex-role stereotyping in broadcasting has existed for the past decade. A number of measures, involving both governmental surveillance and self-regulation within the industry, have been developed. Regular checks on the implementation of these measures are made, the most recent being organized by the Canadian Radio, Television and Telecommunications Commission in 1986. One result appears to be that women are increasingly portrayed in non-traditional occu- pations. A 1985 study of television programmes found that 38 per cent depicted women in non-traditional roles. However, non-traditional portrayals of men are more rare. The same study found that 92 per cent of programmes depicted men in traditional male occupations. In two-thirds of the 127 programmes monitored, almost all prominent characters were male; half of the programmes conveyed the message that powerful authoritative or knowledgeable people are male.

Canadian activists have been lobbying to improve the image and participation of women in the media requesting, for example, that more programmes be produced by women. Canada has produced some influential women's films and television programmes. In the 1970s for example, Radio Canada broadcast a regular television series, *Femmes d'aujourd'hui*, which had a great impact on the evolution of the women's movement in Quebec. Studio D is a women's film studio at the National Film Board of Canada which has produced highly acclaimed films.

In the United States of America, for the past ten years, research has consistently come up with the same ratio of male-female characters on television. Men outnumber women by two to one. Only a minority of the women portrayed are mature adults, compared to 70 per cent of the men portrayed. Two out of three men are depicted in some occupational context, compared to only two out of five women. An analysis of racial representation for the 1985/86 season and for the beginning of the 1986/87 season indicated that Hispanic and Asian women are almost never seen. Black females account for 12 per cent of female characters and Hispanics for 2 per cent. All black female characters are confined to situational comedies.

Yet the situation is changing. The 1984/85 season featured women in 45 per cent of the recurring prime-time roles, in contrast to 26 per cent between 1969 and 1974. But compared with entertainment programmes, women's visibility in the national news does not appear to be increasing greatly. A 1984 report found that women reporting on-air news had increased by only 3 per cent since 1985. Also, at least a third of the news broadcasts of the three major networks had no women reporters.

The number of women's radio programmes in the United States, however, appears to have increased greatly in the last two years. There were 35 such programmes in 1987 as against 20 in 1985.

Employment of women in the media

Africa

Figures from Nigeria show that of the 100 chief executives who constituted top broadcasting management in 1985, not one was a woman. In the same year the *Daily Times*, Nigeria's largest newspaper organization, had about 300 journalists of whom one quarter were female; only three of these women were editors. The News Agency of Nigeria, which began operations in 1981, had more than 120 journalists, of whom only eight were women.

In 1985 in the Department of Information and Broadcasting, Botswana, 29 per cent of officers in the administrative and professional cadres were women. This amounted to a total of 46 women; however eleven of these were typists, leaving only 35 media women *per se*. In the Engineering Division of Radio Botswana, out of a staff of 30, only five were women. Of these five, four occupied the lowest rank of Technical Assistant and the fifth–a Senior Technical Assistant–was just one step above. The situation is similar in the private newspaper industry in Botswana.

In Nigeria, women were employed in broadcasting for the first time in the early 1950s, and then only as an experiment. With the growth of training establishments and polytechnics, more women are being attracted to the media, particularly broadcasting. In 1985, in the Lagos zone of the Federal Radio Corporation of Nigeria (FRCN), women accounted for 20 per cent of total staff; out of 16 management personnel, four were women. Television presents a very similar picture: though women occasionally occupy senior management positions, not one has so far headed any of the 25 television stations.

A recent survey of the position of women in the broadcasting organizations of Commonwealth countries in the Southern Africa Development Co-ordinating Committee (SADCC), reported in the magazine of the Commonwealth Broadcasting Association, *COMBROAD*, in December 1987 (Issue No. 77) revealed the position in the seven countries covered (Table 7.4). This table again demonstrates that, as in other professions (with the exception of teaching and nursing), the number of women at management levels in broadcasting organization is very low.

Table 7.4

Women in broadcasting, SADCC countries

Country	Total establishment	Number of Women	Middle management	Senior/top management
Botswana	174	47	1	1
Lesotho	108	33	2	0
Swaziland	120	34	5	0
Tanzania	626	130	15	0
Malawi	400	24	3	0
Zambia	492	34	1	0
Zimbabwe	800	154	4	0

Source: *COMBROAD*, No 77, December 1987.

Arab States

Few statistics exist on the participation of women in communication in the region, though there are a few well-known women communicators. A study in Kuwait, however, revealed a male/female ratio of 5:1 in the media overall. Women represent 30 per cent of employees in the Kuwait News Agency; 18 per cent in radio; 7 per cent in television; and 4 per cent in the press. In Egypt in 1984, 32 per cent of broadcasters were female. In the field of documentaries 7 per cent of directors are women, who are estimated to have produced 58 films since 1979.

Asia and the Pacific

In the Indian national television network, Doordarshan, 26 per cent of producers are women, but the number of women at the higher levels of the organization is very low, partly because of lack of training opportunities. Also, there is a tendency to typecast women into "women's jobs". Women account for only 1 per cent of the entire engineering staff. Across all television production centres, there was only one female station director. In the Delhi Centre, the proportion of women in senior creative categories ("staff artistes") fell from 41 to 33 per cent between 1982 and 1985, largely because of an increase in the recruitment of men to these categories. Yet a positive finding is that women constitute a relatively high proportion (26 per cent) of producers. Here they can play an important role in determining programme content and format and can thus influence the portrayal of women.

Europe

Research carried out for the Commission of the European Communities in 1988 shows that women account for just over a third (34.6 per cent) of the broadcasting workforce across the twelve Member States. Table 7.5 summarizes data obtained from 78 organizations. Clearly, there are more women in radio than in television. In the hierarchy of women's employment, the "radio only" organizations have the highest proportion of female staff. Next come the radio-television organizations (i.e. those which transmit both radio and television programmes). At the bottom are the "television only" organizations.

However, these women tend to be concentrated in a narrow range of poorly-paid jobs. For example, in all types of organization, part-time work accounts for a significant share of women's employment (10 per cent on average, reaching almost 25 per cent in the local and regional radio stations). Most women in broadcasting actually have little direct, or even indirect, input to programme content: 50 per cent of all women in radio work in the administrative and clerical sector, compared with 15 per cent of all men. In television the disparity is even greater: 52 per cent of all women work in this sector, compared with 12 per cent of all men. The majority of these women are in low-level secretarial and clerical posts: in radio, for example, only 5 per cent are in the top echelons of the administrative hierarchy, compared with 23 per cent of the men working in radio administration.

This hierarchical imbalance is repeated across all employment sectors in broadcasting and is reflected in women's earnings, which amount to about 75 per cent of those of men. In the technical area, where jobs are–on average–among the most highly paid, less than 5 per cent of all posts (in television) are held by women. Although in radio the proportion rises to 12 per cent, most of these women are employed either as tape editors or as general technical assistants. Women account for less than 1 per cent of sound engineers in European radio. In the television crafts sector, jobs are almost completely segregated on the basis of gender: for example, two-thirds of all women in this sector are employed in wardrobe or make-up, compared with 6 per cent of all men.

About a fifth of television producers and directors are women, but they are concentrated in two main programme areas: education, where they account for 25 per cent of all producers and directors, and children's programmes, where 38 per cent of producers and directors are female. Women are underrepresented in more prestigious departments like current affairs (14 per cent), light entertainment and variety (16 per cent) and sports (6 per cent). This pattern is repeated almost exactly in radio, where 25 per cent of all producers and directors are women. However, women account for only 18 per cent of producers and directors in radio news and current affairs, 15 per cent in light entertainment, and 8 per cent in sports. Here again, women are heavily concentrated in educational and children's programmes, where 35 per cent of all producers and directors are female.

In senior management women are badly under-represented and–contrary to what might have been expected–there are fewer women at the top in radio (9 per cent of posts in the top three management

levels) than in television (12 per cent). There are some signs (Table 7.6) that women's share of top jobs in television is on the increase.

While, overall, this research showed that for women there are more–and better–employment opportunities in radio than in television, the finding that (in 1988) proportionately more women were to be found in senior management in television is intriguing. It is open to question whether the public spotlight which, particularly since the early 1980s, has focused on the image and employment of women in television has not also detracted attention from the situation in radio.

Table 7.5

Women as a proportion of the broadcasting workforces in EC countries, 1988

	Total workforce	Total women	Percentage Women
International radio organizations (4)	3 039	1 258	41.4
National radio organizations (9)	10 731	3 915	36.5
Local/regional radio organizations (25)	1 270	489	38.5
Radio-television organizations (27)	81 458	28 451	34.9
Television organizations (13)	25 441	8 087	31.8
All organizations (78)	121 939	42 200	34.6

Source: Working Document, Commission of the European Communities, Steering Committee for Equal Opportunities in Broadcasting, Fourth Meeting, 21 October 1988, p.6.

Table 7.6

Women in top three management grades of television in EC countries

	Total top 3	Women top 3	% Women	% all TV jobs	% Women 1986
Television					
France					
Antenne 2[1]	44	13	29.5	3.4	27.0
Canal +	24	5	20.8	4.2	NA[2]
FR3	141	23	16.3	4.3	14.8
La Cinq	24	10	41.7	5.3	NA
M6	18	4	22.2	9.1	NA
SFP	71	12	16.9	3.1	NA
Germany, Fed. Rep. of					
ZDF[1)]	162	12	7.4	4.3	3.6
Portugal					
RTP	120	11	9.2	5.0	7.6
Spain					
TV3	70	10	14.3	8.7	5.7
TVE	189	19	10.1	3.1	5.5
United Kingdom					
Central	80	11	13.8	4.0	NC[3]
Thames	53	2	3.8	2.2	10.4
Total	996	132	13.2	3.9	
Radio/ Television					
Belgium					
BRT	14	2	14.3	1.3	NC
RTBF	8	0	0.0	0.7	NC
Denmark					
DR	34	3	8.8	2.3	NC
Germany, Fed. Rep. of					
HR[1]	19	0	0.0	3.5	0.0
NDR[4]	57	3	5.3	3.9	NA
RB	8	0	0.0	3.3	NC
SDR	26	1	3.8	6.7	NA
SWF	40	2	5.0	4.7	NA
WDR	38	0	0.0	2.0	0.0
Greece					
ERT-ET1	36	11	30.6	6.4	NA
Spain					
RTE	26	3	11.5	2.7	NC
Italy					
RAI[5]	231	3	1.3	1.6	NC
Luxembourg					
RTL	16	2	12.5	8.4	NA
United Kingdom					
BBC TV	400	67	16.8	3.9	6.7
Total	953	97	10.2	2.5	
All organizations	1949	229	11.8	3.2	

1. Comparative data for 1984.
2. NA = Data not available.
3. NC = Data not comparable.
4. Data for 1985.
5. Data refer to all services except radio.

Source: Working Document, Commission of the European Communities, Steering Committee for Equal Opportunities in Broadcasting, Fourth Meeting, 21 October 1988, p. 34.

The Community's Steering Committee for Equal Opportunities in Broadcasting was established in 1985 following a Community-wide survey of employment in television, carried out for DG V (Employment, Social Affairs and Education). A similar survey of radio employment was completed in 1988. The Steering Committee comprises senior managers with responsibility for personnel and administrative policy in some thirty major broadcasting organizations throughout the European Community; the European Broadcasting Union (EBU) has observer status. Its overall aim is to stimulate the development of policies and projects to improve the situation of women in broadcasting.

The Committee meets at least once a year. Its work revolves around three main axes: (a) exchange of information and experiences on various aspects of equal opportunities (e.g. basic mechanisms to promote equality, training and career development, working conditions, recruitment procedures, attitude change); (b) biennial statistical review of employment patterns and practices; and (c) promotion of practical projects to promote equality, for which the Commission may provide part funding.

Under the umbrella of the Steering Committee, training projects for women have been launched in five national broadcasting systems - RTE (Ireland), NOS (Netherlands), RTP (Portugal), the BBC and the ITV companies (United Kingdom). An experimental project to extend crèche opening hours in RTBF (Belgium) has been funded. Projects from DR (Denmark) and RAI (Italy), as well as new proposals from RTE and RTBF, are currently under consideration. Cross-national collaboration in project and policy development has begun: between the BBC and RTVE (Spain), and between the British ITV companies, DR (Denmark) and ERT (Greece).

During 1989 two meetings of the Steering Committee will be held. Greater publicity will be given to the work of the Steering Committee through press releases, trade journals and a specially designed brochure which will outline organizational policies and structural arrangments to promote equality in broadcasting. Plans are under way for a major conference on equal opportunities in broadcasting, to be held under the joint aegis of the Commission of the European Communities and the EBU in 1990.

The project is part of the Commission's Action Programme on Equal Opportunities for Women *(Medium-term Community Programme 1986-1990)*. This programme envisages a future similar initiative in relation to the press.

North America

In daily newspapers in the United States 88 per cent of top policy-making editors are male, though 53 per cent of readers are female, and though the ratio of women to men in most journalism schools is nearly two to one. The salary differential between women and men in top newspaper posts is smaller in the lower-circulation press, but in no instance are the average earnings of women equal to those of men in similar jobs.

The proportion of women in the American television workforce rose from 26 per cent in 1975 to 35 per cent in 1985; in the top four job categories 27 per cent are female. Overall employment of women in radio increased from 25 per cent in 1975 to 36 per cent in 1985. In the top four categories their presence has increased from 14 to 29 per cent. Also, women now hold about 20 per cent of the news director positions at American radio stations, compared with 10 per cent in television.

In Canada it was not until the 1970s that women made their debut as radio journalists, and today, their presence is far from equal to that of men. Yet CBC English-language radio has a tradition of women in senior management. In 1986 women formed 28 per cent of the management in English-language television networks and 39 per cent in radio networks. Though salary gaps persist, in 1985 women's salaries in management had reached an average of 86 per cent of those of the men.

Training for women

The training approaches outlined below do not include the standard degree and diploma courses in journalism or mass communication offered in higher education institutions throughout the world, of which women are increasingly important beneficiaries. Nor is the training provided within media organizations themselves described in any great detail. However, it should be noted that within the context of equal opportunities policies adopted by many such organizations–particularly in Western Europe–training aimed mainly or exclusively at women is now provided by certain companies in areas such as management, production and technical operations. What follows is an outline of some selected examples of training provided primarily outside the mainstream system, but aimed at equipping women to take up employment opportunities in either the traditional or the alternative media.

Africa and the Arab States

A three-year project totaling $225,000, Communication Training and Career Development for Women in Africa, was approved by the Intergovernmental Council of the International Programme for the Development of Communication (IPDC) in 1985. Initiated by Unesco, this was the first IPDC-funded project designed to benefit women exclusively. To assess the impact of the project, each course organized within its framework is to be subject to an evaluation, carried out approximately two years following the training. The first course was concerned with media management for women. It was organized in August 1985 by the Ecole Supérieure des Sciences et Techniques de l'Information (ESSTI), of the University of Yaoundé; participants were from countries in French-speaking Africa. Later in 1985, a regional course for women trainers in development communication was organized by the Communication Training Centre of the All Africa Conference of Churches (AACC) in Nairobi. This course was held in Kiswahili.

During 1986 the AACC ran two further courses, as part of the project, for participants from English-speaking countries. The first, organized in co-operation with the Union of National Radio and Television Organizations in Africa (URTNA), was on media management for women. The second, on television production, focused on camera and editing techniques and was attended by women already working in television. A third course, for French-speaking countries, was in radio production for rural women, organized in the Côte d'Ivoire by the Centre d'Enseignement et de Recherche Audiovisuel (CERAV).

In 1987, four courses were held. The first took place in Lomé, Togo, and dealt with photojournalism for women. A second course, on radio production, was held in Nairobi for participants from English-speaking countries. The third, in television production, was held at the West African News Agency Development project in Cotonou, Benin, for women from French-speaking countries, and the last course was aimed at women in the rural areas and focused on the training of women communication trainers. It was organized by the Centre Interafricain d'Etudes en Radio Rurale (CIERRO) of Ouagadougou, Burkina Faso.

In addition to the above, a workshop for women in development communication, financed by Funds-In-Trust/Norway was organized in 1986 by the AACC in Kigali, Rwanda, for participants from French-speaking countries. In 1987, Funds-in-Trust/Canada and France financed a course for women in photojournalism, organized by the Evelyn Hone College, Lusaka, Zambia.

In November 1988, a subregional training course was held by the South-East Africa News Agency Development project (SEANAD) on media management for women from member countries of the Southern Africa Development Co-ordination Committee in Harare, Zimbabwe. A regional workshop is also planned for 1989 to evaluate the training courses held within the three-year period 1985-87 under IPDC arrangements.

Unesco has also sponsored training courses for professional media women in the Arab States. In 1986, the Media Training Centre of the Arab States Broadcasting Union (ASBU) organized a workshop on the use of mass communication for the social development of Arab women which was held in Damascus, Syria. The following year, the Higher Institute of Journalism in Rabat, Morocco, organized a workshop for women journalists in political news reporting. The same institute is scheduled to hold a workshop in 1989 in another field in which participation of women is usually limited.

Asia and the Pacific

The Australian Film, Television and Radio School started an "on-the-job" Training Scheme for women in 1984, following surveys which showed a critical shortage of women employed in the Australian media in areas which require technical, creative and production skills. An evaluation of the first year of operation of the scheme, during which 17 film and television companies provided training opportunities for 30 women, concluded that the training was cost-effective and worthwhile. The main impetus for the project came from Women in Film and Television, an association of women working in film, video and television, whose objective is to promote women's participation in the media industry. A somewhat similar group exists in New Zealand: the Women's Community Video Group holds workshops to develop women's communication skills, as well as making and distributing productions on women's issues.

CENDIT (Centre for Development of Instructional Technology) in India provides training to activists in video production, poster making, slide-tape show productions. It has a specific women and media development programme for training in participative video communication skills. The Centre also carries out analyses of media content and seeks out alternative non-stereotyped images. In March 1985 CENDIT

organized a South Asian Regional Training Workshop on Women and Media in Development, and in April 1986 conducted a workshop on audio-visual communication methods for women activists, professionals and film producers with special interest in women's issues. In 1988, a workshop was held in Bangalore on video-production.

In Japan, the HKW Video Workshop is very specifically geared to women. It is a video production and media research institute, which trains women journalists and media researchers in professional video production and broadcasting techniques, and collaborates with international media and women's studies organizations. In 1985 HKW conducted a video training course in Nairobi for African media women leading up to the World Conference to Review and Appraise the Achievements of the United Nations Decade for Women. In 1987 HKW, in co-operation with the Press Foundation of Asia (PFA), organized an Asian/Pacific Regional Seminar on Women and the Media: Toward the Year 2000, which was held in Manila. With partial funding from Unesco, the Seminar set up a five-year plan of strategies for action concerning training courses, workshops and seminars in the region. One such seminar, at a regional level, was held in Beijing in 1988, concerned with Asian women journalists and development.

The Asia-Pacific Institute for Broadcasting Development (AIBD), a regional training institute based in Malaysia, has organized regional and in-country courses and workshops specifically for women since 1980. A series of courses in radio presentation and production has been developed for women in the Pacific. On the basis of its experience in this field, the AIBD is preparing a multi-media training kit on women for use within its own courses and for distribution to national training centres and media organizations throughout the region.

Latin America and the Caribbean

The Centro Popular para América Latina de Comunicación (CEPALC), a regional organization based in Colombia, serves as a training centre for community groups, teaching them a variety of communication skills including audio-visual production, journalism, theatre, graphic arts, music and photography. Since 1986, CEPALC has also organized workshops dealing exclusively with women's issues at grassroots level.

In the Dominican Republic, Mujer-Tec is a women's action and advocacy group promoting community action through the media. It aims to train women in non-traditional jobs in communication and to encourage research that analyses, evaluates and promotes change in the media, as part of women's struggle for equality. The group also produces its own audio-visuals.

The Programa de Estudios y Capacitación de la Mujer Campesina e Indígena (PEMCI), in Chile, promotes grassroots organization among peasant and indigenous women through training and the production of education materials, including audio-visuals. Also in Chile, CENECA is a community organization which since 1982 has been developing workshops and materials to promote critical television viewing. As part of this project, CENECA produced a module on women and television *(Mujer-TV)* in 1986.

Europe and North America

With the increase in community media workshops over the past few years, various specifically women-oriented groups and programmes have been set up. For example, the Videobus de Bruxelles is a resource centre. It offers multiple services in alternative communications and audio-visual production to cultural and community groups, including women's groups, and to film and video producers throughout Belgium. These services include technical advice, provision of screening facilities and training sessions in video production.

In the United Kingdom, Video Vera in Leeds is a women's collective which makes videos on commission for groups and organizations. It also runs workshops and courses usually for girls and women. Women's Airwaves (London) provides training in radio skills, and the Women's Film, Television and Video Network (also in London) assesses the training needs of women working in the media, and lobbies to promote appropriate training.

In United States of America the Isis Feminist Collective Inc. in Berkeley, California, is a feminist film production and distribution house which lends and rents equipment, and conducts workshops, panel discussions and classes on film-making and film theory. The longest-lived autonomous women's group of this kind is Women Make Movies Inc., which was founded in New York in 1972 to teach, produce and distribute media related to the history and experience

of women. Another example is the Berkeley-based Women in Broadcast Technology, which trains women in audio and video production.

Women's alternative media

The existence of women's publications, audio-visuals and radio in various world regions has been outlined in the International section above. Here, we concentrate on regional level women's press services and networks.

Women's press sources

The Unidad de Comunicación Alternativa de la Mujer, was created in 1981 as part of the Latin American Institute for Transnational Studies (ILET). Based in Chile, its fundamental purpose is to counteract stereotypical and sexist images of women in the traditional media. As part of this project, it collects information on women's issues in Latin America and disseminates it, in Spanish and Portuguese, as widely as possible within the region. Its press agency, Fempress, produces a monthly publication, *Mujer-Ilet*, consisting of news reports from the Fempress correspondents, and clippings from the mainstream press in different countries of the region. In 1987 there were correspondents in 12 countries, and more than 40 newspapers and 20 radio stations used or reproduced articles taken from *Mujer-Ilet*. Fempress also publishes *Communicación alternativa de la mujer*, a collection of pamphlets which describe women's experiences in using the media as instruments of change in Latin America; and *Especiales Mujer/Fempress*, occasional dossiers of news reports and features on selected themes such as maternity, abortion, politics, work, violence, law, communication, peace and other issues, in terms of how they affect women's lives.

Media Women in Africa evolved from the Federation of African Media Women which was formed in 1981 to help increase the flow of news and information on women in society. Since 1983, Media Women in Africa has been developing a women's features service of articles written by African women journalists. These are distributed, in English, to media outlets throughout the region. Although active from Nairobi between 1983 and 1985, it has been difficult to obtain information about the present status of the service, and no data on take-up are available. Media Women in Africa also publishes *African Women Link*, an occasional development newsletter in English and French aimed at linking individuals, groups, organizations and agencies concerned in particular with African women's development.

Depthnews Women's Features Service operates under the auspices of the Philippines-based Press Foundation of Asia. It is an independent network of women journalists that has been built up since 1979 (initially as part of a Unesco/UNFPA Regional Women's Features Service project). The service continues to put out one or two features a week focusing primarily on the status, problems and initiatives of Asian women, although it also includes articles on women in other parts of the world. The features, which typically cover issues such as problems of dowry in India, sex tourism in Thailand, or employment conditions in Republic of Korea, are picked up by many of the principal mainstream newspapers in Asia.

In Europe, several projects have attempted to create women's press agencies–mainly at national level. Some, such as WIRES in the United Kingdom and Frauenpress in the Federal Republic of Germany are barely still alive. One of the longest surviving Agence Femmes Information (AFI) in France. Created in 1978, until the end of 1986 it published a weekly press bulletin which included news briefs, statistics, features and a calendar of events. This was distributed, on subscription, to the mainstream press in France and elsewhere. In 1984 AFI launched Ellétel, a videotex service initially aimed mainly at women. AFI has had a continual struggle to survive financially. The bulletin was stopped at the end of 1986, and Ellétel gradually dropped its women-oriented services in order to appeal more directly to the men who accounted for the majority of its users. Finally, in 1987 AFI was bought up by a commercial press agency.

The longest established women's press service is Her Say, which was established in the United States of America in 1977. It is distributed to print and broadcast media throughout the United States, as well as to libraries, universities, women's groups and organizations. Her Say, which has correspondents all over the United States and in many of the world's capitals, puts out 12 to 14 stories a week covering politics, labour, business, medicine, sports and the arts as they relate to women.

Women's networks and data bases

At a regional level, the Latin American and Caribbean Women and Health Network, was created in 1984 at the first Regional Women and Health Meeting in Bogotá, Colombia. It currently has more than 350

members which are mostly groups working with poor women at the local level. It operates from a computerized data base including information about health groups and resources, and publishes a bi-monthly bulletin in Spanish. In 1987 the first English edition of the health bulletin was published.

The Arab Women Solidarity Association established in 1982 in Egypt, is an international non-governmental, nonprofit organization aimed at raising social consciousness of Arab women and abolishing illiteracy. Among its goals are the production of books, studies and other materials including television, radio and theatre programmes written or developed by women, the creation of a library, and the development of action-oriented research. The Association is currently planning to issue a magazine for Arab women, in Arabic, every four months. The intended circulation is 10,000 and the magazine will be aimed at all Arabic-speaking women–nurses, secretaries, business women, students, housewives. The AWSA submitted a proposal to the IPDC Council meeting in 1989 for the production of educational/communication materials to be utilised for the development of rural women in the region.

The Network of Women Living Under Muslim Law links up women in Africa, the Middle East and Asia. Its aim is to exchange information and mobilize action to improve women's situation in the Islamic world. It was created by women who had joined to take action in support of women challenging discriminatory laws in Algeria and India. Their experience convinced them of the need for an organized communication and action network. The network distributes irregular news dossiers in English.

The Third World Women's Movement Against the Exploitation of Women, based in the Philippines, is a network which grew out of protest actions by Asian groups against organized sex tours in 1981. This network has enlarged its scope, and with its bi-monthly English-language newsletter disseminates information and calls for action on many issues relating not only to Asian women but also to women in other developing regions.

In Africa, from Senegal, the Association of African Women for Research and Development (AAWORD) has been linking up women researchers on a regional basis since 1980. The Association started publishing an occasional bilingual (English/ French) newsletter, *Echo*, in 1986, which reports on current research and gives news of events, conferences and resources relevant to African women.

The Centre for Research on European Women (CREW) is an independent women's co-operative set up in Brussels in 1980 to provide information on women and employment issues and to build up links with groups and organizations operating in this field throughout the European Economic Community. It publishes a monthly bulletin, *CREW Reports*, which gives news on all European Economic Community measures affecting women. The Centre also has an extensive computerized data bank on women and employment issues.

Women in Development Europe (WIDE), also based in Brussels, is an association of women in development NGOs throughout Europe. Set up after the Nairobi World Conference for the United Nations Decade for Women, WIDE aims to build support for women in NGOs and development agencies, and to promote awareness of the right of all women to benefit from equitable development. WIDE publishes an occasional news bulletin.

Other regional networks are the Asian Women's Research and Action Network (AWRAN) in the Philippines; the Pacific and Asian Women's Forum (PAWF) in Delhi; the Committee for Asian Women (CAW) in Hong Kong, which supports the organization of women industrial workers in Asia; the Asian Pacific Women Action Network in Thailand; and the Red de las Mujeres in Ecuador and Chile. All of them are geared towards the exchange of information, from the perspective of encouraging and reinforcing women's initiatives and actions.

At the institutional and governmental level there have also been initiatives to create networks in response to women's information needs. The Economic and Social Council for Asia and the Pacific (ESCAP) of the United Nations has recently established a project called the Women's Information Network for Asia and the Pacific (WINAP). The objectives are to gather and disseminate facts, ideas, technologies and statistics related to women, to monitor the status of women in each participating country, and to provide a channel for co-operative activities among women.

In 1988, Unesco sponsored a regional meeting in Kuala Lumpur, Malaysia, organized by the AIBD and the Asia-Pacific Development Centre (APDC) on the establishment of an association or network of women media professionals. The meeting recommended the establishment of a Women and Media Network for Asia-Pacific to facilitate an exchange and sharing of resources, experiences and skills for all persons and organizations involved with the issue of women and media. Unesco provided support to the APDC in 1988

to launch the Network and a proposal was made to the IPDC in 1989 for partial financing. The Commonwealth Secretariat, London, has also pledged support.

The African Training and Research Centre for Women which is part of the Economic Council for Africa of the United Nations (ECA) runs an active programme of consultancies and workshops, and develops information materials for women and women's groups throughout Africa. The Pacific Women's Resource Bureau of the South Pacific Commission, based in Noumea, New Caledonia, was set up following a regional women's meeting. It produces a regional newsletter and maintains a regional resource centre of materials and information for women in the South Pacific.

An information service for women was set up by the Commission of the European Communities in 1978. Its aim is to inform women in the European Community about policies on equal oportunities and to monitor progress. It publishes a quarterly bulletin, *Women of Europe* (in all official Community languages), that provides information about discussions and decisions within Community institutions–the European Parliament and the Council of Ministers–which particularly affect women. Drawing on a network of correspondents, *Women of Europe* also publishes news about projects, events and publications in the Member States and elsewhere.

Addresses of the various women's organizations and networks described in this subsection.

Agence Femmes Information, 9 Cité de Trévise, 75009 Paris, France.
Arab Women Solidarity Association, 25 Murad Street, Giza, Egypt.
Asia-Pacific Institute for Broadcasting Development, P.O. Box 1137, Pantai, 59700 Kuala Lumpur, Malaysia.
Association of African Women for Research and Development, B.P. 3304, Dakar, Senegal.
CENECA, Santa Beatriz 106, Santiago, Chile.
Centre for Development of Instructional Technology, D-1, Soami Nagar, New Delhi 110017, India.
Centre for Research on European Women, 38 rue Stevin, 1040-Brussels, Belgium.
Centro Popular para América Latina de Comunicación, Carrera 16A n. 46-23, Apartado Aéreo 28462, Bogotá, Colombia.
Depthnews Women's Features Service, P.O. Box 1843, Manila, Philippines.
Her Say, P.O. Box 11010, San Francisco, CA 94101-7010, USA.
HKW Video Workshop, 3-27-10-Chome Matsunoki, Suginami-Ku, Tokyo 166, Japan.
International Women's Tribune Center, 777 United Nations Plaza, New York, NY 11017, USA.
Isis Feminist Collective Inc., P.O. Box 5353, Berkeley, CA 94705, USA.
Isis International, Casilla 2067, Correo Central, Santiago, Chile.
Isis International, via San Saba 5, 00153 Rome, Italy.
Isis-WICCE, C.P. 2471, 1211 Geneva 2, Switzerland.
Latin American and Caribbean Women and Health Network, Isis International, Casilla 2067, Correo Central, Santiago, Chile.
Media Women in Africa, P.O. Box 50795, Nairobi, Kenya.
Mujer-Tec, Apartado Postal 284-9, Los Rios, Santo Domingo, Dominican Republic.
Network of Women Living Under Muslim Law, 34980 Combaillaux, France.
Network on Sex-Roles within Mass Media, c/o Madeleine Kleberg and Ulla Abrahamsson, School of Journalism, University of Stockholm, S-11265 Stockholm, Sweden.
Programa de Estudios y Capacitación de la Mujer Campesina e Indígena (PEMCI), Purisíma 353, Santiago, Chile.
Third World Women's Movement Against the Exploitation of Women, P.O. Box SM-366, Manila, Philippines.
Unidad de Comunicación Alternativa de la Mujer, Casilla 16-637, Correo 9, Santiago, Chile.
Videobus de Bruxelles, rue Royale Sainte Marie 113, 1030-Brussels, Belgium.
Video Vera, P.O. Box HP5, Leeds LS5 2ED, United Kingdom.
Women and Global Corporations Network, Nationwide Women's Program on the American Friends Service Committee, 1501 Cherry Street, Philadelphia, PA 19102, USA.
Women in Broadcast Technology, 2435 Paulding, Berkeley, CA 94703, USA.
Women in Development Europe, ICDA, 22 rue des Bollandistes, 1040-Brussels, Belgium.
Women Make Movies Inc., 19 W. 21st Street, New York, NY 10010, USA.
Women's Airwaves, 90 de Beauvoir Road, London N1, United Kingdom.
Women's Community Video Group, 30 Bellwood Avenue, Mount Eden, Auckland, New Zealand.
Women's Film, Television and Video Network, 79 Wardour Street, London W1V 3PH, United Kingdom.
Women's Global Network on Reproductive Rights, P.O. Box 4098, 1009 AB Amsterdam, Netherlands.

Media education and youth

International tendencies

Schoolchildren in the industrialized countries spend an average of twenty-four-and-a-half hours every week watching television, nearly six hours listening to radio and music, and three hours reading comic books, newspapers, magazines and books. To these figures should be added cinema attendance and the increasing use of video. Roughly speaking, the thirty-odd hours of weekly exposure to the mass media compares markedly with the twenty-odd hours spent by children in the classroom in most industrialized countries. Research done in Scotland in the mid-1980s illustrates this point (Table 7.7).

Table 7.7

Replies to question "How much time outside school yesterday were you exposed to the following media?"

	Television	Video	Cinema	Radio	Records	Newspapers	Magazines	Books
S1 boys[1]	2.52[2]	0.48	0.09	0.12	0.27	0.11	0.15	0.25
S2 boys	3.04	0.56	0.17	0.14	0.30	0.10	0.08	0.13
S3 boys	2.41	0.48	0.15	0.20	1.00	0.15	0.14	0.18
Boys' mean	2.52	0.51	0.14	0.15	0.39	0.12	0.12	0.19
S1 girls	2.19	0.30	0.06	0.18	0.39	0.09	0.15	0.33
S2 girls	2.44	0.40	0.08	0.33	1.00	0.10	0.16	0.44
S3 girls	2.22	0.28	0.11	0.31	0.54	0.09	0.14	0.25
Girls' mean	2.28	0.33	0.08	0.27	0.51	0.09	0.15	0.34

1. S1 = School 1, etc.
2. Times given in hours, e.g. 1.30 means 1 hour 30 minutes.

Source: *Media Education Curriculum Guidelines,* Scottish Film Council, 1988

Table 7.8

Summary table of time spent per day on media (Figures in brackets are percentage of total day)

	Audio visual[1]	Audio[2]	Reading[3]	Total
S1 boys[4]	3.49 (15.9)	0.39 (2.7)	0.51 (3.5)	5.19 (22.1)
S2 boys	4.17 (17.8)	0.44 (3.1)	0.31 (2.2)	5.32 (23.1)
S3 boys	3.44 (15.6)	0.80 (5.6)	0.47 (3.3)	5.51 (24.4)
Boys' mean	3.57 (16.5)	0.54 (3.8)	0.43 (3.0)	5.34 (23.2)
S1 girls	2.55 (12.1)	0.57 (4.0)	0.57 (4.0)	4.49 (20.1)
S2 girls	3.32 (14.7)	1.33 (6.5)	1.10 (4.9)	6.15 (26.0)
S3 girls	3.01 (12.6)	1.25 (5.9)	0.48 (3.3)	5.14 (21.8)
Girls' mean	3.09 (13.1)	1.18 (5.4)	0.58 (4.0)	5.26 (22.6)

1. Audio-visual = television, video, cinema.
2. Audio = radio, records.
3. Reading = newspapers, magazines, books.
4. S1 = School 1, etc.

Source: *Media Education Curriculum Guidelines*, Scottish Film Council, 1988.

With the advent of satellite broadcasting and further expansion of other media channels, individual exposure is likely to increase further in both the industrialized and the developing countries. As a result, educators in many parts of the world have become sensitive to the need to develop *media education*, known also as media literacy or "educcommunication" (developed by UNDA, the International Catholic Association for Radio and Television), the purpose of which is to improve appreciation of media products.

Media education is often treated as a special subject, sometimes taught with the active involvement of media professionals and in co-operation with parents. As such it is not focused on the use of the media for teaching the established curricula (geography, biology, history, etc.) and it is a preliminary (not a substitute) to specialized training of media professionals.

In this context, the "media" are taken to include both the "established" mass media, such as newspapers, films, radio and television broadcasting, and also the newer computer-based media. Many media education teachers extend the field of study to embrace media industries, for example, advertising, popular music and popular magazines.

This relatively recent area of education, increasingly seen as one of the new forms of literacy (understood in a broad sense as the learning and practice not only of reading but also of other skills, such as media and computer literacy) has been developing quite unevenly in terms of substance and form. Moreover, while it has been growing relatively fast in some parts of the world (notably in Australia, Brazil, Canada, Chile, France, Federal Republic of Germany, India, Ireland, Italy, Japan, the Netherlands, New Zealand, the Nordic countries, Switzerland, the United Kingdom, the United States and Uruguay) in others it is in its infancy or not yet begun.

Media education is carried out both as a part of formal education (primary, secondary and tertiary) and within informal education provided by religious associations, youth clubs, alternative media groups etc. For example, two workshops were convened in 1984 by WACC-Asia Region (World Association for Christian Communication) and WACC London, bringing together media practitioners, trainers, and regional communication agencies in Asia. By combining the topics of human values and communication education/training their objectives were to generate positive action both in training agencies and in a wide range of regional forums. As a follow-up, another workshop held in Manila in 1986 concentrated on improving training programmes and, defining curriculum development as a *process*, outlined its main elements, see Figure 7.4.

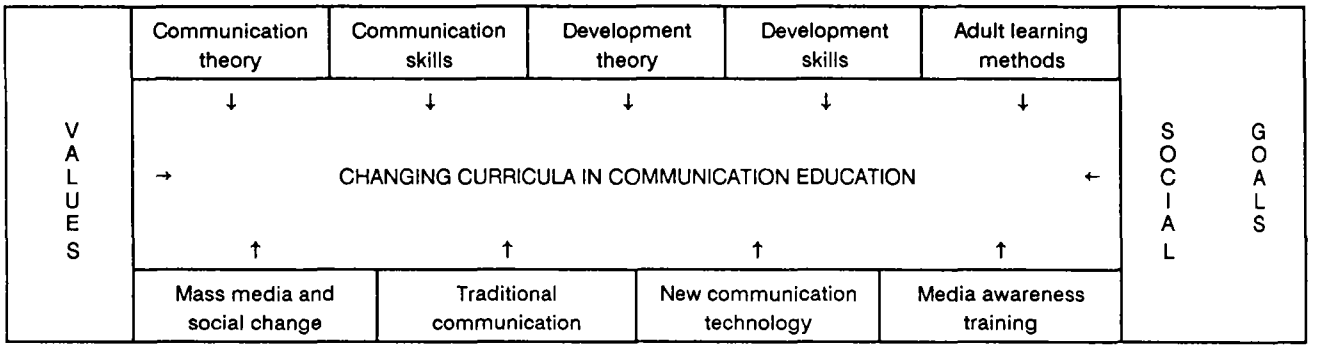


Figure 7.4

Changing curricula in communication education

Source: Lynn Failing, "The Changing Scene in Communication Education", *Media Asia*, Vol. 13. No. 4, 1986, p. 197.

The principal international non-governmental organization active in promoting media education is the International Council for Educational Media (ICEM/CIME) which is a member of the International Film, Television and Audio-visual Council (IFTC/CICT). The ICEM/CIME includes representatives from 26 countries: Algeria, Austria, Belgium, Canada, Denmark, Finland, France, Federal Republic of Germany, Hungary, Iceland, Israel, Italy, Japan, Kuwait, Luxembourg, Mexico, the Netherlands, Nigeria, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, the United States of America and Yugoslavia. Another very active organization is the International Catholic Association for Radio and Television (UNDA) often in co-operation with OCIC (International Catholic Organization for Cinema and Audio-visual).

At the regional level, it is worth noting that a number of important national media education associations have developed, such as:

Australia: New South Wales: Australian Teachers of Media (ATOM) NSW, (Rozelle, NSW); Queensland: ATOM Queensland; Tasmania: ATOM Tasmania; Western Australia: ATOM Western Australia.

Austria: Landesarbeitskreis für Medienerziehung (Graz).

Canada: The Association for Media Literacy (Etobicoke, Ontario).

France: Association Langage Total (Saint-Etienne).

New Zealand: Association of Film and Television Teachers.

United Kingdom (England): Teachers, Educators and Advisers in Media Education (London); Society for Education in Film and Television (London).

United Kingdom (Scotland): Association for Media Education in Scotland (Edinburgh).

United Kingdom (Wales): Media Education Forum for Wales (Cardiff).

Characteristically these associations publish a newsletter or bulletin, organize conferences and training sessions, act as clearing houses for publications and generally serve as lobbies to promote interest in the media education field.

Regional tendencies

In the regional survey that follows, no specific information is provided for *Africa* or for the *Arab States*, because the field of media education in these regions is still in its infancy. The Unesco Regular Programme is attempting to assist with their development, by providing some training for media education teachers, and some funding for the production of instructional materials. In the Arab States, discussions have also been in progress for some time on the possibility of embarking upon national pilot projects in this field, as a means of determining its preferred form and priority. For the most part, however, media education is still concentrated on the industrialized countries, as well as within Latin America, where it has had some recent successes.

Asia and the Pacific

In *Australia*, despite proposals favouring a national curriculum for media education, there is at present considerable variation between the different states. The most recent effort to provide for media education on a national level was made by the Australian Children's Television Foundation. The ACTF proposal has three aims: (a) to encourage the growth of mass media courses in schools; (b) to facilitate and encourage the production of quality film and video-taped material in schools; (c) to facilitate the flow of information and personal contacts among schools, school systems and the media industries.

Media education expanded during the 1970s, but not uniformly over the six states. The most widely used mass-media programme is that of Brother Canavan, originally published by the Sydney Catholic Education Office in 1975 and now used in a wide cross-section of schools in Australia.

Courses offered in high-schools in Australian Capital Territory tend to emphasize appreciation and production; some link media education with screen education, using genre topics like the western and the thriller. Issues of concern in New South Wales are more widespread and utilize a sociological perspective. In South Australia, the Mass Media Awareness and Discrimination Programme includes sections on all media and deals with recognition of devices used by media for the propagation of messages. The central elements of the film and television curriculum are as follows: media development; media purposes; media language; form and content; media in society.

In Western Australia the Media Studies Programme has been in use in many schools since 1973. There are at present media courses for years 8 to 12 in over 60 per cent of these schools. The expansion of this programme gave rise in 1978 to another project, "Primedia", introduced with the intention of teaching media studies and visual literacy in primary schools. By 1985 most primary schools in the state were expected to have adopted some media studies teaching.

The situation in New South Wales is determined by a General Policy Statement, "The Mass Media in Education", made in 1981, requiring media studies at all levels, from kindergarten to year 12, as a course of study in its own right and as part of other disciplines.

In *India*, the first university-level diploma course in journalism was started at the Aligarh Muslim University, Aligarh, in 1938. Around fifty universities at present offer courses in journalism. A few voluntary agencies are also involved in media education. The Central Board of Secondary Education, New Delhi, commissioned a study on the introduction of media education at the secondary school stage and the report of the study is under examination.

Voluntary action groups such as women's and social-service groups have taken an activist stance on government-owned media. They often initiate discussion on representations in the media through the press and at public meetings. Women's groups, for instance, have been successful in having pornographic films, posters and advertisements withdrawn from public display. Other groups employ cine clubs or street theatre to promote awareness among their members about power interests and the politics of the mass media.

In *Japan*, "screen education" was introduced in the 1960s involving both film and television analysis. It later evolved into the "study of mass communication". Its aim, as defined by Tokuo Kataoka, is to help children understand the nature and reality of mass communication and to develop a sound attitude towards it. The subject focuses on: (a) the social nature of mass communication–its function and institutions; (b) ways of presentation; and (c) popular culture. Much emphasis is laid on educational television (ETV) and there have been many research programmes into the effectiveness of ETV in schools. Parents are also invited into the schools to discuss television programmes with teaching staff.

The problems that Japanese teaching staff face in relation to the implementation of programmes or courses of media education are similar to those experienced in the West: classroom timetables are tightly scheduled, leaving little "free time" for media study.

In *New Zealand* media education is generally incorporated into language courses. At the secondary level it is usually combined with English, with an increasing number of film, journalism or more broadly based media elements being developed in the last two years of secondary education. Occasionally art is the context, particularly for studies of the moving image.

Various under- and postgraduate courses are offered in the tertiary sector. An important difference from the Australian situation is that such courses seem to be offered exclusively in the context of other disciplines or subjects, for example, popular culture as part of sociology, aesthetic criticism as part of English, etc.

Europe

In Europe, the situation is far from uniform. Some countries have policy statements calling for the provision of media education. For example, under a decree published by the Federal Ministry of Education, Art and Sport in 1973, Media Education in *Austria* is taught to an estimated 25 per cent of pupils and is integrated with the rest of the curriculum.

In *Denmark*, education in the media has been undertaken at one level or another since the 1930s, not as part of the policy of the Ministry of Education, but on the initiative of enthusiastic and committed teachers. Courses on cinema have been offered to pupils as an optional subject since the 1960s, and the 1970s saw the introduction of more general communication education.

Teachers of humanities, especially history, social studies and Danish, have incorporated aspects of media teaching into their curricula. The emphasis, particularly in the teaching of Danish, has been on education for critical awareness. Students are taught to acquire skills and knowledge in visual literacy; they learn to read images semiologically and then apply this knowledge to film and television images. Emphasis is placed on a sociological rather than an aesthetic analysis of television and students are encouraged to exercise more control over their relationship with mass media. Designed with more able students in mind, this curriculum will be effective for a relatively small minority of Danish secondary-school children. It may be more difficult, therefore, to implement teaching at this critical and analytical level for the less able, which is a problem common to many countries.

In *Finland*, the objectives of media education are stated as follows: to train pupils to observe and interpret media messages; to guide pupils in the selective and critical reception of media messages; to encourage the pupils to form independent opinions based on media information as well as other sources of communication. Media education is integrated into Finnish language and literature, history, social and environmental studies and visual arts.

In the mid-1970s the National Board of General Education, in co-operation with the Finnish Newspaper Publishers' Association, carried out an experiment to involve pupils in periodic teaching about newspapers and other media. Schools were allowed to subscribe to newspapers representing the various political parties, for teaching purposes. Several studies revealed that the use of newspapers has expanded and that a fairly large share of the teachers who use newspapers in their teaching also teach about mass media.

The production of material for media education tends to be inadequate at the national level and much is left to individual staff. Teachers receive in-service

training on the basis of voluntary courses offered by teachers' associations, education authorities and university summer schools.

The *Federal Republic of Germany* has a strong tradition of media education as part of primary and secondary education. None the less media education tends to be provided on an *ad hoc* basis; it is possible to find elements of media education in teacher-training establishments, adult-education institutes, religious institutions, communities, political parties and trade unions. There are a few professorial chairs in media education, but most media teaching finds its place within other subject disciplines.

The major resource centre in the Federal Republic of Germany is the Institut für Film und Bild in Wissenschaft (FWU) (The Institute for Film and Image in Science and Education). Along with two journals, it has produced a portable kit of materials for use in the classroom. The resource materials include a film cassette with three different commentaries, and the same script filmed from three different perspectives, to demonstrate the construction of media images and messages. To date there has been no systematic analysis of the effectiveness of this course.

Most Allgemeiner Rundfunk Deutschlands (ARD) (General Broadcasting Service of the Federal Republic of Germany) stations run regular broadcasts for schools, and Westdeutscher Rundfunk (WDR) (West German Broadcasting) in Cologne has been broadcasting its own media education programme since 1973. The Bayerischer Rundfunk (Bavarian Broadcasting) in Münich has its own research institute, the Internationales Zentralinstitut für das Jugend und Bildungsfernsehen (IZI) (International Central Institute for Youth and Educational Television). This institute operates as a documentation and information centre for educational broadcasting and television for children and young people, and investigates "problems of planning, production and utilization of broadcasting programmes and for examining their effects on the audience".

In secondary schools, media education is usually placed under the umbrella of obligatory "social studies". A study undertaken by the Institut für Publizistik der Universität Mainz (Mass Communication Institute of the University of Mainz) has investigated the extent to which the mass media have become subjects of school instruction. Of the 199 teachers involved in the survey, 91 per cent had dealt with the mass media in class, and 72 per cent dealt with the topic regularly. The staff placed considerable emphasis on pupil participation in practical exercises, rather than on theoretical knowledge.

Media education, especially that of film study, has had a long history in *France*, but not necessarily as part of the formal system of education. Film study at an informal level has counted among "extra-curricular activities" carried out by film societies, school clubs and youth organizations. A major criticism of the teaching provided by these cine-clubs is directed towards the lack of appropriately qualified staff, although the situation has improved recently.

In the early 1960s other areas of media teaching were recognized. For example, the Union Française des Oeuvres Laïques d'Education par l'Image et par le Son (UFOLEIS) (French Secular Union for Education by Sound and Image) organizes media workshops throughout France and provides teaching resources, including its own magazine.

Formal media teaching in schools has existed since the mid-1960s. Some 100 private primary and other schools have been involved with the help of the Institut du Langage Total, at the Université Catholique de Lyon (Catholic University of Lyons). The dominant approach is aesthetic, aiming to teach the students interpretation of visual messages and to allow them to practise techniques of camera work and the creation of their own media products. In 1982, the French Ministry created a new training centre, CLEMI (Centre de Liaison de l'Enseignement et des Moyens d'Information). Its purpose is to train teachers in media subjects and to foster relations between the media and the educational system.

The Centre de Recherche et de Documentation Pédagogiques (CDRP) (Centre for Pedagogical Research and Documentation) together with Initiation à la Communication Audiovisuelle (ICAV) (Initiation into Audio-visual Communication) have been influential in the aesthetic study of media in France. The main influence behind their work is the semiological analysis represented in the work of Roland Barthes. The role of the ICAV is "to enable children to understand and master cultural codes". This is undertaken at two levels: reflection (helping children to analyse audio-visual communication) and practice (helping them to express themselves and communicate by audio-visual means). At present three ICAV courses are available, aimed at pupils in secondary schools.

In 1979, several government ministries involved in youth education–Agriculture, National Education, Leisure Time, the Family, Youth and Sports–launched an experiment known as the "Critical Young Televiewer" project (CYT). The aim of this project was to develop "active television viewing habits in children and

adolescents", and encouraged participation by families, teachers and youth leaders, by imposing a systematic overall arrangement whereby audio-visual education would become an integral part of the school system.

Media education in *Italy* is not part of an official curriculum, but educators have been encouraged since 1974 to make their teaching relevant to the local environment of the children. An example of a link that has been made between media and the local community is to be found in Bologna. Here teachers, parents and community workers work together with the Cineteca Communale (Community Film Library) to provide free film shows on relevant topics. They also collaborate with the Associazione Ricreative Culturale Italiane (ARCI) (Italian Recreational and Cultural Association), an important resource organization for media education, on various video projects.

In the *Netherlands*, media education has been introduced within school lessons mostly in an informal way. The emphasis has been both on the heightening of critical appreciation, especially of cinema films, and on practice, for instance, making stories from still photograph-slide-sound series and producing video films. Although most of the resources are generated by the staff involved, some institutes do provide back-up support: Stichting Audio-visuele Vorning (SAVE) (The Foundation for Audio-Visual Education) in Amsterdam, Educatieve Omroep (Educational Broadcasting Organization) and Stichting Krant in de Klas (Foundation for Promoting Newspaper Reading in General Education). Efforts have been under way to develop an official curriculum for media (or audio-visual) education, but so far with limited success.

Systematic teaching about the mass media was introduced in *Norwegian* schools in the 1970s. Topics such as "newspapers" and "mass media" in general were introduced into social studies courses. Initially, the school system as a whole did little to promote media education as a separate discipline, and the impetus for introducing media education came from individual staff members, or organizations such as the Norwegian Federation of Newspaper Owners, the Marketing Office of the Norwegian Weekly Press and the Council of Photography.

As media consumption increased, so did the integration of media education into the curriculum, where it has become a part of the formal education system up to degree level. Since the mid-1970s, secondary students between 14 and 19 years of age have been able to choose it as an optional subject.

In *Sweden*, the Education Department of Sveriges Radio has been active in producing material for screen and media education since the 1960s. To accompany a course on film study they produced a series of programmes, together with printed literature and work sheets. One media studies project, Film and Television in University, took place between 1975 and 1980, and led to the second project, Media Knowledge in the Secondary School. Institutions such as local school government and local media were also involved in the latter project. It teaches students to analyse screen texts critically and to review certain films and television programmes.

In *Switzerland* a standing commission on audio-visual methods and mass media education was set up between 1975 and 1977 at a national level. Subsequently, in French-speaking Switzerland its findings were put into practice in the areas of curriculum content, teacher-training, and the use of audio-visual aids. Instrumental in this work has been the Secrétariat à la Coordination Romande en Matière d'Enseignement (Secretariat for French-speaking Co-ordination in Education): together with the Centre d'Initiation au Cinéma, aux Communications et aux Moyens Audio-Visuels (CIC) (Centre for Initiation into the Cinema, Communication, and Audio-visual Media). These centres have made the training and re-training of teachers in media education possible in the seven French-speaking cantons.

The Swiss authorities have also devised two television series for children aged 8 to 17: "TV-Scopie" and "TV-Actualités". Their aims are to educate viewers in television images and the language of television, and to analyse news and current affairs programmes as presented on television.

In the *United Kingdom* there is no central authority over what is taught in the schools of England and Wales, and Scotland has its own, slightly different system. However, media education has developed dramatically in England in the 1980s. The Government report, *Popular Television and Schoolchildren* (1983) led to the setting up of 13 working groups of parents, teachers and broadcasters located throughout England concerned about education and the media. In 1986 a National Working Party on Primary Media Education was set up by the Department of Education and Science and the British Film Institute. These initiatives have given prominence and encouragement to media education in primary and lower secondary schools. They coincided with the establishment of Media Studies as an examinable subject in the General Certificate of Education for students aged 16 and over. Five examining boards now offer GCSE Media Studies,

and it is estimated that 10,000 students in England and Wales took this examination in 1988. A recent survey indicated that perhaps 40 per cent of secondary schools in England now undertake some form of media education with pupils below the age of 16 years. Although Government proposals for a National Curriculum in England and Wales do not include media education as a core subject, its inclusion as a cross-curricular subject or theme is now advocated by the Government. In November 1988, the Department of Education and Science document *English for ages 5 to 11*, made it clear that media education was "central to the traditional aims and concerns of English teaching" and should be undertaken in primary schools. It is strongly expected that the same committee will make a similar recommendation with regard to pupils between 11 and 16 when it reports on the English curriculum for this age phase in 1989.

In Scotland, over 170 schools (and further education colleges) are teaching media education courses. Media education provision for the last two years of compulsory education is also currently under discussion. A proposal for a range of 16 short courses, a selection from which would be combined into a specific sequence, has been made by the Scottish Film Council, the body which has been responsible for many recent advances, in co-operation with the Association for Media Education in Scotland (the teachers' group).

At the post-secondary level, 53 institutions offer courses on film and television alone, others offer more broadly-based communications or media studies.

Latin America

In Latin America, participatory communication is considered to be an important element of mass education, and in many of the major approaches to media education in this region, one finds the influence of Paulo Freire. Emphasis is placed on active participation in the media process and on locally generated "small media". The Freirean approach has been applied in adult education by the radio schools, together with some group media, and other forms of popular communication. There has been some adaptation to formal education for children and young people. Here it involves both an education for critical viewing and listening and the teaching of practical skills in the production process.

The emphasis on active production is apparent both in the development of "small media" and in the proliferation of forms of group media. Since 1960 the Latin America Secretariat of the Office Catholique International du Cinéma et de l'Audiovisuel (OCIC) (International Catholic Organization for Cinema and Audio-visual) has co-ordinated a programme of film and television education for schoolchildren in seven countries: Bolivia, Brazil, Colombia, the Dominican Republic, Paraguay, Peru and Uruguay. The programme owes much of its conception to the "langage total" developed by Antoine Vallet and A. Faurie, adapted for the Latin American context by Francisco Gutierrez. It has two sections, the first consisting of a method of instruction in the language and images of film and television, the second encouraging children to participate in the actual production process. Courses are organized for primary-school teachers, often in the form of an annual course of a week or ten days, followed by monthly meetings.

In *Uruguay*, there are 30 to 40 groups operating, and in *Bolivia* the programme is centred on schools in poorer neighbourhoods. In *Brazil*, the programme has been working in the *favelas* (slums), but more recently it has produced a weekly television programme for children with the objective of developing critical viewing skills. The programme centres on the inhabitants of the poorer areas and seeks to alter the balance of media power between producers and recipients.

In *Brazil*, media studies carried out in formal educational establishments remain limited, and often take the form of "campaigns". One such campaign was instigated by the Education State Department of Rio de Janeiro, and entitled "Radio and TV at School" (1979). The State Department equipped schools with radio or television sets for the purpose of exploring, in the classroom, "educational and cultural programmes produced by Radio and Television Production Centres of the Ministry of Education". The campaign was a first step in the utilization of media at school.

Two social communication and media awareness projects are at present under way in Brazil. The first of these was developed by the Brazilian Christian Union of Social Communication (UCBC), a private, non-profit association founded in 1969, in São Bernardo do Campo, São Paulo. The main purpose of this so-called LCC project is to present modern communication media and to promote studies and discussions on social phenomena implicit in communication systems. The project consists of three courses, two of them theoretical–"Communication Systems Analysis" and "Communication and Education"–and the third more practical, aiming at preparing agents of the Church to

participate in social communication activities. The basic methodology of the courses includes theoretical presentations, discussions, and analysis of media programmes.

The main features of the second project are very similar to the LCC project. It is carried out by the Instituto Methodista de Ensino Superior (Methodist Institute of Higher Education) which is also located in São Bernardo do Campo, São Paulo. The so-called TAT project involves parents and teachers in seminars led by teachers of the communication school of the Institute.

In *Chile*, at the national level, media education is not in the formal curriculum in primary schools but exists as an extra-curricular activity in some Catholic schools. One school in Santiago runs a course "Aprender a ver" (Learning to See) which teaches aspects of broadcast television to pupils from nursery up to eighth grade. Important animation work is done by the Centro de Indagación y Expresión Cultural y Artística (CENECA) (Centre for Research and Cultural and Artistic Expression), Santiago de Chile, which is a non-governmental organization concerned with education for active television participation. Its numerous publications (especially handbooks) are widely used in Latin America for media education purposes.

At least one facility exists for student teachers. An elective course, "Educación del telespectador" (Education of the television viewer), is offered in the education department of the Universidad Católica de Valparaíso (Catholic University of Valparaíso). For four hours per week during one semester of their training, students of "High School Pedagogy" are introduced to media education, with a clear emphasis on television. The Universidad de Playa Ancha (University of Playa Ancha) offers an in-service course for teachers called "Educación del telespectador y aprovechamiento educativo de la TV" (Education of the television viewer and educational use of television). Using audio-visual techniques, films, displays and video tapes, the seminars encourage people to participate by openly expressing their points of view.

North America

Almost all of the *Canadian* provinces include in their Curriculum Guidelines statements about the importance of media education in the context of language arts. However, only four of the provinces–Alberta, Manitoba, Ontario and Quebec–are said to have translated this theoretical provision into practice. Media education as part of a broader subject area is still the norm. Alberta and Manitoba include it in "language arts" and Ontario and Quebec use "other formal areas". In all four provinces the length of provision is dependent on teacher interest.

At the secondary level, media education is either integrated into language arts courses or appears as an elective course within journalism, individual media or general communications. An interesting and unique development has occurred in Ontario, with the recent mandatory integration of media literacy into English courses. It accounts for 10 per cent of English in grades 7 and 8; 33 per cent in one intermediate grade with the same percentage occurring in one senior grade, so that 100 per cent of pupils from grades 7 to 13 encounter media education. In addition, there is an elective course available in individual media which can last one or two semesters.

At the post-secondary level, only four Canadian provinces do not offer post-school experiences in the media. The last available figures (1985) stated that 50 tertiary institutions offered over 90 programmes in media. These varied from individual short courses to fully-developed four-year degrees.

There is likewise no uniform provision of media education in the *United States of America*, where it is part of the primary-school curriculum in many American school districts and states. However, it may be made optional, and not necessarily taught at all.

At the secondary level, traditional media education services are part of the established curriculum and tend to be library-oriented, including reading, instruction and reference. Most states have some sort of required media skills education statement contained in accreditation guidelines for secondary schools. A "media educator" is often responsible for faculty and student exposure to new technologies and their utilization.

Requirements in media training for teacher training vary from one state to another according to state certification and accredition requirements. Several states will accept a Bachelor's degree in a teaching field plus an endorsement (certification programme of approximately 30 semester credits) either as part of or in addition to the Bachelor's degree. Individuals may obtain such training from accredited institutions offering degrees in education. Many states require a Master's degree in library media training with or without a minimum number of years of teaching experience. Individuals may obtain such training from accredited institutions or programmes accredited by the American Library Association. The Master's degree is recommended in Information Power, New National

Guidelines for School Library Centres, as the professional degree. Programmes in school library media offer coursework in building up collections, administration, cataloguing and classification, research, reference, recreational and instructional materials, as well as basic hardware usage and production. Most programmes are now requiring additional coursework in computer usage for media management and other sophisticated technology as well as courses in instructional design, networking, communications theory and information technology. Recommended Guidelines for School Library Media Centres, Information Power, were published in 1988.

The training for school media personnel varies according to state certification requirements. Many colleges offer credits (generally 30 semester credits) which form a media concentration to fulfil certification requirements established by the state department of education. There are also many programmes in the United States which offer a Master's degree in school library media education, although the name varies. The training usually consists of courses in at least the following areas: media selection and utilization, cataloguing and classification, reference, administration and management, children's and/or young adult literature, perhaps storytelling and microcomputer utilization and usually an internship of some type.

8. Reference information, research and documentation

Introduction

This chapter of the Report is a reference chapter, which may be useful to professionals, planners and decision-makers, and researchers as a consultative guide and a means of referral to other sources and organizations. The first section provides short profiles of selected communication organizations and institutions, mostly professional and non-governmental, which have not already been described in the main body of the Report.

The remaining five sections are concerned with research and documentation services and sources. A listing of selected research organizations and institutions at the international and regional levels is followed by a summary of the activities of COMNET (International Network of Documentation Centres on Communication Research and Policies). This is followed by select listings of scientific and professional periodicals at international and regional levels, reference books and comprehensive bibliographies, and finally, a series of bibliographies arranged by subject, following the same thematic sequence as has been adopted by the Report as a whole. In relation to this subject-based chapter, it should be noted that only in the cases of information flow and new communication approaches and audiences has a division been made between international and regional titles: these are consolidated for all other themes.

Profiles of selected communication organizations and institutions

This section is concerned only with professional and non-governmental organizations associated with the mass media at international and regional levels. The listing is in alphabetical order within each grouping.

Press and journalists' organizations

Article 19, The International Centre on Censorship

Profile: Article 19, the International Centre on Censorship, is an international human rights organization established in 1986. Its mandate is to promote and defend the freedom to seek, receive and impart information and ideas through any media, regardless of frontiers, as proclaimed in the nineteenth article of the Universal Declaration of Human Rights. Article 19 is independent of all governments and ideologies, and is supported entirely by donations.

Membership: Article 19 is building an international movement and invites support in three ways: financial supporters; campaigners to support censorship appeals; correspondents to contribute information or monitor issues related to censorship by region or country.

Activities/programmes: Article 19 pursues an integrated programme of research, publication and campaigning. Data from an increasing number of countries are systematically collected and analysed using a wide variety of published and unpublished sources. A growing network of correspondents contribute information directly to Article 19. As well as producing country and topic research, Article 19 also prepares briefings for human rights groups, lawyers and others engaged in challenging censorship. Article 19 is developing a project which involves a computerized data base on global censorship in all its forms. Article 19's campaigning programme focuses on individual censorship victims as well as exposing systematic abuses of the right to freedom of expression and information. It intends to mobilise pressure on governments for greater freedom of information and expression, and to promote improved national and international standards to protect these freedoms.

Publications: Article 19 produces a range of publications based on its own research and the help of expert consultants. Occasionally joint publications are undertaken with national and international groups. In 1988 Article 19 produced its first World Report, *Information, Freedom and Censorship*, which includes a comprehensive survey of 50 countries focusing on violations of Article 19 freedoms as well as a thorough discussion of the vital themes and issues to be confronted in the campaign against censorship. Article 19 produces *Commentaries* based on its own research into the state of freedom of expression within countries reporting to the United Nations Human Rights Committee. These reports are presented to the Human Rights Committee members and the representatives of the reporting countries and later published as part of a series.

Address: Article 19, 90 Borough High Street, London SE1 1LL, United Kingdom. Tel: (01) 4034822.

Committee to Protect Journalists (CPJ)

Profile: Founded in 1981, the Committee to Protect Journalists is a non-partisan, non-profit organization of journalists working to defend the rights of colleagues around the world to practise their profession without harassment or interference. Based in New York, CPJ has a staff of six which includes area specialists and support staff. CPJ is directed by a board of prominent American media professionals including Walter Cronkite, Anthony Lewis, Mary McGrory and Dan Rather. The Committee has affiliates in France, the United Kingdom and Canada. Funding is provided by journalists, media organizations and private foundations.

Membership: Any journalist who wishes to support the work of the CPJ and receive CPJ publications may join the Committee.

Activities/programmes: The Committee's primary activities consist in monitoring events, investigating cases where the rights of the press are abused and protesting and publicizing these cases.

Publications: The annual *Attacks on the Press Report* lists hundreds of incidents where journalists are prevented from doing their jobs, including cases of arrests, expulsions, killings, assaults and media closures. The quarterly newsletter, *CPJ Update*, provides articles on press developments around the world and detailed case listings. The monthly *Backgrounder* series alerts journalists to critical press conditions in international trouble spots.

Address: Committee to Protect Journalists, 36 West 44th Street, New York, NY 10036, United States of America. Tel: (212) 9447216. Telex: 910 250 4794. Telefax: (212) 8408620.

Commonwealth Press Union (CPU)

Profile: The Commonwealth Press Union (CPU) was constituted in 1960, in succession to the Empire Press Union which had been established in 1909. CPU is an association of Commonwealth newspapers, news-agencies and periodicals. Its objectives are to uphold the ideals and values of the Commonwealth, promote understanding and goodwill within the Commonwealth and advance and promote the interests and welfare of the Commonwealth's press. It has consultative status with Unesco.

Membership: CPU comprises over 500 corporate members in 31 Commonwealth countries.

Activities/programmes: CPU meets in annual conference, held in a Commonwealth country other than the United Kingdom every other year. It monitors and defends press freedom throughout the Commonwealth, and promotes the training of all sections of the Commonwealth's press. Its premier training programme is the annual Harry Brittain Fellowship for ten journalists from other Commonwealth countries, undertaken in the United Kingdom. CPU also makes

an annual Award, donated by and named after the late Lord Astor of Hever, for services in promoting press freedom and/or Commonwealth understanding.

Publication: The *CPU News*, published bimonthly, is an in-house magazine, catering for a readership which comprises CPU members.

Address: CPU, Studio House, 184 Fleet Street, London EC4A 2DU, United Kingdom. Tel: (01) 2421056. Telex: 936565 CPULON. Telefax: (01) 8314923.

Confederation of ASEAN Journalists (CAJ)

Profile: CAJ was founded in 1975 in Jakarta (Indonesia), and co-operates in advancing journalism and promoting a free and responsible press in ASEAN countries.

Membership: Members are national associations and individual journalists: CAJ totals over 6,000 journalists in six countries: Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand. The Board of Directors meets annually. A general assembly is held every two years on a rotating basis.

Activities/programmes: CAJ represents its members at the regional level in relation to questions such as press freedom, the working conditions of journalists, and journalism education.

Publications: *The ASEAN Journalist* (quarterly) and *ASEAN Press Yearbook* (annual).

Address: CAJ, Fourth floor, Jalan Kebun Sirih No. 34, Jakarta 10110, Indonesia. Tel: 353131/353175.

Federation of Arab Journalists (FAJ)

Profile: FAJ was founded in 1964, in Kuwait, under the name Arab Union of Journalists. It has NGO relations with other regional journalist organizations and with the International Organization of Journalists (IOJ) and International Federation of Journalists (IFJ).

Membership: FAJ represents more than 20,000 Arab journalists and is comprised of 17 Arab organizations in 16 Arab countries. Only national unions may become full members. The General Assembly is held every four years to elect the president and two vice-presidents.

Activities/programmes: FAJ contributed to the International Convention on the Ethics of Journalists' Work and has prepared several surveys of journalists' situation in the Arab region. FAJ participates in meetings of international and regional organizations of journalists.

Address: FAJ, P.O.Box 6017, Baghdad, Iraq.

Index on Censorship: Writers and Scholars Educational Trust (WSET)

Profile: Writers and Scholars Educational Trust was founded in 1971. The WSET staff collect detailed and up-to-date information on the situation of writers, scholars, and journalists, artists and others who have been subjected to censorship and other forms of persecution. Five researchers cover East Europe, Latin America, Asia, Africa, and the Middle East. Examples of the work of banned writers are published in the magazine *Index on Censorship*, which also surveys media freedom developments around the world.

Activities/programmes: WSET publishes books on freedom of expression, usually in collaboration with commercial publishers. It also publishes reports on particular situations, educational booklets introducing human rights into the school curriculum and one-page briefing papers on urgent cases around the world. WSET has a library and documentation centre on censorship and freedom of expression which is available for the use of researchers, students and journalists. It also provides background information for the press, television, and radio journalists and gives lectures.

Publications: *Index on Censorship* published by Writers and Scholars International, Ltd. WSI Ltd has also published journals for other organizations, for example, *Spektrum*, produced by banned Czech writers; *A Chronicle of Current Events*, journal of the human rights movement in the USSR.

Address: WSET (Index on Censorship), 39C Highbury Place, London N5 1QP, United Kingdom. Tel: (01) 3590161

Inter-American Press Association (IAPA)/ Association Interamericaine de la Presse

Profile: Founded in 1942 in Mexico City, and reorganized at its sixth Conference in 1950, the Inter-American Press Association is a non-profit organization of Western Hemisphere newspaper publishers and directors devoted to the promotion and protection of freedom of the press. The objectives of IAPA are: to guard freedom of the press; to foster and protect the general and specific interests of the daily and periodical press in the Americas; to promote and maintain the dignity, rights and responsibilities of journalism; and to encourage uniform standards of

professional and business conduct. It has consultative status with ECOSOC and Unesco, and close co-operation with OAS.

Membership: IAPA has active members in 34 countries including Canada, the United States, the Caribbean and Latin America.

Activities/programmes: IAPA holds two public meetings each year in which it analyses and reports on the status of freedom of expression in the Western Hemisphere, presents IAPA awards to journalists and publications which have most contributed to inter-American knowledge and understanding, and awards scholarships to young journalists for an academic year of study in another country of the hemisphere. The IAPA Technical Center holds five to ten annual seminars and workshops in various countries of Latin America and the Caribbean to provide advice and assistance to publications, journalists and production personnel. It also provides technical publications, consultation and referral services.

Publications: Monthly publications are *IAPA News*, *Noticiero SIP*, *El Boletín del Centro Técnico*. Twice yearly *Country-by-Country Reports* are published in English and Spanish.

Address: IAPA, 2911 N.W. 39th Street, Miami, FL 33142, United States of America. Tel: (305) 6342465.

International Catholic Union of the Press (ICUP)/ Union Catholique Internationale de la Presse (UCIP)

Profile: The International Bureau of Catholic Journalists was founded in 1927 in Brussels. In 1935 it became the International Union. The aim was to establish a permanent link between associations of Catholic journalists in order to defend the material and ethical interests of members of the profession. Since then, ICUP (UCIP in French) has expanded its activities to include the defence of freedom (dissemination of news, protection of journalists), the development of nations (training of journalists, aid to the Catholic press) and the organization of the profession (professional ethics). ICUP has consultative status with the United Nations, ECOSOC, and Unesco. ICUP holds a congress every three years.

Membership: ICUP's members are regional or continental federations and organizations of journalists and publishers. The federations are international associations working in the Catholic journalism field to co-ordinate the activities of Catholic professionals in the various branches of journalism and information. There are twenty or so Catholic news agencies, mainly Europe-based but with a presence on all continents. Since 1987, an International Network of Young Journalists has been created by ICUP, and already includes members from over fifty countries.

Publications: *UCIP, 1927-1977*, (booklet published for the 50th anniversary). *Revue UCIP Information*, (quarterly). *UCLAP Newsletter*, (published for Latin America). *News and Views* (for the Network of Young Journalists), ICUP Book Series (since 1987).

Address: UCIP, 37-39 rue de Vermont, Case Postale 197, CH-1211 Genève 20, Switzerland. Tel: (022) 430017. Cable: PRESSUCIP GENEVE.

International Federation of Journalists (IFJ)/ Fédération Internationale des Journalistes (FIJ)

Profile: The International Federation of Journalists was formed in Brussels in 1952. IFJ is a non-political organization created to deal with matters related to member unions' trade union functions, to freedom of the press, and to the practice of journalism.

Membership: In 1988, IFJ had more than 150,000 individual members. To qualify for admission as a full member of IFJ, an organization must be a national trade union of professional journalists, dedicated to the freedom of the press and to defending and advancing the rights of journalists. In 1988, 41 organizations were full members and there were three associate members. IFJ mainly groups journalists in Western Europe and in countries with market-based economies. The highest policy- and decision-making body of the IFJ is its Congress, which meets every two years. Each country, irrespective of size or membership of the national union or unions within the country, has six votes. It has consultative status with ECOSOC, ILO, Unesco and the Council of Europe.

Activities/programmes: IFJ represents its member organizations on the international level in relation to such questions as press freedom, copyright, protection of journalists, and the working conditions of journalists. The Federation also organizes training courses for journalists in the developing world. IFJ is currently undertaking a two-year study on the working conditions of women journalists and their status in the trade unions.

Publications: IFJ publishes a monthly newsletter, *Direct Line*, in English, German, French and Spanish. For special articles on professional or media questions, IFJ also publishes *IFJ Information*.

Address: IFJ, 1 Boulevard Charlemagne, B.P. 5, B-1041 Bruxelles, Belgium. Tel: (02) 2380951. Cables: INTERFEDJOUR. Telex: 61275 IPC. Telefax: 2303633.

International Federation of Newspaper Publishers/Fédération Internationale des Editeurs de Journaux (FIEJ)

Profile: The International Federation of Newspaper Publishers was set up in Paris in 1948. It is also referred to by its Spanish title of Federación Internacional de Editores de Periódicos and in French as Fédération Internationale des Editeurs de Journaux. The objects of FIEJ are: to defend and promote press freedom and the economic independence of newspapers as an essential condition for that freedom; to contribute to the development of newspaper publishing by fostering communications and contacts between newspaper executives; to promote co-operation between newspaper publishers in its member nations; to promote and develop a free press and information activities in developing countries. Representatives of each national organization of FIEJ sit on the Board. The President, General Secretary, General Treasurer and First Vice-President, with six other Board members, comprise the Executive Committee. FIEJ holds an annual congress. FIEJ has four specialist Committees: Management and Marketing; Socio-Political Problems; Press Freedom; Electronic Media. FIEJ has consultative status with ECOSOC, FAO, ITU, Unesco and the Council of Europe, and NGO relations with the Commonwealth Press Union (CPU); INCA-FIEJ Research Association (IFRA); Inter-American Press Association (IAPA); International Press Institute (IPI); International Press Telecommunications Council (IPTC); World Press Freedom Committee (WPFC).

Membership: The national organizations of newspaper publishers and directors are full members of FIEJ. Individual newspaper directors or publishers (in countries where there is no full member), and organizations and companies active in the communications field are associate members. FIEJ has full members in 29 countries of Europe, Asia and the Americas.

Publications: *FIEJ Newsletter*, monthly, in English and French.

Address: FIEJ, 6 rue du Faubourg Poissonnière, F-75010 Paris, France. Tel: 45233888.

International Federation of the Periodical Press/ Fédération Internationale de la Presse Periodique (FIPP)

Profile: The International Federation of the Periodical Press was founded in Brussels in 1910; it was reorganized in Paris in 1925. FIPP has consultative status with ECOSOC, Unesco and the Council of Europe.

Membership: National sections in 29 countries.

Activities/programmes: FIPP's aims are to further the interests of the periodical press throughout the world by supporting freedom in the dissemination of news, protecting its ethical and material interests, ensuring public and official confidence, promoting the use and raising the standards of the periodical press, and encouraging co-operation among members. FIPP holds a biennial congress.

Publications: *International Report on Periodical Publishing* (yearly).

Address: FIPP, Suite 19, 35-37 Grosvenor Garden House, London SW1W 0BS, United Kingdom. Tel: (01) 8281366.

International Organization of Journalists (IOJ)/ Organization Internationale des Journalistes(IOJ)

Profile: The International Organization of Journalists was founded in Copenhagen in 1946 to continue the mission of the wartime International Federation of Journalists of Allied or Free Countries and its predecessor, the Fédération Internationale des Journalistes founded in Paris in 1926. Aims of IOJ include promotion of international understanding through free, accurate and honest informing of public opinion and the protection of all journalists' rights. While its headquarters are in Prague, IOJ has regional centres in Paris, Mexico City and Addis Ababa. IOJ has consultative status with ECOSOC and Unesco.

Membership: In 1988, IOJ had 99 member organizations and groups as well as six associated organizations in 92 countries; there are individual members in 28 countries. Altogether IOJ groups some 250,000 journalists in 120 countries. Most member organizations come from countries of the non-aligned movement, while nearly half of journalist members come from the organizations of the European socialist countries. The supreme body of IOJ is the Congress which meets every four to five years. Elected bodies are the Executive Committee and its Presidium as well as several special councils and committees, which meet once a year.

Activities/programmes: Besides its primary task of representing members at the international level, IOJ, in collaboration with its member organizations, runs journalism schools in various world regions, provides assistance to journalists from the developing countries and supports the movement of journalists for peace, security and co-operation in Europe. Current programmes include promotion of journalists' socio-

economic conditions, their professional ethics, protection on dangerous missions and problems of new technologies.

Publications: IOJ periodicals are the fortnightly *IOJ Newsletter* (in English, French, Spanish, Russian, Arabic and German), the monthly *The Democratic Journalist* (in English, French, Spanish and Russian) and the quarterly *Interpressgrafik* (in English). Other IOJ publications include a series of textbooks for journalism training and a sourcebook on the New International Information and Communication Order. The non-periodic books and brochures are published in English, French, Spanish, Russian, Arabic and Portuguese, and total about 20 titles annually.

Address: IOJ, Parizska 9, CS-11001 Praha, Czechoslovakia. Tel: (02) 2328015. Cable: INTORG-JOUR Prague. Telex: 122631 JOUR C. Telefax: (02) 2320426.

International Press Institute (IPI)/ Institut International de la Presse (IIP)

Profile: The International Press Institute was founded in Paris in 1951; it is a non-profit membership corporation. IPI has consultative status with Unesco and the Council of Europe and is a member of the Special Committee of International NGOs on Human Rights.

Membership: Full members are those responsible for editorial and news policies of newspapers and broadcasting systems; associate members are those whose work is linked to editorial aspects of journalism.

Activities/programmes: IPI seeks to further freedom of the press by supporting free access to news and free expression of views. In order to achieve understanding among nations, IPI promotes the free exchange of accurate and balanced news among nations and works to improve the practices of journalism. As a press centre, IPI gives information on press freedom and editorial research. IPI also organizes training programmes and seminars in Africa, the United States, Asia and Europe. IPI holds an annual general assembly.

Publications: *IPI Report* (monthly) in English, various studies on press matters, including *Annual Survey of Press Freedom*.

Address: IPI, Dilke House, Malet Street, London WC1E 7JA, United Kingdom. Tel: (01) 6360703/ 6360704, Cable: PRESOINT London WC1. Head office: Mangoldweg 2, CH-8142 Vitikon-Waldegg, Switzerland, Tel: 4916481.

The International Press Telecommunications Council (IPTC)

Profile: The IPTC was founded in London in 1965 and has consultative status with Unesco, ECOSOC and ITU, and NGO relations with the International Organization for Standardization, the European Commission, and the European Space Agency. Its purpose is to safeguard and promote the telecommunications interests of the world's press.

Membership: IPTC members consist of individual newspapers and news agencies and associations thereof throughout the world.

Activities/programmes: The IPTC is recognized by international and regional organizations responsible for telecommunications regulations and standards. It has initiated a large number of internationally accepted recommendations aimed at facilitating news exchanges throughout the world.

Publications: The *IPTC News* published in English three times a year.

Address: International Press Telecommunications Council, Studio House, Hen and Chickens Court, 184 Fleet Street, London EC4A 2DU, United Kingdom. Tel: (01) 4052608. Telefax: (01) 4044527.

International Union of French Language Journalists and Press/Union Internationale des Journalistes et de la Presse de Langue Française (UIJPLF)

Profile: The UIJPLF was founded in 1952 with a view to: preserving and safeguarding the French language and culture; linking journalists in all parts of the world who use the French language; developing and co-ordinating relations among all publishers, radio and television stations and all other media for communication in French; and promoting technical co-operation in information and professional training. It has consultative status with Unesco.

Membership: About 1,500 national and sub-national organizations and individuals from 75 countries.

Activities/programmes: Congresses and meetings; operation of an International Library on the French Language Press. The Executive Committee is elected by representatives of sections.

Publications: *La Gazette de la presse de langue française* (bimonthly); *Congress Proceedings*.

Address: UIJPLF, 3 cité Bergère, F-75009 Paris, France. Tel: (1) 47700281 or (1) 47700280. Telex: 250303 Paris.

Latin American Federation of Journalists/ Federación Latinoamericana de Periodistas (FELAP)

Profile: Founded in 1976, FELAP works to meet the economic, political and social demands of journalists, to give journalists better living and working conditions, and to defend the rights of journalists' trade unions.

Membership: FELAP has about 80,000 members in 23 different countries. Any national Latin American journalists' organization that endorses FELAP's Declaration of Principles and statutes can join. National groups and committees are admitted in countries where there is no national organization. FELAP is governed by its Congress, a Board of Directors with one representative per country, an Executive Committee and a Secretariat. The Congress normally meets once every three years.

Activities/programmes: FELAP aims to help strengthen friendship between Latin American countries and maintain world peace through a free and balanced flow of information. FELAP has set up a solidarity fund to aid journalists in prison, in exile or suffering persecution. FELAP organizes technical training seminars for journalists. It also takes part in the World Peace Council and has co-operative agreements with the International Organization of Journalists (IOJ), and with other international and regional journalists organizations. FELAP has consultative status with Unesco.

Address: FELAP, Nuevo Leon 144, Departamento 101, Colonia Hipódromo Condesa, Apartado postal 11 466, Código postal 06100, México D.F., Mexico. Tel: 2866085/2866055, Cable: FEDALAPE.

Latin American Federation of Press Workers/ Federación Latinoamericana de Trabajadores de Prensa (FELATRAP)

Profile: FELATRAP was founded in 1976 in San José, Costa Rica, during the first Latin American Congress of the Press. The organization is supranational, uniting national, professional and trade union organizations with press workers' movements. It adheres to the Latin American Workers Centre (CLAT), and to the World Confederation of Labour (WCL), and has consultative status with Unesco.

Membership: FELATRAP's members include journalists from 22 countries in the Latin American region. FELATRAP is governed by the following bodies: (a) the Latin American Congress which is composed of national delegations and Executive Committee members, whose main responsibility is to establish overall policy guidelines; (b) the Latin American Council, a supervisory body, whose members are taken from the Executive Committee and the most senior representatives from each affiliated organization; (c) the Executive Committee, which ensures the general management of FELATRAP in accordance with Congress and Latin American Council decisions and supervises the implementation of new ideas introduced by the Organization.

Activities/programmes: FELATRAP originates and co-ordinates proposals on the social function of journalists and of the media, and has decided to set up a Latin American Committee for the Freedom of Information and Human Rights.

Address: FELATRAP, Calle Venezuela 3342, 1211 Buenos Aires, Argentina. Tel: 931841/373162.

Reporters sans Frontières/Observatoire de l'Information

Profile: Reporters sans Frontières and the Observatoire de l'Information were founded in 1985 in Montpellier, France, as non-profit organizations. The Observatoire's mission is to defend freedom of expression and to promote the rights to inform and comment, and to assist journalists or media subjected to censorship and other violations of press freedom.

Activities/programmes: L'Observatoire de l'Information organizes meetings, conferences, seminars and research on various aspects of freedom of expression and information. It collaborates with universities, professional associations and international organizations, including Article 19, Committee to Protect Journalists, International Federation of Journalists, and the Institut de l'Audiovisuel et des Télécommunications en Europe.

Publications: In 1989, the Observatoire introduced a yearbook called *Information dans le monde - 206 pays au microscope*, on the state of freedom of information in the world. Reporters sans Frontières published an *Atlas mondial des Libertés*, in March 1989.

Address: Observatoire de l'Information, 17 rue Abbe de l'Epée, F-34000 Montpellier, France. Tel: 67798182. Telefax: 67726404.

Union of African Journalists (UAJ)/Union des Journalistes Africains (UJA)

Profile: The Union of African Journalists was founded in 1974 in Kinshasa, Zaire, and was set up to bring together African journalists in a single professional organization.

Membership: UAJ members are all the journalists' organizations of the OAU Member States and all the African liberation movements recognized by the OAU. The General Congress, consisting of all active members of the Union, is the supreme power in UAJ. The organization is run by an elected, eight-member Management Committee.

Activities/programmes: UAJ works in co-operation with Unesco, which gives it technical assistance and has granted it consultative status. UAJ has signed agreements with: the International Committee of the Red Cross; the Association of Chinese Journalists; the International Organization of Journalists (IOJ); the Federation of Arab Journalists.

Publications: *The African Journalist*, in French, English and Arabic (monthly).

Address: UJA, 1 Talaat Harb Street, P.O. Box 71, Bab El Louk, Cairo, Egypt. Tel: 740175/750242. Telex: UJATEHAD.

World Press Freedom Committee (WPFC)/Comité Mondial pour la Liberté de la Presse

Profile: The World Press Freedom Committee groups 32 journalistic organizations in all world regions. The Committee's main purpose is to counter threats to press freedom and assist journalists and news media in developing countries. It also administers the Fund Against Censorship. WFPC has consultative status with Unesco.

Membership: Among its affiliates are the American Newspaper Publishers' Association, the Inter-American Press Association, the National Association of Broadcasters, the Association of Argentine Journalistic Organizations, the Caribbean Publishing and Broadcasting Association, Women in Communications, the Newspaper Guild, the Canadian Daily Newspapers Association etc. There are both print and broadcast affiliates, and membership includes organizations of media trade unions, as well as owners and managers.

Activities/programmes: WPFC assists journalism and media schools in the developing world and provides grants for training programmes, seminars and consultants. It also organizes international conferences of media professionals on subjects related to its purpose to intensify efforts against censorship, self-censorship, and other restrictions on journalists and the news media.

Publications: WPFC assists several publications, including handbooks for journalists in the Caribbean and in Africa, and prepares a directory of training programmes for journalists around the world.

Address: WPFC, The Newspaper Center, P.O. Box 17407, Washington, DC 20041, United States of America. Tel: (202) 6481000.

Broadcasters

Arab States Broadcasting Union (ASBU)/Union de Radiodiffusion des Etats Arabes

Profile: ASBU was founded in 1969 in Khartoum within the framework of the League of Arab States. ASBU aims at strengthening co-operation among broadcasting organizations in the Arab States for the benefit of the Arab people. It also promotes the exchange of expertise and seeks to project the image of the Arab States to the world at large. The ASBU General Assembly meets every two years. ASBU co-operates closely in joint projects and activities with the Arab League and its specialized organizations concerned with information and communication (ALESCO, ATU, ARABSAT). On the international scene, ASBU maintains professional relations with similar world broadcasting organizations on matters of mutual interest, and co-operates with Unesco, IPDC, WIPO and other specialized organizations in the audio-visual field.

Membership: ASBU active members comprise broadcasting organizations in 22 countries and seven associate members from five other countries.

Activities/programmes: In the field of programming: exchanges of radio programmes by mail; weekly exchanges of television programmes by satellite (ARABSAT); daily news exchange via ARABSAT; co-ordinating the transmission of Arab and international sports events for ASBU members as well as other Arab political or cultural events. In 1987, ASBU opened a Centre of News and Programme Exchange by satellite in Algiers. For technical matters ABSU co-ordinates Arab efforts in telecommunication matters and organizes technical seminars and colloquia to discuss and implement new technologies. ABSU organizes radio and television training courses for different levels of trainees within the framework of the ASBU Training

Centre's activities in Damascus (Syrian Arab Republic). Audience research is conducted through the ASBU Audience Research Centre in Baghdad (Iraq).

Publications: *Arab Broadcasts* (monthly) in Arabic; Broadcasting Reports (series); Broadcasting Studies and Research (series).

Address: ASBU, 17 rue El Mansoura, B.P. 65, El Mensah, 1004 Tunis, Tunisia. Tel: 238828/238818. Cable: ASBU. Telex: 13398 ASBU-TN.

Asia-Pacific Broadcasting Union (ABU)/Union de Radiodiffusion pour l'Asie et le Pacifique

Profile: The Asia-Pacific Broadcasting Union (ABU) was established in 1964. It is a professional association of broadcasting organizations in the region defined by ABU statutes as the countries and territories of Asia and the Pacific. This region stretches from Western Samoa to Egypt and from the People's Republic of China to New Zealand. ABU is non-commercial and non-political and provides an avenue for professional broadcasters to co-operate and collaborate irrespective of political, social or religious affiliation. ABU fosters the use of the media in the cause of international understanding. The Union maintains close contact with broadcasting unions in other parts of the world, as well as international organizations such as Intelsat, and the International Olympic Committee (IOC) and has consultative status with ITU, FAO and Unesco.

Membership: There are three categories of members in the ABU. Full membership: broadcasting organizations of a national character or national importance in independent countries in the ABU region. Full membership is restricted to two per country. Additional full membership: similar organizations in independent countries or in dependent territories in the ABU region or in those countries where there are already two full members. Associate membership: Similar organizations in the ABU region or in independent countries in other parts of the world. There are 37 full members in 30 countries, 10 additional full members in six countries and territories and 26 associate members in 17 countries and territories. The ABU General Assembly meets annually. A 13-member Administrative Council meets twice-yearly; 11 Council members are elected by the General Assembly while two (Japan as foundation site and Malaysia as seat) have permanent membership.

Activities/programmes: ABU operates a daily satellite television news exchange, Asiavision, among members and exchanges news packages with Eurovision, the EBU's news exchange. It organizes and co-ordinates the co-production of television programmes by members and provides information on copyright and legal matters. ABU acquires collective rights for sports events and arranges coverage of these for members. It conducts the annual ABU Prize competitions for radio and television programmes. The ABU Technical Centre co-ordinates a technical advisory service for small members, represents members at major engineering conferences such as WARC and provides information on technical developments.

Publications: *ABU News* and *ABU Technical Review* are produced bi-monthly in English by the Secretariat.

Address: ABU Secretariat, P.O. Box 1164, Jalan Pantai Bharu, 59700 Kuala Lumpur, Malaysia. Tel: (3) 2743592. Cable: ASBUN, Kuala Lumpur. Telex: 32227 (ABU MA). Telefax: (3) 2740761.

Broadcasting Organizations of the Non-Aligned Countries (BONAC)/Organismes de Radiodiffusion des Pays Non Alignés (ORDNA)

Profile: BONAC was established in 1977 and has consultative status with Unesco. BONAC develops various joint activities: in preparation for, and during, World Administrative Radio Conferences and their bodies; within ITU and regional broadcasting unions; and in the field of satellite broadcasting, tariffs and professional training.

Membership: Broadcasting organizations in 101 non-aligned countries.

Programme/Activities: BONAC organizes: meetings of the Committee for Co-operation (once a year); meetings of both Programme and Technical Experts' Groups (once a year at least); the yearly Golden Agrino radio and television festival in Cyprus; a programme bank in Cyprus; the yearly competition of the best television cultural and artistic programmes of BONAC in Yugoslavia; radio and television magazine *World of Non-Alignment* (three to four magazines per year); co-production projects.

Publications: Conference reports; Committee for Co-operation reports; Experts' Groups reports; *Information Bulletin* (three times a year); Bulletin-catalogue of radio and television programmes for exchange.

Address: Yugoslav Radio Television, B. Kidrica 70, 11000 Beograd, Yugoslavia. Tel: 433647/625722. Telex: Yurate 11469/12158.

Caribbean Broadcasting Union (CBU)

Profile: CBU was inaugurated in 1970 in recognition of the need for a greater flow and exchange of broadcast material between the countries of the Caribbean region. It provides the means for co-operative action, and facilitates common services amongst its members, and between its members and other broadcast agencies or international organizations. The Secretariat is based in Barbados.

Membership:Originally the CBU membership consisted of the state-owned systems of the English-speaking Commonwealth countries in the Caribbean. Today the Union's membership is spread geographically from Bermuda in the north to Guyana and Suriname in the south; from Belize in the west through Jamaica, the Netherlands Antilles, the Leewards and Windwards Islands to Barbados and Trinidad and Tobago. The members are from 28 state-owned and privately-owned radio and television systems of 18 English- and Dutch-speaking territories. Associate membership is available to broadcasting organizations which provide a service essential to broadcasting and the interests of the CBU. The Union has official relations with the Secretariat of the Caribbean Community.

Activities/programmes: The CBU co-ordinates a daily television news exchange via satellite among some systems in the region. The Co-ordinating Centre in Barbados also produces a weekly television magazine for regional distribution. The Union negotiates rights on behalf of members for major international sporting events and co-ordinates coverage for radio and television. The General Assembly of the CBU is held annually.

Address: Wanderers Gap, Dayrells Road, Christ Church, Barbados. Tel: (809) 4299146. Cable: CARICAST. Telex: 2569 CARICAST. Telefax: (809) 4292171.

Commonwealth Broadcasting Association (CBA)/ Association de Radiodiffusion du Commonwealth

Profile: CBA was founded in 1945 in London, as the Commonwealth Broadcasting Conference. It grew out of the collaboration established between Commonwealth countries during the Second World War with the objective of continuing co-operation and exchange and has close relations with the Commonwealth Secretariat. The present name was adopted in 1974. CBA seeks to improve all aspects of broadcasting in member countries and to further the concept of public service broadcasting. CBA provides members with a basic information service on broadcasting matters of common interest and concern and internationally represents and promotes the collective interests of Commonwealth public service broadcasting organizations.

Membership: There are 55 national broadcasting organizations which are members of CBA in 50 Commonwealth countries and territories. A General Conference (every two years) elects a Standing Committee of 11 members.

Activities/programmes: CBA organizes specialist conferences, regional group meetings, regional training courses and staff exchanges and provides information to members on broadcasting matters.

Publications: *Combroad* (quarterly), *Who's Who in Commonwealth Broadcasting* (annual), *Commonwealth Broadcasting Association Handbook* (biennial).

Address: CBA, Broadcasting House, London W1A IAA, United Kingdom. Tel: (01) 5804468, ext. 6023. Cable: COMBROAD, London. Telex: 265781.

European Broadcasting Union (EBU)/Union Européenne de Radiodiffusion (UER)

Profile: The European Broadcasting Union was founded in 1950 in Torquay (United Kingdom) replacing the International Broadcasting Union, set up in 1925, in Geneva. It is governed by Swiss law. EBU was designed primarily to meet the needs of Western European and Mediterranean broadcasters but from the very beginning it established relations with broadcasting organizations in other continents and admitted many of them as associate members. As a professional, non-commercial, and non-governmental body, the principal aims of EBU are to: support the interests of members in every domain; establish relations with other broadcasting organizations; assist the development of broadcasting in all its forms; promote radio and television programme exchanges such as Eurovision; study questions relating to broadcasting; ensure the exchange of information on all matters of general interest to broadcasting organizations; endeavour to ensure that members respect the provisions of international agreements; assist members in negotiations of any kind or negotiate at their request and on their behalf. EBU has consultative status with Unesco.

Membership: There are 38 active members and 61 associate members in the EBU. To be eligible for admission to EBU, organizations must have been authorized by the competent authority to operate a broadcasting service of national character and national

importance in a country that is a member of the International Telecommunication Union (ITU). The General Assembly is the supreme body and is composed of all the members. It meets once a year in ordinary session.

Activities/programmes: EBU advises and assists members on contracts and copyright legislation, undertakes research and development in the technical field where international agreement or mutual information is required and carries out international news and programme study and exchange, including Eurovision. EBU provides access to Eurovision news and programme material on special terms, to certain associate members in developing countries. It also operates a Broadcasting Fellowship Programme and gives expert advice on legal, programme and technical matters to broadcasters from developing countries.

Publications: *EBU Review* (two editions: Technical and Programmes/Administration/Law) in English and French; General and technical monographs, reports, lists of stations.

Address: EBU, Ancienne Route 17 A, C.P. 67, CH-1218 Grand-Saconnex (GE), Switzerland. Tel: (022) 987766. Cable: UNIRADIO Geneva. Telex: 415700. Telefax: (022) 985897.

International Association of Broadcasting (IAB)/ Asociación Internacional de Radiodifusión (AIR)

Profile: AIR was founded in 1946 at Mexico City, as the Inter-American Association of Broadcasters (IAAB); the present name was adopted in 1985. AIR defends broadcasting, whether radio or television, as a free means of expression of thought, and promotes co-operation among broadcasters in public or private national and international organizations.

Membership: Members are institutional or individual, adherent or honorary members. They include national organizations, private broadcasters, and radio and television enterprises, acting individually or collectively, in 25 countries and territories (mainly South America). AIR has official relations with ITU and the OAS, and has consultative status with Unesco.

Activities/programmes: AIR operates a system of production of radio programmes on different subjects of high humanitarian content, e.g. human rights; population and demographic problems etc.; provides information on legal matters; and sponsors world and regional conferences on technical, legal and educational issues. The General Assembly is held annually.

Publications: *La Gaceta de AIR* (six times a year).

Address: IAB/AIR, 25 de Mayo 520, Montevideo, Uruguay. Tel: (598.2) 958141/961703. Cable: AIRADIO. Telex: 23225 AIR UY. Telefax: (598.2) 961703.

International Association of Women in Radio and Television (IAWRT)

Profile: The International Association of Women in Radio and Television was founded in 1951 for the purpose of bringing together women working in radio to share their professional interests and experience and to extend their influence within broadcasting organizations in Europe and the United States. In 1955, the Association was widened to include television, and since then has attracted members from all over the world in both media.

Activities/programmes: In the 1980s, it became apparent that many media women working in developing countries welcomed the support and encouragement such an organization could offer, both through its biennial conferences and through the wider circulation of ideas, information and expertise to which all members contribute.

Publications: In 1988 IAWRT published *Network*, an index of international media women willing to work overseas on media projects for women or in training for women, either on short or long-term contracts. The index covers most areas of the world, and is open to any organization wishing to make use of the journalistic skills and media experience of these professional women. It is also open to broadcasting organizations in need of professional assistance in a particular geographical area. Members of *Network* are available on a salaried basis. They are not involved in or backed by any aid organization.

Address: International Association of Women in Radio and Television, Schweizer Fernsehen, Postfach, CH-8052 Zürich, Switzerland.

International Catholic Association for Radio, Television and Audio-visuals (UNDA)/Association Catholique Internationale pour la Radio, la Télévision et l'Audiovisuel (UNDA)

Profile: UNDA was founded in 1928 in Cologne, Federal Republic of Germany, as the Catholic Bureau for Broadcasting. In 1946 it became the International Catholic Association for Radio and Television and the present name was adopted in 1974. UNDA acts as a meeting point for the apostolic and professional activities of Catholics in the field of radio, television and

other audio-visual media with a view to evangelic activity and human development. UNDA initiates collaboration among its members, both organizations and individuals, working at all levels through study sessions, publications, and exchanges of information, documentation and programmes. UNDA represents the interests of its members internationally and establishes contacts with other bodies working for similar aims or involved in the mass media. UNDA aids developing countries in the radio and television field by training staff, and organizing and co-ordinating material support. UNDA promotes research in all matters connected with radio and television. UNDA collaborates with other International Catholic Organizations (ICOs) and with institutions of other denominations pursuing similar objectives.

Membership: UNDA's members include national Catholic associations in 136 countries and 20 international organizations which accept UNDA's aims, working in the fields of radio, television and audio-visual media.

Activities/programmes: UNDA has consultative status with ECOSOC and Unesco, and is a member of the IFTC and the Conference of International Catholic Organizations (OCIC). The President of UNDA is a member of the Pontifical Council for Social Communications. UNDA is a member of the Permenent Secretariat for the three International Catholic Associations for Social Communications: OCIC, UCIP and UNDA, and a founder member of CaMeCo, the Catholic Media Council. Other activities of UNDA are: organization of festivals, attribution of special prizes; seminars and study days; information on religious, educational and development programmes; promotion of educational experiences in the mass media; evaluation and presentation, with an aim to financing, of development programmes in the field of broadcasting to the Sacred Congregation for the Evangelization of Peoples and other financing organisms.

Publications: *UNDA Informations* in French and *UNDA News* in English eight times per year; *Educommunication News*, a quarterly journal on media education in French and English; various bulletins published at continent or country level.

Address: UNDA General Secretariat, 12 rue de l'Orme, B-1040 Bruxelles, Belgium. Tel: (02) 7346361. Telex: 21275 CIPINF B UNDA. Cable: UNDABRUSSELS.

International Council of French-Speaking Radio and Television/Conseil International des Radio-Télévisions d'Expression Française (CIRTEF)

Profile: CIRTEF was established in 1978 as an organization of French-language broadcasters from the African, American, Caribbean, European, South-East Asian and Indian Ocean regions. Its aims are to: enhance professional exchanges; provide mutual help in technical training, production and programming; promote multilateral co-operation between all radio and television organizations which produce wholly or partly–nationally or region-wide–French-language programmes; maintain continuing dialogue among these organizations; promote the role of radio and television as a means of collective development; and improve knowledge, appreciation and respect for the cultures and aspirations of member nations. CIRTEF has consultative status with Unesco.

Membership: 41 national and sub-national broadcasting organizations.

Activities/programmes: Awards prizes for the best co-productions (radio and television); organizes workshops, training sessions, co-productions, consultancy services; provides certain facilities; documentation centre; television programmes bank; etc. A General Conference is held bi-annually and a steering board comprising members from all regions meets yearly.

Address: CIRTEF, 23 Gourgas Street, CH-1205 Genève 8, Switzerland. Tel: (022) 281211. Telex: 428274 (CIRTCH).

International Radio and Television Organization (IRTO)/Organisation Internationale de Radiodiffusion et Télévision (OIRT)

Profile: The International Broadcasting Organization was founded in 1946 in Brussels by representatives of 22 countries. It was originally registered under Belgian law. In 1950, when the European Broadcasting Union (EBU) was set up, the seat of the General Secretariat of OIRT moved to Prague. Its present name was adopted in 1959 and is registered under Czechoslovak law. OIRT is a voluntary, non-commercial association of television and radio organizations which exchanges programmes as well as information concerning programme production and technical development. OIRT also promotes the interests of its members on an international level. OIRT co-operates with other broadcasting unions (ABU, ASBU, EBU, OTI, NANBA,

ULCRA, URTNA) and has consultative relations with Unesco, Intersputnik, ITU, CCIR, CCITT, WIPO, ISO, International Electrotechnical Commission (IEC).

Membership: OIRT members come from radio and television organizations in 23 countries of Europe, Asia and Latin America. There are also six associate members.

Activities/programmes: OIRT commissions and study groups solve special problems arising in the field of television and sound broadcasting. Currently Intervision-Intervidenie are international arrangements for television programme exchanges. The Radio Programme Commission, Intervision Council, technical commission, economic and legal commission, as well as various programme working groups and technical study groups are active within OIRT. OIRT also organizes festivals and awards.

Publications: radio and television: *International Review of the OIRT* (six times a year) in Russian, German and English.

Address: OIRT, Skokanska 3, CS-16956 Praha 6, Czechoslovakia. Tel: 322587/342004. Cable: INTERADIF PRAHA. Telex: 122444/122371. Telefax: 322855.

International Radio and Television University (IRTU)/Université Radiophonique et Télévisuelle Internationale (URTI)

Profile: The International Radio and Television University is a non-governmental organization set up in Nice, France, in 1949 following a resolution at the Unesco General Conference in Mexico in 1947. Every year, through URTI, about 50 radio and television organizations representing about 30 countries from around the world exchange and disseminate several hundred cultural programmes free of copyright on science, history, medicine, literature and art. URTI has consultative status with Unesco. It is a member of IFTC and also has NGO relations with CIRTEF.

Membership: 30 countries.

Activities/programmes: Television section: URTI has a duplication and decoding centre enabling it to supply its members with video programmes using all technical processes (PAL, SECAM, NTSC) at professional standards. Radio section: more than 250 radio broadcasts originating in member organizations are exchanged each year. Mediterranean Centre for Audio-visual Communication: the radio and television organizations of countries with Mediterranean coasts have decided to form their own Centre within URTI. The aim of the Centre is to support and promote co-productions and promote the Mediterranean countries' activities among URTI's member radio and television bodies. The International Centre for University Audio-visuals: founded in June 1987, the Centre groups universities, institutes, research centres and museums that wish to pool some of their productions as well as their material or financial means for co-productions, and to create a larger synergy between the media and universities. International Grand Prix for Creative Documentaries: URTI organizes every year, in the context of the International Television Festival at Monte-Carlo, a competition open to all television stations and destined to reward and promote creative documentaries that differ according to the choice of subject and technical research, in the artistic, literary, scientific, historical or musical domains.

Publications: *La Lettre de l'URTI/IRTU Newsletter.*

Address: URTI, Maison de la Radio, 116 Avenue du Président Kennedy, F-75786 Paris Cedex 16, France. Tel: (1) 42302361. Telex: 200-002 F.

Islamic States Broadcasting Organization (ISBO)

Profile: ISBO was established in 1975 in Jeddah (Saudi Arabia) in accordance with a resolution adopted by the Sixth Islamic Conference of Foreign Ministers. It functions in the framework of the Organization of the Islamic Conference (OIC). ISBO has IGO relations with Unesco, OIC, and ALECSO. The General Assembly is held every two years.

Membership: The governments of 45 countries are members of ISBO. The General Assembly consists of all member states, while the Executive Committee is composed of 15 members.

Activities/programmes: ISBO disseminates Islamic principles, acquaints people with the cause of Islam, explains the political, social and economic basis of Islamic solidarity, and develops co-operation between Islamic technical organizations and institutions of member states engaged in the field of broadcasting. ISBO promotes teaching of the Arabic language using audio-visual aids, a library, and recordings. It holds competitions and symposia. ISBO permanent commissions are Programme and News, Administration and Finance, and Technical.

Address: ISBO, P.O. Box 6351, Jeddah 21442, Saudi Arabia. Tel: 6721121/6722269. Telex: 601442 ISBO SJ. Telefax: 6722600.

Latin American and Caribbean Broadcasting Union/Unión Latinoamericana y Caribeña de Radiodifusión (ULCRA)

Profile: ULCRA was created by the Second Latin American Conference on Public Broadcasting Services, held in San José (Costa Rica) in 1985, in which the official delegates of 15 states and 16 international and regional organizations participated. It is an international legal entity for consultation, co-ordination and co-operation in the promotion and strengthening of the cultural identity and audio-visual integration of the region. Its main objectives are to increase production capacity and promote the exchange of audio-visual programmes. ULCRA has co-operative relations with Unesco, the International Telecommunication Union (ITU), Intelsat and the Friedrich Ebert Foundation in the Federal Republic of Germany.

Membership: ULCRA is a co-operative body representing some 200 public radio and television broadcasting stations in 18 countries in Latin America and the Caribbean. ULCRA has four kinds of members: active, complementary, co-operating, and honorary.

Activities/programmes: ULCRA's work is carried out by seven sections: the Committee for Television Programmes, the Committee for Radio Programmes, the Information Committee, the Legal Committee, the Engineering Committee, the Committee for Institutional Development and the General Secretariat. In May of each year it convenes the Latin America Audio-visual Fair at Tlaquepaque/Guadalajara, Mexico, as a meeting place for directors, producers and programmers of audio-visual works in the public service. Each week, in Buenos Aires (Argentina), it produces *El Latinoamericano*, a television review of news of the region, at present transmitted to nine countries, but which will have wider distribution when carried by satellite. ULCRA undertakes a training programme through seminars and professional training workshops. The possibility of creating a regional centre for training is at present under consideration. ULCRA is orienting its future action towards three main projects: a regional plan for technical development of the audio-visual production and transmission infrastructure; a regional plan for the promotion and financing of production, co-production, exchange and commercialization of audio-visual programmes; a regional plan for the daily exchange of television news via the Latinvision satellite.

Publications: Among ULCRA's major publications are: *Hacia la Integración Audio-visual Latinoamericana* (Towards Audio-visual Integration in Latin America), *La Soberanía Audiovisual de la América Latina* (The Audio-visual Sovereignty of Latin America), and *La Radiodifusión Pública Latinoamericana: Marginalidad y Rescate* (Public Broadcasting in Latin America: Marginality and Recovery).

Address: ULCRA, Apartado 376-2010, Zapote, Costa Rica. Tel: (506) 234170/234425. Telex: 3385 ULCRACR. Cable: ULCRA.

North American National Broadcasters Association (NANBA)

Profile: NANBA's interests and activities are international, working closely with other Unions towards the solution of international broadcasting questions. NANBA started as an *ad hoc* group in 1972. It became a formal organization in its present form in 1978. Its Terms of Association allow for members and associate members. NANBA has an Executive Council with a President, two Vice-Presidents and one representative from each member organization. The Council meets four times a year. There are four committees: Technical, Legal, Sports, and News and Current Affairs. A Secretary-General and Secretariat are located in Ottawa, Canada.

Membership: Canada: Canadian Broadcasting Corporation; CTV Television Network Ltd; Mexico: Televisa S.A.; United States: Capital Cities/ABC Inc.; National Broadcasting Company Inc; Turner Broadcasting System Inc.; US Public Broadcasting (Corporation for Public Broadcasting; Public Broadcasting Service; National Public Radio; American Public Radio Network).

Publications: A pamphlet on NANBA officers, committees and activities published annually; *NANBA Bulletin* published irregularly; and frequent publishing of monograms.

Address: NANBA Secretariat, 1500 Bronson Avenue, Ottawa, Ontario, Canada K1G 3J5. Tel: (613) 7386553. Telex: 06528046 "To NANBA Secretariat". Telefax: (613) 7386887.

Union of National Radio and Television Organizations in Africa/Union des Radiodiffusions et Télévisions Nationales d'Afrique (URTNA)

Profile: URTNA was founded in 1962, in Lagos. URTNA supports the African broadcasting and television organizations adhering to its statutes. It establishes relations with other international organizations, promotes and co-ordinates consideration of all questions relating to broadcasting and television, and ensures

exchanges of information on all matters of general interest to such organizations. URTNA also promotes all measures designed to assist the development of African radio and television. URTNA has consultative status with Unesco, observer status with ITU and OAU, close co-operation with PATU, UAPT, WIPO, and co-operates with PANAFTEL.

Membership: The active members of URTNA are African radio and television organizations in 43 African countries. There are also associate members which are public and television organizations in nine countries outside Africa (mostly in Europe). The Annual Assembly elects an Administrative Council of 15 member organizations.

Activities/programmes: URTNA establishes permanent broadcasting exchange services, sets up commissions and study groups to examine specific problems, collects documentation and publishes information relating to subjects concerned with radio and television, and assists members during negotiations or on their behalf. URTNA also organizes seminars, workshops and conferences, ensures coverage of special and sports events, and promotes programme series. In 1978 URTNA set up the African Rural Radio Studies Centre, a permanent training centre, at Ouagadougou. URTNA runs the Programme Exchange Centre in Nairobi; the Technical Centre, Bamako; and the Monitoring Centre, Markala (Mali).

Publications: *URTNA Review* (twice a year) in English and French.

Address: URTNA, 101 rue Carnot, B.P. 3237, Dakar, Senegal. Tel: 211625/215970. Cable: URTNA Dakar. Telex: 650 URTNA SG.

Publishers and other related organizations

Association for the Promotion of the International Circulation of the Press (DISTRIPRESS)/ Association pour la Promotion de la Diffusion Internationale de la Presse

Profile: Officially constituted in 1957, the Association for the Promotion of the International Circulation of the Press, referred to as DISTRIPRESS, is a non-profit organization of publishers and distributors from 90 countries, interested in the international sales of their products. The aim of the Association is to promote the international circulation of newspapers, magazines, periodicals and paperback books. DISTRIPRESS thus supports all national and international action which encourages the free flow of ideas through word and picture, and intervenes against all measures which prevent or aim to prevent the free flow.

Membership: The present membership consists of more than 200 publishing and an equal number of distributing companies of newspapers, magazines, periodicals and paperback books from 90 countries. In addition, 25 enterprises which play a part in the press circulation service are associate members (airlines, forwarding agents etc.). The membership is open to firms of repute which are engaged internationally as publishers, importers, exporters, wholesalers or retail outlet chains in the distribution of newspapers, magazines, periodicals and paperback books.

Activities/programmes: DISTRIPRESS assists in the promotion of the freedom of the press throughout the world and supports and aids Unesco in promoting the free flow of ideas by word and image. DISTRIPRESS further organizes an annual congress where publishers and distributors meet during one week for business discussions.

Publications: *DISTRIPRESS-News* twice a year and *DISTRIPRESS-Letter* monthly in English, French and German.

Address: DISTRIPRESS, Beethovenstrasse 20, CH-8002 Zürich, Switzerland. Tel: (1) 2024121. Telex: 815 591. Telefax: (1) 2021050.

International Board on Books for Young People (IBBY)/Union Internationale Pour les Livres de Jeunesse

Profile: The International Board on Books for Young People is a non-profit-making organization, based in Basle, Switzerland. It was set up in 1953 in view of the fact that in all parts of the world books for children and young people play an essential role in their training and upbringing and because books, by bringing to the young a wider knowledge of other countries, develop international understanding and goodwill among peoples and thus serve the cause of peace, and because literature for the young has some of its own values and rules and poses some problems which are not always the same as those of adult literature. IBBY has consultative status with ECOSOC, Unesco and UNICEF and is a member of the International Book Committee and the International Federation of Library Associations and Institutions.

Membership: IBBY is composed of national sections representing 47 countries of the world. They operate at both national and international levels. Some are composed of organizations that share a common interest in good books and reading materials for children and adolescents; some are governmental agencies; in a few countries the IBBY National Section is the only group engaged in reading promotion. Individual members are found in 17 countries or territories where no National Section exists.

Activities/programmes: IBBY's policies and programmes are set by its Executive Committee. International activities include: biennial congresses in different parts of the world; International Children's Book Day, observed each year on or around 2 April, Hans Christian Andersen's birthday; the Hans Christian Andersen Awards, given by IBBY every two years to a living author and to an illustrator, whose works have made an important contribution to children's literature; the IBBY Honour List, a biennial selection of outstanding, recently published children's books from IBBY member countries; the annual Rising Sun Prize, presented to a group or an institution which has made a notable contribution to developing book programmes for children and young people. Supported by Unesco, IBBY organizes workshops and seminars on children's books, writing, and publishing in developing countries. The IBBY Documentation Centre of Books for Disabled Young People was established at the Norwegian Institute of Special Education in 1985.

Publications: IBBY's journal *Bookbird* is issued quarterly. It covers numerous facets of international children's literature, and includes news from IBBY and the IBBY National Sections.

Address: IBBY, Nonnenweg 12, Postfach, CH-4003 Basel, Switzerland. Tel: (4161) 232917. Telex: 963669 KERR CH. Telefax: 727925.

International Booksellers Federation (IBF)/ Fédération Internationale des Libraires

Profile: The International Community of Booksellers Associations (renamed in 1979 International Booksellers Federation) was founded in 1956 in the interest of closer co-operation, the exchange of information and the discussion of common trade problems. The Executive Committee and its subject-secretaries deal regularly with questions concerning the maintenance of retail prices for books, market research, co-operative advertising, commercial practices, taxes and duties, comparative management, young booksellers in all countries, public relations for booksellers and co-operation between booksellers' trade journals. IBF has consultative status with ECOSOC and Unesco.

Membership: Twenty-two national booksellers' associations and more than 150 individual members from 20 countries as Associate and Extraordinary Members belong to IBF.

Activities/programmes: Each year, the Executive Committee reports to the General Assembly. In addition, meetings are held at the Frankfurt Book Fair. Highlights of international co-operation are the congresses held every four years (since 1959). The IBF International Congress of Young Booksellers (IBF-CYB) is held each year in a different country.

Publications: IBF has published a number of reports and documents and gives information about activities and general questions concerning international co-operation between booksellers and has published the *Bulletin* since 1972 and *Booksellers International* since 1982. The Congress trade journal *Fellow* has developed into an important information organ for young booksellers from all parts of the world.

Address: IBF, Grünangergasse 4, A-1010 Wien, Austria, Tel: 5121535.

International Confederation of Societies of Authors and Composers/Confédération Internationale des Sociétés d'Auteurs et Compositeurs (CISAC)

Profile: The International Confederation of Societies of Authors and Composers, which has its headquarters in Paris, was founded in 1926. CISAC has several principal objectives: to ensure the effective protection of the moral and material interests of intellectual creators; to further the understanding of the principles of copyright both at international level and in every country; to help to create and improve copyright legislation wherever copyright is inadequately protected; to encourage the establishment and development of authors' societies and to co-ordinate their technical activities. CISAC has consultative status with Unesco, ECOSOC and WIPO.

Membership: In 1988, CISAC had 138 member societies and organizations in 65 countries. Its members, which comprise virtually all the organizations in the world engaged in the administration and defence of authors' rights, represent about a million creators.

Activities/programmes: CISAC participates in preparatory work for intergovernmental conferences on authors' rights and organizes international meetings.

Publications: *Interauteurs* (annual). Congress reports.

Address: CISAC, 11 rue Keppler, F-75116 Paris, France. Tel: (1) 47205937. Telex: 649940 CISAC F. Cable: INTERAUTEURS, Paris.

International Council on Archives (ICA)/Conseil International des Archives (CIA)

Profile: ICA was founded in Paris in 1948 by professional archivists meeting under the auspices of Unesco. ICA was created: to establish and maintain relations among archivists of all nations and among all professional agencies and institutions whose activities relate to the conservation, organization or administration of archives; to promote professional archival education and training; to facilitate access to archives; to furnish archival technical assistance to developing countries; to preserve man's heritage in the matter of archives. ICA has consultative status with Unesco, and NGO relations with ECOSOC and WIPO.

Membership: In 1988, ICA had over 860 members in 143 countries and territories: 158 Central Archive Directorates in 132 countries and territories; 37 national associations in 27 countries; 481 other archival institutions; 168 individual members; 24 honorary members, and regional branches in the Arab States, Caribbean, Central Africa, Eastern and Southern Africa, Latin America, South and West Asia, South-East Asia, South Pacific and West Africa.

Activities/programmes: Sections: associations of archivists, archivists of international organizations, municipal archives. Specialized committees: automation, business archives, literature and art archives, conservation and restoration, professional training, current records, reprography, sillography, and audiovisual archives. Working group: architectural records. ICA also implements a large number of programmes for the international archival development fund.

Publications: *Archivum*, (annual); *ICA Bulletin* (twice yearly, English and French editions); *Janus*; *Bulletin ADPA/ICA*; *Bulletin of Business Archives*. ICA Handbooks; ICA Studies.

Address: ICA, 60 rue des Francs-Bourgeois, F-75003 PARIS, France. Tel: (1) 42771130.

International Federation for Information and Documentation/Fédération Internationale d'Information et de Documentation (FID)

Profile: FID was founded in 1895 as the Institut International de Bibliographie (IIB) in Brussels. In 1938 the name was changed to Fédération Internationale de Documentation, and in 1988 it was again changed to Fédération Internationale d'Information et de Documentation (FID). FID is the international professional association for documentalists, information scientists and other specialists in information management. FID's aim is to promote, through international co-operation, research and development of documentation, information science and information management in all fields of science, technology, the social sciences and humanities. By grouping together, at an international level, organizations and individuals concerned with the problems of information science and documentation, FID provides a world forum for the exchange of ideas and experiences and the opportunity for interested organizations and individuals to co-ordinate their efforts. FID is also responsible for the Universal Decimal Classification (UDC), for which there is a UDC Management Board. FID has associate status with Unesco, and co-operates with the programmes of several other international organizations such as: International Federation of Library Associations and Institutions (IFLA), International Council of Archives (ICA), the World Intellectual Property Organization (WIPO), the International Organization for Standardization (ISO), the International Atomic Energy Agency (IAEA), and the United Nations Industrial Development Organization (UNIDO).

Membership: FID currently has over seventy national and international members and approximately 300 institutional and personal affiliates from about 90 countries.

Activities/programmes: FID's programme of activities is divided into five major programme areas: (a) improvements in the availability and applicability of information resources; (b) developing the information market-place; (c) development of tools of information work; (d) increasing basic understanding of the properties of information; (e) professional development, especially education and training of documentalists. Apart from these five major programme areas an inter-programme liaison officer is active in the field of industrial/business information. In order to carry out part of its programme FID has appointed several Regional Commissions and Committees.

Publications: *FID News Bulletin* (monthly); *International Forum on Information and Documentation* (quarterly); *Extensions and Corrections to the UDC* (annually, cumulating every three years); *FID Directory* (biennially); *Newsletter on Education and Training Programmes of Information Personnel* (quarterly insert to FID News Bulletin); directories, proceedings, research studies etc.

Address: FID, Prins Willem Alexanderhof 5, P.O. Box 90402, 2509 LK The Hague, Netherlands. Tel: (70) 140671. Telex: 34402 KB GV NL Attn. FID.

International Federation of Library Associations and Institutions (IFLA)/Fédération Internationale des Associations de Bibliothécaires et des Bibliothèques

Profile: The International Federation of Library Associations and Institutions, founded in 1927, is an independent international non-governmental association. IFLA's purposes are to promote international understanding, co-operation, discussion, research, and development in all fields of library activity, including bibliography, information services and the education of personnel, and to provide a body through which librarianship can be represented in matters of international interest. IFLA has associate status with Unesco, and 15 international organizations hold consultative status with IFLA.

Membership: In 1987 IFLA had 1,213 members in 123 countries. Membership is comprised of the following categories: Association Members and Institutional Members and Affiliates (institutions, bodies and persons not primarily concerned with libraries or library activities, but wishing to mark their interest in and support for the purposes of the Federation). The Council, the highest organ of the Federation, is the General Assembly of Members and it meets in ordinary session at least every two years during the annual IFLA Conference. Association Members are assigned a number of votes, based on the amount of membership dues. Institutional Members receive one vote each.

Activities/programmes: IFLA carries out its objectives through 32 Sections and 10 Round Tables, which are concerned with particular types of libraries or library activity, and four core programmes of a cross-sectional nature, including Universal Bibliographic Control International MARC (UBCIM), Universal Availability of Publications (UAP), Preservation and Conservation (PAC), and the Universal Dataflow and Telecommunications Programme.

Publications: *IFLA Journal*, *IFLA Annual*, *IFLA Directory*; plus *Newsletters* from the core programmes and Sections and Round Tables.

Address: IFLA, P.O. Box 95312, 2509 CH The Hague, Netherlands. Tel: (70) 140884. Telex: 34402. Telefax: (31-70) 834827.

International PEN/Fédération Internationale des PEN Clubs

Profile: The International PEN, founded in 1921 in London, is a world association of writers, editors and translators in all branches and classes of literature. It promotes friendship and intellectual co-operation between men and women of letters in all countries in the interests of literature, freedom of expression, and international goodwill. The PEN Charter affirms that literature should remain common currency in spite of political or international upheavals and that works of art are the property of humanity at large. It stands for the unhampered transmission of thought within and between nations. International PEN has consultative status with Unesco and ECOSOC and relations with WIPO.

Membership: PEN has 86 autonomous centres in 62 countries.

Activities/programmes: International PEN encourages translation of contemporary literature not only from languages of lesser currency into greater, but also, through its Programme and Translations Committee, from languages of lesser currency into each other. The Writers for Peace Commitee meets regularly to consider ways in which writers can work for peaceful co-existence in the world, and 3 March each year is celebrated as Writers for Peace Day.

Publications: *PEN International*, which is published semi-annually, brings to the attention of publishers, editors, librarians and many university departments, important contemporary literature in languages of lesser currency, as well as reproducing some of the literary papers delivered at congresses and conferences and acting as a link between Centres by giving news of their activities.

Address: International PEN, 38 King Street, London WC2E 8JT, United Kingdom. Tel: (01) 3797939. Cable: LONPENCLUB London WC2.

International Publishers Association (IPA)/Union Internationale des Editeurs (UIE)

Profile: Founded in 1896, the IPA is a non-governmental international organization with consultative status with ECOSOC, Unesco and WIPO.

Membership: 45 national publishers' associations representing publisher's of works of fiction, reference, science, technology, music and all types of electronic publishing. IPA is also composed of specialized publishers' groups such as: Music Section, International Group of Scientific, Technical and Medical Publishers, International Association of Scholarly Publishers, Groupe des Editeurs de Livres de la CEE, Grupo Interamericano de Editores.

Activities/programmes: The objectives are to proclaim and defend publishers' right to publish and distribute the products of the human mind, without hindrance or restriction; to participate in campaigns to end illiteracy; to encourage wider circulation of books and published works; to ensure copyright protection of works of the mind. The World Congress is held every four years.

Publications: *International Publishers Bulletin*, *Bulletin International de l'Edition*, *Boletín Internacional de Editores*; *Rights-Copyright in the Service of Creativity.*

Address: IPA, 3 avenue de Miremont, CH-1206 Genève, Switzerland. Tel: (22) 463018. Telex: 421 883 IPA CH. Telefax: (22) 475717.

International Reading Association (IRA)/ Association Internationale pour la Lecture

Profile: The International Reading Association, a non-profit education organization, was founded in 1956, when the International Council for the Improvement of Reading Instruction and the National Association for Remedial Teaching merged. The purposes of the Association are to serve as a clearinghouse for the dissemination of reading research, promoting literacy and making reading a lifetime habit. IRA has consultative status with Unesco and is a member of the International Federation of Library Associations and Institutions.

Membership: The Association has over 79,000 members, consisting of classroom teachers, reading specialists, consultants, administrators, supervisors, college teachers, researchers, psychologists, librarians, and parents. An additional 250,000 adjunct members come from 1,200 councils and 90 countries around the world.

Activities/programmes: More than 65 volunteer committees explore such subjects as adult literacy, communicating with the public about reading, computer technology and reading, early childhood and literacy development, international education, literature for adolescents, parents and reading, and teacher education and effectiveness. The Association's actions are generally supervised by a Board of Directors, comprised of the president, vice-president, vice president-elect, nine elected members and the executive director. Conventions are held annually.

Publications: The Association publishes four professional journals: *The Reading Teacher*, *The Reading Research Quarterly*, *The Journal of Reading*, *Lectura y Vida*, and the bi-monthly newspaper, *Reading Today*.

Address: International Reading Association, 800 Barksdale Road, P.O. Box 8139, Newark, DE 19714-8139, United States of America. Tel: (302) 7311600. Telex: 5106002813 READING. Cable: READING Newark, Delaware.

International Writers' Guild (IWG)/Syndicat International des Auteurs

Profile: The International Writers' Guild was set up in London in 1964 on the initiative of a number of unions and associations of film, television and radio writers. The members felt the need to bring their activities together internationally to represent and defend the economic and moral interests of writers whose works are used internationally. This international organization, built on a strictly professional basis and not affiliated to any central international guild or union, is governed by its Congress and an Executive Committee. The IWG has consultative status with Unesco and co-operative relations with WIPO.

Membership: The only organizations eligible for membership are unions or associations representing film, radio and television writers, which pay subscriptions in proportion to their membership. Member associations and unions in 20 countries represent the writers at national level to arrange the conditions for the transfer of copyright and ensure that their moral and economic rights are respected. They do not, however, duplicate the work of Writers' Societies.

Activities/programmes: The IWG aims to defend copyright worldwide and to this end to take part in all work and research on the question and to conclude international agreements with international user organizations.

Address: International Writers Guild, 80 rue Taitbout, F-75442 Paris Cedex 9, France. Tel: (1) 48749630.

Film and audio-visual organizations

Independent Film Producers' International Association (IFPIA)/Fédération Internationale des Producteurs de Films Indépendants (FIPFI)

Profile: IFPIA was founded in Cannes in 1973, and began functioning in 1975 when representatives from 21 countries met for a General Assembly.

Membership: IFPIA is open to all independent film producers or groups or associations of independent film producers with a legal existence in their country. Alongside large bodies like the Film Producers' Guild of South India with more than 300 members, or the Association Française des Producteurs de Films with more than 200, IFPIA members include individual producers.

Activities/programmes: IFPIA's international charter outlines a plan of action to set up an exchange fund to foster the distribution of independent films and increase co-productions between members of the Federation; to promote legislation in each country establishing total freedom of circulation for films; to persuade the official bodies in each country to provide aid for endogenous production; to provide solidarity and an ongoing flow of information among members through the services of the International Film Office; to provide technical assistance for international events that demonstrate the vitality of independent film production; to defend, on all occasions, freedom of expression and creation on film.

Address: IFPIA, 50 avenue Marceau, F-75008 Paris. Tel: (1) 47237030. Cable: PROFILMASS, Paris. Telefax: (1) 47207817.

International Animated Film Association/ Association Internationale du Film d'Animation (ASIFA)

Profile: ASIFA was founded in 1960, and has the status of a non-profit association under French law. Its aim is the international promotion of animated films as an art form, a means of expression, and a modern communication medium. ASIFA informs government organizations and the public about animated films.

Membership: ASIFA has nearly 2,000 individual members in national ASIFA groups in 25 countries. Its 22-member Board of Directors is elected every three years; at the present time, 19 countries are represented on the Board. The General Assembly is held every three years.

Activities/programmes: ASIFA's aim is to ensure that international screen events are of the highest quality by patronizing and approving them. Through its working committees, ASIFA maintains animated film archives, collaborates on many publications, supports films made as international co-productions, organizes national and international workshops for children and adolescents, organizes symposia and seminars in film festivals, and disseminates information on the new technologies.

Publications: ASIFA publishes a quarterly international bulletin in three languages (English, French and Russian) entitled *ASIFA News*.

Address: ASIFA, La Roselière, Beau-Rivage, F-74320 Sevrier, France. Tel: 50524688.

International Association of Sound Archives (IASA)/Association Internationale d'Archives Sonores

Profile: IASA was founded in 1969 and its current constitution was adopted in 1985 in East Berlin. IASA aims to strengthen co-operation between archives and other institutions which preserve recorded sound documents. Its objectives are to initiate and encourage activities that develop and improve the organization, administration and contents of recorded sound collections, and in pursuance of these aims, co-operate with other organizations in related fields; to study all techniques relevant to the work of sound archives and other institutions which preserve documents of recorded sound and disseminate the results of such study on an international scale; to encourage, on an international level, the exchange of sound recordings and of literature and information relating to sound recordings; to stimulate and further by every means, the preservation, inventory and dissemination of all recorded sound collections. IASA has consultative status with Unesco.

Membership: The Association has over 400 members, individual and institutional, in more than 40 countries. full institutional: institutions, organizations or corporations holding recorded sound collections; full individual: persons professionally engaged in the work of archives and other institutions which preserve documents of recorded sound.

Activities/programmes: IASA is involved in such fields as the preservation, organization and use of sound recordings, techniques of recording and methods of reproducing sound in all fields in which the audio medium is used; the exchange of recordings and of related literature and information between archives; other subjects related to the professional work of sound archives and archivists.

Publications: The journal of the Association, the *Phonographic Bulletin* is published three times a year. Other periodical publications include a *Membership List* (latest edition 1987) and a *Directory of Member Archives* (latest edition 1983). These are periodically revised. Other publications include *An Archive Approach to Oral History*; *Sound Archives: a Guide to their Establishment and Development*; *Selection in Sound Archives*; collected papers fron IASA conferences. IASA also contributed a study to the RAMP programme of Unesco entitled: *The Archival Appraisal of Sound Recordings and Related Materials: A RAMP Study with Guidelines*. This was published in 1987. Publications in progress include a bibliography of sound (audio-visual) archive literature, a training manual and a technical manual.

Address: Secretary General, IASA, DRS Studio Bern, Phonotek, Schwarztorstrasse 21, CH-3000 Bern 14, Switzerland. Telex: 911833.

International Association for Video in the Arts and Culture/Association Internationale pour la Vidéo dans les Arts et la Culture (AIVAC)

Profile: AIVAC groups together private and public centres of production, conservation and distribution primarily concerned with the media arts and video. Its members are artists and specialists working in the field: collectors, museums, amateurs, galleries, researchers and the industry.

Activities/programmes: AIVAC's main aims are: to establish links between its members in order to keep them informed on developments in technology regarding artistic expression; to foster improved knowledge of existing works through international catalogues and specialized video libraries; to provoke critical reflection on new forms of expression through publications, international seminars, workshops and festivals, and competitions and prizes; to encourage the establishment of production, distribution and conservation centres; to provide copyright protection for video artists; to promote an industry capable of expressing differences in cultural identity in the developing countries.

Address: AIVAC, Via Varenna 45, P.O. Box 434, CH-6600 Locarno, Switzerland. Tel: (93) 312210. Telex: 846040.

International Catholic Organization for Cinema and Audiovisual/Organisation Catholique Internationale du Cinéma et de l'Audiovisuel (OCIC)

Profile: The International Catholic Organization for Cinema and Audiovisual was set up at The Hague in 1928. It brings together institutions whose members work in the cinema, video and audio-visual production professions. These institutions produce, broadcast and adapt programmes into local languages and train professionals and instructors for the media.

Membership: 105 countries are members of OCIC.

Activities/programmes: The activities of OCIC members cover production and diffusion of audio-visual material for health education, literacy and teaching in general. Within the film world OCIC and its member organizations promote quality films through their presence on juries in major film events around the world, through specialist publications (film periodicals and books) and through aid for distribution. OCIC has consultative status with Unesco, and NGO relations with the International Film, Television and Audiovisual Communication Council (IFTC) and the International Centre of Films for Children and Young People (ICFCYP). OCIC is a member of the Conference of International Catholic Organizations.

Address: OCIC, 8 rue de l'Orme, B-1040 Bruxelles, Belgium. Tel: (02)7344294. Telex: 21275 CIPINF B OCIC. Cable: OCIC BRUXELLES.

International Centre of Films for Children and Young People (ICFCYP)/Centre International du Film pour l'Enfance et la Jeunesse (CIFEJ)

Profile: ICFCYP was set up in Brussels in 1955. The aims and methods of ICFCYP are: to gather, exchange and disseminate information on the production, distribution and representation of films for children and young people around the world; to study the influence of such films on young people and their tastes; to examine the legislation and regulations in force in different countries, particularly concerning the protection and education of children and young people in the film and television fields; to co-ordinate action, both at the international level and within the different

countries, aimed at fostering the unhampered circulation and showing of films suitable for children and young people, or made by children or adolescents; to further and develop, in school and out, an understanding of the audio-visual language of film and television; to encourage film-making by children and young people and the circulation of their films. It has consultative status with ECOSOC, Unesco and UNICEF.

Membership: ICFCYP is represented in 62 countries throughout the world.

Activities/programmes: ICFCYP takes part in festivals of films for children and young people, awards prizes and organizes a competition called "The Tenth Muse" for young film-makers. ICFCYP also awards a special distinction to films whose form and content are dedicated to an international vocation and whose subject contributes to a better understanding between young people in the world.

Publications: ICFCYP publishes *Young Cinema International* and a monthly information sheet.

Address: Services administratifs CIFEJ, 9 rue Bargue, Esc. B., F-75015 Paris, France. Tel. (1) 40560067.

International Federation of the Cinematographic Press/Fédération Internationale de la Presse Cinématographique (FIPRESCI)

Profile: FIPRESCI was set up in Brussels, Belgium, in 1930. FIPRESCI's aims are: to develop the activities of national groups concerned with cinematographic press and, on an international level, to organize and facilitate study sessions for film critics and journalists.

Activities/programmes: Acts as jury at international film festivals; awards an international prize for critics (FIPRESCI Prize).

Membership: National organizations from 27 countries are members of FIPRESCI.

Address: FIPRESCI, Schleissenheimer Str. 83, D-8000 München 40, Federal Republic of Germany. Tel: (0049) 89182303.

International Federation of Film Archives/ Fédération Internationale des Archives du Film (FIAF)

Profile: The International Federation of Film Archives was founded in 1938 as a federation of national and regional film archives and museums (official, semi-official or private) devoted to the history or aesthetics of the cinema and accessible to the public. The principal aims of the Federation are: to promote the preservation of the film as art and historical documents and to bring together all organizations devoted to this end; to encourage the formation and development of film archives in all countries; to facilitate the collection and the international exchange of films and documents relating to the cinematographic history and art for the purpose of making them as widely accessible as possible; to develop co-operation among its members; to promote the development of cinema art and culture. FIAF is governed by an Executive Committee elected from among its members. It has consultative status with ECOSOC and Unesco and special co-operative agreements with ICA and FIAT.

Membership: Members are autonomous, non-commercial national film archives which are dedicated to the study of film history and aesthetics and whose collections are accessible to members of the public. Their main object must be the acquisition, restoration, preservation and cataloging of films and documentation relating to the cinema. FIAF has 54 members and 26 observers, in 55 countries.

Activities/programmes: Technical research; historical research; international indexing of film periodicals; international exhibitions and symposia.

Publications: Reserved for FIAF members: *Minutes* of FIAF Annual General Meetings (English) from 1969; FIAF *Annual Reports* (English/French) from 1969; FIAF *Bulletin* (English/French) published twice a year; various reference works (indexes, handbooks, guidelines etc.).

Address: FIAF, Coudenberg 70, B-1000 Bruxelles, Belgium. Tel: 5111390.

International Federation of Film Distributors' Associations/Fédération Internationale des Associations de Distributeurs de Films (FIAD)

Profile: The object of the International Federation of Film Distributors' Associations is to defend the general interests of film distribution companies at the international level and, especially, at the European level. It has observer status with WIPO and the Council of Europe and enjoys a permanent relationship with the European Communities Commission.

Membership: National associations in nine European countries.

Activities/programmes: FIAD participated in the creation of AGICOA (Association de Gestion Internationale Collective des Oeuvres Audiovisuelles), and is represented on this organization's Council and its executive body. FIAD took part in the preparation of the European Cinema and Television Year 1988, particularly in the organization of conferences (co-distribution, action against piracy, relations between cinema and television). It recently prepared studies on copyright and new communication technologies.

Address: Registered Office: FIAD, 18 rua Costella, Madrid 1, Spain. General Secretariat: 43 Boulevard Malesherbes, F-75008 Paris, France. Tel: (1) 42660532.

International Federation of Film Producers' Associations (IFFPA)/Fédération Internationale des Associations de Producteurs de Films (FIAPF)

Profile: IFFPA was set up in Paris in 1933. Its aims are: to represent film production as a whole at the international level, protect its general interests and further its development; to study and attempt to solve all legal, economic, technical and social problems which concern the film production industry as a whole; to organize aid services; to examine jointly all the problems affecting the exercise of the profession of film producer; to foster the exchange of all information concerning film production; to harmonize and facilitate relations between film producers from different countries and to defend their material and moral interests. IFFPA has consultative status with WIPO and is a member of the IFTC.

Membership: Members are associations, groups or unions of cinema/film production companies in 20 countries. Members must be unanimously approved by Federation members of their own nationality, and be approved by an absolute majority of all Federation members.

Address: General Secretary, FIAPF, 33 avenue des Champs Elysées, F-75008 Paris, France. Tel: (1) 42256214/42562386. Cable: FINPROFILM Paris 042.

International Federation of Film Societies (IFFS)/ Fédération Internationale des Cine-Clubs (FICC)

Profile: The aim of IFFS is to develop co-operation between national associations of film societies for the propagation of film art and culture in the service of the different nations' knowledge of each other and the world process of détente. IFFS encourages the exchange of information and experience in its own field and supports film societies in the aesthetic education of the public. It is especially concerned with raising the level of receptivity and developing the art of viewing films among young audiences.

Membership: IFFS members are national film club associations.

Activities/programmes: IFFS supports and encourages the non-commercial exchange of films, organizes retrospectives and film weeks devoted to particular themes for its member federations, organizes exchanges of film-makers taking their works to film clubs, and exchanges film criticism and other literature about the cinema. IFFS publishes regional and central newsletters to keep its members informed and make their experiences more widely known. IFFS appoints juries to award the traditional Don Quixote Prize intended to draw the attention of IFFS members to important films and encourage the non-commercial distribution of films.

Address: IFFS, Case 825, CH-2301 La Chaux de Fonds, Switzerland.

International Federation of Phonogram and Videogram Producers (IFPI)/Fédération Internationale des Producteurs de Phonogrammes et Vidéogrammes

Profile: IFPI was founded in 1933 and is the international non-governmental organization representing the interests of producers of sound recordings and music videos. IFPI's primary objective is to promote and defend the rights of its members.

Membership: IFPI has over 870 member companies in 61 countries in Europe, North and South America, Asia and the Pacific, and Africa. Every member of IFPI is entitled to be represented at General Meetings which elect the President and members of the Board and set the level of individual members' subscriptions. IFPI has recognised 32 National Groups of IFPI members. Organizations affiliated to IFPI include the RIAA (Recording Industry Association of America), FLAPF (Federación Latinoamericana de Productores de Fonogramas) and ARIA (Australian Recording Industry Association). National Groups are represented on the Council of IFPI which reviews policy and sets the level of contributions from National Groups. The Board of IFPI meets at least twice a year to determine policy between Council Meetings and the Board receives advice from Committees on specific activities.

Activities/programmes: At the international level, IFPI represents the recording industry to governments and intergovernmental organizations, campaigns for the introduction and improvement of copyright and related rights legislation and co-ordinates the recording industry's anti-piracy activities. IFPI promotes conventions and agreements to protect its members' interests and is taking an active role in intelligence gathering and in the direct enforcement of rights, particularly in Africa and South-East Asia. IFPI has consultative status with ILO, Unesco, WIPO and the Council of Europe. IFPI Europe, representing IFPI members in the EEC, has equivalent status with the EC Commission.

Publications: *IFPI Newsletter* (bi-monthly) in English, *IFPI Europe Newsletter* (quarterly) in English and French, *IFPI Review* (annually) in English.

Address: IFPI, 54 Regent Street, London W1R 5PJ, United Kingdom. Tel: (01) 4343521. Telex: 919044 IFPI G. Telefax: (01) 4399166.

International Federation of Television Archives (IFTA)/Fédération Internationale des Archives de Télévision (FIAT)

Profile: IFTA was set up in Rome in 1977. The Association's aim is to foster co-operation between its members and to promote: the improvement of and compatibility between documentary systems for audio-visual material; the exchange of information and archive material; the study of conservation techniques and media; and the study of all questions relating to a proper use of television archives.

Membership: Regular members are heads of archive departments in television organizations. Associate members are highly qualified individuals in the audio-visual archives field. The Association works in co-operation with the European Broadcasting Union (EBU), the International Association of Sound Archives (IASA) and the International Federation of Film Archives (FIAF).

Address: IFTA, Centro Documentación RTVE, Apartado 150, 135, 08023 Madrid, Spain. Tel: 7154432. Telex: PROES E 22053; FIAT, 21 Boulevard Jules Ferry, F-75011 Paris, France.

International Federation of Trade Unions of Audiovisual Workers/Fédération Internationale des Syndicats des Travailleurs de l'Audiovisuel (FISTAV)

Profile: FISTAV was officially founded in London in 1974 after several years of discussion between audio-visual workers' unions (unions of cinema technicians and producers especially), followed soon after by television and other unions from all over the world.

Membership: The Federation is international in scope. Over the years almost all the world's unions of cinema and television workers and technicians have joined. At the present time, FISTAV has 63 member unions and federations in 38 countries on all the continents. Total membership is more than 200,000.

Activities/programmes: FISTAV regularly takes part in working meetings at the EEC, ILO and Unesco. It is a member of IFTC. FISTAV, FIM (International Federation of Musicians) and FIA (International Federation of Actors) together represent the performing arts and audio-visuals sector. FISTAV holds its Congress every three years.

Address: Secretariat: FISTAV, 1 rue Janssen, F-75019 Paris, France. Tel: (1) 42457214; President: FISTAV, 111 Wardour Street, London W1V 4AY, United Kingdom. Tel: (01) 4378506.

International Film, Television and Audiovisual Communication Council (IFTC)/Conseil International du Cinéma, de la Télévision et de la Communication Audiovisuelle (CICT)

Profile: IFTC was set up in 1958 in Paris at a meeting held at Unesco and attended by 39 international associations. It is an international non-governmental organization which brings together all the professions in the audio-visual world and represents them in their relations with Unesco, where IFTC has associate status.

Membership: IFTC embraces 36 international organizations of the audio-visual professions. Its General Assembly, meeting every second year, elects a 12-member Executive Committee and its President. The Executive Committee and the Working Commissions meet once a year.

Activities/programmes: IFTC's national committees are focal points where national sections of the various international federations meet. Personalities from the audio-visual professions, researchers, and critics, meet to develop national, multidisciplinary

programmes and take part in an international IFTC programme. IFTC has carried out surveys on drugs on television, the impact of television series, and the selection of programmes for young people. IFTC has organized films, videos on the handicapped and established a programme of media education for adults. It has collaborated on a plan for cataloguing and filing audio-visual material for the purposes of newscasts and schools television broadcasting. IFTC has initiated the creation of continent-wide audio-visual centres for Asia, Africa and the Arab countries.

Publications: *IFTC Newsletter* (in English, Spanish and French) (monthly).

Address: IFTC, Unesco, 1 rue Miollis, F-75732 Paris Cedex 15, France. Tel: (1) 45682556. Telex: UNESCO A 270 602 F (For the attention of IFTC).

International Liaison Centre for Film and Television Schools (ILCFTS)/Centre International de Liaison des Ecoles de Cinéma et de Télévision (CILECT)

Profile: CILECT was set up in Cannes in 1955. The aim of the association is to promote and foster co-operation among higher education and research institutes in film and television and among experienced personalities working in these fields. CILECT is governed by a Bureau elected from among its members. It is a non-governmental organization with consultative status with Unesco.

Membership: CILECT groups virtually all major film and television schools worldwide (45 member schools in 35 countries).

Activities/programmes: CILECT organizes a congress every two years on film and television education. It also organizes and promotes student film meetings, exchanges of teachers and students in film and television, and co-operates with Unesco for film and television training in developing countries.

Publications: CILECT publishes a *Review* and a *Newsletter*.

Address: CILECT, rue Thérésienne 8, B-1000 Bruxelles, Belgium. Tel: (2) 5119286/5119839. Telefax: (2) 5110279.

International Newsreel and News Films Association (INA)/Association Internationale de la Presse Filmée

Profile: INA was set up in 1956 to defend the principle of free access to information and the free flow of films. It is a member of IFTC.

Membership: INA is an association of newsreel, magazine and documentary producers from 25 countries in Western Europe, Eastern Europe including the USSR, North Africa, French-speaking Africa, Zaire, Kenya and Nigeria, Central and South America, Mexico, Venezuela, Argentina, Brazil, the Indian subcontinent and the Peoples' Republic of China. There are corresponding members in other countries.

Activities/programmes: INA has set up a system of automatic exchange of newsfilm produced by its members to facilitate distribution and enrich the film libraries of all its members. INA's members co-produce newsfilm and documentaries. They are in the preparatory stage of producing television series and an international screen magazine to be broadcast by satellite. The Association brings together newsreel producers or organizations of newsreel producers who produce and edit weekly current affairs programmes. Each year INA holds its General Assembly in one of its member countries.

Address: INA, 10 rue Washington, F-75008 Paris, France. Tel: (1) 46537800/45610919. Cable: INANEWS. Telex: 290057.

International Scientific Film Association (ISFA)/ Association Internationale du Cinéma Scientifique (AICS)

Profile: ISFA was set up in 1947 in Paris, France. Its aims are: to foster international co-operation by encouraging international exchange of scientific films; to encourage international co-ordination of science film production and documentation; to encourage the use of film in scientific research. ISFA has consultative status with ECOSOC and Unesco.

Membership: National associations in 24 countries.

Publications: *Science Film* in English and French; *Research Film* (twice a year).

Address: AICS, 38 avenue des Ternes, F-75017 Paris, France. Tel: (1) 43807954.

International Union of Non-Professional Cinema/Union Internationale du Cinéma Non-Professionnel (UNICA)

Profile: The International Union of Non-Professional Cinema was set up in 1937 in Paris, as the International Union of Amateur Cinematograph. UNICA is by virtue of its origin and objectives a grassroots organization supporting short films and video as a major means of communication. It holds an annual international

encounter in a different country each year attended by more than thirty nations. These encounters are experiments in cultural co-operation through film-making, embracing documentaries, reporting and current affairs with an accent on folk tradition, art and sports.

Membership: National federations in 27 countries.

Publications: *Nouvelles de l'UNICA*; *UNICA Annual*.

Address: UNICA, 8 rue Auguste Boyenval, F-60200 Compiègne, France.

Advertisers and public relations

International Advertising Association (IAA)/ Association Internationale de Publicité

Profile: The International Advertising Association was founded in 1938, as Export Advertising Association; its present name was adopted in 1954. The aims of IAA are: to advance the general level of advertising and marketing proficiency throughout the world; to facilitate the interchange of ideas, experience and information among members to enable them to improve their individual competence; to benefit the entire field of communications through co-operation with other organizations with similar objectives.

Membership: International Advertising Association comprises corporate members (64), organizations (16) and individual members in 77 countries. IAA has consultative status with ECOSOC, Unesco and European Advertising Tripartite (EAT).

Activities/programmes: IAA organizes international conferences and exhibitions on specific topics, workshops and education programmes.

Publications: *IAA Airletter* (six times a year); *IAA Intelligence Summary* (six times a year). Series on Forbidden or Severely Restricted Advertising.

Address: International Advertising Association, 475 Fifth Avenue, New York, NY 10017, United States of America. Tel: (212) 6841583. Telex: 237969 IAA UR.

International Public Relations Association(IPRA)/ Association Internationale de Relations Publiques

Profile: The International Public Relations Association (IPRA) was founded in 1955 in London but a Provisional International Committee had been in existence since 1950. IPRA is a worldwide professional and fraternal organization of individuals of known public relations competence who have practised public relations at a senior level for at least five years and who wish to bring an international dimension to their work.

Membership: Individual members (815) in 62 different countries in the United States, Africa, Asia and Europe.

Activities/programmes: The objectives of IPRA are: to provide a channel for exchange of ideas and professional experience; to develop and publish original studies and papers; to conduct meetings, conferences and hold congresses with a view to improving knowledge of international public relations practice; to foster the highest standards of public relations competence and practice (the International Code of Ethics adopted in Athens in 1965 and now called the Code of Athens and the Code of Conduct); to promote the profession in the parts of the world where it is still young and help establish national associations. IPRA has consultative status with ECOSOC and Unesco.

Publications: *International Public Relations Review* (quarterly); *Newsletter* (bimonthly); *Annual Directory*.

Address: International Public Relations Association, Case Postale 126, CH-1211 Genève 20, Switzerland. Tel: (22) 7910550. Telefax: 7981050.

World Federation of Advertisers (WFA)/ Fédération Mondiale des Annonceurs (FMA)

Profile: The World Federation of Advertisers, the former International Union of Advertisers Associations (IUAA), was founded in 1953. The change of name was decided in 1984 during the General Assembly in Rio de Janeiro. The WFA has observer status with WIPO and Codex Alimentarius (WHO/FAO); working relations with GATT and Unesco; consultative status with the Council of Europe; and is registered with EEC.

Membership: National advertisers associations (31); Corresponding members (19) in the United States, Africa, Asia and Europe. Corporate members (24): international companies who advertise all over the world.

Activities/programmes: The objectives of WFA are: the defense of advertisers' interests worldwide taking into account the vital information needs of the public at large to promote self-regulatory codes as a complement to existing laws; information, guidance and help to the national associations; representation of advertisers in the international fora; to defend, and where possible, to extend the freedom of advertising and commercial speech in all countries throughout the world.

Publications: *WFA News Report* (quarterly); *Annual Report*.

Address: WFA/FMA, rue des Colonies 54, Bte 13, B-1000 Bruxelles, Belgium. Tel: (2) 2190698. Telex: 63801. Telefax: (2) 2195464.

List of selected major international and regional research institutions and organizations

International

Academy for Educational Development (AED), 1255 23rd Street, N.W., Washington, DC 20037, USA.

Association for Educational Communications and Technology (AECT), 1126 16th Street N.W., Washington, DC 20036, USA.

Association for Education in Journalism and Mass Communication (AEJMC), 1621 College Street, University of South Carolina, Columbia, SC 29208-0251, USA.

British Film Institute, 21 Stephen Street, London W1P 1PL, United Kingdom.

Broadcast Education Association (BEA), 1771 N. Street N.W., Washington, DC 20036, USA.

Catholic Media Council, Bendelstrasse 7, Postfach 1912, D-5100 Aachen, Federal Republic of Germany.

Centre for Cultural Studies, Centro de Estudios sobre Cultura Transnacional (IPAL), A. Postal 270031, Lima 27, Peru.

Centre for the Study of Communication and Culture, 221 Goldhurst Terrace, London NW6 3EP, United Kingdom.

CIMMYT, Communications and Information Service, Londres No 40, Ap. Postal 6-641, 06600 México D.F., Mexico.

Communication Co-ordination Center, Via dei Verbiti 1, Cas. Post. 5080, 00154 Roma, Italy.

Communication Technology Laboratory, Michigan State University, 307 Berkey Hall, East Lansing, MI 48824, USA.

Hans-Bredow Radio and Television Institute at the Hamburg University/Hans-Bredow-Institut für Rundfunk und Fernsehen an der Universität Hamburg, Heinhuderstrasse 21, 2 Hamburg 13, Federal Republic of Germany.

Institute for Copyright and Media Law/Institut für Urheber- und Medienrecht, e.v. Amalienstrasse 10, D-8000 München 2, Federal Republic of Germany.

Institute for Social Studies, P.O. Box 90733, 2059 LS The Hague, The Netherlands.

Institute for Study and Research on Advertising/Istituto di Studi e Richerche sulla Pubblicità (ISERP), Via Larga 15, I-20122 Milano, Italy.

Intercultural Communications Research Unit, Arnold-Janssen-Str. 24, D-5205 Sankt Augustin 1, Federal Republic of Germany.

International Association for Mass Communication Research (IAMCR)/Association Internationale d'Etudes et Recherches sur l'Information (AIERI), Secretariat: Centre for Mass Communication Research, University of Leicester, 104 Regent Road, Leicester LE1 7LT, United Kingdom.

International Association for Newspaper and Media Technology (IFRA), Washingtonplatz 1, D-6100 Darmstadt, Federal Republic of Germany.

International Broadcasting and Audience Research, BBC, P.O. Box 76, Bush House, Strand, London WC2B 4PH, United Kingdom.

International Catholic Association for Radio, Television and Audio-visuals/Association Catholique Internationale pour la Radio, la Télévision et l'Audiovisuel (UNDA), 12 rue de l'Orme, B-1040 Bruxelles, Belgium.

International Catholic Organization for Cinema and Audio-visuals, rue de l'Orme 8, B-1040 Bruxelles, Belgium.

International Catholic Union of the Press (ICUP)/Union Catholique Internationale de la Presse (UCIP), 10 avenue de la Gare des Eaux-Vives, CH-1211 Genève 6, Switzerland.

International Central Institute for Youth and Educational Television/Internationales Zentralinstitut für das Jugend- und Bildungsfernsehen (beim Bayerischen Rundfunk), Rundfunkplatz 1, 8 München 2, Federal Republic of Germany.

International Centre for Entertainment and Social Communication/Centro Internazionale dello Spettacolo e della Comunicazione Sociale (CISCS), Via Giolitti 208, I-00185 Roma, Italy.

International Communication Association (ICA), P.O. Box 9589, Austin, TX 78766, USA.

International Communication Projects, Inc. (ICPI), P.O. Box 2596, Washington, DC 20013, USA.

International Council for Film, Television and Audio-visual Communication (IFTC)/Conseil International du Cinéma, de la Télévision et de la Communication

Audiovisuelle (CICT), Via Santa Susanna 17, I-00187 Roma, Italy; Office in Paris: c/o Unesco, 1 rue Miollis, F-75015 Paris, France.

International Documentation and Communication Centre (IDOC), Via S. Maria dell'Anima 30, I-00186 Roma, Italy.

International Federation of Journalists (IFJ)/Fédération Internationale des Journalistes (FIJ), IPC, boulevard Charlemagne 1, B-1040 Bruxelles, Belgium.

International Federation of Newspaper Publishers/Fédération Internationale des Editeurs de Journaux (FIEJ), 6 rue du Faubourg Poissonnière, F-75010 Paris, France.

International Institute of Communication/Institut International de la Communication, 3155 rue Hochelage, Montréal, Québec, Canada H1W 104.

International Institute of Communications/Institut International des Communications (IIC), Tavistock House, Tavistock Square, London WC1H 9LG, United Kingdom.

International Institute of Journalism Berlin "Werner Lamberz" (IIJB)/Internationales Institut für Journalistik "Werner Lamberz", P.O. Box 20 or 36, DDR-1162 East Berlin.

International Institute for Media and Development/Internationales Institut für Medien und Entwicklung e.v. (IMD), Kanstr. 162, 1 West Berlin 12.

International Institute for Research and Information/Instituto Internazionale per gli Studi e le Informazioni (IISI), Via Padova 1, I-00161 Roma, Italy.

International Journalism Institute (IJI), Rusova 7, 110 Praha 1, Czechoslovakia.

International Liaison Centre for Cinema and Television Schools/Centre International de Liaison des Ecoles de Cinéma et de Télévision (CILECT), rue Thérésienne 8, B-1000 Bruxelles, Belgium.

International Mass Media Research Center (IMMRC), 173 avenue de la Dhuys, F-93170 Bagnolet, France; P.O. Box 350, New York, NY 10013, USA.

International Organization of Journalists (IOJ)/Organisation Internationale des Journalistes (OIJ), Parizska 9, 11001 Praha, Czechoslovakia.

International Press Institute/Institut International de la Presse (IPI), City University, Northampton Square, London EC1V OHB, United Kingdom.

International Radio and Television Organization/Organisation Internationale de Radiodiffusion et Télévision (OIRT), Skokanska 1, 16956 Praha, Czechoslovakia.

International Research and Action Co-operative for Communication/Coopérative Internationale de Recherche et d'Action en Matière de Communication (CIRCOM), RTFB/Liège, Palais des Congrès, B-4020 Liège, Belgium.

International Union of Communication Sciences/Union Internationale des Sciences de la Communication (UISC), Forschungdienst SRG, Postfach, CH-3000 Berne 15, Switzerland.

International Union for Research of Communication (IURC)/Union Internationale des Sciences de la Communication/International Vereinigung für Kommunikationswissenschaft, c/o SRG-Forschungsdienst, Postfach, CH-3000 Berne 15, Switzerland.

Lutheran World Federation, Department of Communication, Route de Ferney 150, CH-1211 Genève 20, Switzerland.

Media and Communication Department, Friedrich Ebert Foundation/Friedrich Ebert Stiftung (FES), Godesberger Allee 149, D-5300 Bonn 2, Federal Republic of Germany.

MEDIACULT. International Institute for Audiovisual Communication and Cultural Development/Internationales Institut für Audiovisuelle Kommunikation und Kulturelle Entwicklung, Metternichgasse 12, A-1030 Wien, Austria.

Media Studies Association (MSA), The School of Communication, Trinity and All Saints' College, Brownberrie Lane, Horsforth, Leeds LS18 5HD, United Kingdom.

National Centre for Telecommunication Study/Centre National d'Etudes des Télécommunications (CNET), Département des Usages Sociaux de la Télécommunication, Centre Paris A, 38-40 rue du Général Leclerc, F-92131 Issy-les-Moulineaux, France.

National Institute for Audio-Visual Communication/Institut National de la Communication Audiovisuelle (INA), Tour Gamma A, 193 rue de Bercy, F-75582 Paris Cedex 12, France.

Union for Democratic Communication (UDC), The Democratic Communiqué, Department of Speech, University of Oregon, Eugene, OR 97403, USA.

World Association for Christian Communication (WACC), 357 Kennington Lane, London SE11 5QY, United Kingdom.

World Association for Public Opinion Research (WAPOR), CROP, Inc., 1500 Stanley, Suite 520, Montréal 110, Québec, Canada.

World Intellectual Property Organization (WIPO)/Organisation Mondiale de la Propriété Intellectuelle (OMPI), 34 Chemin des Colombettes, CH-1211 Genève 20, Switzerland.
World Press Institute (WPI), MacAlester College, Saint Paul, MN 55105, USA.

Regional

Africa

African Council on Communication Education (ACCE)/Conseil Africain d'Enseignement de la Communication (CAEC), P.O. Box 47495, Nairobi, Kenya.
Association of French-Speaking Institutes for Journalism and Communication Training/Association des Institutions Francophones de Formation au Journalisme et à la Communication (AIFJC), Dakar, Senegal.
Centre for the Study of Communication Problems/Centre d'Etudes des Problèmes de la Communication (CEPRECOM), B.P. 3675, Kinshasa/Gombe, Zaire.
Higher School of Sciences and Techniques of Information/Ecole Supérieure des Sciences et Techniques de l'Information (ESSTI), B.P. 1328, Yaoundé, Cameroon.
Union of National Radio and Television Organizations of Africa (UNRTOA)/Union des Radiodiffusions et Télévisions Nationales d'Afrique (URTNA), 101 boulevard Carnot, B.P. 3227, Dakar, Senegal.

Arab States

Arab Centre for Audience Research, P.O. Box 27007, District 14, Ramadan, Baghdad, Iraq.
Arab Gulf States Information Documentation Centre, P.O. Box 5063, Baghdad, Iraq.
Arab States Broadcasting Union (ASBU), 17 rue El Mansoura, B.P. 65, El Mensah, 1004 Tunis, Tunisia.
ASBU Regional Radio and Television Training Centre, El Mezza, Damascus, Syria.
Centre for Social Science Research and Documentation for the Arab Region, Zamalek P.O., Cairo, Egypt.

Asia and the Pacific

Asia-Pacific Broadcasting Union/Union de Radiodiffusion pour l'Asie et le Pacifique (ABU), P.O. Box 1164, Pejabat Pos Jalan Pantai Bharu, 59700 Kuala Lumpur, Malaysia.
Asia-Pacific Institute for Broadcasting Development (AIBD). P.O. Box 1137, Pantai, Kuala Lumpur, Malaysia.
Asian Mass Communication Research and Information Centre (AMIC), 39 Newton Road, Singapore 1130.
Broadcasting Culture Research Institute, NHK (Japan Broadcasting Corporation), 2-1-1 Atago, Minato-Ku, Tokyo 105, Japan.
Communication Foundation of Asia, c/o Social Communication Centre, P.O. Box 2156, R. Magsaysay Boulevard, Corner Santol Road, Sta Mesa Manila, Philippines.
East-West Culture and Communication Institute, East-West Center, 1777 East-West Road, Honolulu, HI 96848, USA.
Indian Institute of Mass Communication (IIMC), Sector XIII, Shaheed Jit Singh Marg, New Delhi 110067, India.
Institute for Communications Research, Keio University, Mita, Minato-Ku, Tokyo 108, Japan.
Japan Society of Information and Communication Research, Akasaka Community Building, 1-1-8 Motoakasaka, Minato-Ku, Tokyo 107, Japan.
Japan Society for Studies in Journalism and Mass Communication, c/o Institute of Journalism and Communication Studies, University of Tokyo, Bunkyo-Ku, Tokyo, Japan.
Press Foundation of Asia, P.O. Box 1843, Metro. Manila, Philippines.

Europe

Agency of Cultural and Technological Co-operation/Agence de Coopération Culturelle et Technique (ACCT), 13 quai André-Citroën, F-75015 Paris, France.
Broadcasting Research Unit (British Film Institute), 39C Highbury Place, London N5 1QP, United Kingdom.
Centre de Liaison de l'Enseignement et des Moyens d'Information (CLEMI), 391 rue de Vaugirard, F-75015 Paris, France.
Centre for Mass Communication Research, University of Leicester, 104 Regent Road, Leicester LE1 7LT, United Kingdom.

Centre for Public Opinion, Osrodek Badania Opinii Publicznej (OBOP), ul. J.P. Woronicza 17, 00-950 Warszawa, Poland.

Charles University, Faculty of Journalism/Universita Karlova, Fakulta Zurnalistiky, Smetanovo nabrezi 6, 11001 Praha 1, Czechoslovakia.

Council of Europe, B.P. 431 R6, F-67006 Strasbourg Cedex, France.

Dortmund Press Research Institute/Institut für Zeitungsforschung der Stadt Dortmund, Hansaplatz, 46 Dortmund 1, Federal Republic of Germany.

European Broadcasting Union (EBU)/Union Européenne de Radiodiffusion (UER), Ancienne route 17A, Case Postale 193, CH-1211 Genève 20, Switzerland.

European Communities–Commission of European Communities/Communautés Européennes–Commission des Communautés Européennes, 200 rue de la Loi, B-1049 Bruxelles, Belgium.

European Institute for the Media/Institut Européen de Communication, The University, Manchester M13 9PL, United Kingdom.

European Space Agency (ESA)/Agence Spatiale Européenne (ASE), 8-10 rue Mario Mikis, F-75738 Paris Cedex 15, France.

French Council of Studies and Research on Information and Communication/Conseil Français des Etudes et Recherches sur l'Information et la Communication (CFERIC), 83bis rue Notre-Dame des Champs, F-75006 Paris, France.

German Association of Journalism and Communication Sciences/Deutsche Gesellschaft für Publizistik- und Kommunikationwissenschaft, c/o Lehrstuhl für Journalistik I der Katholischen Universität Eichstatt, Ostenstrasse 26-28, D-8078 Eichstatt, Federal Republic of Germany.

GRECO-PUCES (Groupe de Recherche Coordonnée–Pratiques et Usages de la Communication dans son Environnement Social), 38-40 rue du Général Leclerc, F-92131 Issy-les-Moulineaux, France.

Hungarian Institute of Public Opinion Research, Akademia u. 17, P.O.Box 587, 1054 Budapest, Hungary.

IBERCOMNET, Facultad de Ciencias de la Información, Universidad Complutense de Madrid, Ciudad Universitaria, E-28040 Madrid, Spain.

Institut pour le Développement de l'Audiovisuel et des Télécommunications en Europe (IDATE), Bureaux du Polygone, rue des Etats du Languedoc, F-34000 Montpellier, France.

Institute for Socio-Economic Problems of the Academy of Sciences of the USSR, Institut Sotsialno-Ekonomicheskikh Problem an SSSR, Ul. Voinova 50a, 193 015 Leningrad, USSR.

Israel Institute of Applied Social Research, 19 George Washington Street, P.O.Box 7150, Jerusalem 91070, Israel.

Karl Marx University, Section of Journalism/Karl-Marx Universität, Sektion Journalistik, Karl-Marx-Platz 9, DDR-7010 Leipzig, German Democratic Republic.

Media Perspektiven, Am Steinernen Stock 1, D-6000 Frankfurt am Main 1, Federal Republic of Germany.

Moscow M.V. Lomonosov State University, Faculty of Journalism/Moskovskii Gosudarstvennyi Universitet im. Lomonosova, Fakultet Zhurnalistiki, Prospekt K. Marksa 20, Moskva, USSR.

Nordic Council of Ministers, Store Strandstraede 18, DK-1255 Kobenhavn, Denmark.

Nordic Documentation Centre for Mass Communication Research, Department of Political Science, University of Göteborg, Box 5048, S-402 21 Göteborg, Sweden.

Organization for Economic Co-operation and Development (OECD)/Organisation de Coopération et de Développement Economique (OCDE), 2 rue André-Pascal, F-75775 Paris Cedex, France.

Press Research Centre, Osrodek Badan Prasoznowczych (OBP), Rynek Glowny 23, 31-008 Krakow, Poland.

Research and Information Centre at the Union of Bulgarian Journalists/Nauchno-Informatsionen Tsentar pri Sayuza na Balgarskite Zhurnalisty, Ul. Graf Ignatiev 4, Sofia, Bulgaria.

Latin America and the Caribbean

Brazilian Association of Interdisciplinary Studies of Communication/Sociedade Brasileira de Estudos Interdisciplinares da Comunicação (INTERCOM), Caixa Postal 20793, São Paulo, SP, CEP 01000, Brazil.

Caribbean Institute of Mass Communication (CARIMAC), University of the West Indies, Mona Campus, Kingston 7, Jamaica, West Indies.

Central American University Confederation/Confederación Universitaria Centroamericana (CSUCA), P.O. Box 37, 2060 Ciudad Universitaria "Rodrigo Facio", San José, Costa Rica.

Centre for Educational Audiovisual Communication/Centro de Comunicación Educativa Audiovisual (CEDAL), Apdo Aéreo 54085, Bogotá, Colombia.

Centre for Studies in Mass Communication/Taller de Investigación en Comunicación Masiva (TICOM), Universidad Autónoma Metropolitana Xochimilco, Calzado del Hueso y Canal, Nacional Coyoacán, México 23 D.F., Mexico.

Centre for the Study of Mass Media/Centro de Estudios de los Medios de Difusión Masiva (CEMEDIM), La Habana, Cuba.

Federation of Schools of Communication/Federación Latinoamerica de las Asociaciones de Facultades de Comunicación Social (FELAFACS), Apartado Aéreo 7883, Bogotá, Colombia.

Institute for Communication Studies/Instituto de Investigaciones de la Comunicación (ININCO), Apartado de Correos 47339, Caracas 1041 (Los Chaguaramos), Venezuela.

International Centre for Higher Communication Studies in Latin America/Centro Internacional de Estudios Superiores de Comunicación para América Latina (CIESPAL), Av. Diego de Almagro No 2155 y Andrade Marín, Apdo. 584, Quito, Ecuador.

Latin-American Association of Communication Researchers/Asociación Latinoamericana de Investigadores de la Comunicación (ALAIC), Apartado Aéreo 90173, Bogotá, Colombia.

Latin-American Institute for Transnational Studies/Instituto Latinoamericano de Estudios Transnacionales, Casilla de Correo 107, Sucursal 48(B), 1448 Buenos Aires, Argentina; Main Office: Casilla 16-637 Correo 9, Callao 3461, Santiago, Chile.

North America

Accrediting Council on Education in Journalism and Mass Communication (ACEJ), School of Journalism, University of Missouri, Columbia, MS 65201, USA.

American Association of School Librarians, 50 E. Huron Street, Chicago, IL 60611, USA.

American Library Association, 50 E. Huron Street, Chicago, IL 60611, USA.

American Society for Information Science (ASIS), 1424 Sixteenth Street N.W., Suite 404, Washington, DC 20036, USA.

Aspen Institute for Humanistic Studies: Programme on Communication and Society, 717 Fifth Avenue, New York, NY 10022, USA.

Speech Communication Association, 5105 Backlick Road, Suite E, Annandale, VA 22003, USA.

The COMNET Network

COMNET (International Network of Documentation Centres on Communication Research and Policies) was launched at a meeting of experts convened by Unesco in Montreal in 1969, and its first centres were operating by the early 1970s. Its overall objective is to produce and exchange, on a permanent basis, scientific bibliographies in the field of mass communication. The network is informally organized and the production and distribution of bibliographical studies is carried out voluntarily and autonomously by its members, who agree to follow a number of common norms (relating to language, indexation, preparation of abstracts and information sharing).

COMNET is organized primarily at a regional and subregional level and the position of co-ordinator rotates (the current co-ordinator is NORDICOM, covering the Nordic countries). The most recent meeting of COMNET Directors took place on the premises of AMIC, Singapore, in June 1987. Currently, a study of the progressive automation of COMNET centres is in progress, with financial assistance provided by the Canadian authorities, under the aegis of the IPDC and executed by the Centrale des Bibliothèques, Montreal. A significant activity now underway, co-ordinated by the International Federation for Information and Documentation (FID), The Hague, is the revision of the Unesco Mass Communication Thesaurus, which was last issued in 1982 and is now considered obsolescent by many members. The revision of the Thesaurus, which is used as a principal indexing tool by COMNET, should be complete by 1989.

The current members of COMNET are as follows:

Africa

African Council on Communication Education (ACCE)
University of Nairobi
P.O. Box 47495
Nairobi
Kenya

Centre d'Etudes des Sciences et Techniques de l'Information (CESTI)
Université de Dakar
Dakar
Senegal.

Asia

Asian Mass Communication Research and Information Centre (AMIC)
39 Newton Road
Singapore 1130
Singapore.

Arab States (ARABCOMNET)

Centre for Social Science Research and Documentation for the Arab Region
Zamalek P.O.
Cairo
Egypt.

Sub-regional centres

Faculty of Mass Communication Cairo University
Cairo
Egypt

Gulf States Information Documentation Centre (GIDAC)
P.O. Box 5063
Baghdad
Iraq

Faculty of Communication and Documentation
Lebanese University
Rue de Damas
Beirut
Lebanon

Institut de Presse et des Sciences de l'Information
Université de Tunis
7, Impasse Mohamed Bachrouch
Montfleury
Tunis
Tunisia.

Europe

Austrian Documentation Centre for Media and Communication Research (ADMAC)
Universität Salzburg
Institut für Publizistik u. Kommunikationswissenschaft
Sigmund Haffner Gasse
A-5020 Salzburg
Austria

Centre for Mass Communication Research
University of Leicester
104 Regent Road
Leicester LE1 7LT
United Kingdom

Central European Mass Communication Research Documentation Centre (CECOM)
Rynek Glowny 23
31-008 Krakow
Poland

IBERCOMNET
Facultad de Ciencias de la Información
Universidad de Madrid
E-28040 Madrid
Spain

Institut Français de Presse et des Sciences de l'Information
83bis, rue Notre-Dame des Champs
F-75006 Paris
France

Institute of Scientific Information on Social Sciences
Academy of Sciences of the USSR
Krasikova 28/45
Moskva B-418
USSR

Nordic Documentation Centre for Mass Communication Research (NORDICOM)
State and University Library
Universitetsparken
DK-8000 Aarhus C
Denmark.

Sub-regional centres

NORDICOM-Denmark
State and University Library
Universitetsparken
DK-8000 Aarhus C
Denmark

NORDICOM-Finland
Department of Journalism and Mass Communication
P.O. Box 607
SF-33101 Tampere 10
Finland

NORDICOM-Iceland
Faculty of Social Science
University of Iceland
101 Reykjavik
Iceland

NORDICOM-Norway
Department of Mass Communication
University of Bergen
Christiesgt. 19
N-5000 Bergen
Norway

NORDICOM-Sweden
Department of Political Science
University of Göteborg
Box 5048
S-402 21 Göteborg
Sweden.

North America

Centrale des Bibliothèques
1685 rue Fleury Est
Montréal
Québec
Canada.

Latin America and the Caribbean

Centro Internacional de Estudios Superiores de Comunicación para América Latina (CIESPAL)
Casilla 6064 CCI
Quito
Ecuador

Caribbean Institute of Mass Communication (CARIMAC)
University of the West Indies
Mona
Kingston 7
Jamaica.

International

Unesco
Sector of Culture and Communication
7 place de Fontenoy
75700 Paris
France.

Selected scientific periodicals

Selected scientific periodicals are presented in an international section, followed by regional sections. Entries in these sections include the title of the periodical, the address of the publisher, the frequency of publication, and the language of the publication if known.

International

Action. World Association for Christian Communication (WACC), 122 King's Road, London SW3 4TR, United Kingdom. (Ten times a year) (English).

American Cinematographer: International Journal of Motion Picture Photography and Production Techniques. American Society of Cinematographers Corporation, 1782 N. Orange Drive, Los Angeles, CA 90028, USA. (Monthly) (in English).

Bulletin Conseil International des Archives = Bulletin International Council on Archives. ICA, 60 rue des Francs Bourgeois, 75003 Paris, France. (Twice a year) (in English and French).

CIRCOM: Coopérative Internationale de Recherche et d'Action en Matière de Communication. Radio Télévision Belge, Centre de Production de Liège, Palais des Congrès, 4020 Liège, Belgium. (Quarterly) (in English, French).

COMBROAD. Commonwealth Broadcasting Association, Broadcasting House, London W1A 1AA, United Kingdom. (Quarterly) (in English).

Communication. Gordon & Breach Science Publishers Ltd, 50 West 23rd Street, New York, NY 10010, USA; 1 Bedford Street, London WC2E 9PP, United Kingdom. (Twice a year) (in English).

Communication Research Trends. Centre for the Study of Communication and Culture, 221 Goldhurst Terrace, London NW6 3EP, United Kingdom. (Quarterly) (in English).

Community Television Review. Especially Vol. 9, No. 2, Summer, 1986. Broadcasting. 25 May 1987, special issue on cable.

Copyright WIPO. World Intellectual Property Organization, Geneva, Switzerland. (in English.)

Data Communications. McGraw Hill, Maidenhead SL6 2QL, United Kingdom. (In English.)

Democratic Journalist. The International Organization of Journalists, Parizska 9, 11001 Praha 1, Czechoslovakia. (Monthly) (in English, French, Russian).

Educational Broadcasting International. British Council, Tavistock House South, Tavistock Square, London WC1H 9LL, United Kingdom. (Quarterly) (in English).

Educational Media International. International Council for Educational Media; Kogan Page, London, United Kingdom. (In English.)

Fernsehen und Bildung: Internationale Zeitschrift für Medienpsychologie und Medienpraxis. Internationalen Zentralinstitut für das Jugend- und Bildungsfernsehen, Rundfunkplatz 1, 8000 München 2, Federal Republic of Germany. (Three times a year) (French and Spanish summary; in German, English).

Gazette: International Journal for Mass Communication Studies. Kluwer; Institute of the Science of the Press, Oude Hoogstraat 24, Amsterdam, The Netherlands. (Quarterly) (in English).

Index on Censorship. Writers and Scholars International, 39C Highbury Place, London N5 1QP, United Kingdom. (in English.)

Index/Directory of Women's Media. Women's Institute for Freedom of the Press, Washington, DC 20008, USA. (in English).

Intermedia. International Institute of Communications, Tavistock House East, Tavistock Square, London WC1H 9LG, United Kingdom. (Bimonthly) (in English).

International Broadcast Engineer (IBE). Whitton Press Ltd, Queensway House, 2 Queensway, Redhill, Surrey RH1 1QS, United Kingdom. (Seven times a year) (in English).

International Broadcasting. BSO Publications Ltd, 3/5 St John Street, London EC1M 4AE, United Kingdom. (in English.)

International Communications Bulletin. International Communication Division of the Association for Education in Journalism and Mass Communication, School of Communication, P.O. Box 1482, University of Alabama, Tuscaloosa, AL 35487, USA. (Quarterly) (in English).

International Forum on Information and Documentation. International Federation for Information and Documentation (FID), P.O. Box 90402, NL-2509 LK The Hague, The Netherlands. (Quarterly) (in English, Russian).

International Journal of Micrographics and Video Technology: Including All Aspects of Electronic Information Transfer. Pergamon Press, Oxford, United Kingdom.

International Media Law. 21/27 Lamb's Conduit Street, London WC1 3NJ, United Kingdom (Monthly) (in English).

Internationale Zeitschrift für Kommunikationsforschung. Willroiderstrasse 6, 8 München 90, Federal Republic of Germany. (In German.)

Internationales Handbuch für Rundfunk und Fernsehen. Hans-Bredow-Institut für Rundfunk und Fernsehen, Heimhuder Strasse 21, 2000 Hamburg 13, Federal Republic of Germany. (Twice a year) (in German).

IPI Report. International Press Institute, City University, Northampton Square, London EC1V 0HB, United Kingdom. (In English.)

Journal of Communication. Oxford University Press; University of Pennsylvania, 3620 Walnut Street, Philadelphia, PA 19104-3858, USA. (Quarterly) (in English).

Kommunikation und Politik. K.G. Saur Verlag KG, Postfach 711009, 8000 München 71, Federal Republic of Germany. (Irregular) (in German).

Mass Communication Review Yearbook. Sage Publications Ltd, 28 Banner Street, London EC1Y 8QE, United Kingdom. (Yearly) (in English).

Media, Culture and Society. Sage Publications Ltd; Academic Press, 24 Oval Road, London NW1, United Kingdom. (Quarterly) (in English).

Media Development. World Association for Christian Communication, 357 Kennington Lane, London SE11 5QY, United Kingdom. (Quarterly) (in English).

Newsletter on Sex Roles within Mass Media. C/o Madeleine Kleberg, School of Journalism, University of Stockholm, Gjörwellagatan 26, S-112 60 Stockholm, Sweden. (In English.)

Phonographic Bulletin. International Association of Sound Archives, Phonogrammarchiv der Österreichischen Akademie der Wissenschaften, Liebiggasse 5, A-1010 Wien, Austria. (Three times a year.)

Radio and Television OIRT. International Radio and Television Organization, U Mrazovsky 15, 153 13 Praha 5, Czechoslovakia. (Bi-monthly) (in English, French, Russian; German summary).

Reports and Papers on Mass Communication. Division of Free Flow of Information and Communication Policies, (from January 1988, Division of Communication Development and Free Flow of Information), Unesco, 7 Place de Fontenoy, F-75700 Paris, France. (Irregular) (in English, French).

Review of International Broadcasting. Fort Lauderdale, Florida, USA.

Revue Tiers-Monde: Transfert des Technologies de Communication et Développement. PUF, 12 rue Jean de Beauvais, F-75005 Paris, France. (In French.)

Satellite Communications and Broadcasting. Elsevier Science Publishers, P.O. Box 199, NL-1000 BZ Amsterdam, The Netherlands. (Quarterly) (in English).

Screen International. King Publications Ltd, Kingscreen House, 6-7 Great Chapel Street, London W1V 4BR, United Kingdom. (Weekly) (in English).

Social Networks: An International Journal of Structural Analysis. Elsevier Science Publishers, P.O. Box 1991, NL-1000 BZ Amsterdam, The Netherlands. (Quarterly) (in English).

Teleclippings. International Telecommunication Union, Place des Nations, CH-1211 Genève 20, Switzerland. (Bi-weekly) (mainly English; French and Russian as appropriate).

Telematics and Informatics. Pergamon Press, Maxwell House/Fairview Park, Elmsford, NY 10523, USA. (Quarterly) (in English).

Telos. Cuadernos de Comunicación, Tecnología y Sociedad. FUNDESCO (Fundación para el Desarrollo de la Función Social de las Comunicaciónes), Serrano 187, 28002 Madrid, Spain. (Quarterly) (in Spanish).

Regional

Africa

Africa Media Review. African Council on Communication Education, P.O. Box 47495, Nairobi, Kenya. (Three times a year) (in English, French abstracts).

Africa Telecommunications Report. 1718 Connecticut Avenue N.W., Suite 410, Washington, DC 20009, USA. (Monthly) (in English).

Africom. African Council on Communication Education, P.O. Box 47495, Nairobi, Kenya. (In English, French.)

Bulletin d'Information du Centre Régional de Promotion du Livre en Afrique. Yaoundé, Cameroon. (In French.)

Fréquence-Sud: Revue de Recherche sur les Média. ESSTI, Yaoundé, Cameroon. (In French.)

Revue Africaine de Communication. Centre d'Etudes des Sciences et Techniques de l'Information (CESTI), Université de Dakar, Fann, Senegal. (Bi-monthly) (in French).

Unilag Communication Review. University of Lagos, Department of Mass Communication, Lagos University Press, P.O. Box 132, Akota, Yaba, Lagos, Nigeria. (Quarterly) (in English).

URTNA Review. Union of National Radio and Television Organizations in Africa/Union des Radiodiffusions et Télévisions Nationales d'Afrique (URTNA), 101 boulevard Carnot, B.P. 3227, Dakar, Senegal. (In French and English.)

Arab States

Arab Journalist. Federation of Arab Journalists. P.O. Box 6017, Baghdad, Iraq (Monthly) (in Arabic).

Arab Telecommunications Union Journal. Arab Telecommunications Union. P.O. Box 28015, Baghdad, Iraq. (Quarterly) (in Arabic).

Research. Arab Centre for Audience Research. c/o ASBU, P.O. Box 27007, Baghdad, Iraq. (Monthly) (in Arabic, English).

Revue Tunisienne de Communication. Institut de Presse et des Sciences de l'Information; 7 Impasse Mohamed Bachrouch, Montfleury, 1008 Tunis, Tunisia. (Twice a year) (in Arabic, French).

Asia and the Pacific

ABTEE Newsletter. Australian Broadcasting Tribunal, P.O. Box 1308, North Sydney, N.S.W. 2059, Australia. (Fortnightly) (in English).

ABU Technical Review. Asia-Pacific Broadcasting Union, Kuala Lumpur, Malaysia. (In English.)

ACTAC Newsletter. Australian Children's Television Action Committee, Melbourne, Australia. (Quarterly) (In English.)

Alpha: Communications Monthly. Bharatiya Vidya Bhavan's Rajendra Prasad Institute of Communication Studies, Kulapati K.M. Munshi Marg, Bombay 400007, India. (Monthly) (in English).

Asia Calling. Asia-Pacific Institute for Broadcasting Development, P.O. Box 1137, Pantai, Kuala Lumpur, Malaysia. (Quarterly) (in English).

Asian Mass Communications Bulletin. Asian Mass Communication Research and Information Centre, 39 Newton Road, Singapore 1130, Singapore. (Bi-monthly) (in English).

Asian Messenger: A Quarterly Report on Communication Development. Centre for Communication Studies, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong. (In English.)

Asian Press. Institute for Communication Research, Seoul National University Readership Research Centre, Dong Song Dong, Seoul, Republic of Korea. (Occasional) (in English).

Audio Visual Australia. D.L. Marks, A.R. Pittock & Co., 279 Flinders Lane, Melbourne 3000, Australia. (Quarterly) (in English).

Australian Journal of Cultural Studies. School of Human Communications, Murdoch University, Murdoch, W.A. 6150, Australia. (Semi-annual) (in English).

Australian Scan: Journal of Human Communication. Communications Institute, Department of Communication, Queensland Institute of Technology, P.O.Box 2434, Brisbane 4001, Australia. (Biannual) (in English).

Broadcast. P.O. Box 107, Chippendale, N.S.W. 2008, Australia. (Monthly) (in English).

Communicator. Kamesh Prasad, Indian Institute of Mass Communication, Shaheed Jit Singh Marg, Sector XIII JNU Campus, New Delhi 110067, India. (Quarterly.)

Hoso-Gaku Kenkyu. Nippon Hoso Shuppan Kyokai, 1-10 Shiba-Atagocho, Minato-ku, Tokyo, Japan. (Yearly) (in Japanese, English summary).

IIMC Bulletin. Indian Institute of Mass Communication, Shaheed Jit Singh Marg, Sector XIII, JNU Campus, New Delhi 110067, India. (Annual) (in English).

Keio Communication Review. Institute for Communications Research, Keio University, 2-15-45 Mita, Minato-ku, Tokyo 108, Japan. (Annual) (in English).

Komyuunikeisyon Kwahak. (Journal of Communication Science), Koryo Taihakkyo Pusol Sinmun Pangsong Yonguso, 1 5-KA Anam-Dong, Songbuk-Ku, Seoul, Republic of Korea. (Occasional) (in Korean).

Mass Media Review. Australian Society for Education in Film and Television, 129 Cascade Road, South Hobart, Tasmania 7000, Australia. (Yearly) (in English).

Media Asia. Asian Mass Communications Research and Information Centre (AMIC), 39 Newton Road, Singapore 1130, Singapore. (Quarterly) (in English).

Media Information Australia. Australian Film, Television and Radio School, P.O. Box 126, North Ryde, N.S.W 2113, Australia. (Quarterly) (in English).

Media Monitor. The Living Media Research Foundation, 304 Competent House, F-14 Connaught Place, New Delhi 110001, India. (Monthly.)

New Directions. Australian Film, Television and Radio School, P.O.Box 126, North Ryde, N.S.W. 2113, Australia (Monthly) (in English).

NHK Yearbook. NHK Cultural Research Institute, 221 Jinan, Shibuya-Ku, Tokyo 150, Japan.

Philippine Journal of Communication Studies. Institute of Mass Communication, University of the Philippines, Plaridel Hall, Diliman, Quezon City, Philippines. (Twice a year) (in English).

Prisma. The Institute for Economic and Social Research, Education and Information, JIS Parman No 81, Slipi, Djakarta Barat, Indonesia. (Monthly) (in Indonesian) (from 1975 also quarterly English edition).

Scan. Australian Broadcasting Corporation. GPO Box 9994, Sydney, N.S.W. 2001, Australia. (Monthly) (in English).

Shinbun Gakkai Kaiho. University of Tokyo, 3-1 Hongo 7, Chome Bunkyoku, Tokyo 113, Japan. (In Japanese.)

Third Channel: IBS Journal of International Communication. International Broadcasting Society, 18 Yoido-dong, Youngdeungpo-gu, Seoul, Republic of Korea. (Biannually) (in English).

Varuna. Banaras Hindu University, Department of Journalism and Mass Communication, Varanasi 221005, India.

Europe

Actualité des Techniques de Communication dans le Monde: Télédiffusion de France. Direction des Affaires Spatiales et Internationales, 21-27 rue Barbès, 92542 Montrouge Cedex, France. (In French.)

AEDE. Asociación de Editores de Diarios Españoles (AEDE), Espronceda 32, 6, E-28003 Madrid, Spain. (Biannual) (in Spanish).

Airflash: Journal of the Community Radio Association. Community Radio Association, 119 South Bank House, Black Prince Road, London SE1 75J, United Kingdom. (Quarterly) (in English).

Airwaves. Independent Broadcasting Authority, 70 Brompton Road, London LE1 1EY, United Kingdom. (Quarterly) (in English).

Análisi. Quaderns de Comunicacio i Cultura. Department de Teoria de la Comunicacio, Facultat de Ciencias de l'Informacio, Universitat Autonoma de Barcelona/Servicio de Publicaciones e Intercambio Cientifico, Universidad Autónoma de Barcelona, Bellaterra, Barcelona, Spain. (Occasional) (in Spanish and Catalan, English abstracts).

Annales des Télécommunications. Centre National d'Etudes des Télécommunications, 38-40 rue du Général Leclerc, 93131 Issy-les-Moulineaux, France.

Annals del Periodisme Catala. Associacio de la Prensa de Barcelona, Rambla de Catalunya, 10 pral. E-08007 Barcelona, Spain. (Quarterly) (in Catalan, Spanish).

Annual Review of BBC Broadcasting Research Findings. BBC Data Publications, The Laugham, Portland Place, London W1A 1AA, United Kingdom. (Annual) (in English).

Archiv für Urheber-, Film-, Funk- und Theaterrecht (UFITA). J. Schweitzer Verlag Berlin, Amalien-str. 10, D-8000 München 40, Federal Republic of Germany. (Three or four times a year) (in German).

Audio Visual. MacLaren Publishers, P.O. Box 109, MacLaren House, Scarbrook Road, Croydon, Surrey CR9 1QH, United Kingdom. (In English.)

Behaviour and Information Technology. Taylor & Francis Ltd, 4 John Street, London WC1 2ET, United Kingdom. (Quarterly) (in English).

BKSTS Journal (film, sound, television, audio, visual). British Kinematograph Sound and Television Society, 110-112 Victoria House, Vernon Place, London WC1B 4DJ, United Kingdom. (Monthly) (in English).

BPI Review. British Phonographic Industry, Roxburghe House, 273/287 Regent Street, London W1R 8BN, United Kingdom. (Monthly) (in English).

British Journal of Photography (technical, professional, scientific). Henry Greenwood & Co. Ltd, 28 Great James Street, London WC1N 3HL, United Kingdom. (In English.)

Broadcast. 100 Avenue Road, London NW3 3TF, United Kingdom (Weekly.)

Broadcasting News from the Netherlands. Joint issue of Radio Netherlands Training Centre and Netherlands Broadcasting Organization, Hilversum, The Netherlands.

Bulletin de l'IDATE. Institut de l'Audiovisuel et des Télécommunications en Europe, Bureaux du Polygone, rue des Etats du Languedoc, 34000 Montpellier, France. (In French.)

Cable and Satellite Europe. 533 Kings Road, London SW10 0TZ, United Kingdom. (In English.)

Cahier du Cinéma. 9 passage de la Boule Blanche, 50 rue du Faubourg Saint-Antoine, F-75012 Paris, France. (Monthly) (in French).

Communication Studies Bulletin. Department of Communication Studies, Sheffield City Polytechnic, Pond Street, Sheffield, United Kingdom. (Twice a year) (in English).

Communications. (Ecole Pratique des Hautes Etudes, Centre d'Etudes des Communications de Masse), Editions du Seuil, 27 rue Jacob, F-75261 Paris Cedex 06, France. (Quarterly) (in French).

Communications: The European Journal of Communication. Verlag Peter Lang GmbH; Kölner Institut für Massenkommunikation e.v., Elsenbornerstrasse 19, D-5000 Köln 41, Federal Republic of Germany. (Three times a year) (in German, English, French).

Comunicación 21. Repress, S.A., 27 O'Donnell, Madrid 9, Spain. (Monthly) (in Spanish).

Comunicazione di Massa. SugarCo Edizioni s.r.l., Viale Tunisia 41, Milano, Italy. (Three times a year) (in Italian).

Cuadernos para Debate. La comunicación social en el extranjero. Oficina del Portavoz del Gobierno, Complejo Moncloa, E-28071 Madrid, Spain. (Monthly) (in Spanish).

Current Media Research. Charly Hulten, SR/PUB, S-105 10 Stockholm, Sweden. (In Swedish; appendix lists reports available in translation.)

De Visu. 7 rue du Louvre, F-75002 Paris, France. (In French.)

Die Deutsche Post. (Review of the PTT in the German Democratic Republic.) (Monthly) (in German).

Dossier de l'Audiovisuel. Institut National de l'Audiovisuel, Tour Gamma A, 193 rue de Bercy, F-75582 Paris Cedex 12, France. (In French.)

Ecomund Press. Istituto Internazionale per gli Studi e le Informazioni (IISI), Via Padova 1, I-00161 Roma, Italy. (In Italian.)

EDAV, Edicazione Audiovisiva. Centro Internazionale dello Spettacalo e della Comunicazione Sociale (CISCS), Via Giolitti 208, I-00185 Roma, Italy. (In Italian.)

European Journal of Communication. Sage Publications Ltd, 28 Banner Street, London EC1Y 8QE, United Kingdom. (Quarterly) (in English).

Fernseh-Informationen. Hangstrasse 44 1/2, D-8035 Gauting, Federal Republic of Germany. (Twice a month) (in German).

Film and Television Technician. Association of Cinematograph, Television and Allied Technicians, 2 Soho Square, London W1V 6DD, United Kingdom. (In English.)

Film und Fernsehen. Federation of Cinema and Television Producers and Performers of the German Democratic Republic. (Monthly) (in German).

Film und Recht. Institut für Urheber- und Medienrecht e.v., Amalienstrasse 10, D-8000 München 2, Federal Republic of Germany. (Monthly) (in German).

Filmkunst. Zeitschrift für Filmkultur und Filmwissenschaft, Österreichische Gesellschaft für Filmwissenschaft, Kommunikations- und Medienforschung, Rauhensteingasse 5, A-1010 Wien, Austria. (Quarterly) (in German).

Funk-Korrespondenz. Am Haf 28, D-5000 Köln 1, Federal Republic of Germany. (In German.)

Hi-Fi News and Record Review. Link House, Dingwall Avenue, Croydon CR9 2TA, United Kingdom. (In English.)

Historical Journal of Film, Radio, and Television. Carfax Publishing Company, P.O. Box 25, Abingdon, Oxfordshire, United Kingdom. (Semi-annual) (in English.)

IKON: Cinema, Television, Iconografia. Instituto "Agostino Gemelli" per lo Studio Sperimentale di Problemi Socialia dell'Informazione Visiva, via Senato 15, Milano, Italy.

Informatik: Theorie und Praxis der Wissenschaftlich-technischen Information. Verlag der Wirtschaft Berlin, Kopernicker Strasse 325, DDR-117 East Berlin. (Bi-monthly) (in German, Russian, English and French; German, Russian and English table of contents).

Information Age. Butterworth Scientific Ltd, P.O. Box 63, Westbury House, Bury Street, Guildford, Surrey GU2 5BH, United Kingdom. (Quarterly) (in English).

Information Economics and Policy. Elsevier Science Publishers, P.O. Box 1991, NL-1000 BZ Amsterdam, The Netherlands. (Quarterly) (in English).

Interstages: Bulletin de Liaison à l'Intention des Anciens Stagiaires et des Stagiaires en Information et Techniques de Diffusion. Institut Belge d'Information et de Documentation, 3 rue Montoyer, B-1040 Bruxelles, Belgium. (Three times a year) (in French).

Interview und Analyse. M+K Hansa Verlag, 32 D Heinsonweg, D-2000 Hamburg 67, Federal Republic of Germany. (Monthly) (in German).

IPW Berichte. International Institute for Political Science and Economics, German Democratic Republic. (Monthly) (in German).

Jel Kep. Mass Communication Research Centre, Akademia u. 17, 1054 Budapest V, Hungary. (Quarterly) (in Hungarian and English).

Kabel und Satellit. Neue Mediengesellschaft Ulm GmbH, Buro München, Karlsstrasse 35, D-8000 München 2, Federal Republic of Germany. (Weekly) (in German).

Media-Analyse. Arbeit Gemeinschaft Media-Analyse e.v., Wolfgangstrasse 92, D-6000 Frankfurt 1, Federal Republic of Germany. (Annual) (in German).

Media Education Journal. Association for Media in Scotland, 630 Lanark Road, Juniper Green, Midlothian EH4 5EW, United Kingdom. (Two per year) (in English).

Media Perspektiven. Am Steinernen Stock 1, D-6000 Frankfürt/Main 1, Federal Republic of Germany. (In German.)

Media Reporter. Media Studies Association, 148 Mickleover Way, Allestree, Derby, United Kingdom. (Quarterly) (in English).

Media Scandinavia. Danish Association of Advertising Agencies, Gl. Strand 44, DK-1202 Copenhagen K, Denmark. (Annually) (Danish and English).

Medias Pouvoirs: Politiques, Economies et Stratégies des Médias. Bayard-Presse, 41 rue François-I, F-75008 Paris, France. (Quarterly) (in French; English abstracts).

Medieforskning i Danmarks Radio. Radio Denmark, TV-Byen, DK-2860 Soborg, Denmark. (Yearly) (in Danish).

Mediekultur. Association of Media Researchers in Denmark (SMID); Fibigerstrade 13, AUC, PB 159, DK-9100 Aalborg, Denmark. (Two-three times a year) (mainly Danish).

Medien + Erziehung: Vierteljahresschrift für Audiovisuelle Kommunikation. Arbeitszentrum Jugend Film Fernsehen e.v., Waltherstrasse 23, D-8000 München 2, Federal Republic of Germany. (Quarterly) (in German, occasionally English or French or Italian summary).

Medium. Haus der Evangelischen Publizistik, Friedrichstrasse 34, D-6000 Frankfurt/Main, Federal Republic of Germany. (Monthly) (in German).

Neue Deutsche Presse. Review of the National Committee of the Federation of Journalists of the German Democratic Republic. (Monthly) (in German).

Neue Medien. Milchstrasse 1, D-2000 Hamburg 13, Federal Republic of Germany. (In German.)

Neue Unterrichtspraxis. Gesellschaft für Programmierte Instruktion und Mediendidaktic e.v., c/o Seminar Anglistic/Didaktic, Justis-Leibig-Universität, Otto Behagel Strasse 10, D-3000 Giessen, Federal Republic of Germany. (In German.)

Neue Werbung: Fachzeitschrift für Theorie und Praxis der Sozialistischen Werbung. Verlag der Wirtschaft Berlin, Am Friedrichshain 22, DDR-1055 East Berlin, German Democratic Republic. (Bi-monthly) (in German and Russian).

Nordic Medie Nyt. Nordic Council of Ministers, Department of Media, Culture and Education, St Strandstraede 18, DK-1255 Copenhagen K, Denmark. (Four per year) (in Nordic languages).

Nordicom Review of Nordic Mass Communication Research. Nordic Documentation Centre for Mass Communication Research, Department of Political Science, University of Göteborg, S-41124 Göteborg, Sweden. (Twice per year) (in English).

Novinarstvo. Jugoslovenski Institut za Novinarstvo, Njegoseva 72, Post. Fah 541, Beograd, Yugoslavia. (Three times a year) (in Serbo-Croatian; English, French and Russian summary).

Obvescanje in Odlocanje. Republiski INDOK Center, Parmova 33, 61000 Ljubljana, Yugoslavia. (Six times a year) (in Slovenian with English summary).

On Air, Off Air: Magazine of the Media Project, Volunteer Centre, 29 Lower King's Road, Berkhamsted, United Kingdom. (Six issues a year) (in English).

Otazky Zurnalistiky. Casopis pre vyskum masovych komunikacnych prostriedkov. Novinarski studijny ustav, Oktobrove nam. 7, Bratislava, Czechoslovakia. (Quarterly) (in Slovak; Russian, English summary).

Periodistas, Asociación de la Prensa de Madrid, Juan Bravo 6, E-28006 Madrid, Spain.

Photographic Journal. Royal Photographic Society, 14 South Audley Street, London W1Y 5DP, United Kingdom. (In English.)

Pressens Arbog: Nordisk Forum for Forskning og Debat om Massemedier. Pressehistorisk Selskab, Danmarks Journalisthojskole, att. Erik Lund, Halstadgade 11, DK-8200 Aarhus N, Denmark. (Yearly) (in Danish, Norwegian, Swedish).

Problèmes Audiovisuels. INA Publications, Tour Gamma A, 193-197 rue de Bercy, F-75582 Paris, France. (In French.)

Przekazy i Opinie. Centre for the Public Opinion and Broadcasting Research of the Radio and Television Committee "Polish Radio and Television" (Osrodek Badania Opinii Publicznedddj i Studiow Programowych Komitetu d/s Radia i Telewizji "Polskie Raio i Telewizja"), Wydawniotwa Radia i Telewizji, ul. J.P. Woronioza 17, 00-950 Warszawa, Poland. (Quarterly) (in Polish; English and Russian summary).

Publizistik: Vierteljahreshefte für Kommunikationsforschung; Zeitschrift für die Wissenschaft von Presse, Rundfunk, Film, Rhetorik, Offentlichkeitsarbeit, Werbung und Meinungsbildung. Martin-Legros-Strasse 53, D-5300 Bonn-Lessenich, Federal Republic of Germany. (Quarterly) (in German; English, French, Spanish summary).

Quaderni di Comunicazione Audiovisiva. TE.COM. Institut Européen pour la Recherche et le Développement de Nouvelles Technologies de la Communication, Via Cairoli 6, I-44100 Ferrara, Italy. (Quarterly) (in Italian and French).

Quaderni Iserp. Istituto di Studi e Ricerche sulla Pubblicità (ISERP), Via Larga 15, I-20122 Milano, Italy. (In Italian.)

Quaderns de Ciencies Socials. Institut de Ciencies Socials de la Diputacio de Barcelona/Institut de Ciencias Socials. Diputacio de Barcelona, Barcelona, Spain. (Quarterly) (in Catalan, Spanish).

Relay. Community Radio Magazine, Unit 109, Bonmarche, 444 Brixton Road, London SW9 8ET, United Kingdom. (Irregular) (in English).

Réseaux: Communication, Technologie, Société. CNRS/CNET, 38-40 rue du Général Leclerc, F-92131 Issy-les-Moulineaux, France. (Bi-monthly) (in French).

Revista de Ciencias de la Información. Facultad de Ciencias de la Información, Universidad Complutense, E-28040 Madrid (Yearly) (in Spanish).

Revista Española de Investigaciones Sociológicas (formerly *Revista Española de la Opinión Pública*). Centro de Investigaciones Sociológicas, c/Pedro Texeria 8, 4, E-28020 Madrid, Spain. (Quarterly) (in Spanish).

Revue de l'UER. Union Européenne de Radiodiffusion, Case postale 193, CH-1211 Genève 20, Switzerland. Brussels edition: Centre Technique de l'UER, avenue Albert Lancaster 32, B-1180 Bruxelles, Belgium. (Bi-monthly) (French, English editions).

RTV. Casopis Jugoslovenska Radio-televizije, Belgrade, Yugoslavia. (Quarterly) (in Serbo-Croatian).

Rundfunk und Fernsehen. Hans-Bredow-Institut für Rundfunk und Fernsehen, Heimhuder Strasse 21, D-2000 Hamburg 13, Federal Republic of Germany. (Quarterly) (in German).

Schedaro Cinematografico. Centro Internazionale dello Spettàcolo e della Comunicazione Sociale (CISCS), Via Giolitti 208, I-00185 Roma, Italy. (In Italian.)

Screen. Society for Education in Film and TV, 29 Old Compton Street, London W1V 5PL, United Kingdom. (Quarterly) (in English).

Screen Digest. 37 Gower Street, London WC1E 6HH, United Kingdom. (Monthly) (in English).

Sesity Novinare. Casopis CSZN, Novinar, Ceskoslovensky zvaz novinarov, Narodni tr. 17, 110 00 Praha 1, Czechoslovakia. (Quarterly) (in Czech and Slovak; German and Russian summary).

Sight and Sound. British Film Institute, 21 Stephen Street, London W1P 1PL, United Kingdom. (Quarterly) (in English).

Studio Sound and Broadcast Engineering. Link House, Dingwall Avenue, Croydon CR9 2TA, United Kingdom. (In English.)

Svet Televize. Czechoslovak Television: Programme and Audience Research Institute, ul. Jablonova 2929, Praha 10, Czechoslovakia. (Bi-monthly) (in Czech).

Svremenna Zhurnalistika. Soius na Blgarskite Zhurnalisti, ul. Bratia Miladonovi 12, 1000 Sofia, Bulgaria. (Quarterly) (in Bulgarian, with English and Russian summaries).

Telecommunications Policy: The Assessment, Control and Management of Developments in Telecommunications and Information Systems. IPC Science and Technology Press Limited, Oakfield House, Perrymount Road, Haywards Heath, Sussex RH16 3DH, United Kingdom. (Quarterly) (in English).

Television. Royal Television Society, Tavistock House East, Tavistock Square, London WC1 9HR, United Kingdom. (Bi-monthly) (in English).

Theorie und Praxis des Sozialistischen Journalismus. Wissenschaftliche Hefte der Sektion Journalistik der Karl-Marx-Universität Leipzig. Karl-Marx-Platz 9, DDR-701 Leipzig, German Democratic Republic. (Bi-monthly) (in German).

Tiedotustutkimus. Tiedotusopillinen Yhdistys and Nordicom, Tiedotustutkimus, Bos 312, SF-33101 Tampere, Finland. (Quarterly) (in Finnish).

TV World. 27 Wilfred Street, London SW1E 6PR, United Kingdom. (In English.)

Ufita. Institut für Urheber- und Medienrecht e.v., Amalienstrasse 10, D-8000 München 2, Federal Republic of Germany. (In German.)

Versus. Bompiani, via Mecenate 87/6, I-20138 Milano, Italy. (Three times a year.)

Vestnik Moskovskogo Universiteta. Nauchnyi zhurnal. Seriya X, Zhurnalistika. Izdatel'stvo Moskovskogo Universiteta, ul. Gertsena 5/7, Moskva 103009, USSR. (Bi-monthly) (in Russian).

Video-Magazin. Medienladen, Rostocker Strasse 25, D-2000 Hamburg 1, Federal Republic of Germany. (Ten times a year) (in German; English, occasionally French summary).

Women's Film, TV and Video Network (WFTVN) Newsletter. WFTVN, 79d Wardour Street, London W1V 3PH, United Kingdom. (Bi-monthly) (in English).

Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationforschung. Akademie-Verlag, Akademie der Wissenschaftern der DDR, ZI für Sprachwissenschaft,Otto-Nuschke-Strasse 22/23, DDR-108 East Berlin. (In German.)

Zeszyty Prasoznawcze: A Quarterly of the Press Research Centre, Krakowskie Wydawniotwo Prazowe RSW "Prasa-Ksiazka-Ruch"/"Prasa Wspolozesna i Dawna" Rynek Kleparski 4, 31-150 Krakow, Poland. (Quarterly) (in Polish; English and Russian summaries).

ZV & ZV: Zeitschrift für Presse und Werbung. Zeitungs-Verlag und Zeitschriften-Verlag GmbH, Werzerstrasse 46, D-5800 Bonn-Bad Godesberg, Federal Republic of Germany. (Weekly) (in German).

Latin America and the Caribbean

Cadernos de Comunicação Proal: Estudios, Debates e Analises de Temas de Comunicação de Massa. Editora e Comunicação Proal Limitada, Rua Chui 74, 14104 São Paulo-SP, Brazil. (Quarterly) (in Portuguese).

Cadernos Intercom. Sociedade Brasileira de Estudos Interdisciplinares de Comunicação, C.P. 29793, 01498 São Paulo-SP, Brazil.

Cemedim. Mass Media Study Center of the Journalists' Union of Cuba. Calle 23 no 452, Vedado, Apartado 6646, La Habana 4, Cuba. (In English, French, Spanish.)

Chasqui. Centro Internacional de Estudios Superiores de Communicación para América Latina, Avenida Diego de Almagro 2155, Apartado 584, Quito, Ecuador. (Quarterly) (in Spanish).

Comunicação e Politica. Centro Brasileiro de Estudos Latino-Americanos, Rio de Janeiro, Brazil.

Comunicação e Sociedade. Centre de Pos-Graduação do Instituto Metodista de Ensino Superior, Rua Sacramento 230, ed. Lambda, 09720 São Bernardo do Campo; São Paulo, Brazil. (Twice a year) (in Portuguese; English summary).

Comunicación. Estudios Venezolanos de Comunicación, Venezuela.

Comunicación América Latina. UNDA-AL (the regional Catholic Association for Radio and Television), UCLAP (the Latin American Catholic Press Union), OCIC-AL (the regional branch of the International Catholic Film and Audiovisual Organization) and WACC-LA/C, Estados Unidos 205, 1227 Buenos Aires, Argentina. (In Spanish.)

Comunicación y Cultura. No. 1, Santiago de Chile, 1973; Nos. 2, 3 and 4, Buenos Aires, 1974/75; Nos. 5-14, Mexico City, 1978-85. (In Spanish.)

Comunicarte. Instituto de Artes e Comunicaçoes da Pontificia Universidade Catolica de Campinas, Brazil. (Six-monthly) (in Portuguese).

Contratexto. School of Communication of the University of Lima, Peru. (In Spanish.)

Cuadernos de Comunicación. Comunicología Aplicada de México, S.A. de C.V., Miguel Angel de Quevedo No 8/6th floor, San Angel, C.P. 01050, México D.F. Mexico. (Annual) (in Spanish).

Cultura. Universidad de Colima, Mexico. (In Spanish.)

Dia-Logos. Journal of FELAFACS, Bogotá, Colombia. (In Spanish.)

Estudios Sobre las Culturas Contemporáneas. Programa Cultura/CUIS, Apartado Postal 294, 2800 Colima, Col., Mexico. (Monthly) (in Spanish).

Interacción. Centro de Comunicación Educativa Audiovisual, Bogotá, Colombia. (In Spanish.)

Materiales para la Comunicación Popular. Centro de Estudios sobre Cultura Transnacional, Av. La Mar 170, Lima 18, Peru; Apartado 270031, Lima 27, Peru. (Quarterly) (in Spanish).

Signo y Pensamiento. School of Communications, Universidad Javeriana, Bogotá, Colombia. (In Spanish.)

North America

Adix. Sophist Communications, One Union Square, Suite 508, New York, NY 10003, USA. (Monthly) (in English).

American Journal of Semiotics. Semiotic Society of America, P.O. Box 10, 701 East 8th Street, Bloomington, IN 42404, USA. (Quarterly) (in English).

Broadcaster. R.G. Lewis & Company, Ltd, 77 River Street, Toronto, Ontario M5A 3P2, Canada. (Monthly) (in English).

Broadcasting. Broadcasting Publications, 1705 DeSales Street N.W., Washington, DC 20036, USA. (Weekly) (in English).

Broadcasting/Cablecasting Yearbook. Sol. Taishoff, Broadcasting Publications Inc., Washington, D.C. (Annual) (in English).

Cablevision. International Thomson Communications, Inc., 600 Grant Street, Suite 600, Denver, CO 80203, USA. (Bi-weekly) (in English).

Canadian Journal of Communication. Graduate Communications Programme, McGill University, 3465 Peel Street, Montreal, Quebec H3A IW7, Canada. (Quarterly.)

Channels: The Business of Communication. CC Publishing Inc., 19 W. 44th Street, New York, NY 10036, USA. (Eleven times per year) (in English).

Chronicle of International Communication. International Communication Projects, Inc. (ICPI), P.O. Box 2596, Washington, DC 20013, USA. (Ten times a year) (in English).

Client: Communication Law Information: Edited notes by topic. Department of Communications, Vilas Communication Hall, University of Wisconsin, Madison, WI 53706, USA. (Three times a year) (in English).

Columbia Journalism Review. 700a Journalism Building, Columbia University, New York, NY 10027, USA. (Bi-monthly) (in English).

Communication. College of Communications, University of Illinois at Urbana Champaign, Urbana, IL 61801, USA. (Quarterly) (in English).

Communication et Information. Département de Communication et de Journalisme, Université Laval, Pavillon du Grand Séminaire, Université Laval, Ste-Foy, Québec, G1K 7P4, Canada. (Three times a year) (in French).

Communication Quarterly. Eastern Communication Association, c/o W. Richardson, Villanova University, Department of Communication Arts, Villanova, PA 19085, USA. (Quarterly) (in English).

Communication Research. Sage Publications, Inc., 2111 West Hillcrest Drive, Newbury Park, CA 91320, USA. (Quarterly) (in English).

Communication Research Bulletin. Western Michigan University Center for Communication Research, Kalamazoo, MI 49001, USA. (In English.)

Community Television Review. National Federation of Local Cable Programmers, Washington, DC 20003, USA. (Quarterly) (in English).

Conservation Administration News. McFarlin Library, The University of Tulsa, 600 S. College Avenue, Tulsa, OK 74104, USA. (Quarterly) (in English).

Critical Communications Review. Ablex Publishing, 335 Chestnut Street, Norwood, NJ 07648, USA. (Irregular) (in English).

Critical Studies in Mass Communication. Speech Communication Association, 5105 Backlick Road, Annandale, VA 22003, USA. (Quarterly) (in English).

Development Communication Report. Clearinghouse on Development Communication, Institute for International Research, Inc., 1815 N. Ft. Myer Drive, 6th floor, Arlington, VA 22209, USA. (Quarterly) (in English).

Directions. Program on Communication and Development Studies, Northwestern University, 31 Annie May Swift Building, Evanston, IL 60201, USA. (Quarterly) (in English).

ECTJ: Educational Communication and Technology Journal. Association for Educational Communications and Technology, 1126 16th Street N.W., Washington, DC 20036, USA. (Quarterly) (in English).

Electronic Media. Crain Communications, Chicago, IL 60611, USA. (30-200 pages weekly) (in English).

EM/E's World Broadcast News. Broadband Information Services, Inc., 295 Madison Avenue, New York, NY 10017, USA. (Eleven per year) (in English).

Entertainment Law Reporter. 2210 Wilshire Boulevard No. 311, Santa Monica, CA 90403, USA. (In English.)

Federal Communications Law Journal. School of Law, University of California and the Federal Communications Bar Association, P.O. Box 34434, Washington, DC 20033, USA. (In English.)

Feminist Periodicals. University of Wisconsin System, 112A Memorial Library, 728 State Street, Madison, WI 53706, USA. (In English.)

Film News: The International Review of AV Materials and Equipment. Open Court Publishing Co., Box 619, LaSalles, IL 61301, USA. (Quarterly) (in English).

Human Communication Research. International Communication Association, Sage Publications Inc., 2111 West Hillcrest Drive, Newbury Park, CA 91320, USA. (Quarterly) (in English).

Humanistic Studies in the Communication Arts. Hastings House Publishers, 10 East 40th Street, New York, NY 10016, USA. (Irregular) (in English).

Information Society: An International Journal. Crane, Russak & Company, Inc., 3 East 44th Street, New York, NY 10017, USA. (Quarterly) (in English).

Journal of Advertising. School of Journalism, University of Georgia, Athens, GA 30602, USA. (Quarterly) (in English).

Journal of Advertising Research. Advertising Research Foundation, 3 East 54th Street, New York, NY 10022-3180, USA. (Bi-monthly) (in English).

Journal of The American Society for Information Science. John Wiley & Sons, 605 Third Avenue, New York, NY 10016, USA. (Bi-monthly) (in English).

Journal of Broadcasting and Electronic Media. Broadcast Education Association, 1771 N. Street N.W., Washington, DC 20036, USA. (Quarterly) (in English).

Journal of Communication Inquiry. School of Journalism and Mass Communication, 205 Communications Centre, University of Iowa, Iowa City, IA 52242, USA. (Semi-annual) (in English).

Journal of Mass Media Ethics. Department of Communication, Utah State University, UMC 46, Logan, UT 84322, USA. (Semi-annual) (in English).

Journal of Popular Culture. Bowling Green State University, Center for the Study of Popular Culture, Bowling Green, OH 43402, USA. (Quarterly) (in English).

Journal of Popular Film and Television. Heldref Publications, 4000 Albemarle Street, N.W./Suite 100, Washington, DC 20016, USA. (Quarterly) (in English).

Journalism History. California State University, Department of Journalism, Darly Annexe 103, Northridge, CA 91330, USA. (Quarterly) (in English).

Journalism Monographs. Association for Education in Journalism and Mass Communication, Journalism Monographs, College of Journalism, 1621 College Street, University of South Carolina, Columbia, SC 29208-0251, USA. (Quarterly) (in English).

Journalism Quarterly. Association for Education in Journalism and Mass Communication, University of South Carolina, 1621 College Street, College of Journalism, Columbia, SC 29208-0251, USA. (Quarterly) (in English).

Knowledge: Creation, Diffusion, Utilization. Sage Publications, Inc., 2111 West Hillcrest Drive, Newbury Park, CA 91320, USA. (Quarterly) (in English).

Management Communication Quarterly. Sage Publications, Inc., 2111 West Hillcrest Drive, Newbury Park, CA 91320, USA. (Quarterly) (in English).

Mass Communication Review. Association for Education in Journalism and Mass Communication, Mass Communications and Society Division, Department of Journalism, School of Communications and Theater, Temple University, Philadelphia, PA 19122, USA. (Three per year) (in English).

McLuhan Monographs. McLuhan Program in Culture and Technology, University of Toronto, 39a Queen's Park Circle, Toronto, Ontario M5S 1A1, Canada. (In English.)

Media and Values. Media Action Research Center, 475 Riverside Drive, Ste. 1370, New York, NY 10115, USA. (Quarterly) (in English).

Media Report to Women. Communication Research Associates Inc., 10606 Mantz Road, Silver Springs, MD 20903-1228, USA. (Bi-monthly) (in English).

Multichannel News. Fairchild Publications, 7 East 12th Street, New York, NY 10003, USA. (Weekly) (in English).

NATOA News. National Association of Telecommunications Officers and Advisers, Washington, DC 20004, USA. (Bi-monthly) (in English).

Newspaper Research Journal. Association for Education in Journalism and Mass Communication, Journalism Monographs, College of Journalism, 1621 College Street, University of South Carolina, Columbia, SC 29208-0251, USA. (Quarterly) (in English).

Pacific Islands Communication Newsletter. East-West Center, 1777 East-West Road, Honolulu, HA 96848, USA. (Semi-annual) (in English).

Pennsylvania Speech Communication Annual. Pennsylvania Speech Association, 205 Sparks Building, University Park, PA 16802, USA. (Annual) (in English).

Photographiconservation. Rochester Institute of Technology, Graphic Research Centre, One Lomb Memorial Drive, Rochester, NY 14623, USA. (In English.)

Political Communication and Persuasion: An International Journal. Crane, Russak & Company, Inc., 3 East 44th Street, New York, NY 10017, USA. (Quarterly) (in English).

Public Opinion Quarterly. American Association for Public Opinion Research, University of Chicago Press, P.O. Box 37005, Chicago, IL 60637, USA. (Quarterly) (in English).

Quarterly Journal of Speech. Speech Communication Association, 5105 Backlick Road, Annandale, VA 22003, USA. (Quarterly) (in English).

Satellite Communications. Cardiff Publishing Company, 6300 S. Syracuse Way, Suite 650, Englewood, CO 80111, USA. (Thirteen per year) (in English).

Studies in Communications. JAI Press, P.O. Box 1678, Greenwich, CT 06836, USA. (Annual) (in English).

Telecommunications. Horizon House Inc., 685 Canton Street, Norwood, MA 02062, USA. (Monthly) (in English).

Telephony. Intertec Publishing, 55 East Jackson Blvd., Chicago, IL 60604, USA. (Weekly) (in English).

Transnational Data and Communications Report (TDR). Transnational Data Reporting Service Inc., P.O. Box 2039, Springfield, VA 22512, USA. (Monthly) (in English).

UDC Works. Union for Democratic Communications, c/o 5338 College Ave, Oakland, CA 94618, USA. (Annually) (in English).

Video Age International. 211 East 51st Street, New York, NY 10022, USA. (Bi-monthly) (in English).

Women's Studies in Communication. Organization for Research on Women and Communication (of the Western Communication Association), c/o Sonja Foss, Department of Speech, University of Oregon, Eugene, OR 97403, USA. (Quarterly) (in English).

Written Communication: A Quarterly Journal of Research, Theory and Application. Sage Publications Inc., 2111 West Hillcrest Drive, Newbury Park, CA 91320, USA. (Quarterly) (in English).

Selected reference books and bibliographies

The selected reference books and bibliographies are arranged in alphabetical order, in preference by (corporate) author. In cases where there is no known author, entries are arranged in alphabetical order by title.

The entries are presented according to the *Style Manual for the Presentation of English-Language Manuscripts Intended for Publication by Unesco.* Paris, Unesco, 1981, and according to generally accepted rules for presentation.

Abstracts of Radio and TV Research in Egypt, Kuwait, Qatar and Saudi Arabia. Baghdad, Arab Centre for Audience Research, various years 1982-87.

AITCHISON, Jean; GILCHRIST, Alan. *Thesaurus Construction: A Practical Manual.* 2nd ed. London, ASLIB, 1987.

AL-ABD, Atif Adli. *Guide to Studies on Communication in the Arab World from the Advent of Printing to 1983.* Cairo, Dar Al-Fikr Al-Arabi, 1986.

ALA World Encyclopedia of Library and Information Services. 2nd ed. Chicago, American Library Association; London, Adamtine Press, 1986.

AMUNUGAMA, Sarath; SAID, Abdul Rahman B. Mohd. (eds.). *Communications Research in Asia.* Singapore, Asian Mass Communication Research and Information Centre (AMIC), 1982. 204 pp.

ANABITARTE, Héctor; CLAUDIN, Victor (eds.). *Diccionario General de la Comunicación.* Barcelona, Mitre, 1986. 217 pp.

Análisis e Investigaciones Culturales. Madrid, Ministerio de Cultura, Madrid, 1980. (Quarterly.)

Anuario de la Comunicación. Madrid, Union de Periodistas.

ANZOLA, P.; COOPER, P. *La Investigación en Comunicación Social en Colombia.* Lima, DESCO, 1985. 213 pp.

Asian Mass Communication Bibliography Series. Singapore, Asian Mass Communication Research and Information Centre (AMIC), 1975-78. (10 volumes.)

ATWOOD, Rita; McANANY, Emile G. *Communication and Latin American Society: Trends in Critical Research (1960-1985).* Madison, Wis., University of Wisconsin Press, 1986. 220 pp.

BECK, Kristen. *Cultivating the Wasteland.* New York, American Council for the Arts, 1983. 249 pp.

BELTRAN, L.R.; ISAZA, G.; RAMIREZ, F. *Bibliografía sobre Investigaciones en Comunicación para el Desarrollo Rural en América Latina.* Ottawa, IDRC, 1976. 87 pp.

BERGER, C.R.; CHAFFEE, S.H. *Handbook of Communication Science.* London, Sage Publications, 1987. 952 pp.

Bibliografia Brasileira de Comunicação. Sociedad Brasileira de Estudos Interdisciplinares da Comunicação, INTERCOM, São Paulo, Brazil. (Yearly) (in Portuguese).

Bibliography of Austrian Mass Communication Literature. Salzburg, Austrian Documentation Centre for Media and Communication Research.

BLUM, Eleanor. *Basic Books in the Mass Media.* 2nd ed. Champaign, Ill., University of Illinois Press, 1980.

BOHN, Thomas W.; HIEBERT, Ray Eldon; UNGURAIT, Donald F. *Mass Media V: An Introduction to Modern Communication.* White Plains, NY, Longman, 1987.

BRAD/British Rate and Data: The National Guide to Media Selection. London, MacLean Hunter.

BUSKE, Sue Miller; ORINGEL, Robert S. *The Access Manager's Handbook.* Stoneham, Mass., Focal Press/Butterworth. 193 pp.

CEBRIAN; HERREROS; MARIANO. *Bibliografía de la Información Audiovisual.* IORTV, 1986. 281 pp.

CEDAL - COLCIENCAS. *Investigación Transdisciplinaria.* Bogotá, Cedal - Colciencas, 1988.

Christian Communication Directory. London, Association for Christian Communication, 1986. 86 pp.

CIESPAL. *Communicación Social y Desarrollo: Compendios de Investigaciones sobre América Latina.* Quito, CIESPAL, 1977. 1196 pp. (2 volumes.)

Communication Abstracts. London, Sage Publications. (Quarterly) (in English).

Communication Handbook: A Dictionary. Ed. by Joseph A. DeVito. New York, Harper & Row, 1986. 337 pp.

Communication Policies and Planning: An Annotated Bibliography. Budapest, IAMCR/IAERI (Mass Communication Research Centre), 1986. 79 pp.

Communication Yearbook. London, Sage Publications. (Annual) (in English).

Communications Handbook. New York, Ziff-Davis Publishing Company. (Annual) (in English).

Communicontents. Communication Research and Services, Arizona State University, Tempe, Arizona, USA. (Quarterly) (in English, but for books not published in English, abstracts are made in the language of the book and in English).

COMSTOCK, George (ed.). *Public Communication and Behavior,* Vol. 1. Orlando, Fla., Academic Press, 1987. 319 pp.

CONNERS, T.D. *Longman Dictionary of Mass Media and Communication.* New York, Longman, 1982. 256 pp.

COOKE, Lez. *Media Studies Bibliography.* London, British Film Institute, 1984.

Current Bibliography on African Affairs. Farmingdale, N.Y., Baywood Publishing.

Dansk Media Index. Dansk Media Komite, Norgesmindevej 15, DK-2900 Hellerup, Denmark. (Annually) (in Danish).

DERVIN, Brenda; VOIGT, Melvin J. (eds.). *Progress in Communication Sciences,* Vol. VIII. Norwood, N.J., Ablex, 1986. 320 pp.

Directory of Asian Mass Communication Institutions. 4th ed. Singapore, Asian Mass Communication Research and Information Centre (AMIC), 1986. 237 pp.

Directory of Mass Communication Institutions in Asia. Rev. ed. Singapore, Asian Mass Communication and Research Centre (AMIC), 1986.

Documentación de las Ciencias de la Información. Departamento de Periodismo III, Sección Documentación, Facultad de Ciencias de la Información, Madrid, 1976. (Annual) (in Spanish).

DOOB, Leonard. *Communication in Africa.* New Haven, Conn., Yale University Press, 1961.

DZIKI, Sywester; MACZUGA, Janina; PISAREK, Walery (eds.). *World Directory of Mass Communication Researchers.* Bibliographic Section of IAMCR, CECOM and Press Research Centre (Library of Knowledge of the Press; Vol. XVII, 1984), Cracow.

ENCICLOPEDIA DE PERIODISMO. *Los Países y los Medios de Comunicación.* Barcelona, Mitre, 1986.

Entertainment, Publishing and the Arts Handbook. New York, Clark Boardman.

Fachzeitschriften zur Publizistik und Kommunikation: Bestandsaufname und exemplarische Portraits. Remagen-Rolandseck, Rommerskirchen, 1986.

Fachzeitschriften zur Publizistik- und Kommunikationswissenschaft und Medienforschung: Stand Juli 1986. Dortmund, Institut für Zeitungsforschung der Stadt Dortmund, 1986. 32 pp.

FREIE UNIVERSITÄT BERLIN. INSTITUT FÜR PUBLIZISTIK UND DOKUMENTATIONSWISSENSCHAFT. *Publizistikwissenschaftlicher Referatdienst.* München, Verlag Dokumentation. Universität Berlin, Institut für Publizistik u. Dokumentationswissenschaft, Hagenstrasse 56, D-1000 West Berlin 33. (Yearly) (in German).

Gazette de la Presse de Langue Française. Union Internationale des Journalistes et de la Presse de Langue Française, 1978. (Bi-monthly) (in French).

GERBNER, George; SIEFERT, Marsha (eds.). *World Communications: A Handbook.* White Plains, N.Y., Longman, 1984. 527 pp.

GILL, K.; URAZAS, A.T. (eds). *International Research Centers Directory.* Detroit, Mich., Gale Research Co.

GREENBAUM, Howard H.; HELLWEG, Susan A.; WALTER, Joseph W. *Organizational Communication Abstracts, Analysis and Overview,* Vol. 10. London, Sage Publications, 1985.

GUREVITCH, Michael; LEVY, Mark R. (eds.). *Mass Communication Review Yearbook,* Vol. 5. London, Sage Publications, 1985. 658 pp.

HACHTEN, W.A. *Mass Communication in Africa: An Annotated Bibliography.* Madison, Wis., Center for International Communication Studies, University of Wisconsin, 1971. 121 pp.

HACHTEN, William. *Muffled Drums.* Ames, Iowa, Iowa State University Press, 1971.

Handbook of International Documentation and Information. Munich, K.G. Saur, 1984. 990 pp.

Handbuch zur Empirischen Massenkommunikationsforschung: Einen Kommentierte Bibliographie. Frankfurt, Lang, 1986.

HASLETT, Beth. *Communication: Strategic Action in Context.* Hillsdale, N.J., Lawrence Erlbaum Associates, 1987.

HILL, G.H. *Black Media in America: A Resource Guide.* Boston, Mass., G.K. Hall, 1984. 333 pp.

HOLTZ-BACHE, Christina. *Publizistik-Bibliographie: Eine Internationale Bibliographie von Nachschlagewerken zur Literatur der Kommunikationswissenschaft.* Konstanz, Universität Konstanz, 1985. 252 pp.

HOWITT, Doran; WEINBERGER, Marvin I. *Databasics: Your Guide to Online Business Information.* New York, Garland Publishing, 1984.

HUXFORD, Marilyn; SHEARER, Benjamin (eds.). *Communication and Society: A Bibliography of Communications Technologies and their Social Impact.* Westport, Conn., Quorum Books, 1983.

INDIAN INSTITUTE OF MASS COMMUNICATION. *Mass Communication in India: An Annotated Bibliography.* Singapore, Asian Mass Communication Research and Information Centre (AMIC), 216 pp.

INFORMATION DOCUMENTATION CENTRE OF THE ARAB GULF STATES. *Arab Gulf Periodicals.* 2nd ed. Baghdad, IDCAGS, 1987.

International Encyclopedia of Communications. New York, Oxford University Press/University of Pennsylvania, 1989.

INTERNATIONALES ZENTRALINSTITUT FÜR DAS JUGEND- UND BILDUNGSFERNSEHEN. *Communication Research and Broadcasting.* Munich, K.G. Sauer.

JABLIN, F. et al. *Handbook of Organizational Communication.* London, Sage Publications, 1987. 800 pp.

JUSSAWALLA, Meheroo; MIDDLETON, Karen P. *The Economics of Communication: A Selected Bibliography with Abstracts.* Elmsford, New York, Pergamon, 1981.

KAID, Lynda Lee; NIMMO, Dan; SANDERS, Keith (eds.). *Political Communication Yearbook 1986: New Perspectives on Political Advertising.* Carbondale, Ill., Southern Illinois University Press, 1986.

KAID, Lynda Lee; WADSWORTH, Anne Johnson. *Political Campaign Communication: A Bibliography and Guide to the Literature 1973-1982.* Metuchen, N.J., Scarecrow Press, 1985. 217 pp.

KENT, Allen (ed.). *Encyclopedia of Library and Information Science.* New York, Marcel Dekker.

KLEINWÄCHTER, Wolfgang; MANET, Enrique Gonzales; NORDENSTRENG, Kaarle; *International Information and Communication Order Sourcebook.* Prague, International Organization of Journalists, 1986. 392 pp.

KNAPP, M.L.; MILLER, E.R. *Handbook of Interpersonal Communication.* London, Sage Publications, 1986. 768 pp.

LEONARD, Rosemary; LUYKEN, Georg-Michael; WEDELL, George (eds.). *Mass Communications in Western Europe: An Annotated Bibliography.* Manchester, European Institute for the Media, Manchester University, 1985. 327 pp. (Media Monograph, 6.)

LETEINTURIER, Christine; TALLON, Brigitte. *Le Guide des Sources et Ressources: Médias et Communication.* Paris, Institut Français de Presse, 1985. 140 pp.

LOWRY, Anita; STUVERAS, Junko (eds.). *Scholarship in the Electronic Age: A Selected Bibliography on Research Communication in the Humanities and Social Sciences.* Washington, D.C., Council on Library Resources, 1987. 54 pp.

LUCAS, Amy; YOUNG MARCACCIO, Kathleen (eds.). *Encyclopedia of Information Systems and Services.* Detroit, Mich., Gale Research Co., 1987.

LUKATS, Janos. *Az Uj Mediumok Tarsadalmi Kerdesi: A Nemzetkozi Szakirodalom Valogotott, Annotalt Bibliografiaja* [The Social Issues of The New Media: A Selective Annotated Bibliography of International Literature]. Budapest, Tomegkommunikacios Kutatokozpont, 1985. 217 pp.

MANSELL, Robin E., et al. *Communication, Information and Culture: An Annotated Bibliography.* Vancouver, Simon Fraser University, 1985. 213 pp.

MARQUES DE MELO, J. *A Pesquisa em Comunicação no Brasil 1883-1983.* São Paulo, INTERCOM.

MARQUES DE MELO, J. (ed.). *Teoria e Pesquisa em Comunicação: Panorama Latino-Americano.* São Paulo, Cortez, 1983. 239 pp.

Mass Communication Research: Current Documentation. Cracow, Central European Mass Communication Research Documentation Centre, Press Research Centre, 1986. 117 pp.

McLAUGHLIN, Margaret L. *Communication Yearbook,* Vol. 10 London, Sage Publications, 1987. 888 pp.

McQUAIL, Denis. *Mass Communication Theory: An Introduction.* London, Sage Publications, 1987. 336 pp.

Media Map of Western Europe. London, CIT Research, 1987. 261 pp.

Media Research Index 1950-1984: A Listing of Major Media Research Studies. New York, Newsweek, 1985. 88 pp.

MERINGHOFF, Laurence (ed.). *Children and Advertising: An Annotated Bibliography.* New York, Council of Better Business Bureau, 1980.

MUNIZAGA, G.; RIVERA, A. *La Investigación en Comunicación Social en Chile.* Lima, Desco, 1983. 228 pp.

Nederlandse Mediagids: Handboek voor de Informatie- en Communicatie- industrie. Amsterdam, Kluwer. (In Dutch.)

NORDIC DOCUMENTATION CENTER FOR MASS COMMUNICATION RESEARCH. *Bibliography of Nordic Mass Communication Literature: Document List and Index.* Aarhus, Nordic Documentation Centre for Mass Communication Research (NORDICOM).

OKWU UGBOAJAH, Frank (ed.). *Mass Communication, Culture and Society in West Africa.* Munich, Hans Zell Publishers (Sauer), 1985.

OWEN, Karen. *INPA's Secondary Data Source Bibliography.* 2nd ed. Reston, Va., International Newspaper Promotion Association, 1985. 171 pp.

Panorama of Audiovisual Archives. Dominique Saintville (editorial supervisor) Anne Hanford (English edition editor) London, BBC Data Publications.

PEIRANO, L.; KUDO, T. *La Investigación en Comunicación Social en el Perú.* Lima, Desco, 1982. 182 pp.

Polska Bibliografia Adnotowana Wiedzy o Srodkach Masowego Komunikowania: Osrodek Badan Prasoznawczch RSW "Prasa-Ksiazka-Ruch". Cracow, Pracownia Dokumentaoji i Informaoji Naukowej (Press Research Centre, Department of Documentation and Scientific Information), 1965.

Powerful Images: A Women's Guide to Audiovisual Resources. Rome, Isis International, 1986. 210 pp.

Premières Rencontres Européennes de la Recherche sur la Communication. Répertoire des Chercheurs et Consultants. Montpellier, IDATE, 1985.

RIVERA, J.B. *La Investigación en Comunicación Social en Argentina.* Lima, Desco, 1986. 161 pp.

RUBEN, Brent D. (ed.). *Information and Behavior,* Vol. 2. New Brunswick, N.J., Transaction Books, 1986. 614 pp.

RUBIN, R.B. *Communication Research: Strategies and Sources.* Belmont, Calif., Wadsworth, 1986. 190 pp.

Rundfunktechnische Mitteilungen. Norderstedt, Mensing and Company. (Yearly.)

SHUTER, Robert (ed.). *World Researchers and Research in Intercultural Communication.* Wauwatosa, Wis., Culture Publications, 1985. 243 pp.

Sredstva Massoroi Informatsii i Propagandi. Moscow, Akademiya Nauk SSR, Institut Nauchnoi Informatsii P Obshchestvennym Naukam, Sovetskaya Sotsiologicheskaya Assotsiatsiya, 1987. (Sovetskaya Literatura, 1986.)

STEINBERG, Cobbet. *TV Facts: Revised and Updated.* New York, Facts on File, 1985. 478 pp.

UBBENS, Wilbert. *Jahresbibliographie Massenkommunikation.* West Berlin, Wissenschaftsverlag Volker Spiess, 1986. 300 pp.

UETE, Helen Rinehart (ed.). *Research on Mass Media and Communications: A Catalogue of Doctoral Dissertations, 1983-1986: Journalism, Media Systems, Cinema, Telecommunication.* Ann Arbor, Mich., University Microfilms International (UMI), 1986. 43 pp.

WILCOX, Dennis L. *Mass Media in Black Africa.* New York, Praeger, 1975.

WILLIAMS, Martha E. (ed.). *Annual Review of Information Science and Technology.* White Plains, N.Y., Knowledge Industry Publications (Annual.)

YOUNG YUN KIM (ed.). *International and Intercultural Communication Annual, Volume X - Interethnic Communication.* London, Sage Publications, 1987. 320 pp.

Subject bibliography

This section is arranged following the general chapters of the Report. In subsections 5 and 7 only a division is made between international and regional titles.

1. Communication and development co-operation

ACADEMY FOR EDUCATIONAL DEVELOPMENT. *Beyond The Flip Chart: Three Decades of Development Communication.* Washington, D.C., Academy for Educational Development, 1985.

AGRAWAL, Binod C. *Communication Research for Development: The ISRO Experience.* New Delhi, Concept Publishing Company, 1986. 83 pp.

BAKR, Yahya Abu; LABIB, Saad; KANDIL, Hamdy. *Development of Communication in the Arab States: Needs and Priorities.* Paris, Unesco, 1985. 60 pp. (Reports and Papers on Mass Communication, 95.)

CHATTERJI, R.K. *Mass Communication.* New Delhi, National Book Trust, 1973. 222 pp.

Documentary History of a New World Information and Communication Order, Seen as an Evolving and Continuous Process (1975-1986). Paris, Unesco, 1988. 283 pp. (Communication and Society series, 19.)

DODDS, Tony; HALL, Budd L. *Voices of Development: The Tanzanian National Study Campaigns.* Cambridge, International Extension College, 1974. (IEC Broadsheet on Distance Learning, 6.)

GAUHAR, Altaf (ed.). *Third World Affairs 1987.* London, Third World Foundation for Social and Economic Studies, 1987. 534 pp.

GRAFF, Robert D. *Communications for National Development: Lessons from Experience.* Cambridge, Mass., Oelgescher, Gunn & Hain, 1983. 395 pp.

HALL, Budd L.; ZIKAMBONA, C. *Mtu ni Afya: An Evaluation of the 1973 Mass Health Education Campaign in Tanzania.* Dar es Salaam, Institute of Adult Education, 1974. (Studies in Adult Education, 12.)

HANCOCK, Alan (ed.). *Technology Transfer and Communication.* Paris, Unesco, 1984. 244 pp.

HORNIK, Robert C. *Development Communication: Information, Agriculture and Nutrition in the Third World.* New York, Longman, 1988 (Communications: the Annenberg School of Communications, University of Pennsylvania series.)

HUDSON, Heather E. *A Bibliography of Telecommunications and Socio-Economic Development.* Norwood, Mass., Artech House, 1988. 241 pp.

HUDSON, Heather E. *When Telephones Reach the Village: The Role of Telecommunications in Rural Development.* Norwood, N.J., Ablex, 1984. 154 pp.

INDIAN INSTITUTE OF MASS COMMUNICATION. *Rural Development and Communication Policies.* New Delhi, Indian Institute of Mass Communication, 1980. 195 pp.

JEFKINS, Frank; UGBOAJAH, Frank Okwu. *Communications in Industrializing Countries.* New York, Macmillan, 1987. 224 pp.

JUSSAWALLA, Meheroo; LAMBERTON, D.M. (eds.). *Communications Economics and Development.* Elmsford, N.Y., Pergamon Press, 1982. 345 pp.

KLEINWÄCHTER, Wolfgang (ed.). *The New International Order of Information: Information and Communication for Peaceful Coexistence and Social Progress.* Wissenschaftliche Zeitschrift der Karl-Marx Universität, Leipzig, 1985. (In German.)

MacBRIDE, Sean et al. *Many Voices, One World.* London/ New York /Paris, Kogan Page/ Unipub/Unesco, 1980. 312 pp.

Massovaya Kommunikatsiya i Razvitie Sotsialisticheskogo Obraza Zhizni, Materiali Konferentsii [Mass Communication and the Development of the Socialist Way of Life]. Conference Materials. Tartu, USSR, 1986.

McANANY, Emile G. (ed.). *Communication in the Rural Third World: The Role of Information in Development.* New York, Praeger Publishers, 1980. 222 pp.

McLELLAN, I. *Television for Development: The African Experience.* Ottawa, International Development Research Centre (IDRC), 1986. 157 pp.

MIDDLETON, J.; WEDEMEYER, D.J. *Methods of Communication Planning.* Paris, Unesco, 1985. 487 pp.

MOWLANA, H.; WILSON, L. *Communication and Development: A Global Assessment.* Paris, Unesco, 1988. 157 pp.

NARULA, Uma; PEARCE, W.B. *Development as Communication: A Perspective on India.* Carbondale, Ill., Southern Illinois University Press, 1986. 232 pp.

PENNINGS, Anthony J.; RAHIM, Syed A. *Computerization and Development in Southeast Asia.* Singapore, Asian Mass Communication Research and Information Centre (AMIC), 1987.

SAUNDERS, Robert J.; WARFORD, Jeremy J.; WELLENIUS, Bjorn. *Telecommunications and Economic Development.* Baltimore, Md., Johns Hopkins University Press, 1983. 395 pp.

SERVAES, J. *Communication and Development: Some Theoretical Remarks.* Leuven, Uitgeverij ACCO, 1983. 77 pp.

SIGMAN, V. (ed.). *Development Communications in the Third World.* Urbana-Champaign, Ill., College of Agriculture, University of Illinois, 1984.

SINHA, A.K. *Mass Media and Rural Development.* New Delhi, Concept Publishing, 1985.

STEVENSON, Robert L. *Communication, Development and the Third World: The Global Politics of Information.* New York, Longman, 1988. (Annenberg of School of Communications. University of Pennsylvania.)

STOVER, J.W. *Information Technology in the Third World.* Boulder, Colo., Westview Press, 1984.

TALAAT, Shahinaz. *Egyptian Media in Confronting National Development Problems.* Cairo, Anglo-Egyptian Bookshop, 1984.

____. *Mass Media and Rural Development in Egypt.* Cairo, Anglo-Egyptian Bookshop, 1987.

____. *Mass Media and Social Development in Egypt.* Cairo, Anglo-Egyptian Bookshop, 1980.

TAN, Alexis. *Mass Communications in the Third World, China and Japan.* Norwood, N.J., Ablex, 1985.

TEHRANIAN, Majid. *Communication and International Development: History, Theory, Policy.* Norwood, N.J., Ablex, 1985.

UGBOAJAH, Frank Okwa. *Mass Communication, Culture and Society in West Africa* (ed. by Hans Zell Publishers). Munich, K.G. Saur, 1985. 329 pp.

2. Communication technology

A. Isma'il M., et al. *The Arab Satellite between Earth Problems and Space Potentials.* Amman, Arab Thought Forum, 1970.

ADLER, R. et al. *Teletext and Videotex in the United States: Market Potential, Technology, Public Policy Issues.* New York, McGraw-Hill, 1982. 314 pp.

ALVARADO, Manuel (ed.). *Video World-wide: An International Study.* Paris, Unesco, 1988. 340 pp.

BALDWIN, Thomas F.; McVOY, D. Stevens. *Cable Communication.* Englewood Cliffs, N.J., Prentice-Hall, 1983. 416 pp.

BALLE, Francis, ROGERS, Everett M.; (eds.). *The Media Revolution in America and in Western Europe.* Norwood, N.J., Ablex, 1985. 331 pp. (Paris-Stanford series, Vol. 2.)

BARRERA, Antonio, et al. *El Desafio Tecnológico: España y las Nuevas Tecnologías.* Madrid, Alianza, 1986. 407 pp.

Bases de Datos a Simple Vistas. Madrid, Ministerio de la Cultura, 1986. 108 pp.

BECKER, J. *Informations- und Kommunikationstechnologien (I&K) im Zeitalter Transnationaler Politik.* Bremen, 1986.

BENIGER, James R. *The Control Revolution: Technological and Economic Origins of the Information Society.* Cambridge, Mass., Harvard University Press, 1986. 512 pp.

BOROCZ, Josef (ed.). *Communication Technology Development and the Third World: A Selected Bibliography.* Leicester, International Association for Mass Communication Research (IAMCR), 1986. 337 pp.

BRAND, Steward. *The Media Lab: Inventing the Future at MIT.* New York, Viking, 1987. 285 pp.

BRATONOV, P. *Za Sotsialnata i Kulturnata Sashnost na Telefona* [Social and Cultural Substance of the Telephone]. Bulgaria, 1985 (Problemi na Kulturata, No. 2)

BRUCE, Robert R.; CUNARD, Jeffrey P.; DIRECTOR, Mark D. *From Telecommunications to Electronic Services: A Global Spectrum of Definitions, Boundary Lines and Structure.* London, Butterworth, 1986. 597 pp.

CARLSSON, Ulla (ed.). *Media in Transition: Swedish Mass Communication Research on New Information Technology.* Göteborg, NORDICOM, 1986.

CASSAN, Brent; CHU, Godwin C. *Modern Communication Technology in a Changing Society: A Bibliography.* Honolulu, Hawaii, East-West Center, 1979.

CHUDNOVSKY, Daniel. *Los Servicios Informáticos en América Latina: Las Cuestiones que requieren ser Investigadas.* Buenos Aires, Centro de Economía Transnacional, 1986.

COMMISSION INDEPENDANTE POUR LE DEVELOPPEMENT. *UIT: Le Chaînon Manquant: Rapport de la Commission Indépendante pour le Développement.* Geneva, Commission Indépendante pour le Développement, 1984. 130 pp.

Communication Technology Development and the Third World: A Selected Bibliography. Budapest, Mass Communication Research Centre, 1986. 16 pp.

COMPAINE, Benjamin M. (ed.). *Understanding New Media: Trends and Issues in Electronic Distribution of Information.* Cambridge, Mass., Ballinger Publishing Company, 1984. 378 pp.

DIZARD, Wilson. *The Coming Information Age.* 2nd ed. New York, Longman, 1985.

DORDICK, Herbert S. *Understanding Modern Telecommunications.* New York, McGraw-Hill Book Co., 1986. 324 pp.

FERGUSON, Marjorie. *New Communication Technologies and the Public Interest: Comparative Perspectives on Policy and Research.* London, Sage Publications, 1986. 216 pp.

FORESTER, Tom (ed.). *The Information Technology Revolution.* Cambridge, Mass., MIT Press, 1985.

____. *The Microelectronics Revolution: The Complete Guide to the New Technology and its Impact on Society.* Oxford, Basil Blackwell, 1980.

FRIEDMAN, Joseph S. *A History of Color Photography.* London, The Focal Press, 1972. 565 pp.

GORDON, M.; MEADOWS, A.J.; SINGLETON, A. *Dictionary of New Information Technologies.* London/New York, Kogan Page/Nichols Publishing, 1982.

GORDON, Paul L. (ed.). *The Book of Film Care.* Rochester, N.Y., Eastman Kodak, 1983. 138 pp.

HEAD, Sydney W. *World Broadcasting Systems: A Comparative Analysis.* Belmont, Calif., Wadsworth Publishing, 1985. 457 pp. (Wadsworth series in Mass Communication.)

HENDRICKS, Klaus B. *The Preservation and Restoration of Photographic Materials in Archives and Libraries: A Ramp Study with Guidelines.* Paris, Unesco General Information Programme/ UNISIST.

HOBDAY, Mike. *The Brazilian Telecommunications Industry: Accumulation of Microelectronic Technology in the Manufacturing and Service Sectors.* Rio de Janeiro, Instituto de Economía Industrial, Universidade Federal do Rio de Janeiro, 1984.

HOWKINS, J.; PELTON, J. *Satellites International.* New York, Macmillan 1987.

HUDSON, Heather E. *A Bibliography of Telecommunications and Socio-Economic Development.* Norwood, Mass., Artech House, 1988. 241 pp.

HUDSON, Heather E. (ed.). *New Directions in Satellite Communications: Challenges for North and South.* Dedham, Mass., Artech House Inc., 1985. 316 pp.

Information and Communication Technologies: Social Science Research and Training, Vols. 1 & 2. London, Economic and Social Research Council.

ITO, Y. Telecommunications and Industrial Policies in Japan: Recent Developments. M.S. Snow (ed.). *Marketplace for Telecommunications: Regulation and Deregulation in Industrialized Democracies.* New York, Longman, 1986.

It's For You: A Newspaper's Guide to Telecommunications Equipment, Management and Consultants. Washington, D.C., American Newspapers Publishers Association (ANPA), 1986. 112p.

JONES, Barry. *Sleepers, Wake! Technology and The Future of Work.* Brighton, Wheatsheaf Books, 1982. 285 pp.

JOUET, J. *L'Ecran Apprivoisé: Télématique et Informatique à Domicile.* Issy-les-Moulineaux, CNET/PAA/UST, 1987. (Collection Réseaux.)

KELM, Ellen Jakes; TYDEMAN, John. *New Media in Europe: Satellites, Cable, VCRs and Videotex.* Maidenhead, McGraw-Hill Book Company, 1986. 260 pp.

MARTINEZ, Larry. *Communications Satellites: Power Politics in Outer Space.* Dedham, Mass., Artech House, 1985. 186 pp.

Mass Communication and Electronic Media. Washington, D.C., Communication Booknotes. (Basic bibliography.)

MAST, C. *Tageszeitung und Neue Medien; Zum Engagement der Presse im Elektronischen Umfeld.* Konstanz, 1986.

MATTELART, Armand; SCHMUCLER, Héctor. *Communication and Information Technologies: Freedom of Choice for Latin America?* Norwood, N.J., Ablex, 1985. 186 pp. (Spanish edition: ILET/Folio.)

MATTELART, A.; STOURDZE, Y. *Technology, Culture and Communications: A Report to the French Ministry of Research and Industry.* Amsterdam, Elsevier Science Publishers (North-Holland), 1985. 244 pp.

MAUER, Susan St. *A-Z of Audiovisual Jargon.* London, Routledge & Kegan Paul, 1986. 194 pp.

McLEAN, Mick (ed.). *The Information Explosion: The New Electronic Media in Japan and Europe.* Westport, Conn., Greenwood Press, 1985. 130 pp. (Emerging Patterns of Work and Communications in an Information Age, No. 3)

McPHAIL, Thomas L. *Electronic Colonialism: The Future of International Broadcasting and Communication.* 2nd rev. ed. London, Sage Publications, 1987. 256 pp. (Sage Library of Social Research, Vol. 126.)

MERCIER, Pierre-Alain; PLASSARD, François; SCARDIGLI, Victor. *Société Digitale: Les Nouvelles Technologies au Futur Quotidien.* Paris, Editions du Seuil, 1984. 214 pp.

NOELLE-NEUMANN, E. *Die Antwort der Zeitung auf das Fernsehen; Geschichte einer Herausforderung,* Konstanz, 1986.

OLACHEA, Juan. *El Libro en el Ecosistema de la Comunicación Cultural.* Madrid, Pirámide, 1986. 395 pp.

ORELLANO, R.; RODRIGUEZ, G. *Políticas de Informática en América Latina (México y Cuba).* Santiago de Chile, ILET, 1985. 43 pp.

PATTERSON, Thomas E. *Toward New Research on Communication Technologies and the Democratic Process.* Aspen, Colo., Aspen Institute for Humanistic Studies, 1985 (Communications and Society Forum Report.)

PEAT, F.D. *Artificial Intelligence: How Machines Think.* New York, Simon & Schuster, 1985.

PELTON, J.; PERRAS, M.; SINHA, A. *Intelsat: The Global Telecommunications Network.* Pacific Telecommunications Conference, 1983.

PENNINGS, Anthony J.; RAHIM, Syed A.; *Computerization and Development in South Asia: A Study of Five ASEAN Countries.* Singapore, Asian Mass Communication Research and Information Centre, 1987. 196 pp.

PLIOS, G. *Ekronnoto Obschestvo* [Electronic Society]. Sofia, Partizdat, 1985.

RADA, Juan. *The Impact of Micro-Electronics.* Geneva, International Labour Organisation, 1980. 109 pp.

RICH, R.E., et al. *The New Media: Communication, Research and Technology,* London, Sage Publications, 1984.

ROBERTS, D. Andrew. *Planning the Documentation of Museum Collections.* Museum Documentation Association, 1985. 568 pp.

ROBINS, Kevin; WEBSTER, Frank. *Information Technology: A Luddite Analysis.* Norwood, N.J., Ablex, 1986. 387 pp.

ROGERS, Everett M. *Communication Technology.* New York, Macmillan, 1986 (Communication Technology and Society, Vol. 10.)

ROPER, John; GOEYVAERTS, Cornelia. *European Aid to Third World Media.* Manchester, European Institute for the Media, Manchester University, 1986. 100 pp.

ROSZAK, Theodore. *The Cult of Information.* New York, Pantheon, 1986.

RUTKOWSKI, Anthony M. *Integrated Services Digital Networks.* Dedham, Mass., Artech House Inc., 1985. 324 pp.

SCHMITT, R. *Texte und Bildrezeption bei TV-Werbespots.* Frankfurt am Main, 1986.

SELA. *Comunicación Tecnología y Desarrollo.* Buenos Aires, Ediciones La Flor, 1987. 158 pp.

SHEPARD, F.M. *Technical Development of Broadcasting in the Asia and Pacific Region.* Kuala Lumpur, ABU Technical Centre, 1984. 324 pp.

SINGH, Indur B. (ed.). *Telecommunication in the Year 2000.* Norwood, N.J., Ablex, 1983.

SINGLETON, Loy A. *Telecommunications in the Information Age: A Non-Technical Primer on the New Technologies.* Cambridge, Mass., Ballinger Publishing Company, 1983.

SNOW, Marcellus S. (ed.). *Marketplace for Telecommunications.* New York, Longman, 1986.

SYVERTSEN, Trine. *Ny Teknikk, Ny Politikk og "Nye" Medier* [New Technologies, New Policies and "New" Media]. Bergen, Centre for Mass Communication, University of Bergen, 1987.

Telecommunications Research and Development in Australia: A Report to the Prime Minister by the Australian Science and Technology Council (ASTEC). Canberra, Australian Government Publishing Services, 1985.

TRABER, Michael (ed.). *The Myth of The Information Revolution. Social and Ethical Implications of Communication Technology.* London, Sage Publications, 1986. 160 pp.

TYDEMAN, John; HELM, Ellen. *New Media in Europe: Satellites, Cable, VCRs and Videotex.* London, McGraw-Hill, 1986. 260 pp.

UNLAND, E. *Die Dritte-Welte-Berichterstattung der Frankfurter Rundschau von 1950 bis 1985.* Münster, 1986 (Studien zur Politikwissenschaft, 10.)

VOIGT, Gerda. *The Influence of New Techniques of Information and Communication on International Relations.* East Berlin, Akademie der Wissenschaften, 1986. 58 pp. (In German.)
WHITE, Peter B. *Satellites, Telecommunications and Education: A Resource Guide for Australian Educators.* Canberra, Commonwealth Department of Education. 2 vols.
WILLIAMS, F. *Technology and Communication Behavior.* Belmont, Calif., Wadsworth, 1987.
WINSTON, Brian. *Misunderstanding Media.* London, Routledge & Kegan Paul, 1986. 419 pp.

3. Economic and industrial patterns

ALTBACH, Philip G.; ARBOLEDA, Amadio A.; GOPINATHAN, S. *Publishing in The Third World: Knowledge and Development.* Portsmouth, N.H./London Heinemann Educational/Mansell Publishing Ltd, 1985. 226 pp.
ARRIAGO, P. *Publicidad, Economía y Comunicación Masiva (México-Estados Unidos).* Mexico City, CEESTEM-Nueva Imagen, 1980. 324 pp.
AUDLEY, Paul. *Canada's Cultural Industries.* Toronto, James Lorimar & Co., 1983.
BAUGHCUM, Alan. Deregulation, Divestiture and Competition in U.S. Telecommunications: Lessons for Other Countries. In: Marcellus Snow (ed.), *Marketplace for Telecommunications.* New York, Longman, 1986.
BONAVITA, Federico M.E. *Historia da Comunicação Radio e TV no Brasil.* Vozes, Petropolis, 1982. 167 pp.
CAPRILES, O. *El Estado y los Medios de Comunicación en Venezuela.* Caracas, ININCO. 217 pp.
COLLINS, Richard; GARNHAM, Nicholas; LOCKSLEY, Gareth. *The Economics of Television.* London, Sage Publications, 1987. (Media, Culture and Society series.)
Communication Policies and Planning: An Annotated Bibliography. Leicester, International Association for Mass Communication Research (IAMCR), 1986. 76 pp. (Occasional papers.)
COMPAINE, B.M. *Who Owns The Media? Concentration of Ownership in the Mass Communications Industry.* 2nd ed. White Plains, N.J., Knowledge Industry Publications, 1982.
COSER, Lewis A.; KADUSHIN, Charles; POWELL, Walter W. *Books: The Culture and Commerce of Publishing.* New York, Basic Books, 1982. 411 pp.
CURWEN, Peter. *The World Book Industry.* London, Euromonitor Publications, 1986. 190 pp.
DENISOFF, R. Serge; SCHURK, William. *Tarnished Gold: The Record Industry Revisited.* New Brunswick, N.J., Transaction Books, 1986. 487 pp.
DISSANAYAKE, Wimal; WANG, Georgette, (eds.). *Continuity and Change in Communication Systems: An Asian Perspective.* Norwood, N.J., Ablex, 1985. 274 pp. (Communication and Information Science series.)
DU CHARME, Ria. *Bibliography of Media Management and Economics.* Minneapolis, University of Minnesota. Media Management and Economics Resource Center, 1986.
EBENFIELD, Helene; JUSSAWALLA, Meheroo (eds.). *Communication and Information Economics: New Perspectives.* Amsterdam, Elsevier Science Publishers (North Holland), 1984. 149 pp.
ECONOMIC COMMISSION FOR EUROPE. *The Telecommunications Industry: Growth and Structural Change.* New York, United Nations, 1987.
FERNANDEZ, F. *Los Medios de Difusión Masiva en México.* Mexico City, Editorial Juan Pablos, 1982.
FERRAZ SAMPAIO, M. *Historia do Radio e da Televisão no Brasil y no Mundo.* Rio de Janeiro, Achiame, 1984. 342 pp.
FLICHY, Patrice. *Les Industries de l'Imaginaire: Pour une Analyse Economique des Media.* Grenoble, Presses Universitaires de Grenoble, Institut National de l'Audiovisuel, 1980. 277 pp.
FOSTER, F.G. (ed.). *Informatics and Industrial Development.* Dublin, Tycooly International Publishing Ltd, 1982, 455 pp. (Information Technology and Development series, Vol. 2.)
FOX, Elizabeth (ed.). *Media and Politics in Latin America.* Lima, IPAL, 1988. 224 pp.
GARGUREVICH, J. *Prensa, Radio y TV: Historia Crítica.* Lima, Editorial Horizante, 1987. 311 pp.
GETINO, Octavio. *Notas Sobre Cine Argentino y Latinoamericano.* Mexico City, Edimedios, 1984.
HAIGHT, T.R.; STERLING, C.H. *The Mass Media: Aspen Institute Guide to Communication Industry Trends.* New York, Praeger, 1978. 475 pp.
HAMELINK, Cees. J. *Finance and Information: A Study of Converging Interests.* Norwood, N.J., Ablex, 1983. 170 pp.
HAMELINK, Cees J.; PAVLIC, Breda. *The New International Economic Order: Links Between Economics and Communications.* Paris, Unesco, 1985. 65 pp. (Reports and Papers on Mass Communication, 98.)
HAY, Tony; ROBERTS, Steven. *International Directory of Telecommunications: Market Trends, Companies, Statistics and Personnel.* 2nd ed. London, Longman, 1986. 345 pp. (Companion to Industry.)

HENSEL, Matthias; SCHENK, Michael. *Medienwirtschaft: Eine kommentierte Auswahlbibliographie.* (In collaboration with Frank Dekker.) Baden-Baden, Nomos Verlagsgesellschaft, 1986. 224 pp.

HILLS, Jill. *Information Technology and Industrial Policy.* Beckenham, Croom Helm, 1984. 291 pp.

JAKOB, Z. Consumer Investment in Mass Communication. *Jel-Kep, Special Edition*, pp. 110-18. Budapest, 1986.

JHALLY, Sut. *The Codes of Advertising: Fetishism and the Political Economy of Meaning in the Consumer Society.* New York, St Martin's Press, 1987. 225 pp.

KOPPER, Gerd. *Massenmedien: Wirtschaftliche Grundlagen und Struckturen. Analytische Bestandsaufnahme der Forschung 1968-1981.* Konstanz, Universitätsverlag Konstanz, 1982. 326 pp.

LHOEST, Holde. *Les Multinationales de l'Audiovisuel en Europe* [The Multinationals of Audiovisuel in Europe]. Paris, PUF, 1986. (Dossiers de l'Institut de Recherche et d'Information sur les Multinationales (IRM) No. 8.)

LICHTER, Robert S. *The Media Elite.* Bethesda, Md., Adler & Adler, 1986. 342 pp.

MURDOCK, Graham; NOREENE, Janus. *Mass Communication and the Advertising Industry.* Paris, Unesco, 1985. 72 pp. (Reports and Papers on Mass Communication, 97.)

NOAM, Eli M. (ed.). *Video Media Competition: Regulation, Economic and Technology.* New York, Columbia University Press, 1985. 468 pp.

NOGUER, J. *Radiodifusión en la Argentina.* Buenos Aires, Editorial Bien Común, 1985. 543 pp.

NORDENSTRENG, K.; WIIO, O. *Suomen Viestintajarjestelma* [Mass Media in Finland]. Helsinki, Weilin & Goos, 1986.

NOWACK, Kjell. *Television in Sweden.* Stockholm, Centre for Mass Communication Research, 1986.

PETRACCI, Mónica; WALSBORD, Silvio. *La Industria Cinematográfica Argentina: Una Visión de Conjunto.* Buenos Aires, IPAL/SELA, 1986.

PORTALES, Diego. *La Dificultad de Innovar: Un Estudio sobre las Empresas de Televisión en América Latina.* Santiago de Chile, ILET, 1987.

RAIS, Ahmed. Reflections on Policies. Plans, Achievements and Prospects for Education, Science, Culture and Communication in South Asia. *Perspectives on Asia's Future.* (Bangkok, Thailand, 20-24 July 1987.) Paris, Unesco, 1987.

SCHILLER, Herbert. *Information and the Crisis Economy.* White Plains, N.J., Ablex, 1984. 133 pp.

SCHULEIN, Sylvia. *La Producción Independiente en la Televisión Argentina.* Santiago de Chile, ILET, 1986.

TUNSTALL, Jeremy. *Communications Deregulation: The Unleashing of America's Communications Industry.* Oxford, Basil Blackwell Ltd, 1986.

UNITED NATIONS CENTRE ON TRANSNATIONAL CORPORATIONS. *Foreign Direct Investment, the Service Sector and International Banking.* New York, United Nations, 1987. 71 pp. (UNCTC Current Studies, Series A, No. 7.)

____. *International Trade and Foreign Direct Investment in Data Services: Transborder Data Flows in the Context of Services and the Development Process: Report by the United Nations Centre on Transnational Corporations for the Trade and Development Board.* New York, United Nations Conference on Trade and Development, 1984. 23 pp. (TD/B/1016.)

____. *Transnational Corporations and Technology Transfer: Effects and Policy Issues.* New York, United Nations, 1986. 77 pp.

WIDDERSHOVEN, C. *The Future of the European Audiovisual Industry: A Case Study: The Dutch Audiovisual Industry in the European Context.* Manchester, 1987.

World Telecommunications Expenditure and Development: The Next Five Years. Barnham, International Telecommunications Intelligence, Telecoms Industry, 1987. 454 pp.

4. Employment and training

BARAKAT, Suhair. Development Information and the Formation of Arab Media Personnel. *The Arab Media*, No. 2, 1982, pp. 89-106.

BECKER, Lee B., et al. *The Training and Hiring of Journalists.* Norwood, N.J., Ablex, 1987. 196 pp.

BHATNAGER, O.P.; DHAMA, O.P. *Education and Communication for Development.* New Delhi, Oxford/IBH Publishing House, 1980. 719 pp.

CAMRE, Henning et al. *Bridging the Gap: Toward a Policy and Strategy for Film and Television Training in the Developing World.* Copenhagen, The Danish National Film School, 1982. 236 pp.

DAZA HERNANDEZ, Gladys. *La Imagen Electrónica como Alternativa de Educación Popular en Latinoamérica.* Madrid, Editorial Universidad Complutense, 1986.

ETTEMA, James S.; WHITNEY, D. Charles. *Individuals in Mass Media Organizations: Creativity and Constraint.* Newbury Park, Sage Publications, 1982. 259 pp.

EUGSTER, Ernest. *Television Programming Across National Boundaries: The E.B.U. and O.I.R.T. Experience.* Dedham, Mass., Artech House, 1983.

KARL-MARX UNIVERSITÄT. *Katalog - Gesamtverzeichnis wissenschaftlicher Arbeiten der Sektion Journalistik seit 1950.* Part 1: *Nach Sachgebieten*, Part 2: *Nach Medien und Organen.* Leipzig, 1982 (and following years).

____. *Theoretische Grundfragen des sozialistischen Journalismus.* Leipzig. 1983, 379 pp.

____. *Wörterbuch der Sozialistischen Journalistik*, Leipzig 1984, 220 pp.

LABIB, Sa'ad. *Radio and TV Training in the Arab States.* Paris, Unesco. (Unesco Series on Arab Communications Policies.)

LEFRANC, Robert. *L'Education Médiatisée.* Bordeaux, Centre Régional de Documentation Pédagogique, Académie de Bordeaux, 1988.

MERRILL, John C. *Global Journalism: A Survey of the World's Mass Media.* White Plains, N.Y., Longman, 1983. 374 pp.

MILLER, Elwood; MOSLEY, Mary L. (eds.). *Educational Media and Technology Yearbook.* Littleton, Colo., Libraries Unlimited.

RAAUM, Odd. *Pressens Toyelige Etikk: Journalisters Yrkesmoral og Selvjustis* [Press Ethics: The Work Ethics and Self-censorship of Journalists]. Oslo, Universitetsforlaget, 1986.

RAUE, Günter. *Geschichte des Journalismus in der DDR (1945-1961).* Leipzig, VEB Bibliographisches Institut, 1986, 288 pp.

SANCHEZ, Joaquín, et al. *La Formación Profesional de Comunicadores Sociales en América Latina: Pregrados y Postgrados 1984-1985.* Bogota, Federación Latinoamericana de Asociaciones de Facultades de Comunicación Social (FELAFACS), 1985. 305 pp.

VEB BIBLIOGRAPHISCHES INSTITUT. *Einführung in die Journalistische Methodik.* Leipzig, 1985, 240 pp.

WEAVER, David H.; WILHOIT, G. Cleveland. *The American Journalist: A Portrait of U.S. News People and their Work.* Bloomington, Ind., Indiana University Press, 1986.

Workshop on Journalism Education, Prague, August 1984. Prague, International Association for Mass Communication Research, International Organization of Journalists, 1984. 102 pp.

5. Information flow

International

Actualité Radiophonique et Télévisuelle dans le Monde. Paris, Service des Affaires Internationales et de la Coopération, TDF. (Twice a year) (in French).

BARWISE, Patrick; EHSENBERG, Andrew. *Television and its Audience.* London, London Business School. 1988. 224 pp.

BECKER, Jörg. *Transborder Data Flow and Development.* Bonn, Friedrich-Ebert Stiftung, 1987. 203 pp.

CARRASCAL, Ana, et al. *Países y Medios de Comunicación: Estructura Mundial de Transmisión de Noticias.* Barcelona, Mitre, 1986. 284 pp.

Cinéma: Grand Dictionnaire Illustré. Paris/ Montréal, Ed. Atlas, 1985. 3 Vols. 720 pp.

CODDING, George A.; RUTKOWSKI, Anthony M. *The International Telecommunication Union in a Changing World.* Dedham, Mass., Artech House, 1982. 14 pp.

COWIE, Peter. *International Film Guide.* New York, Zoetrope, 1986.

CROOKES, P. *The Dissemination of Audiovisual Materials from Developing Countries in the Television and Video Markets of Western Europe.* Köningswinter, Friedrich Naumann Foundation, 1987.

DELCOURT, Xavier; MATTELART, Armand; MATTELART, Michele. *International Image Makers.* London, Comedia Publishing, 1984.

DENICKE, Klaus; HOCHERL, Ulrich. *Internationale Film-Bibliographie/International Motion-Picture Bibliography/Bibliographie Internationale du Cinéma.* Munich, Filmland Presse, 1985. 303 pp.

Dizionario Universale del Cinema. Ed. by Fernaldo di Giammatteo. Rome, Ed. Riuniti, 1984. (Dizionari Tematici.)

Enciclopedia de Periodismo: Los Países y los Medios de Comunicación. Barcelona, Mitre, 1986.

FENBY, Jonathan. *The International News Services.* New York, Schocken Books, 1986. 275 pp.

GANLEY, Gladys. D; GANLEY, Oswald. H. *Global Political Fallout: The VCR's First Decade.* Norwood, N.J., Ablex, 1987. 178 pp.

GATINEAU, Jean-Claude; SOLAL, Phillippe; SOLAL, Lucien (eds.). *Communication: Presse Écrite et Audiovisuelle: Dictionnaire Juridique.* 2nd ed. Paris, Dalloz, 1985. 299 pp.

GERTNER, Richard (ed.). *International Motion Picture Almanac.* New York, Quigley, 1987. 672 pp.

____. *International Television and Video Almanac.* New York, Quigley, 1987. 652 pp.

GOODWIN, Andrew (ed.). *TV Studies Bibliography.* London, British Film Institute, 1987.

GUBACK, Thomas; VARIS, Tapio. *Transnational Communication and Cultural Industries.* Paris, Unesco, 1982. (Reports and Papers on Mass Communication, 92)

HAMELINK, Cees J. *Transnational Data Flows in the Information Age.* Lund, Chartwell-Bratt, 1984.

Handbook of the Commonwealth Broadcasting Association. London, Commonwealth Broadcasting Association.

Handbook of News Agencies in the World. Prague, International Organisation of Journalists (IOJ), 1986. 167 pp.

HANS-BREDOW INSTITUT FÜR RUNDFUNK UND FERNSEHEN AN DER UNIVERSITÄT HAMBURG (ed.). *Internationales Handbuch für Rundfunk und Fernsehen.* Baden-Baden, Nomos Verlagsgesellschaft, 1986/87.

HOLLY, W. *Politische Fernsehdiskussionen: Zur Medienspezifischen Inzenierung von Propaganda als Diskussion.* Tübingen, 1986.

Internationales Handbuch für Rundfunk und Fernsehen. Hamburg, Hans-Bredow-Institut, 1986/87. 1,024 pp.

International Index to Television Periodicals. London, International Federation of Film Archives (FIAF). (Biennial).

KAMATH, M.V. *News Agencies Pool of Non-Aligned Countries.* New Delhi, Indian Institute of Mass Communication, 1983. 303 pp.

KIVIKURU, U.; VARIS, T. *Approaches to International Communication.* Helsinki, Finnish National Commission for Unesco, 1986. (Publications of the Finnish National Commission for Unesco, 35.)

KLEINWÄCHTER, Wolfgang; NORDENSTRENG, Kaarle (eds.). *International Communication and Building Confidence in Europe.* Leipzig, Karl-Marx Universität, 110 pp. (In German.)

KURIAN, G.T. (ed.). *World Press Encyclopedia.* Indexed by M.B. Bank and J. Johnson. New York/London, Facts on File/Mansell, 1982. 1,202 pp. 2 vols.

LANDAU G. *Introduction à la Radiodiffusion Internationale.* Paris, Davoze, 1986. 118 pp.

LEE, Philip (ed.). *Communication for All: New World Information and Communication Order.* Maryknoll, N.Y., Orbis Books, 1986. 158 pp.

LULL, James (ed.). *World Family Watch Television.* San José, State University, 1988. 296 pp.

MARUYAMA, L.S. *Transborder Flow of Bibliographic Data.* The Hague, International Federation of Library Associations and Institutions (IFLA), 1985.

MELODY, W.H.; SALTER, L., et al. *Culture, Communication and Dependency.* Norwood, N.J., Ablex, 1981.

MOWLANA, Hamid. *Global Information and World Communication: New Frontiers in International Relations.* White Plains, N.Y., Longman, 1986.

____. *International Flow of Information: A Global Report and Analysis.* Paris, Unesco, 1985. 75 pp. (Reports and Papers on Mass Communication, 99.)

____. *International Flow of News: An Annotated Bibliography.* Paris, Unesco, 1985. 272 pp.

MURDOCK, Graham; NOREENE, Janus. *Mass Communications and the Advertising Industry.* Paris, Unesco, 1985. (Reports and Papers on Mass Communication, 97.)

NOHRSTEDT, S.A. *Tredje Världen i Nyheterna* [News Coverage of the Third World]. Stockholm, Almquist & Wixell International, 1986.

NORDENSTRENG, Kaarle, et al. (ed.). *Foreign News in the Media: International Reporting in 29 Countries.* Paris, Unesco, 1985. 96 pp. (Reports and Papers on Mass Communication, 93.)

O'BRIEN, Rita Cruise (ed.). *Information, Economics and Power: The North-South Dimensions.* Sevenoaks, Hodder & Stoughton Educational, 1983.

PATTERSON, Richard (ed.). *International TV and Video Guide.* New York, Zoetrope, 1986.

SAHAGUN, Felipe. *El Mundo Fue Noticia: Corresponsales Españoles en el Extranjero - La Información Internacional en España.* Madrid, Fund. Banco Exterior, 1986. 302 pp. (Investigaciones series.)

SLIDE, Anthony. *International Film, Radio and Television Journals.* Westport, Conn., Greenwood Press, 1985. 428 pp.

UNITED NATIONS CENTRE FOR TRANSNATIONAL CORPORATIONS. *Transborder Data Flows: Access to the International On-line Data-base Market.* New York, United Nations, 1983. 140 pp. (Sales No. E. 83.II.A.1.)

____. *Transnational Corporations and Transborder Data Flows: A Technical Paper.* New York, United Nations, 1982. 149 pp. (Sales No. E.82.II.A.4.)

VAN DIJK, Teun A. *Structures of International News: A Case Study of the World's Press.* Amsterdam, University of Amsterdam, 1984. 341 pp.

VARIS, Tapio. *International Flow of Television Programmes.* Paris, Unesco, 1985 (Reports and Papers on Mass Communication, 100.)

WARREN, Albert (ed.). *Television and Cable Factbook.* Washington, D.C., Television Digest, 1987. 2 Vols.

World Communications: A 200-Country Survey of Press, Radio, Television and Film. 5th ed. Epping/New York, Gower Press/Unipub, 1975. 533 pp.

World Radio and TV Handbook. London, Billboard Ltd. (Annual.)

Regional

Africa

ABEL, Helen; COLEMAN, W.F.; POPKU, A.A.. *An African Experiment in Radio Forums for Rural Development: Ghana 1964-65.* Paris, Unesco, 1968. (Reports and Papers on Mass Communication, 51.)

African Newspaper Index. Langley Park, Md., Current Documents.

African Book and World Press: A Directory. 2nd ed. Oxford, Zell, 1980.

AINSLIE, Rosalynd. *The Press in Africa.* London, Gollancz, 1966.

FRANKLIN, Harry. *Report on the "Saucepan Special": The Poor Man's Radio for Rural Populations.* Lusaka, Government Printer, 1950.

KITCHEN, Helen. *The Press in Africa.* Washington D.C., Ruth Sloan Associates, 1956.

NORDENSTRENG, Kaarle. *Tanzania and the New Information Order: A Case Study of Africa's Second Struggle.* Dar es Salaam, Nkwabi Ng'wanakiliala Shihata (Tanzania), 1987.

TUDESQ, A.-J. *La Radio en Afrique Noire.* Paris, Editions A. Pedone, 1983. (Afrique Noire, 12.)

WEDELL, George. *Making Broadcasting Useful: The African Experience: The Development of Radio and Television in Africa in the 1980s.* (James Kangwana and Lawrence Lawler, assistant editors.) Manchester, Manchester University Press, European Institute for the Media, 1986.

Arab States

AL-ABD, Atif Adli. *Abstracts of Research on Communication and Family Organisation.* (Revised by Nadia Salim.) Cairo, Population Council and the National Centre for Social and Criminal Studies, 1983.

____. *Abstracts of Research on Communication and Rural Areas.* (Revised by Nadia Salim.) Cairo, National Centre for Social and Criminal Studies, 1987.

____. *Abstracts of Research on Information in Egypt.* (Random sample.) (Revised by Nadia Salim.) Cairo, National Centre for Social and Criminal Studies, 1985.

____. *Annotated Bibliography of Printed Arabic Works on Radio and Television.* Arab Centre for Audience Research, Baghdad, Iraq, (ed. by Al-Habil, Abd Al-Qadr Muhamad; rev. by Djurdjis, Hasim Muhammad.) Baghdad, Information Documentation Centre of the Arab Gulf States, 1983.

____. *The Flow of Information in The Arab World: An Analytical Study with a Select Annotated Bibliography.* Baghdad, Centre for Audience Research, 1984.

____. *Radio and TV Research Abstracts.* Paris, Unesco, 1982.

BOYD, Douglas. *Broadcasting in the Arab World.* Philadelphia, Temple University Press, 1982.

DAJANI, Nabil. Challenges of the Communication Revolution on the Arab and International Fronts. *Al-Fikr al Arabi*, March/April, 1979.

____. *Lebanon: Studies in Broadcasting.* London, International Institute of Communications, 1979.

EL HADIDI, Mona; TALAAT, Shahimaz. *Egyptian Media Attitudes Towards African News.* Cairo, 1987. (Media Studies - Derazal Lamiah, No. 49.)

INFORMATION DOCUMENTATION CENTRE OF THE ARAB GULF STATES. *Bibliographical Guide to Arab Works on the Press up to 1981.* (Ed. by Al-Abd, Atif Adli, rev. by Nadia Salim.) Cairo, National Centre for Social and Criminal Studies; Baghdad, IDCAGS, 1982.

____. *Fifty Years of Broadcasting: Golden Anniversary Bibliography.* (Ed. by Al-Abd, Atif Adli, rev. by Husain, Samir, Radio and Television Union) Cairo/Baghdad, Radio and Television Union/ IDCAGS, 1984.

____. *Information and the Press: Select, Annotated Bibliography.* Baghdad, IDCAGS, 1984.

MOUSSALEM, Anis. *La Presse Libanaise.* Paris, Générale de Droit et de Jurisprudence, 1977.

RACHTY, G; SABAT, K. *Importation of Films for Cinema and Television.* Paris, Unesco, 1984. (Unesco Documents on Communication and Society series, 7.)

RUGH, William. *The Arab Press.* Syracuse, N.Y., Syracuse University Press, 1979.

Asia and the Pacific

ACHARYA, A.N. *Television in India.* New Delhi, Manas Publications, 1987. 174 pp.

BAKSHI. *Press Laws in India.* New Delhi, Bahri & Sons, 1985. 200 pp.

BASU, Durga Das. *Laws of the Press in India.* New Delhi, Prentice Hall of India, 1986. 583 pp.

CHATTERJEE, P.C. *Broadcasting in India.* New Delhi, Sage Publications, 1987.

Indian Press Index. Delhi, Delhi Library Association.

LANGDALE, John V. *Transborder Data Flow and International Trade in Electronic Information Services: An Australian Perspective.* Canberra, Australian Government Publishing Services, 1985. (Report to the Department of Communications, April 1985.)

MANKEKAR, D.R. *Media and the Third World.* New Delhi, Indian Institute of Mass Communication, 1979. 124 pp.

MINISTRY OF INFORMATION AND BROADCASTING. GOVERNMENT OF INDIA. *Mass Media in India.* New Delhi, Ministry of Information and Broadcasting, 1984, 269 pp.

Report of the Broadcasting Corporation of New Zealand. Wellington, Broadcasting Corporation of New Zealand.

RICHSTAD, Jim; McMILLAN, Michael. *Mass Communication and Journalism in the Pacific Islands: A Bibliography.* Honolulu, University of Hawaii, 1986. 333 pp.

SHEPHERD, F.M. (ed.). *Technical Development of Broadcasting in Asia Pacific 1964-1984.* Kuala Lumpur, Asia-Pacific Broadcasting Union (ATC), 1984.

Latin America and the Caribbean

ALMONIA, Helena (ed.). *Bibliografía del Cine Mexicano.* Mexico City, Universidad Nacional Autónoma de México, 1985. 85 pp.

BELTRAN, L.R.; FOX, E. *Comunicación Dominada: Estados Unidos en los Medios de América Latina.* Mexico City, ILET-Nueva Imagen, 1980. 176 pp.

CEDAL-COLCIENCIAS. *Modelos de Comportamiento y Consumo de Productos Televisivos Comunicativos.* Bogota, 1988.

FREDERICK, Howard. *Cuban-American Radio Wars: Ideology in International Communications.* Norwood, N.J., Ablex, 1986. 193 pp.

PORTALES, D., et al. *Comunicación Transnacional: Conflicto Político y Cultural.* Lima, Decro ILET, 1982. 186 pp.

ROGERS, E.; REINA, J. Media Flows in Latin America. *Communication Research: An International Quarterly*, Vol II, 1984, No. 2, pp. 159-320.

SCHNITMAN, J. *Film Industries in Latin America: Dependency and Development.* Norwood, N.J., Ablex, 1984. 134 pp.

UNITED NATIONS CENTRE FOR TRANSNATIONAL CORPORATIONS. *Data Services in Latin America and the Caribbean: Study prepared for the Permanent Secretariat of the Latin American Economic System.* New York, UNCTC, 1985. 206 pp. (Also available in Spanish.)

North America and Europe

Annuaire de la Presse, de la Publicité et de la Communication. Paris, Ecran Publicité. (Annual) (in French).

ARD-Jahrbuch. Frankfurt/Main, Arbeitsgemeinschaft der Öffentlich-rechtlichen Rundfunkanstalten der Bundesrepublik Deutschland, (Yearly) (in German; list of contents also in English and French).

BBC Handbook. London, British Broadcasting Corporation. (Yearly) (in English).

BUKALSKI, Peter J.; SCHREIBMAN, Fay C. (eds.). *Broadcast Television: A Research Guide.* Los Angeles, Calif., American Film Institute, Education Services, 1983. (Fact File, 15.)

Cable TV Financial Databook. Carmel, Calif., Paul Kagan Associates, 1986.

CASSATA, Mary; SKILL, Thomas. *Television: A Guide to Literature.* Phoenix, Ariz., Oryx Press, 1985. 148 pp.

D'ARI, Paul; EPLER-WOOD, Gregory (eds.). *Cable Programming Resource Directory 1987.* Washington, D.C., National Federation of Local Cable Programmers, Communications Press, 1987. 235 pp.

DAVIS, Lenwood; HILL, George (eds.). *Religious Broadcasting 1920-1983: A Selectively Annotated Bibliography.* New York, Garland, 1984.

DRUMMOND, Phillip; PATERSON, Richard. *Television in Transition.* London, British Film Institute, 1985. 280 pp.

Film and Television Yearbook. London, British Film Institute.

FISHER, Glen. *American Communication in a Global Society.* Norwood, N.J., Ablex, 1987. 171 pp.

FISHER, Kim N. *On the Screen: A Film, Television and Video Research Guide.* Littleton, Colo., Libraries Unlimited, 1986. 203 pp.
GLIM, Joann. *How to Make Cable TV Work for You.* Emeryville, Calif., Publishers' Group West, 1982. 81 pp.
GODFREY, Donald G. (ed.). *A Directory of Broadcast Archives.* Washington, D.C., Broadcast Education Association, 1983. 90 pp.
GOODMAN, A. *TV Studies Bibliography.* London, British Film Institute, 1987. 90 pp.
Guida della Stampa Periodica Italiana 1981-82. 6th ed. Rome, Unione Stampa Periodica Italiana, 1981. 883 pp.
HUBER, Mary Taylor; RUBIN, Michael Roberts. *The Knowledge Industry in the United States, 1960-80.* Princeton, N.J., Princeton University Press, 1986.
IYENGAR, Shanto; KINDER, Donald R. *News that Matters: Television and American Opinion.* Chicago, Ill., University of Chicago Press, 1987.
JEFFERSON, N.C.; SMITH, M.J. *U.S. Television Network News: A Guide to Sources in English.* McFarland. 1984. 233 pp.
Journalism Abstracts. Columbia, S.C. Association for Education in Journalism and Mass Communication.
LARSON, James F. *Television's Window on the World: International Affairs Coverage on the U.S. Networks.* Norwood, N.J., Ablex, 1985. 195 pp.
LAYER, Ellen (ed.). *The Video Register.* 9th ed. New York, Knowledge Industries Publications, 1986. 553 pp.
MALTIN, Leonard. *The Whole Film Source Book.* New York, Universe Books, 1983. 476 pp.
McCAVITT, William E. (ed.). *Radio and Television: A Selected, Annotated Bibliography.* Metuchen, N.J., The Scarecrow Press, 1978. 229 pp. (Supplement One 1977-81, 1982. 167 pp.)
McKERNS, Joseph. *News Media and Public Policy: An Annotated Bibliography.* New York, Garland, 1985.
MEYER, Manfred; MÜLLER, Werner. *Children and Families Watching Television: A Bibliography of Research on Viewing Processes.* Munich, K.G. Saur, 1986. 159 pp. (Communication Research and Broadcasting series, Vol. 7.)
MEYER, M; NISSEN, U. *Effects and Functions of Television: Children and Adolescents: A Bibliography of Selected Research Literature, 1970-1978.* Munich, K.G. Saur, 1979. 172 pp.
NATIONAL ASSOCIATION OF BROADCASTERS. *Broadcasting Bibliography: A Guide to the Literature of Radio and Television.* 2nd ed. Washington, D.C., National Association of Broadcasters, 1984.
NORBACK, C.T.; NORBACK, P.G. *TV Guide Almanac.* New York, Ballantine Books, 1980. 680 pp.
PICARD, Robert G. *The Ravens of Odin: The Press in the Nordic Nations.* Ames, Iowa State University Press, 1988. 148 pp.
PICARD, Robert G.; SHEETS, Rhonda S. *Terrorism and the News Media Research Bibliography.* Columbia, S.C., Association for Education in Journalism and Mass Communication, 1986.
STENTON; ZABELLE. (eds.). *Blue Book of British Broadcasting.* London, Tellex Monitors Ltd.
Television and Cable Factbook. Washington, D.C., Television Digest, Inc. (Annual.)
THOMPSON, Kristin. *Exporting Entertainment: America in the World Film Market.* Urbana-Champaign, Ill., University of Illinois Press, 1986.
Video Source Book. Syosset, N.Y., National Video Clearinghouse, 1986.
Willing's Press Guide 1987. London, British Media Publications, 1987. 1,991 pp.

6. Developments in regulation

AL-ABD, Atif Adli. *Broadcasting Regulations in the Arab World,* pp. 281-640. Cairo, Dar Al-Fikr, 1987.
____. Information Legislation. *Guide to Studies on Communication in the Arab World from the Advent of Printing to 1983,* pp. 57-61. Cairo, Dar Al-Fikr, Al-Arabi, 1986.
BATE, Stephen de B. *Television by Satellite: The Legal Aspects.* Oxford, ESC Publishing, 1987.
BLANCHARD, Margaret. *Exporting the First Amendment: The Press Government Crusade of 1945-1952.* White Plains, N.Y., Longman, 1986.
BRANSCOMB, Anne W. *Toward a Law of Global Communication Networks.* White Plains, N.Y., Longman, 1986. 370 pp.
BRISSON, Jean-Maurice, et al. *Le Droit à l'Information: Emergence, Reconnaissance, Mise en Oeuvre.* Montreal, Les Presses de l'Université de Montréal, 1981. 454 pp.
BROTMAN, Stuart (ed.). *The Telecommunications Deregulation Sourcebook.* Boston, Mass., Artech House, 1987. 343 pp.
BRUGIERE, M.; FLORENSON, P.; MARTINET, D. *Douze Ans de Télévision 1974-1986.* CNCL, 1987. 302 pp.
BUSTAMANTE, Enrique; VILLAFANE, Justo (eds.). *La Televisión en España: Modelos Televisivos y Opciones Ideológicas.* Madrid. Siglo. XXI/Ente Público RTVE, 1986.

CANADIAN RADIO-TELEVISION AND TELECOMMUNICATIONS COMMISSION. *Annual Report 1986-1987.* Ottawa, Canadian Government Publishing Center, 1987.

COUPRIE, E.; OLSSON, H. *Freedom of Communication under the Law: Case Study of Nine Countries.* Manchester, The European Institute for the Media, 1987. 205 pp.

DEGOURNAY, C.; MUSSO, P.; PINEAU, G. *Télévisions Déchaînées.* Paris, CNET INA, 1985. 186 pp.

EDGAR, Patricia; RAHIM, Syed A. *Communication Policy in Developed Countries.* London/Honolulu, Kegan Paul International/East-West Center, 1983. 297 pp.

Europe 2000: What Kind of Television? Report of the European Television Task Force. Manchester, European Institute for the Media, 1988. (Media Monograph, No. 11.)

EWARD, Ronald S. *The Deregulation of International Telecommunications.* London, Artech House, 1985. 425 pp.

FISCHER, Desmond. *The Right to Communicate: A Status Report.* Paris, Unesco, 1982. 55 pp.

FLAHERTY, David D.H. (ed.). *Privacy and Data Protection: An International Bibliography.* London, Mansell, 1984. 276 pp.

FRANQUET Y MARTI, Josep Maria. *Chronologie de la Radio depuis 1980 à 1984: Observations sur l'Evolution Juridique, Linguistique et des Programmes du Milieu.* Barcelona, Mitre, 1985. 139 pp.

GANLEY, Gladys D.; GANLEY, Oswald H. *To Inform or to Control: The New Communications Networks.* New York, McGraw-Hill.

GILLOU. *Les Stratégies Multimédias.* Paris, La Documentation Française, 1984. 167 pp. (Notes et Etudes Documentaires.)

GOLDING, P.; MURDOCK, G.; SCHLESINGER, P. (eds.). *Communicating Politics: Mass Communication and the Political Process.* Leicester, Leicester University Press, 1986.

HAMELINK, C. *Cultural Autonomy in Global Communication: Planning National Information Policy.* White Plains, N.Y., Longman, 1983.

____.(ed.). *Handbook on Communication Policies in Developing Countries.* The Hague, Institute of Social Studies, 1986.

HAMILTON, L. Clark.; PLOMAN, Edward W. *Copyright: Intellectual Property in the Information Age.* London, Routledge & Kegan Paul, 1980. 248 pp.

HILLS, J. *Deregulating Telecomms.* London, Pinter, 1986.

HOLLINGSWORTH, M. *The Press and Political Dissent.* London, Pluto, 1986.

HURTADO, María de la Luz. *Sistemas de Televisión y Proyectos Estatales en Chile.* Santiago de Chile, Academia de Humanismo Cristiano, 1987. (Revista Opciones, No. 10; Centro de Estudios de la Realidad Contemporánea.)

JONES, Clement. *Mass Media Codes of Ethics and Councils: a Comparative International Study on Professional Standards.* Paris, Unesco, 1980. 85 pp.

JUSSAWALLA, Meheroo; SNOW, Marcellus (eds.). *Telecommunication Economics and International Regulatory Policy: An Annotated Bibliography.* New York, Greenwood Press, 1986. 216 pp. (Bibliographies and Indexes in Economics and Economic History, No. 4.)

KISTNER, Hans. *Media, Opinion, Manipulation, the Ethics of Use of Information.* West Berlin, Union Verlag, 1985. 129 pp. (In German.)

KLEINSTEUBER, H.J. (ed.). *Electronic Media and Politics in Western Europe.* Frankfurt am Main, Euromedia Research Group Handbook of National Systems, 1986.

KUHN, Raymond (ed.). *Broadcasting and Politics in Western Europe.* London, Frank Cass, 1985. 174 pp.

____. *The Politics of Broadcasting.* London, Croom Helm, 1985. 305 pp.

LAHAV, Pnina (ed.). *Press Law in Modern Democracies: A Comparative Study.* New York, Longman, 1985. 366 pp.

MANSFIELD, Michael W.; NIMMO, Dan. *Government and the News Media: Comparative Dimensions.* Waco, Tex., Baylor University Press, 1982. 303 pp.

McQUAIL, Denis; SIUNE, Karen (eds.). *New Media Politics: Comparative Perspectives in Western Europe.* London, Sage, 1986. 216 pp.

MURPHY, Brian M. *The International Politics of New Information Technology.* London, Croom Helm, 1986. 306 pp.

ORELLANA MUERMANN, Renato; RODRIGUEZ, Gabriel. *Políticas de Informática en América Latina.* Santiago de Chile, ILET, 1984.

ORIOL-COSTA, Pere. *La Crisis de la Televisión Pública.* Barcelona, Paidos, 1986. 379 pp.

PARENTI, Michael. *Inventing Reality: The Politics of the Mass Media.* New York, St Martin's Press, 1986. 258 pp.

PINTO, Roger. *Freedom of Information and Opinion in International Law.* Paris, Economica Publishers, 1984. 420 pp.

PIPE, Russell; RADA, Juan F. (eds.). *Communication Regulation and International Business.* Amsterdam, Elsevier Science Publishers (North Holland), 265 pp.

PLOMAN, Edward W. *International Law Governing Communications and Information: A Collection of Basic Documents.* London, Frances Pinter Ltd, 1982. 367 pp.

POWELL, Jon T. *International Broadcasting by Satellite: Issues of Regulation, Barriers to Communication.* Westport, Conn., Quorum Books, 1985. 300 pp.

Radiotelevisión Española, la Televisión en España Mañana. Madrid, Siglo XXI, 1986. 331 pp.

Regulation of Transnational Communications. New York, Clark Boardman Company, 1984. 411 pp. (Michigan Yearbook of International Legal Studies, 1984.)

REITER, Edward. *Global Communication and Information: International Law Bibliography.* New York, Oceana Publ., 1984. 85 pp.

SMUDITS, Alfred (ed.). *New Media: A Challenge to Cultural Policies.* Vienna, Verband der Wissenschaftlichen Gesellschaften, 1986. 221 pp.

SNOW, Marcellus S. *Marketplace for Telecommunications: Regulation and Deregulation in Industrialized Democracies.* White Plains, N.Y., Longman, 1986. 304 pp.

STERLING, Christopher H. (ed.). *Telecommunications Policy.* 4th ed. Washington, D.C., Communication Booknotes, 1986. 18 pp. (Basic Bibliography, 1.)

TASK FORCE ON BROADCASTING POLICY. *Report.* Ottawa, Canadian Government Publishing Center, Supply and Services, 1986.

Towards a European Common Market for Television: Contribution to the Debate. Manchester, European Institute for the Media, 1987. (Media Monograph, No. 8.)

YUROW, Jane (ed.). *Issues in International Telecommunications Policy.* Washington, D.C., George Washington University Center for Telecommunications Studies, 1983.

7. New communication approaches and audiences

ASP, Kent. *Mäktiga Massmedier: Studier i Politisk Opinionsbildning* [Powerful Mass Media: Studies in the Formation of Political Opinions]. Stockholm, Akademi Litteratur, 1986.

BEVILLE, Hugh Malcolm. *Audience Ratings - Radio, Television and Cable.* Hillsdale, N.J., Lawrence Erlbaum, 362 pp.

BOREV, V.Y.; KOVALENKO, A.B. *Kultura i Massovaya Kommunikatsiya* [Culture and Mass Communication]. Moscow, Nauka, 1986.

BRUHN JENSEN, Klaus. *Making Sense of the News: Towards a Theory and an Empirical Model of Reception for the Study of Mass Communication.* Aarhus, University Press, 1986.

CHANDON, Jean-Louis. *A Comparative Study of Media Exposure Models.* New York, Garland Publications, 1986. 631 pp.

ERON, Leonard D.; HUESMANN, L. Rowell (eds.). *Television and the Aggressive Child: A Cross-National Comparison.* Hillsdale, N.J., L. Erlbaum Associates, 1986. 314 pp.

FABRICUS JENSEN, E; PITTELKOW, R. (eds.). *Det Ukendte Publikum: Nye Metoder i Medieforskningen* [The Unknown Audience: New Methods in Media Research]. Copenhagen, C.A. Reitzel, 1986.

GUNTER, B. *Dimensions of TV Violence.* Aldershot, Gower, 1986.

GUTIERREZ, Felix; WILSON, Clint C. *Minorities and Media: Diversity and the End of Mass Communication.* London, Sage Publications, 1985. 248 pp.

HALLIN, David C. *The "Uncensored War": The Media and Vietnam.* New York, Oxford, 1986. 285 pp.

HODGE, Bob; TRIPP, David. *Children and Television: A Semiotic Approach.* Stanford, Calif., Stanford University Press, 1986. 233 pp.

International Seminar on Women's Information and Communication Networks. Saitama-ken (Japan), National Women's Education Centre, 1985. 154 pp.

JOHNSSON-SMARAGDI, Ulla. *TV Use and Social Interaction in Adolescence: A Longitudinal Study.* Stockholm, Almqvist & Wiskell, 1983.

JONES, N. *Strikes and the Media.* Oxford, Blackwell, 1986.

JOUET, J. *La Communication au Quotidien.* Paris, La Documentation Française, 1985. 238 pp.

JOWETT, Garth S.; O'DONNEL, Victoria. *Propaganda and Persuasion.* London, Sage Publications, 1987. 224 pp.

KILBORN, R. *Multi-Media Melting Pot.* London, Comedia, 1986. (People and Communication, Vol. 18.)

LINDLOF, Thomas R. (ed.). *Natural Audiences: Qualitative Research of Media Uses and Effects.* Norwood, N.J., Ablex, 1987. 269 pp.

MELISCHEK, G.; ROSENGREN, K.E.; STAPPERS, J. *Cultural Indicators: An International Symposium.* Vienna, Verlag der Österreichischen Akademie der Wissenschaften, 1984. 565 pp.

MORLEY, D. *Family Television.* London, Comedia, 1986.

MOSCO, Vincent; WASKO, Janet. *The Critical Communication Review.* Vol. 3: *Popular Culture and Media Events.* Norwood, N.J., Ablex, 1985. 323 pp.

MURRAY, John P. *Television and Youth: 25 Years of Research and Controversy.* Boys Town, Neb., Boys Town Center for the Study of Youth Development, 1980. 278 pp.

NIKOLOV, E. *Televizionoto Bitie na Culturata* [Television as a Cultural Way of Existence]. Sofia, Nauka i Izkustva, 1986. 171 pp.

PUNGENTE, John J. *Getting Started on Media Education.* London, Centre for the Study of Communication and Culture, 1985.

ROBINSON, John P. *The Main Source: Learning from Television News.* London, Sage Publications, 1986.

ROSENGREN, Karl Erik; WENNER, Lawrance A.; PALMGREEN, Philip. *Media Gratifications Research. Current Perspectives.* London, Sage Publications, 1985. 320 pp. (People and Communications, Vol. 17.)

SCHEEL, Heinrich-Werner Lange. (ed.). *The Relevance of Information for the Individual and Society.* East Berlin, Akademie der Wissenschaften der DDR, 1984. 374 pp. (In German.)

SEPSTRUP, P.; OLANDER, F. *Forbruger Information i de Elektroniske Medien: Forbrugeroplysning, Reklame, Salg* [Consumer Information in the Electronic Media]. Copenhagen, 1986. (NEK Report, 1986, 6.)

SIGNORELLI, Nancy (ed.). *Role Portrayal and Stereotyping on Television: An Annotated Bibliography of Studies Relating to Women, Minorities, Ageing, Sexual Behavior, Health and Handicaps.* Westport, Conn., Greenwood Press, 1985.

SMYTHE, D. *Dependency Road: Communications, Capitalism, Consciousness and Canada.* Norwood, N.J., Ablex, 1981.

VIEMERO, Vappu. *Relationships between Filmed Violence and Aggression.* Turku, Department of Psychology, Academy of Turku, 1986.

WERNER, Anita. *Oppvekst i Fjernsynsalderen: En Studie av Endringer i Sosialiseringsprocessen* [Growing up in the Age of Television: A Study of Changes in the Socialization Process]. Oslo, Centre for Mass Communication Research, University of Oslo, 1986.

Alternatives to mainstream media: international

AGUILERA, Miguel. *Radios Libres y Radio Piratas.* Madrid, Forja, 1982. 152 pp.

CAREY, James W. (ed.). *Media, Myths and Narratives: Television and the Press.* London, Sage Publications, 1988. (Sage Annual Reviews of Communications, No. 87.)

CIOFFI-REVILLA, Claudio; MERRIT, Richard L.; ZINNES, Dira A. (eds.). *Communication and Interaction in Global Politics.* London, Sage Publications, 1987. (Advances in Political Science.)

DIEZ MANCISIDOR, Alberto; URRUTIA, Victor. *La Nueva Radio.* Bilbao, Servicio Editorial de la Universidad del País Vasco, 1986. 122 pp.

ELLIOTT, Philip; GOLDING, Peter. *Making the News.* London, Longman, 1979.

Encuesta de Comportamiento Cultural de los Españoles. Madrid, Ministerio de Cultura, 1986. 323 pp.

FIRSOV, B., LAURISTIN, M.; *Massavoya Kommunikatsiya i Okhrana Sredey.* Tallin, Gosudarstvennyi Komitet po Televideniyu i Radioveshchaniyu Estonskoi SSR, Tartuskii Gosudarstvennyi Universitet, Eesti Raamat, 1987.

GERETSCHLAEGER, Ingrid (ed.). *International Annotated Bibliography on Media Education.* Paris, Unesco, 1987. (Communication and Society, 17.)

GUNTER, Barrie. *Poor Reception: Misunderstanding and Forgetting Broadcast News.* Hillsdale, N.J., Lawrence Erlbaum Associates, 1987.

HALLORAN, James (ed.). *Communications in the Community.* Paris, Unesco, 1980. (Reports and Papers on Mass Communication, 87.)

HAMELINK, C. *Cultural Autonomy in Global Communications.* New York, Longman, 1983.

INTERNATIONAL ASSOCIATION FOR MASS COMMUNICATION RESEARCH. *Communication in the Community: An International Study on the Role of the Mass Media in Seven Communities.* Paris, Unesco, 1980. 85 pp.

LIEVROUW, Leah; SCHEMENT, Jorge; (eds.). *Competing Visions, Complex Realities.* Norwood, N.J., Ablex, 1987.

MALM, Kirster; WALLIS, Roger. *Big Sounds from Small Peoples: The Music Industry in Small Countries.* London, Constable, 1984. 419 pp.

MILLER, Randall M.; WOLL, Allen L. *Ethnic and Racial Images in American Film and Television: Historical Essays and Bibliography.* Garland Reference Library of Social Science. New York, Garland, 1987.

OVORTRUP, Lars (ed.). *Social Experiments with Information Technology and the Challenge of Innovation.* Dordrecht, Reidal Publishing Company, 1987.
PATEL, L. *How Small Media Can Organise Communities. Media Development.* London, WACC, 1985.
SENECAL, Michel. *Televisiones y Radio Comunitarias: Teoría y Práctica de una Experimentación Social.* Barcelona, Mitre, 1986.
VAN DER VOORT, T.H.A. *Television Violence: A Child's Eye View.* Amsterdam, Elsevier Science Publishers, 1986. (Advances in Psychology, 32.)
WILLIAMS, Frederick. *Measuring the Information Society.* London, Sage Publications, 1988. (Sage Focus Editions, Vol. 97.)

Alternatives to mainstream media: regional

Africa

ANSAH, Paul, et al. *Rural Journalism in Africa.* Paris, Unesco, 1981. (Reports and Papers on Mass Communication, 88.)
ETHERTON, M. *The Development of African Drama.* London, Hutchinson University Library for Africa, 1982.
EYOH, H.E. *Hammocks to Bridges - An Experience in Theatre for Development.* Yaoundé, 1986.
FREDERIKSE, J. *None But Ourselves: Masses vs Media in the Making of Zimbabwe.* Gweru, Zimbabwe, Mambo, 1983.
GAVIGAN, P. *Life on Stage: A Sampling of Black Theatre in South Africa Media Development.* London, WACC, 1985. pp. 28-32.
HEATH, C.W. *Politics of Broadcasting in Kenya - Community Radio Suffers Media Development.* London, WACC, 1986. pp. 10-14.
KIDD, R. *From People's Theatre for Revolution to Popular Theatre for Reconstruction.* Lusaka, CESO and ICAE, 1984.
MAMUTSE, E. *Rural Newspaper Development in Zimbabwe.* Harare, Ministry of Information, Post and Telecommunications, 1985.
MARAMAH-THOMAS, D.H. *Innovative Community Theatre for Integrated Rural Development in Sierra Leone.* Freetown, Fourah Bay College, 1986.
MEOMEKA, A. A. *Local Radio: Community Education for Development.* Nigeria, Ahmadu Bello University Press, 1981.
OGUNBIYI, Y. *Drama and Theatre in Nigeria: A Critical Source Book.* Lagos, Department of Culture, 1981.
OKUBA, Iyimoga, C. *Broadcasting and the Traditional Media in Nigeria.* Leicester, University of Leicester, 1986.
SAKALA, R. *All Africa Press Service: A New Venture for the Continent. Media Development.* London, WACC, 1981. pp. 15-17.

Asia

CHANDRA RAO, P.V. Purna. *To the Rural Masses through Street Play.* Secunderabad, Rural Development Advisory Services, 1985.
GREEN, M. *Educational Broadcasting in Australian Public. Media Information Australia,* No. 41, August 1986, pp. 36-8.
ITO, Youichi. Media for People in Cities: Japan. P.M. Lewis, (ed.), *Media for People in Cities: A Study of Community Media in the Urban Context.* Paris, Unesco, 1984.
KIDD, R. *Domestication Theatre and Conscientization Drama in India, Tradition for Development: Indigenous Structures and Folk Media in Non-Formal Education.* Bonn, German Foundation for International Development, 1981.
MALIK, M. *Traditional Forms of Communication and Mass Media in India.* Paris, Unesco, 1983
NINAN THOMAS, P. *Communication and Development in India: A Study of Two Approaches.* Leicester, University of Leicester, 1987.
PATTERSON, R. The Ethnic Broadcasting Commission - Almost. *Media Information Australia.* No. 34, November 1984.
RANDO, G. *Multi-Lingual Radio in South Australia. Media Information Australia.* No. 35, February/March, 1985. pp. 41-8.
Report of the Task Force on Aboriginal and Island Broadcasting and Communications: "Out of the Silent Land". Canberra, Australian Government Publishing Services, 1984.

Europe

BEAUD, P. *Community Media.* Strasbourg, Council of Europe, 1980.
CAZENAVE, F. *Les Radios Libres.* Paris, PUF, 1980.
COLLINS, Richard, et al. *Media, Culture and Society: A Critical Reader.* London, Sage Publications, 1986. 368 pp.

CROOKES, P.; VITTET-PHILIPPE, P. *Local Radio and Regional Development in Europe.* Manchester, European Institute for the Media, 1986.
GIVANNI, Jane (ed.). *Black and Asian Film and Video List.* London, British Film Institute, 1988.
HINDS, J.; MOSCO, Stephen. *Rebel Radio: The Full Story of British Pirate Radio.* London, Pluto Press, 1985. 163 pp.
JANKOWSKI, N., et al. (eds.). *Community Radio and Television: Charting its Course in Europe.* (In press.)
PARTRIDGE, S. *Not the BBC/IBA: The Case for Community Radio.* London, Comedia Publishing Group, 1982.

Latin America and the Caribbean

ALVAREZ, D. *Crónica del Periodismo en el Uruguay.* Montevideo, Fundación Hanns Seidel, 1986. 395 pp.
ANZORENA, Oscar; BASZ, Eduardo. *Argentina: La Larga Marcha de la Prensa Independiente.* Buenos Aires, Prensa Autonóma, 1986
CANCLINI, N. Garcia. *Las Culturas Populares en el Capitalismo.* Mexico City, Nueva Imagen, 1982. 224 pp.
CAPARELLI, S. *Comunicação de Massa sem Massa.* São Paulo, Cortez, 1980. 125 pp.
EGAÑA, Juan Pablo; PORTALES, Diego. *La Televisión contra la Civilidad: Estudio de Cinco Días de Información en los Canales de Santiago.* Santiago de Chile, ILET, 1986.
FESTA, R.; LINS DA SILVA, C.E. *Comunicación Popular y Alternativa.* Buenos Aires, Ediciones Paulinas, 1986. 192 pp.
FORD, A.; RIVERA, J.B.; ROMANO, E. *Medios de Comunicación y Cultura Popular.* Buenos Aires, Legasa, 1985. 311 pp.
FOX, E., et al. *Comunicación y Democracia en América Latina.* Lima, Desco, 1982. 327 pp.
LANDI, O. (eds.). *Medios, Transformación Cultura y Política.* Buenos Aires, Legasa, 1987. 257 pp.
LASAGNI, C.; RICHERI, G. *L'Altro Mondo Quotidiano: Telenovela TV Brasiliana e Dintori.* Turin, Edizioni RAI, 1986. 127 pp.
MAGGI, C. *Los Militares, La Televisión y Otras Razones del Uso Interno.* Montevideo, Arca, 1986. 150 pp.
MARTINEZ TERRERO, J. *Comunicación Grupal Liberadora.* Buenos Aires, Ediciones Paulinas, 1985.
MARTINS, Carlos A. *Communication, Morphogénèse et Identité Culturelle.* Louvain-la-Neuve, CIACO, 1988.
MATTELART, Armand (ed.). *Communicating in Popular Nicaragua.* New York, International General, 1986. 140 pp.
PASQUALI, A. *Comunicación y Cultura de Masas.* 5th ed. Caracas, Monte Avila Editores, 1980. 611 pp. (1st ed. 1963.)
PEIRANO, L.; SANCHEZ LEON, A. *Risa y Cultura en la Televisión Peruana.* Lima, Desco, 1984. 320 pp.
REYES MATTA, F. (ed.). *Comunicación Alternativa y Busquedas Democráticas.* Mexico, ILET, 1983. 261 pp.
RIVADENEIRA, R. *Resistencia y Coexistencia.* La Paz, Editores Gisbert, 1982. 240 pp.
RIVADENEIRA, R.; TIRADO, N. *La Televisión en Bolivia.* La Paz, Ed. Quipus, 1986.
SCHULEIN, Sylvia. *Periodismo Independiente en Argentina: Del Régimen Militar a la Democracia.* Buenos Aires, ILET, 1986.
SIMPSON GRINBERG, M. (ed.) *Comunicación Alternativa y Cambio Social: América Latina.* Mexico City, Universidad Nacional Autonóma de México, 1981. 328 pp.
SODRE, M. *O Monopolio da Fala.* Vozes, Petropolis, 1981. 155 pp.
SOL, R. *Medios Masivos y Comunicaciones Popular.* Costa Rica, Editorial Porvenir-ILET, 1984. 210 pp.
VEGA, R. *El Teatro en la Communidad.* Buenos Aires, Ediciones Paulinas, 1986.

North America

FORBES, D. *What's Going On? A Community Channel Experience.* Toronto, Ontario, Maclean Hunter Cable TV, 1982.
JESUALE, N., et al. *A Guide for Local Policy.* Arlington, Va., The Cable Television Information Center, 1982.
JESUALE, N.; SMITH, R.L. *The Community Medium.* Arlington, Va., The Cable Television Information Center, 1982.
McNULTY, J. *Other Voices in Broadcasting: The Evolution of New Forms of Local Programming in Canada.* Burnaby, B.C., Simon Fraser University, 1979.
RICE, J. (ed). *Cable TV Renewals and Refranchising.* Washington, D.C., National Federation of Local Cable Programmers and Communications Press, 1983.

SHAFFER, W., WHEELWRIGHT, R. *Creating Original Programming for Cable TV.* Washington, D.C., National Federation of Local Cable Programmers and Communication Press, 1983.

Women in communication: international

AGRAWAL, Binod; BHASIN, Kamla. *Women and Media Analysis: Alternatives and Action.* New Delhi, Panchaschila Marg, 1984. (Kali for Women, No. 84.)

ALLEN, Martha Leslie. *Index/Directory of Women's Media.* Washington, D.C., Women's Institute for Freedom of the Press, 1987.

ANG, Ien. *Watching Dallas: Soap Opera and the Melodramatic Imagination.* London, Methuen, 1985.

BAEHR, Helen; DYER, Gillian (eds.). *Boxed In: Women and Television.* London, Pandora, 1987.

BALAGUER-CALLEJON, M. Luisa. *La Mujer y Los Medios de Comunicación: El Caso de la Publicidad en Televisión.* Malaga, Agruval, 1985. 112 pp.

BARTOS, Rena. *The Moving Target: What Every Marketer Should Know About Women.* New York, The Free Press, 1982.

BRUNSDON, Charlotte (ed.). *Films for Women.* London, British Film Institute, 1986.

BRUNT, Rosalind; ROWAN, Caroline (eds.). *Feminism, Culture and Politics.* London, Lawrence & Wishart, 1982.

BUTLER, Matilda; PAISLEY, William. *Women and the Mass Media: Sourcebook for Research and Action.* New York, Human Sciences Press, 1980. 432 pp.

CASSITOR, Muriel; PINGREE, Suzanne. *The Soap Opera.* London, Sage Publications, 1983.

DURKIN, Kevin. *Television, Sex Roles and Children.* Milton Keynes, Open University Press, 1985.

EAGLETON, Mary (ed.). *Feminist Literary Theory: A Reader.* New York, Blackwell, 1986. 237 pp.

EASTHOPE, Anthony. *What a Man's Gotta Do: The Masculine Myth in Popular Culture.* London, Paladin, 1986.

FISHBURN, Katherine. *Women in Popular Culture: A Reference Guide.* Westport, Conn., Greenwood Press, 1982. 267 pp.

GALLAGHER, Margaret. *Unequal Opportunities: The Case of Women and the Media.* Paris, Unesco, 1981.

GLEDHILL, Christine (ed.). *Home is Where the Heart is: Studies in Melodrama and the Woman's Film.* London, British Film Institute, 1987.

GUNTER, Barrie. *Television and Sex Role Stereotyping.* London, John Libbey, 1986.

HENLEY, N.; KRAMARIE, C.; THORNE, B. (eds.). *Language, Gender and Society.* Rowley, Mass., Newbury House Publishers, 1983.

KAPPELER, Susanne. *The Pornography of Representation.* Cambridge, Polity Press, 1986.

KUHN, Annette. *The Power of the Image: Essays on Representation and Sexuality.* London, Routledge & Kegan Paul, 1985.

LENT, John A. *Women and Mass Media in Asia: An Annotated Bibliography.* Singapore, Asian Mass Communication Research and Information Centre (AMIC), 1985. 54 pp.

MATTELART, Michelle. *Women, Media, Crisis: Femininity and Disorder.* London, Comedia, 1986. 128 pp.

Media Report to Women: The Nation's Oldest Newsletter Covering Women in the Media. Silver Spring, Mass., Communication Research Associates.

MODLESKI, Tania. *Loving with a Vengeance: Mass-Produced Fantasies for Women.* Hamden, Conn., Shoestring Press, 1982.

NADLER, Lawrence B.; NADLER, Marjorie Keeshan; TODD-MANCILLAS, William R. (eds.). *Advances in Gender and Communication Research.* Lanham, Md., University Press of America, 1987. 428 pp.

OLSEN, Ann; SEAGER, J. *Women in the World.* London, PAN Books, 1986. 128 pp.

Powerful Images: A Woman's Guide to Audiovisual Resources. Rome, Isis International, 1986.

ROOT, Jane. *Pictures of Women: Sexuality.* London, Pandora, 1984.

SHOWALTER, Ed (ed.). *The New Feminist Criticism.* New York, Pantheon, 1985.

TREICHLER, Paula; WARTELLA, Ellen (eds.). *Feminist Critiques of Popular Culture.* Urbana-Champaign, Ill., College of Communication, University of Illinois, 1986.

Unesco. *Communication in the Service of Women: A Report on Action and Research Programmes 1980-1985.* Paris, Unesco, 1985. (COM.85/WS.1.)

____. *Women and Media Decision-making: The Invisible Barriers.* Paris, Unesco, 1987.

WERNEKE, Diane. *Microelectronics and Office Jobs: The Impact of the Chip on Women's Employment.* Geneva, International Labour Organisation, 102 pp.

Women in communication: regional

Africa

ANANI, Elma Lititia; KEITA, Alkaly Miriama; RAHMAN, Awatef Abdel. *Women and the Mass Media in Africa: Case Studies of Sierra Leone, the Niger and Egypt.* Addis Ababa, African Training and Research Centre for Women, Economic Commission for Africa, 1981. 38 pp.

ECONOMIC COMMISSION FOR AFRICA et al. *Report of the Regional Seminar on Women and Decision-making in the Media.* Addis Ababa, Economic Commission for Africa/Unesco, 1985. 21 pp.

Arab States

AL-ABD, Atif Adli. The Image of Women in School Books and the Foreign Media. *Al-Fann Al-Idha i*, No. 88, July 1980. pp. 51-60.

____. The Image of Women in the Media. *Al-Buhuth*, No. 16, December 1985, pp. 141-56.

ALLOUCHE, Richard. Woman's Image in the Lebanese Press 1935-1975. *Al-Raida*, Vol. 3, No. 14, 1980, pp. 12-13.

HAMMOUCHE, Abdelkader. Image of Woman in the Press and Television. *Al-Raida,* Vol. 7, No. 27/28, 1984. pp. 12-13.

MADJDI, Sofia. The Image of Women in the Egyptian Cinema: Description of Forms of Behaviour Through Social Roles, *Egyptians on Screen: Studies and Seminar Discussions, Al-Hay a Al-Misraya Al-Amma li'l-Kitab.* Cairo, 1986.

RAMZI, Nahid. Social Responsibility for the Means of Communication and Changing the Social Position of Women in Arab Society. *Shu'un Arabiya*, No. 31, September 1983. pp. 72-88.

TOHAMY, Mokhtar. *Media Research on the "Mass Role About Rural Women"; Rural Women and Development, Seminar, Middle East Centre.* Cairo, Ein Shams University, 1980.

Asia

AGARWAL, Binod C.; KUMKURU, Rai. *Women, Television and Rural Development: An Evaluation Study of SITE in a Rajasthan Village.* Ahmedabad, Space Application Centre, 1980.

ANURADHA; SUSHMA KEPOOR; *Women and Media in Development.* New Delhi Centre for Development of Instructional Technology, 1986. 65 pp.

CONSUMERS ASSOCIATION OF PENANG (ed.). *Abuse of Women in the Media.* Penang, CAP, 1982. 85 pp.

PERVEZ, Seema. *Analysis of Mass Media Appealing to Women.* Islamabad, Women's Division, Government of Pakistan, 1982.

RAO, Punima. *Towards Breaking the Silence: Women and the Media in South Asia.* New Delhi, FFHC/AD (FAO), 1986.

Reporting on Prostitution: The Media, Women and Prostitution in India, Malaysia and the Philippines. Paris, Unesco, 1987 (Communication and Society, 18.)

Seminar. Special issue on "The Sexist Media". Delhi, August 1984.

Women in Australian Film Video and Television Production. Canberra, Australian Film Commission, 1987.

WYNDHAM, Diana. *A Select Bibliography/Contact List of Australian Articles/Research on Women and Media.* North Ryde (Australia), Australian Film, Television and Radio School, 1987.

Europe

AAVV. *Donna e Tecnologie.* Rome, Commissione Nazionale per la Parita, Presidenza del Consiglio, Roma, 1986.

ALBERDI, Ines; ESCARIO, Pilar: *El Impacto de las Nuevas Tecnologías en la Formación y el Trabajo de las Mujeres.* Madrid, Instituto de la Mujer, 1987.

BAEHR, Helen; RYAN, Helen. *Shut Up and Listen! Women and Local Radio: A View from the Inside.* London, Comedia, 1984.

BUONANNO, Milly. *Cultura di Massa e Identità Femminile: L'Immagine della Donna in Television.* Turin, ERI, 1983.

CADMAN, E.; CHESTER, G.; PIVOT, A. *Rolling Our Own: Women as Printers, Publishers and Distributors.* London, Minority Press, 1981.

CAPEL, Rosa. *El Trabajo y la Educación de la Mujer en España.* Madrid, Instituto de la mujer, 1987.

COCKBURN, Cynthia. *Brothers: Male Dominance and Technological Change.* London, Pluto Press, 1983. 264 pp.

DICKEY, Julienne. *Women in Focus: Guidelines for Eliminating Media Sexism.* London, Campaign for Press and Broadcasting Freedom, 1985.

DIEKERHOF, Els; ELIAS, Mirjam; SAX, Marjan. *Voor Zover Plaats aan de Perstafel: Vrouwen in de Dagladjournalistiek: Vroeger en Nu.* Amsterdam, Meulenhoff Informatief, 1986.

FAGOAGA, C.; SECANELLA, P. *Umbral de Presencia de las Mujeres en la Prensa Española.* Madrid, Instituto de la Mujer, 1987.

FERGUSON, Marjorie. *Forever Feminine: Women's Magazines and the Cult of Feminity.* London, Gower, 1985.

FOLGUERA, Pilar. *El Feminismo en España: Dos Siglos de Historia.* Madrid, Fundación Pablo Iglesias, 1988.

GALLAGHER, Margaret. *Employment and Positive Action for Women in the Television Organizations of the EEC.* Luxembourg, Commission of the European Communities, 1987.

GUNTER, Barrie. *Television Viewing and Perceptions of Women and Men on Television and in Real Life.* London, Independent Broadcasting Authority, 1984.

HAMILTON, Robert; HAWORTH, Brian; SARDOR, Nazli. *Adman and Eve.* London, Equal Opportunities Commission, 1982.

HANAK, Katalin. Male and Female Communicators on the Screen. In: *Jel-kep,* special edition, August 1984, pp. 156-77.

____. The Image of Women in the Radio. In: *Jel-kep,* special edition, August 1982, pp. 97-127

HOBSON, Dorothy. *Crossroads: The Drama of a Soap Opera.* London, Methuen, 1982.

HOLOPAINEN, Irma, et al. *Good Evening, Our Main Item Tonight Is . . . Women: A Preliminary Study on the Role of Women in Television.* Helsinki, Oy Yleisradio Ab., Planning and Research Department, 1984.

JENSEN, Else; KLEBERG, Madeleine. *Kvinnors Roll i Tv-Nyheter och Underhallningsprogram.* Stockholm, NORD, 1982.

LONGO DI CRISTOFARO, Gioia. *Immagine Donna. Modelli di Donna Emergenti nei Mezzi di Comunicazione di Massa.* [Women Patterns in Mass Communications Media.] Rome, Commissione Nazionale per la Parita, Prezidenza del Consiglio, 1986.

Mujer en Cifras. Madrid, Instituto de la Mujer, 1987.

ORTIZ, Carmen: *La Participación Política de las Mujeres en la Democracia. 1979-1986.* Madrid, Instituto de la mujer, 1987.

ROOT, Jane (ed.). *Women's Film and Video List.* London, British Film institute, 1986.

SKARD, Torild. *Det Koster a Vaere Kar-Saerlig nar en er Kvinne,* Frederikstad, Institutt for Journalistik, 1984.

SMITH, Prudence (ed.). *Women and Film Biography.* London, British Film Institute, 1986.

SPENDER, Dale. *Time and Tide Wait for No Man.* London, Pandora, 1984.

TRADES UNION CONGRESS (ed.). *Images of Inequality: The Portrayal of Women in the Media and Advertising.* London, Trades Union Congress, 1984.

Latin America and the Caribbean

ERAZO, Vivian; SANTA CRUZ, Adriana. *Compropolitan.* Mexico City, ILET-Nueva Imagen, 1980.

FLORA, Cornelia Butler. Roasting Donald Duck: Alternative Comics and Photonovels in Latin America. *Journal of Popular Culture,* Vol. 18, Summer 1984. pp. 163-82.

North America

CHEAN, Susan. *Newsworthy: The Lives of Media Women.* Toronto, Stoddart Publishing, 1985.

COURTNEY, Alice; WHIPPLE, Thomas. *Sex Stereotyping in Advertising.* Lexington, Mass., Lexington Books, 1983.

EINSIEDEL, E.F. *Faculty Women in Journalism and Mass Communications: Problems and Progress.* Syracuse, N.Y., Gannet, 1985.

KAPLAN, E. Ann. *Rocking Around the Clock: Music, Television, Post-Modernism and Consumer Culture.* New York, Methuen, 1987.

____. *Women and Film: Both Sides of the Camera.* New York, Methuen, 1983. 259 pp.

LEWIS, Cherie. *Television License Renewal Challenges by Women's Groups, A Study of Citizen Activism and the Broadcast Industry.* Ann Arbor, Mich., University Microfilms International, 1986. 264 pp.

RADWAY, Janice A. *Reading the Romance: Women, Patriarchy, and Popular Literature.* Chappel Hill, N.C., University of North Carolina Press, 1984. 274 pp.

SIGNORIELLI, Nancy (ed.). *Role Portrayal and Stereotyping on Television.* Westport, Conn., Greenwood Press, 1986.

WOMEN'S INSTITUTE FOR FREEDOM OF THE PRESS. *Syllabus Sourcebook on Media and Women.* Washington, D.C., 1984.

Media education and youth

ALLORI, Luigi. *Guida al Linguaggio del Cinema: Per Insegnanti e Operatori Educativi.* Rome, Editori Riuniti, 1986.

ALVARADO, Manuel; GUTCH, Robin; WOLLEN, Tana. *Learning the Media: An Introduction to Media Teaching.* London, Macmillan Education, 1987.

AMERICAN ASSOCIATION OF SCHOOL LIBRARIANS AND THE ASSOCIATION FOR EDUCATIONAL COMMUNICATIONS AND TECHNOLOGY. *Information Power: Guidelines for School Library Media Programs*, April, 1988.

BLANCHARD, Tim; HAYWARD, Philip. *Media Studies at 16+*. London, British Film Institute, 1988.

BUTTS, David. *Media Education in Scottish Secondary Schools (1983-1986).* Stirling, University of Stirling, 1986.

CENTRO DE INDIGACION Y EXPRESION CULTURAL Y ARTISTICA (CENECA)/CENTRO DE COMUNICACION SOCIAL DEL EPISCOPADO CHILENO (CENCOSEP). *Educación por la T.V. Módulo de Educación para la Televisión.* Santiago de Chile, CENECA/CENCOSEP, 1983.

CLARKE, Mike. *Teaching Popular Television.* London, Heinemann Educational Books, in Association with the British Film Institute, 1987.

DAHLE, Asle Gire. *Teaching Mass Media.* Oslo, Council of Europe, 1983.

DAZA HERNANDEZ, Gladys. *Imagen y Educación.* Madrid, Madrid Editorial, Universidad Complutense, 1986.

DRUMMOND, Phillip; LUSTED, David. *TV and Schooling.* London, British Film Institute, 1985.

DWYER, Barry; WALSHE, Bob. *Learning to Read the Media.* New South Wales, Primary English Teaching Association, 1984.

EDWARDS, Paula; FUENZALIDA, Valerio. *TV y Recepción Activa.* Santiago de Chile, CENECA/CENCOSEP/Vicaria de Pastoral Juvenil/OREALC/Unesco, 1985.

FRÖHLICH, Arnold. *Handlungsorientierte Medienerziehung in der Schule: Grundlagen und Handreichungen.* Tübingen, Max Niemayer, 1982.

FUENZALIDA, F. (ed.). *Educación para la Comunicación Televisa.* Santiago de Chile, CENECA, 1986.

FUNDACION EDUCACIONAL ROBERTO BELLARMINO. *Programa de Educación para la TV (I Basico - IV Medio).* Santiago de Chile, Ediciones Galdo, 1985.

GITLIN Todd. *Watching Television. Pantheon Guide to Popular Culture.* New York, Pantheon Books, 1987. 248 pp.

GOULDEN, Holly; HARTLEY, John; O'SULLIVAN, Tim. *Making Sense of the Media.* London, Comedia, 1985. 10 vols.

HALLORAN, James D.; JONES, Marcia (eds.). *Learning About the Media: Media Education and Communication Research.* Paris, Unesco, 1986 (Communication and Society, 16.)

MADDISON, John. *Information Technology and Education: An Annotated Guide to Printed, Audiovisual and Multimedia Resources.* Milton Keynes, Open University Press, 1982. 311 pp.

MASTERMAN, Len. *Teaching the Media.* London, Comedia, 1985.

MILLER, Elwood; MOSLEY, Mary L. (eds.). *Educational Media and Technology Yearbook.* Littleton, Colo., Libraries Unlimited.

ORTON, Lavinia (ed). *Film and Television Training: A Guide to Courses.* London, British Film Institute, 1988.

____. *Studying Film and Television: A Guide to Academic Courses in Higher Education.* London, British Film Institute, 1988.

SIMPSON, Philip (ed.). *Parents Talking Television.* London, Comedia, 1986.

Unesco. *Final Report* of the International Symposium on Education of the Public in the Use of Mass Media. Grünwald, Federal Republic of Germany, 18-22 January 1982.

____. *Media Education.* Paris, Unesco, 1984. 406 pp. (Available also in French: *L'Education aux Médias.*)

9. Communication statistics

Sectoral data

Printed material

Press

General note

As far as is known, no daily general-interest newspapers are published in the following 34 countries and territories:

Africa: Cape Verde, Comoros, Djibouti, Mauritania, St Helena, São Tomé and Principe, Western Sahara
America, North: British Virgin Islands, Cayman Island, Dominica, Greenland, Montserrat, Panama-Former Canal Zone, Saint Lucia, St Pierre and Miquelon, Saint Vincent and the Grenadines, Turks and Caicos Islands
America, South: Falkland Islands (Malvinas).
Asia: Bhutan, Brunei Darussalam, East Timor.
Europe: Andorra, Faeroe Islands.
Oceania: Kiribati, Nauru, Niue, Norfolk Island, Pacific Islands, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu.

A "daily general-interest newspaper" is defined as a publication devoted primarily to recording news of current affairs, international affairs, politics, etc., which is published at least four times a week.
A "non-daily general-interest newspaper" is defined as a publication devoted primarily to recording news of current events in public affairs, international affairs, politics, etc., which is published three times or less a week.
Under the category "other periodicals", publications of a periodical nature other than general-interest newspapers are included.

The symbols used throughout this section are as follows:

NA	=	Not available
./.	=	Data included elsewhere
-	=	Nil
*	=	Estimate.

Table 9.1 Number of daily newspapers, non-daily newspapers and other periodicals, 1984

[e.g. Algeria reports 5 daily newspapers (Column 2), 15 non-daily newspapers and 27 other periodicals (Columns 3 and 6).]

Country	Daily newspapers	Non-daily newspapers			Other periodicals
		Total	1-3 times/week	Issued less frequently	
Africa					
Algeria[1]	5	15	3	12	27
Angola	4	NA	NA	NA	NA
Benin	1	NA	NA	NA	NA
Botswana	1	NA	NA	NA	20
Burkina Faso	1	1	5	NA	NA
Burundi	1	NA	NA	NA	NA
Cameroon	1	3	3	NA	NA
Chad[2]	1	1	1	-	NA
Congo	1	2	2	-	NA
Côte d'Ivoire[1]	1	6	6	-	12
Egypt[4]	12	25	13	12	216
Equatorial Guinea	1	NA	NA	NA	NA
Ethiopia	3	4	4	-	3
Gabon	1	NA	NA	NA	NA
Gambia	1	NA	NA	NA	NA
Ghana	4	NA	NA	NA	NA
Guinea	1	NA	NA	NA	NA
Guinea-Bissau	1	NA	NA	NA	NA
Kenya[1]	4	2	2	-	NA
Lesotho[1]	3	1	1	-	2
Liberia	3	NA	NA	NA	NA
Libyan Arab Jamahiriya	4	NA	NA	NA	NA
Madagascar[1]	5	11	11	-	NA
Malawi	1	3	1	2	43
Mali	1	NA	NA	NA	NA
Mauritius	7	19	13	6	NA
Morocco	10	NA	NA	NA	NA
Mozambique	2	NA	NA	NA	NA
Namibia	4	NA	NA	NA	NA
Niger	1	NA	NA	NA	NA
Nigeria	14	NA	NA	NA	NA
Reunion[1]	2	2	1	1	NA
Rwanda	1	4	1	3	8
Senegal	1	4	4	-	29
Seychelles	1	1	1	-	2
Sierra Leone	1	NA	NA	NA	NA
Somalia	1	NA	NA	NA	NA
St Helena	NA	1	1	-	2
Sudan	6	9	6	3	25
Swaziland	2	NA	NA	NA	NA
Togo	2	NA	NA	NA	NA
Tunisia	5	NA	NA	NA	NA
Uganda	1	NA	NA	NA	NA
United Republic of Tanzania	2	NA	NA	NA	NA
Zaire	7	9	7	2	106
Zambia	2	NA	NA	NA	NA
Zimbabwe	3	NA	NA	NA	NA

cont.

Table 9.1 - cont.

Country	Daily newspapers	Non-daily newspapers			Other periodicals
		Total	1-3 times/week	Issued less frequently	
America, North					
Antigua and Barbuda	1	NA	NA	NA	NA
Bahamas	3	NA	NA	NA	NA
Barbados	2	NA	NA	NA	NA
Belize[3]	1	7	6	1	NA
Bermuda	1	1	1	-	NA
British Virgin Islands	NA	2	2	-	20
Canada[10]	112	1 229	1 085	144	1 382
Costa Rica[1]	5	4	4	-	274
Cuba	18	5	5	-	47
Dominican Republic	7	NA	NA	NA	NA
El Salvador	6	NA	NA	NA	NA
Grenada	-	NA	NA	NA	NA
Guadeloupe[1]	1	26	8	18	45
Guatemala	5	NA	NA	NA	NA
Haiti	4	NA	NA	NA	NA
Honduras	6	NA	NA	NA	NA
Jamaica	3	NA	NA	NA	NA
Martinique[1]	1	8	7	1	8
Mexico	312	43	39	4	232
Netherlands Antilles	7	NA	NA	NA	NA
Nicaragua	3	NA	NA	NA	NA
Panama	6	NA	NA	NA	NA
Puerto Rico	4	NA	NA	NA	NA
Saint Christopher and Nevis	-	3	3	-	NA
Saint Lucia	NA	1	1	-	NA
Trinidad and Tobago	4	NA	NA	NA	NA
U.S. Virgin Islands[1]	1	2	2	-	NA
United States[5]	1 687	7 464	7 398	66	59 609
America, South					
Argentina[6]	188	NA	NA	NA	NA
Bolivia[1]	13	NA	NA	NA	106
Brazil	314	1 326	823	503	3 907
Chile[4]	38	25	25	-	118
Colombia	31	NA	NA	NA	NA
Ecuador	16	NA	NA	NA	NA
Falkland Islands (Malvinas)	NA	NA	NA	NA	3
French Guiana[1]	1	14	4	10	7
Guyana	2	NA	NA	NA	NA
Paraguay	5	NA	NA	NA	NA
Peru[7]	60	37	37	./.	507
Suriname[2]	4	NA	NA	NA	22
Uruguay	21	67	54	13	351
Venezuela[8]	61	45	31	14	160
Asia					
Afghanistan	13	NA	NA	NA	NA
Bahrain	3	NA	NA	NA	NA
Bangladesh	47	129	108	21	NA
Brunei Darussalam	NA	1	1	-	19
Burma	7	NA	NA	NA	NA
China[1]	*60	224	144	80	3 100
Cyprus[9]	10	51	12	39	35
Democratic Kampuchea	10	NA	NA	NA	NA
Democratic Yemen	3	NA	NA	NA	NA
Hong Kong	60	5	2	3	495

cont.

Table 9.1 - cont.

Country	Daily newspapers	Non-daily newspapers			Other periodicals
		Total	1-3 times/week	Issued less frequently	
India[6]	1 334	NA	NA	NA	19 937
Indonesia	55	208	125	83	1 767
Iran (Islamic Republic of)[1]	23	41	25	11	180
Iraq	5	NA	NA	NA	NA
Israel[3]	26	52	26	26	1 100
Japan	125	NA	NA	NA	2 138
Jordan	4	4	4	0	41
Korea, Democratic People's Republic of	11	NA	NA	NA	NA
Korea, Republic of	14	NA	NA	NA	NA
Kuwait[1]	8	3	3	0	45
Lao People's Democratic Republic	3	NA	NA	NA	NA
Lebanon	13	NA	NA	NA	NA
Macau	10	NA	NA	NA	NA
Malaysia	*40	20	20	0	1 631
Maldives	2	6	2	4	22
Mongolia	1	35	33	2	38
Nepal	13	NA	NA	NA	NA
Pakistan[6]	105	NA	NA	NA	NA
Philippines	22	NA	NA	NA	NA
Qatar[8]	3	1	1	0	NA
Saudi Arabia	12	7	4	3	58
Singapore	10	7	7	-	1 786
Sri Lanka[10]	21	81	43	38	454
Syrian Arab Republic	6	NA	NA	NA	NA
Thailand	25	216	163	53	1 189
Turkey	457	519	206	313	1 257
United Arab Emirates	7	NA	NA	NA	NA
Viet Nam	4	NA	NA	NA	NA
Yemen	3	15	12	3	40
Europe					
Albania	2	NA	NA	NA	NA
Andorra	NA	NA	4	NA	15
Austria	29	143	143	0	2 315
Belgium	26	2	2	0	11 256
Bulgaria	12	37	34	3	1 758
Czechoslovakia	27	118	118	0	926
Denmark	47	11	11	0	NA
Faeroe Islands[2]	NA	8	NA	NA	NA
Finland	67	311	287	24	4 432
France[11]	101	526	412	114	22 443
German Democratic Republic	39	30	30	0	1 191
Germany, Federal Republic of[4]	NA	46	46	0	6 702
Gibraltar	1	5	5	0	15
Greece[12]	107	875	213	662	821
Holy See[13]	1	NA	NA	NA	48
Hungary	27	94	17	77	1 535
Iceland	4	NA	NA	NA	NA
Ireland	7	59	59	0	252
Italy	70	264	182	82	8 500
Liechtenstein	2	1	0	1	NA
Luxembourg[14]	4	4	4	NA	337
Malta	4	9	7	2	264
Monaco[1]	2	NA	NA	NA	105
Netherlands	84	*110	*110	0	NA
Norway	82	81	81	0	3 881

cont.

Table 9.1 - cont.

Country	Daily newspapers	Non-daily newspapers			Other periodicals
		Total	1-3 times/week	Issued less frequently	
Poland[15]	45	51	49	2	2 718
Portugal	25	288	115	173	699
Romania	36	24	24	0	435
San Marino[14]	7	8	0	8	14
Spain	102	NA	NA	NA	NA
Sweden	99	75	75	0	NA
Switzerland[1]	90	167	151	16	NA
United Kingdom	108	882	882	0	6 408
Yugoslavia	27	3 036	212	2 824	1 474
Oceania					
American Samoa	2	NA	NA	NA	NA
Australia	62	465	457	8	NA
Cook Islands[1]	1	2	1	1	3
Fiji[1]	2	4	4	NA	NA
French Polynesia	NA	NA	NA	NA	NA
Guam	1	NA	NA	NA	NA
New Caledonia[1]	1	3	1	2	15
New Zealand	37	*148	*118	*30	*5 788
Papua New Guinea	1	NA	NA	NA	NA
Tonga[1]	NA	2	2	0	NA
Vanuatu	NA	1	1	0	NA
USSR					
Byelorussian SSR	28	179	167	12	106
Ukrainian SSR[16]	1 743	./.	./.	./.	NA
USSR	724	7 603	6 476	1 127	5 357

1. Data for non-daily newspapers and other periodicals refer to 1982.
2. Data for non-daily newspapers and other periodicals refer to 1983.
3. Data for non-daily newspapers and other periodicals refer to 1981.
4. Data refer to 1983.
5. The figure for other periodicals refers to 1980, and does not include parish and school magazines.
6. The figure for daily newspapers refers to 1983.
7. Data for daily newspapers refer to 1983, and for non-daily newspapers and other periodicals to 1982.
8. Data refer to 1982.
9. Data on other periodicals do not include children's, comic, parish, school magazines and "house organs".
10. The figure for other periodicals refers to 1983.
11. Data for daily newspapers refer to 1983, and for non-daily newspapers and other periodicals to 1981.
12. Data for daily newspapers refer to 1983, and for non-daily newspapers and other periodicals to 1982.
13. The figures refer to the State of the Vatican City.
14. The figure for non-daily newspapers refers to 1982.
15. The figure for other periodicals does not include comic, parish or school magazines.
16. Data in column 2 include non-daily newspapers.

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Table 9.2 Circulation of daily newspapers, non-daily newspapers and other periodicals, 1984, per 1,000 inhabitants

[e.g. Algeria reports a circulation figure of 27 daily newspapers per 1,000 inhabitants (Column 2), 16 non-daily newspapers and 24 other periodicals (Columns 3 and 4).]

Country	Daily newspapers	Non-daily newspapers	Other periodicals
Africa			
Algeria[1]	27	16	24
Angola	13	NA	NA
Benin	*0.3	NA	NA
Botswana	17	NA	144
Burkina Faso	0.2	1	NA
Burundi	NA	NA	NA
Cameroon	4	4	NA
Congo	5	9	NA
Côte d'Ivoire[1]	9	17	37
Egypt[2]	43	44	49
Equatorial Guinea	NA	NA	NA
Ethiopia	1	1	4
Gabon	13	NA	NA
Gambia	3	NA	NA
Ghana	35	NA	NA
Guinea	2	NA	NA
Guinea-Bissau	7	NA	NA
Kenya[1]	13	15	NA
Lesotho[1]	30	7	7
Liberia	NA	NA	NA
Libyan Arab Jamahiriya	NA	NA	NA
Madagascar[1]	5	4	NA
Malawi	55	59	25
Mali	1	NA	NA
Mauritius	48	38	NA
Morocco	NA	NA	NA
Mozambique	4	NA	NA
Namibia	19	NA	NA
Niger	1	NA	NA
Reunion[1]	97	17	NA
Rwanda	0.1	6	NA
Senegal	5	NA	NA
Seychelles	44	44	22
Sierra Leone	3	NA	NA
St Helena	NA	300	320
Sudan	5	6	9
Tunisia	39	NA	NA
Uganda	2	NA	NA
United Republic of Tanzania	5	NA	NA
Zaire	1	4	8
Zambia	17	NA	NA
Zimbabwe	22	NA	NA
America, North			
Bahamas	168	NA	NA
Barbados	158	NA	NA
Belize[3]	NA	285	NA
Bermuda	205	182	NA
British Virgin Islands	NA	300	*1 950

cont.

Table 9.2 - cont.

Country	Daily newspapers	Non-daily newspapers	Other periodicals
Canada[4]	220	565	2 348
Costa Rica[1]	72	341	68
Cuba	144	6	228
Dominican Republic	30	NA	NA
Grenada	0	NA	NA
Guadeloupe[1]	96	208	427
Jamaica	45	NA	NA
Martinique[1]	97	52	52
Mexico	120	9	344
Nicaragua	47	NA	NA
Puerto Rico	159	NA	NA
Saint Christopher and Nevis	-	NA	NA
Saint Lucia	NA	35	NA
Trinidad and Tobago	151	NA	NA
U.S. Virgin Islands[1]	58	89	NA
United States	268	NA	NA
America, South			
Bolivia[1]	50	NA	NA
Brazil	57	177	NA
Chile[2]	96	4	78
Falkland Islands (Malvinas)	NA	NA	800
French Guiana[1]	NA	392	85
Guyana	83	NA	NA
Suriname[6]	NA	NA	119
Venezuela[7]	186	29	292
Asia			
Bangladesh	6	5	NA
Brunei Darussalam	NA	209	582
Burma	14	NA	NA
China[1]	*29	45	136
Cyprus[8]	118	235	141
India[7]	21	NA	70
Indonesia	18	29	NA
Iran (Islamic Republic of)[1]	22	NA	NA
Japan	562	NA	303
Jordan	21	1	62
Kuwait[1]	197	314	649
Malaysia	323	283	111
Maldives	6	5	34
Mongolia	84	387	357
Qatar[7]	116	14	NA
Singapore	277	168	NA
Sri Lanka[4]	NA	NA	2 715
Europe			
Albania	49	NA	NA
Andorra	NA	NA	374

cont.

Table 9.2 - cont.

Country	Daily newspapers	Non-daily newspapers	Other periodicals
Austria	365	NA	NA
Belgium	223	2	NA
Bulgaria	255	121	1 133
Czechoslovakia	298	80	1 428
Denmark	359	244	NA
Faeroe Islands[6]	NA	878	NA
Finland	535	NA	NA
France[9]	212	303	3 630
German Democratic Republic	550	556	1 383
Germany, Federal Republic of[2]	350	74	4 188
Gibraltar	*77	*184	123
Hungary	254	562	1 243
Iceland	469	NA	NA
Ireland	186	500	829
Italy	96	36	1 316
Liechtenstein	556	139	NA
Netherlands	310	*55	NA
Norway	501	99	NA
Poland	214	77	1 061
Portugal[5]	49	167	514
Romania	*158	5	31
San Marino[1]	NA	524	NA
Spain	80	NA	NA
Sweden	521	56	NA
Switzerland[1]	392	139	NA
United Kingdom	414	538	NA
Yugoslavia	114	1 040	217
Oceania			
American Samoa	235	NA	NA
Australia	296	981	NA
Cook Islands[1]	105	126	232
Fiji[1]	NA	114	NA
Guam	161	NA	NA
New Caledonia	86	166	186
Papua New Guinea	8	NA	NA
Tonga[1]	NA	79	NA
Vanuatu	NA	15	NA
USSR			
Byelorussian SSR	254	268	258
USSR	422	251	15 544

1. Data for non-daily newspapers and other periodicals refer to 1982.
2. Data refer to 1983.
3. Data for non-daily newspapers and other periodicals refer to 1981.
4. The figure for other periodicals refers to 1983.
5. Data on daily newspapers refer to 17 dailies only.
6. Data for non-daily newspapers and other periodicals refer to 1983.
7. Data refer to 1982.
8. Data on other periodicals do not include children's, comic, parish, school magazines and "house organs".
9. Data for non-daily newspapers and other periodicals refer to 1981 and data on daily newspapers refer to 1983.

Source: *Unesco Statistical Yearbook 1988*, Unesco, Paris, 1988.

Table 9.3 presents data concerning the number and circulation of periodicals other than general-interest newspapers, classified by subject groups as follows:

A. Total

1. Generalities
2. Philosophy, psychology
3. Religion, theology
4. Sociology, statistics
5. Political science
6. Law
7. Military art
8. Education
9. Trade, transport
10. Ethnography, folklore
11. Linguistics, philology
12. Mathematics
13. Natural sciences
14. Medical sciences
15. Industries
16. Agriculture
17. Domestic science
18. Commercial techniques
19. Arts
20. Games, sports
21. Literature
22. Geography, travel
23. History, biography

B. Total

1. Childrens' and adolescents' magazines
2. Comics and humour magazines
3. Parish magazines
4. School magazines and newspapers
5. "House organs"

Table 9.3 Periodicals other than general interest newspapers: number and circulation by subject group (copies in thousands)

[e.g. Algeria reports, for 1982, a total of 27 periodicals for subject categories A and B together, with a circulation figure of 476,000 copies (Columns 3 and 4). The total number of periodicals in category A is 25 with a circulation figure of 388,000 (Columns 5 and 6), out of which 3 are periodicals concerning religion and theology (Column 11), etc.]

Country	Year	Total Cat A + B		Total Cat A		Category A					
						1. Generalities		2. Philosophy, Psychology		3. Religion, Theology	
		Number	Copies	Number	Copies	Number	Copies	Number	Copies	Number	Copies
Africa											
Algeria	1982	27	476	25	388	-	-	-	-	3	49
Egypt[1]	1983	216	2 188	207	1 917	14	176	-	-	39	283
Lesotho	1982	2	10	2	10	-	-	-	-	1	0.5
Malawi	1984	43	166	41	166	6	71	-	-	8	48
Rwanda	1984	8	NA	8	NA	3	NA	-	NA	-	NA
St Helena	1984	2	2	1	1	-	-	-	-	-	-
Sudan	1984	25	195	23	130	1	15	-	-	-	-
Zaire	1984	106	225	47	132	8	24	1	1	6	12
America, North											
British Virgin Islands	1984	20	*23	20	*23	2	*0.3	-	-	-	-
Canada	1983	1 382	59 071	1 382	59 071	238	12 337	1	28	30	1 198
Costa Rica	1982	274	163	274	163	10	13	377	4	-	-
Cuba	1984	47	2 279	39	1 214	5	573	-	-	-	-
Guadeloupe	1982	45	142	21	80	16	50	-	-	-	-
Martinique	1982	8	17	8	17	-	-	-	-	1	2
United States[2]	1980	59 609	NA	54 398	NA	1 735	NA	821	NA	2 370	NA
America, South											
Bolivia	1982	106	NA	90	NA	8	NA	2	NA	1	NA
Brazil[3]	1984	3 907	NA	3 167	NA	1 055	NA	42	NA	219	NA
French Guiana	1982	7	6	6	6	-	-	-	-	-	-
Peru	1982	507	NA	466	NA	95	NA	3	NA	23	NA
Suriname	1983	22	44	20	43	1	0.4	-	-	2	2
Uruguay	1984	351	NA	317	NA	25	NA	6	NA	20	NA
Venezuela	1982	160	4 649	160	4 649	30	1 062	1	8	-	-
Asia											
Brunei Darussalam	1984	19	128	9	47	1	5	-	-	-	-
China[4]	1982	3 100	138 852	2 984	120 641	136	15 812	346	16 382	-	-
Cyprus[5]	1984	35	93	35	93	12	42	1	1	2	2
Hong Kong	1984	495	NA	454	NA	57	NA	-	NA	12	NA
India[6]	1982	19 937	50 094	19 681	47 625	8 711	26 300	1 595	2 250	./.	./.
Indonesia	1984	1 767	NA	796	NA	53	NA	5	NA	87	NA
Iran (Islamic Republic of)	1982	180	NA	173	NA	14	NA	3	NA	29	NA
Israel[7]	1981	1 100	-	1 061	-	25	-	100	-	139	-
Japan[8]	1984	2 138	36 293	1 742	18 952	100	4 935	13	198	11	16
Jordan	1984	41	211	33	171	-	-	-	-	3	10
Kuwait	1982	45	982	44	926	16	512	-	-	3	102
Malaysia	1984	1 631	1 689	1 292	1 187	64	13	3	1	66	40
Saudi Arabia	1984	58	NA	57	NA	-	NA	-	NA	5	NA
Singapore	1984	1 786	NA	1 130	NA	90	NA	9	NA	37	NA
Sri Lanka	1983	454	42 512	424	32 124	8	30	5	21	106	422
Thailand	1984	1 189	NA	1 072	NA	104	NA	23	NA	46	NA
Europe											
Andorra	1984	15	15	11	11	1	1	-	-	-	-
Austria[9]	1984	2 315	NA	2 058	NA	141	NA	./.	NA	188	NA
Belgium	1984	11 256	NA	10 907	NA	2 396	NA	70	NA	476	NA
Bulgaria	1984	1 758	10 211	1 355	7 596	277	298	7	6	4	19
Czechoslovakia	1984	926	22 123	630	16 022	13	286	10	108	26	356
German Democratic Republic[10]	1984	1 191	23 116	533	21 116	12	722	15	302	34	374
Germany, Federal Republic of[11]	1983	6 702	255 905	6 702	255 905	321	17 234	./.	./.	318	9 218
Gibraltar	1984	15	4	11	2	-	-	-	-	-	-
Holy See	1984	48	42	47	41	-	-	1	1	37	31
Hungary	1984	1 535	13 278	789	9 051	38	391	8	15	16	190
Ireland	1984	252	2 959	234	2 820	21	162	-	-	48	590
Italy	1984	8 500	NA	5 815	NA	789	NA	77	NA	575	NA
Luxembourg	1982	427	NA	388	NA	31	NA	4	NA	13	NA
Malta	1984	264	NA	166	NA	45	NA	-	NA	60	NA
Monaco	1982	105	792	105	792	77	486	-	-	-	-
Poland[12]	1984	2 718	39 057	2 614	38 138	437	12 763	36	43	131	1 461
Portugal[13]	1984	699	5 220	423	3 075	114	1 469	7	17	27	232
San Marino	1984	14	NA	14	NA	-	NA	-	NA	-	NA
Yugoslavia	1984	1 474	4 968	1 385	4 276	172	272	18	17	60	558
Oceania											
New Caledonia	1982	15	27	14	25	1	2	-	-	1	1
USSR											
Byelorussian SSR	1984	106	2 555	97	2 320	44	1 465	-	-	-	-
USSR	1984	5 357	4 279 930	5 231	3 339 013	38	9 785	37	42 296	16	5 517

cont.

Table 9.3 - cont.

Country	Category A Cont.									
	4. Sociology, Statistics		5. Political Science		6. Law		7. Military Art		8. Education	
	Number	Copies	Number	Copies	Number	Copies	Number	Copies	Number	Copies
Africa										
Algeria	3	12	4	28	-	-	-	-	-	-
Egypt[1]	78	609	./.	./.	./.	./.	./.	./.	./.	./.
Lesotho	-	-	-	-	-	-	-	-	1	10
Malawi	1	0	-	-	1	1	-	-	6	3
Rwanda	-	NA	-	NA	2	NA	1	NA	-	NA
St Helena	-	-	-	-	-	-	-	-	-	-
Sudan	9	26	3	1	-	-	-	-	4	37
Zaire	1	2	2	2	3	28	2	2	1	11
America, North										
British Virgin Islands	-	-	-	-	8	*0.3	-	-	2	*0.3
Canada	9	600	14	515	27	526	6	21	26	548
Costa Rica	7	8	6	9	-	-	4	13	121	12
Cuba	1	4	3	35	-	-	4	102	-	-
Guadeloupe	-	-	-	-	1	10	-	-	-	-
Martinique	1	1	-	-	-	-	-	-	1	1
United States[2]	290	NA	1 588	NA	4 997	NA	372	NA	6 961	NA
America, South										
Bolivia	6	NA	2	NA	3	NA	1	NA	7	NA
Brazil[3]	104	NA	158	NA	270	NA	8	NA	95	NA
French Guiana	-	-	-	-	-	-	-	-	-	-
Peru	22	NA	55	NA	32	NA	9	NA	24	NA
Suriname	-	-	2	14	3	3	-	-	-	-
Uruguay	21	NA	19	NA	31	NA	6	NA	13	NA
Venezuela	1	NA	-	-	8	169	-	-	3	8
Asia										
Brunei Darussalam	-	-	-	-	-	-	-	-	-	-
China[4]	./.	./.	-	-	-	-	-	-	306	19 363
Cyprus[5]	2	2	-	-	2	4	-	-	1	1
Hong Kong	2	NA	30	NA	18	NA	6	NA	2	NA
India[6]	117	158	-	-	884	1 171	234	281	331	240
Indonesia	2	NA	16	NA	60	NA	25	NA	267	NA
Iran (Islamic Republic of)	6	NA	12	NA	1	NA	3	NA	16	NA
Israel[7]	12	NA	144	NA	224	NA	0	NA	74	NA
Japan[8]	36	25	141	633	24	46	-	-	111	319
Jordan	-	-	2	13	1	12	6	30	3	25
Kuwait	1	10	4	190	3	7	-	-	1	3
Malaysia	72	58	411	329	229	111	20	60	64	51
Saudi Arabia	0	NA	0	NA	7	NA	10	NA	1	NA
Singapore	74	NA	257	NA	104	NA	20	NA	59	NA
Sri Lanka	-	-	92	1 664	50	297	-	-	16	69
Thailand	29	NA	29	NA	50	NA	39	NA	65	NA
Europe										
Andorra	1	1	3	2	-	-	-	-	-	-
Austria[9]	./.	NA	147	NA	237	NA	26	NA	105	NA
Belgium	233	NA	1 298	NA	935	NA	120	NA	604	NA
Bulgaria	45	565	175	1 132	38	204	12	110	52	372
Czechoslovakia	7	42	33	737	45	988	12	490	29	411
German Democratic Republic[10]	2	3	26	1 379	16	603	4	114	55	5 724
Germany, Federal Republic of[11]	./.	./.	./.	./.	1 548	7 696	./.	./.	242	2 983
Gibraltar	8	1	-	-	1	0.3	-	-	-	-
Holy See	-	-	-	-	2	2	-	-	1	1
Hungary	15	28	48	904	63	424	-	-	45	301
Ireland	3	5	-	-	14	53	2	5	10	34
Italy	101	NA	339	NA	433	NA	17	NA	149	NA
Luxembourg	29	NA	42	NA	73	NA	2	NA	17	NA
Malta	-	NA	1	NA	3	NA	1	NA	3	NA
Monaco	-	-	-	-	1	1	-	-	3	18
Poland[12]	86	397	200	2 337	139	2 002	32	450	107	1 272
Portugal 13)	./.	./.	./.	./.	./.	./.	./.	./.	./.	./.
San Marino	5	NA	-	NA	2	NA	-	NA	1	NA
Yugoslavia	67	124	138	280	89	170	28	261	76	167
Oceania										
New Caledonia	5	4	2	5	1	1	-	-	-	-
USSR										
Byelorussian SSR	-	-	-	-	-	-	-	-	10	241
USSR	162	18 591	433	965 214	88	140 771	58	33 886	224	480 850

cont.

Table 9.3 - cont.

Country	Category A Cont.									
	9. Trade, Transport		10. Ethnography, Folklore		11. Linguistics, Philology		12. Mathematics		13. Natural Sciences	
	Number	Copies	Number	Copies	Number	Copies	Number	Copies	Number	Copies
Africa										
Algeria	-	-	1	-	-	-	-	-	-	-
Egypt[1]	./.	./.	./.	./.	-	-	4	20	./.	./.
Lesotho	-	-	-	-	-	-	-	-	-	-
Malawi	3	1	-	-	-	-	-	-	-	-
Rwanda	1	NA	-	NA	-	NA	-	NA	-	NA
St Helena	-	-	-	-	-	-	-	-	-	-
Sudan	1	5	1	3	-	-	-	-	-	-
Zaire	3	5	-	-	2	2	-	-	-	-
America, North										
British Virgin Islands	-	-	-	-	-	-	-	-	-	-
Canada	80	1 445	10	2 042	1	1 472	17	380	70	1 431
Costa Rica	-	-	-	-	1	3	2	2	10	3
Cuba	3	24	-	-	-	-	-	-	-	-
Guadeloupe	2	7	-	-	-	-	-	-	-	-
Martinique	1	4	-	-	-	-	-	-	-	-
United States[2]	2 480	NA	3 506	NA	NA	NA	128	NA	1 885	NA
America, South										
Bolivia	7	NA	4	NA	2	NA	1	NA	2	NA
Brazil[3]	123	NA	37	NA	14	NA	2	NA	42	NA
French Guiana	2	0.5	-	-	-	-	-	-	-	-
Peru	23	NA	5	NA	4	NA	1	NA	8	NA
Suriname	-	-	1	1	-	-	-	-	-	-
Uruguay	51	NA	1	NA	4	NA	8	NA	16	NA
Venezuela	22	235	-	-	-	-	-	-	-	-
Asia										
Brunei Darussalam	-	-	-	-	-	-	1	5	-	-
China[4]	-	-	-	-	-	-	-	-	1 745	30 063
Cyprus[5]	1	5	-	-	-	-	-	-	1	1
Hong Kong	11	NA	12	NA	-	NA	-	NA	3	NA
India[6]	103	123	-	-	-	-	-	-	-	-
Indonesia	37	NA	-	-	-	-	-	-	4	NA
Iran (Islamic Republic of)	9	NA	-	NA	-	NA	2	NA	4	NA
Israel[7]	22	NA	-	NA	-	NA	29	NA	NA	NA
Japan[8]	51	183	-	-	34	297	-	-	38	141
Jordan	4	14	1	6	-	-	-	-	1	4
Kuwait	-	-	-	-	-	-	-	-	1	4
Malaysia	38	30	-	-	6	3	5	3	24	12
Saudi Arabia	3	NA	-	NA	-	NA	-	NA	-	NA
Singapore	106	NA	1	NA	11	NA	1	NA	15	NA
Sri Lanka	11	86	-	-	1	48	1	2	12	44
Thailand	39	NA	19	NA	23	NA	26	NA	24	NA
Europe										
Andorra	2	5	1	0.5	-	-	-	-	-	-
Austria[9]	49	NA	58	NA	62	NA	./.	NA	./.	NA
Belgium	266	NA	77	NA	54	NA	18	NA	220	NA
Bulgaria	34	157	15	875	10	19	4	3	66	217
Czechoslovakia	27	321	15	135	15	29	11	26	56	118
German Democratic Republic[10]	13	105	5	10	10	29	9	38	65	286
Germany, Federal Republic of[11]	507	7 017	./.	./.	123	302	179	344	./.	./.
Gibraltar	-	-	-	-	-	-	-	-	1	0.3
Holy See	-	-	-	-	2	4	-	-	-	-
Hungary	23	224	3	4	15	68	11	17	39	114
Ireland	36	521	-	-	-	-	-	-	-	-
Italy	225	NA	229	NA	53	NA	14	NA	142	NA
Luxembourg	10	NA	-	NA	2	NA	-	NA	16	NA
Malta	-	NA	1	NA	1	NA	-	NA	5	NA
Monaco	-	-	-	-	-	-	-	-	-	-
Poland[12]	34	305	6	17	46	1 356	23	52	187	328
Portugal[13]	./.	./.	./.	./.	3	2	25	28	./.	./.
San Marino	-	NA	-	NA	-	NA	1	NA	-	NA
Yugoslavia	8	48	11	12	29	31	14	125	88	220
Oceania										
New Caledonia	1	2	-	-	-	-	-	-	1	4
USSR										
Byelorussian SSR	-	-	-	-	-	-	-	-	12	35
USSR	347	73 400	2	37	45	2 820	127	1 697	291	10 888

cont.

Table 9.3 - cont.

Country	Category A Cont.									
	14. Medical Sciences		15. Industries		16. Agriculture		17. Domestic Science		18. Commercial Techniques	
	Number	Copies	Number	Copies	Number	Copies	Number	Copies	Number	Copies
Africa										
Algeria	2	2	1	4	-	-	-	-	-	-
Egypt[1]	55	604	./.	./.	./.	./.	./.	./.	./.	./.
Lesotho	-	-	-	-	-	-	-	-	-	-
Rwanda	-	NA	-	NA	1	NA	-	NA	-	NA
Malawi	4	2	2	-	3	2	-	-	-	-
St Helena	-	-	-	-	-	-	1	0.8	-	-
Sudan	-	-	1	3	-	-	-	-	-	-
Zaire	2	3	-	-	3	5	-	-	2	3
America, North										
British Virgin Islands	2	*0.3	-	-	-	-	-	-	-	-
Canada	145	2 959	149	4 791	62	4 131	136	3 023	32	692
Costa Rica	7	7	-	-	16	34	-	-	-	-
Cuba	1	14	3	60	2	47	-	-	-	-
Guadeloupe	-	-	-	-	-	-	-	-	-	-
Martinique	-	-	-	-	-	-	-	-	2	7
United States[2]	3 985	NA	7 322	NA	3 458	NA	1 218	NA	3 174	NA
America, South										
Bolivia	4	NA	3	NA	6	NA	-	NA	8	NA
Brazil[3]	175	NA	185	NA	172	NA	27	NA	45	NA
French Guiana	-	-	-	-	1	1	-	-	-	-
Peru	12	NA	31	NA	17	NA	1	NA	15	NA
Suriname	-	-	-	-	1	0.2	-	-	7	18
Uruguay	17	NA	21	NA	16	NA	1	NA	5	NA
Venezuela	7	34	2	8	8	7	15	1 502	10	62
Asia										
Brunei Darussalam	-	-	-	-	-	-	-	-	-	-
China[4]	-	-	-	-	-	-	-	-	-	-
Cyprus[5]	2	4	-	-	3	6	-	-	1	5
Hong Kong	6	NA	47	NA	1	NA	13	NA	60	NA
India[6]	482	638	951	854	370	622	344	436	-	-
Indonesia	34	NA	61	NA	-	-	8	NA	83	NA
Iran (Islamic Republic of)	15	NA	25	NA	10	NA	-	NA	-	NA
Israel[7]	34	NA	57	NA	73	NA	-	NA	NA	NA
Japan[8]	115	195	234	535	25	68	112	1 775	-	-
Jordan	4	14	2	10	2	6	-	-	1	12
Kuwait	3	8	2	7	2	5	-	-	1	14
Malaysia	34	27	49	74	74	148	8	24	22	18
Saudi Arabia	2	NA	15	NA	-	NA	-	NA	1	NA
Singapore	89	NA	59	NA	6	NA	20	NA	37	NA
Sri Lanka	16	175	8	84	15	381	-	-	2	1
Thailand	74	-	58	-	52	-	30	-	45	-
Europe										
Andorra	-	-	1	0.5	-	-	-	-	-	-
Austria[9]	61	NA	348	NA	92	NA	./.	NA	31	NA
Belgium	410	NA	1 018	NA	344	NA	136	NA	315	NA
Bulgaria	138	557	169	876	67	453	4	77	76	337
Czechoslovakia	57	382	54	684	51	1 028	18	1 731	6	56
German Democratic Republic[10]	54	654	74	1 111	29	258	14	4 442	8	94
Germany, Federal Republic of[11]	544	20 741	1 363	84 354	209	2 717	./.	./.	./.	./.
Gibraltar	-	-	-	-	-	-	-	-	-	-
Holy See	-	-	-	-	-	-	-	-	-	-
Hungary	62	1 042	162	600	53	321	3	406	56	1 056
Ireland	15	45	19	202	18	444	4	140	13	51
Italy	515	NA	344	NA	315	NA	107	NA	123	NA
Luxembourg	8	NA	18	NA	16	NA	1	NA	-	NA
Malta	1	NA	5	NA	3	NA	5	NA	4	NA
Monaco	-	-	-	-	-	-	-	-	-	-
Poland[12]	126	1 294	433	2 461	212	2 389	20	2 001	82	948
Portugal[13]	73	353	./.	./.	./.	./.	./.	./.	./.	./.
San Marino	0	NA	3	NA	-	NA	-	NA	-	NA
Yugoslavia	106	301	100	337	55	186	4	340	70	246
Oceania										
New Caledonia	-	-	-	-	-	-	-	-	-	-
USSR										
Byelorussian SSR	1	18	16	248	6	35	-	-	-	-
USSR	199	233 111	1 323	108 238	295	78 383	81	8 573	830	23 754

cont.

Table 9.3 - cont.

Country	Category A cont.									
	19. Arts		20. Games, Sports		21. Literature		22. Geography, Travel		23. History, Biography	
	Number	Copies	Number	Copies	Number	Copies	Number	Copies	Number	Copies
Africa										
Algeria	2	13	2	124	5	148	-	-	2	8
Egypt[1]	11	193	./.	./.	4	29	2	2	./.	./.
Lesotho	-	-	-	-	-	-	-	-	-	-
Malawi	-	-	6	38	-	-	1	0	-	-
Rwanda	-	NA	-	NA	-	NA	-	NA	-	NA
St Helena	-	-	-	-	-	-	-	-	-	-
Sudan	2	31	1	9	-	-	-	-	-	-
Zaire	3	4	4	23	-	-	3	4	1	1
America, North										
British Virgin Islands	-	-	-	-	1	*1	1	*20	4	*1
Canada	62	1 336	224	15 835	6	69	32	3 618	5	74
Costa Rica	-	-	-	-	85	52	-	-	2	3
Cuba	11	299	2	21	4	36	-	-	-	-
Guadeloupe	-	-	2	13	-	-	-	-	-	-
Martinique	1	1	1	1	-	-	-	-	-	-
United States[2]	1 823	NA	3 086	NA	1 737	NA	677	NA	785	NA
America, South										
Bolivia	8	NA	5	NA	2	NA	3	NA	5	NA
Brazil[3]	114	NA	134	NA	15	NA	11	NA	21	NA
French Guiana	1	2	2	2	-	-	-	-	-	-
Peru	16	NA	12	NA	14	NA	7	NA	37	NA
Suriname	-	-	3	4	-	-	-	-	-	-
Uruguay	19	NA	16	NA	5	NA	2	NA	14	NA
Venezuela	14	399	19	960	7	61	5	136	-	-
Asia										
Brunei Darussalam	-	-	-	-	5	16	1	10	1	11
China[4]	-	-	-	-	451	39 021	-	-	-	-
Cyprus 5)	3	15	-	-	2	3	2	2	-	-
Hong Kong	30	NA	111	NA	13	NA	20	NA	-	NA
India[6]	488	2 207	111	463	2 872	8 958	90	913	1 998	2 011
Indonesia	16	NA	15	NA	8	NA	8	NA	7	NA
Iran (Islamic Republic of)	7	NA	6	NA	6	NA	1	NA	4	NA
Israel[7]	35	NA	40	NA	53	NA	-	NA	-	NA
Japan[8]	119	1 049	497	8 228	65	265	16	44	./.	./.
Jordan	-	-	1	3	2	12	-	-	-	-
Kuwait	1	5	3	30	3	29	-	-	-	-
Malaysia	19	25	47	141	5	4	24	7	8	10
Saudi Arabia	5	NA	2	NA	5	NA	-	NA	1	NA
Singapore	32	NA	53	NA	18	NA	8	NA	44	NA
Sri Lanka	10	193	2	1	65	28 577	2	27	2	1
Thailand	105	NA	91	NA	27	NA	43	NA	31	NA
Europe										
Andorra	1	0.5	-	-	-	-	-	-	1	1
Austria[9]	153	NA	195	NA	49	NA	47	NA	69	NA
Belgium	578	NA	663	NA	315	NA	76	NA	285	NA
Bulgaria	49	200	37	559	51	489	3	10	22	61
Czechoslovakia	36	1 547	52	5 923	25	220	14	374	18	30
German Democratic Republic[10]	30	996	29	3 002	14	144	6	705	9	21
Germany, Federal Republic of[11]	./.	./.	1 348	103 299	./.	./.	./.	./.	./.	./.
Gibraltar	-	-	1	0.2	-	-	-	-	-	-
Holy See	1	1	-	-	-	-	-	-	3	2
Hungary	36	282	41	2 124	36	386	4	98	12	56
Ireland	4	93	9	48	2	4	13	423	3	1
Italy	337	NA	385	NA	142	NA	135	NA	134	NA
Luxembourg	17	NA	74	NA	2	NA	-	NA	13	NA
Malta	1	NA	22	NA	1	NA	3	NA	1	NA
Monaco	3	3	10	245	10	39	-	-	1	0.5
Poland[12]	76	1 168	53	2 999	40	1 771	35	207	73	117
Portugal[13]	43	506	-	./.	7	9	15	26	./.	./.
San Marino	-	NA	2	NA	-	NA	-	NA	-	NA
Yugoslavia	61	239	28	112	93	157	20	23	50	50
Oceania										
New Caledonia	1	4	-	-	-	-	-	-	1	1
USSR										
Byelorussian SSR	4	124	1	3	3	151	-	-	-	-
USSR	138	97 153	55	30 024	228	937 060	175	36 212	39	753

cont.

Table 9.3 - cont.

Country	Category B									
	Total Cat.B		1. Children's & Adolescents Magazines		2. Comics and Humour Magazines		3. Parish Magazines		4. School Magazines & Newspapers	
	Number	Copies	Number	Copies	Number	Copies	Number	Copies	Number	Copies
Africa										
Algeria	2	88	1	38	1	50	-	-	-	-
Egypt[1]	7	271	9	271	-	-	-	-	-	-
Lesotho	-	-	-	-	-	-	-	-	-	-
Malawi	2	0	1	0	-	-	-	-	-	-
Rwanda	-	NA	-	NA	-	NA	-	NA	-	NA
St Helena	1	0.8	-	-	-	-	1	0.8		
Sudan	2	65	2	65	-	-	-	-	-	-
Zaire	59	93	3	15	1	5	16	36	23	8
America, North										
British Virgin Islands	-	-	-	-	-	-	-	-	-	-
Canada	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Costa Rica	-	-	-	-	-	-	-	-	-	-
Cuba	8	1 065	4	539	4	526	-	-	-	-
Guadeloupe	24	62	-	-	-	-	1	2	3	4
Martinique	-	-	-	-	-	-	-	-	-	-
United States[2]	5 211	NA	257	NA	252	NA	-	NA	-	NA
America, South										
Bolivia	16	NA	3	NA	4	NA	5	NA	1	NA
Brazil[3]	740	NA	22	NA	66	NA	76	NA	60	1
French Guiana	1	1	-	-	-	-	1	1	-	-
Peru	41	NA	2	NA	5	NA	6	NA	10	NA
Suriname	2	1	-	-	-	-	1	0.5	1	0.5
Uruguay	35	NA	4	NA	3	NA	17	NA	3	NA
Venezuela	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Asia										
Brunei Darussalam	10	81	10	81	-	-	-	-	-	-
China[4]	116	18 211	51	13 882	65	4 329	-	-	-	-
Cyprus[5]	-	-	-	-	-	-	-	-	-	-
Hong Kong	41	NA	18	NA	2	NA	11	NA	10	NA
India[6]	256	2 469	256	2 469	-	-	-	-	-	-
Indonesia	971	NA	879	NA	-	-	87	NA	5	NA
Iran (Islamic Republic of)	7	NA	5	NA	2	NA	-	NA	-	NA
Israel[7]	39	NA	39	NA	-	NA	-	NA	-	NA
Japan[8]	396	17 341	71	6 081	225	7 313	-	-	56	1 411
Jordan	8	40	3	16	-	-	-	-	4	18
Kuwait	1	56	1	56	-	-	-	-	-	-
Malaysia	339	501	29	87	7	21	12	2	35	7
Saudi Arabia	1	NA	1	NA	-	NA	-	NA	-	NA
Singapore	656	NA	12	NA	1	NA	118	NA	146	NA
Sri Lanka	30	10 387	8	10 289	-	-	9	24	8	7
Thailand	117	NA	25	NA	18	NA	15	NA	22	NA
Europe										
Andorra	4	4	-	-	-	-	2	2	1	1
Austria[9]	257	NA	59	NA	19	NA	./.	NA	./.	NA
Belgium	349	NA	56	NA	59	NA	17	NA	106	NA
Bulgaria	403	2 615	19	1 318	1	374	121	290	26	34
Czechoslovakia	296	6 101	35	3 588	4	1 061	33	92	NA	NA
German Democratic Republic[10]	658	2 000	15	3 695	1	1 000	9	14	-	-
Germany, Federal Republic of[11]	./.	./.	./.	./.	./.	./.	./.	./.	./.	./.
Gibraltar	4	2	-	-	-	-	4	2	-	-
Holy See	1	0.5	-	-	-	-	-	-	1	0.5
Hungary	746	4 227	16	1 448	4	1 370	-	-	110	70
Ireland	18	138	2	47	-	-	-	-	8	38
Italy	2 685	NA	61	NA	11	NA	671	NA	64	NA
Luxembourg	39	NA	12	NA	-	NA	10	NA	13	NA
Malta	98	NA	5	NA	3	NA	37	NA	11	NA
Monaco	-	-	-	-	-	-	-	-	-	-
Poland[12]	104	919	75	6 436	NA	NA	NA	NA	NA	NA
Portugal[13]	276	2 145	15	110	1	27	150	920	11	98
San Marino	-	NA	-	NA	-	NA	-	NA	-	NA
Yugoslavia	89	692	22	333	2	135	-	-	6	26
Oceania										
New Caledonia	1	2	-	-	-	-	-	-	-	-
USSR										
Byelorussian SSR	9	235	2	88	1	125	-	-	-	-
USSR	126	940 917	103	619 571	23	321 346	-	-	NA	NA

cont.

Table 9.3 - cont.

Country	Category B cont.	
	5."House Organs"	
	Number	Copies
Africa		
Algeria	-	-
Egypt[1]	-	-
Lesotho	-	-
Malawi	1	0
Rwanda	-	NA
St Helena	-	-
Sudan	-	-
Zaire	16	29
America, North		
British Virgin Islands	-	-
Canada	NA	NA
Costa Rica	-	-
Cuba	-	-
Guadeloupe	20	56
Martinique	-	-
United States[2]	4 702	NA
America, South		
Bolivia	3	NA
Brazil[3]	451	NA
French Guiana	-	-
Peru	18	NA
Suriname	-	-
Uruguay	7	NA
Venezuela	NA	NA
Asia		
Brunei Darussalam	-	-
China[4]	-	-
Cyprus[5]	-	-
Hong Kong	-	NA
India[6]	-	-
Indonesia	-	-
Iran (Islamic Republic of)	-	NA
Israel[7]	-	NA
Japan[8]	44	2 536
Jordan	1	6
Kuwait	-	-
Malaysia	256	384
Saudi Arabia	-	NA
Singapore	379	NA
Sri Lanka	5	67
Thailand	37	NA
Europe		
Andorra	1	1
Austria[9]	179	NA
Belgium	111	NA
Bulgaria	236	599
Czechoslovakia	224	1 360
German Democratic Republic[10]	658	2 000
Germany, Federal Republic of[11]	NA	NA
Gibraltar	-	-
Holy See	-	-
Hungary	616	1 340
Ireland	8	54
Italy	1 878	NA
Luxembourg	4	NA
Malta	42	NA
Monaco	-	-
Poland[12]	104	919
Portugal[13]	89	990
San Marino	-	NA
Yugoslavia	59	198
Oceania		
New Caledonia	1	2
USSR		
Byelorussian SSR	6	22
USSR	NA	NA

cont.

Table 9.3 - cont.

1. Periodicals of groups 5,6,7,8,9 and 10 are included in group 4; 13 in group 12; 15,16,17, 18 in group 14; 20 in group 19; 23 in group 22.
2. Data do not include parish and school magazines.
3. Sub-total B includes 65 periodicals for which a subject breakdown is not available.
4. Periodicals of group 4 are included in group 2.
5. Data do not include children's, comic, parish, school magazines and "house organs".
6. Periodicals of groups 2 and 3 are counted together.
7. Periodicals of group 13 are included in group 12; 18 in group 9.
8. Periodicals of groups 22 and 23 are counted together.
9. Periodicals of groups 22 and 23 are included in group 23. For other subject groups the symbol ./. means that the data are included elsewhere. Parish magazines are included in group 3 (religion, theology).
10. Children's magazines, comic and parish magazines shown under sub-total B are already distributed among the 23 groups.
11. Periodicals of groups 12 and 13 are counted together. For other subject groups, the symbol ./. means that the data are included elsewhere.
12. Children's magazines are included in the 23 groups.
13. Periodicals of groups 5,6,7,8,9 and 10 are included in group 4; group 13 in 12; groups 15,16,17 and 18 in group 14; group 20 in 19 and group 23 in 22.

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Books

General note:

The following definitions have been used :

A publication is considered to be *non-periodic* if it is published at one time, or at intervals, by volumes, the number of which is generally determined in advance.

The term *printed* includes reproduction by any method of mechanical impression whatever it may be.

A publication is considered to be *published in a particular country* if the publisher has his registered office in the country where the statistics are compiled, the place of printing or place of circulation here being irrelevant. When a publication is issued by one or more publishers who have registered offices in two or more countries, it is considered as having been published in the country or countries where it is issued.

A publication is considered as being *made available to the public* when it is obtainable either by purchase or by distribution free of charge. Publications intended for a restricted public, such as certain government publications, those of learned societies, political or professional organizations, etc., are also considered as being available to the public.

A *book* is a non-periodic printed publication of at least 49 pages, exclusive of the cover pages, published in the country and made available to the public.

A *pamphlet* is a non-periodic printed publication of at least five but not more than 48 pages, exclusive of the cover pages, published in a particular country and made available to the public.

A *first edition* is the first publication of an original or translated manuscript.

A *re-edition* is a publication distinguished from previous editions by a change made in the contents (revised edition) or layout (new edition) and which requires a new ISBN.

A *reprint* is unchanged in content and layout, apart from correction of typographical errors in the previous edition and does not require a new ISBN. A reprint by any publisher other than the original publisher is regarded as a re-edition.

A *translation* is a publication which reproduces a work in a language other than the original language.

A *title* is a term used to designate a printed publication, which forms a separate whole, whether issued in one or several volumes.

The ten main branches of the Universal Decimal Classification (UDC) have been used as subject classification.

Table 9.4 Book production: number of titles by UDC classes

[e.g. Algeria reports, for 1984, having a total production of 718 titles (Column 3) out of which 26 concern Generalities (Column 4), 15 concern Philosophy (Column 5), 32 Religion (Column 6), etc.]

Country	Year	Total	Generalities	Philosophy	Religion	Social sciences	Philology	Pure sciences	Applied sciences	Arts	Literature	Geog./hist.
Africa												
Algeria	1984	718	26	15	32	201	13	104	125	22	119	61
Angola	1986	14	-	-	-	-	-	-	-	-	14	-
Burkina Faso	1985	4	-	-	-	1	-	-	-	-	3	-
Burundi	1986	54	-	-	10	28	-	-	16	-	-	-
Cape Verde	1985	10	-	-	-	-	-	-	-	-	6	4
Egypt	1984	1 277	17	43	196	216	86	79	212	70	282	86
Ethiopia	1985	227	18	-	28	74	9	14	55	5	9	157
Gambia[1]	1985	72	2	-	5	17	-	7	36	4	-	1
Madagascar	1984	321	3	8	48	41	14	20	161	7	13	6
Malawi	1984	134	1	-	71	33	-	1	17	3	-	8
Mali[2]	1984	160	-	-	-	98	19	17	23	-	-	3
Mauritius	1986	110	-	2	10	29	22	9	6	10	11	11
Mozambique	1984	66	-	-	-	35	-	-	17	3	11	-
Nigeria[3]	1985	2 213	78	47	126	693	151	289	383	93	126	227
Reunion	1985	73	1	-	6	15	2	2	12	4	18	13
Rwanda	1986	104	3	3	10	53	7	7	8	4	5	4
Sierra Leone[4]	1984	16	-	-	-	-	*6	*6	-	-	-	*4
Tunisia	1985	540	14	15	152	140	13	32	39	9	95	31
United Republic of Tanzania[1]	1984	363	17	1	41	195	6	7	77	4	9	6
Zimbabwe[5]	1986	353	3	6	13	105	67	25	47	9	56	22
America, North												
Belize[6]	1985	12	2	-	-	5	2	-	3	-	-	-
Costa Rica[7]	1986	807	8	5	12	116	1	8	23	10	26	13
Cuba	1986	2 174	270	34	NA	451	104	214	498	134	369	102
Jamaica	1985	71	6	-	2	34	1	2	11	3	8	4
Mexico[8]	1986	4 897	577	256	144	1 573	167	566	386	238	537	453
Nicaragua	1984	26	4	1	2	2	-	-	-	-	15	2
Saint Lucia[9]	1985	63	1	-	-	11	-	-	2	-	-	-
America, South												
Argentina[1]	1986	4 818	262	226	302	1 733	24	151	460	159	1 211	290
Brazil	1985	21 184	2 598	773	1 870	7 071	487	1 694	2 418	1 418	2 074	781
Chile	1986	1 499	50	22	102	481	30	91	141	33	368	181
Colombia	1984	15 041	1 078	239	352	2 784	290	1 098	6 067	997	1 501	635
Guyana	1984	55	2	-	4	22	14	1	3	3	3	3
Peru	1986	635	15	6	15	249	9	30	71	35	144	61
Uruguay	1986	941	1	10	21	343	17	76	158	28	175	112
Asia												
Bangladesh[8]	1986	1 806	68	46	172	410	28	159	149	77	527	170
Brunei Darussalam[1]	1986	15	7	-	-	1	-	-	-	-	5	2
Burma	1985	673	387	7	216	4	11	1	20	3	-	24
China[10]	1985	40 265	970	514	./.	9 921	746	2 360	7 298	1 489	4 859	1 757
Cyprus[11 12]	1985	82	-	-	-	11	23	30	3	2	6	7
India[8]	1986	12 543	268	400	1 057	3 264	188	562	1114	297	3161	784
Indonesia	1986	2 480	99	65	281	819	112	138	461	92	287	126
Iran (Islamic Republic of)[13]	1985	5 568	128	132	1 351	354	393	235	662	250	839	282
Israel[14]	1985	2 214	25	40	173	230	50	79	71	44	718	234
Japan	1986	44 686	1 335	1 465	681	10 941	2 417	2 447	7 462	5 631	10 311	1 996

cont.

Table 9.4 - cont.

Country	Year	Total	Generalities	Philosophy	Religion	Social sciences	Philology	Pure sciences	Applied sciences	Arts	Literature	Geog./hist.
Korea, Republic of	1985	35 837	564	1 194	3 019	5 959	2 816	1 899	3 467	2 605	11 754	2 530
Kuwait[15]	1985	250	3	6	5	103	18	56	14	21	12	12
Malaysia	1986	3 397	68	17	394	809	563	369	423	131	445	178
Mongolia	1986	889	-	-	-	467	6	16	181	41	178	-
Philippines[16]	1986	804	44	19	68	261	38	51	190	12	54	67
Sri Lanka	1986	2 368	21	25	298	1 100	40	44	224	163	343	110
Thailand	1986	7 728	648	174	564	2 782	198	629	1 455	256	641	381
Turkey[17]	1985	6 685	86	96	522	1 670	152	184	990	222	1 294	326
Europe												
Albania[18]	1986	959	5	8	-	175	./.	186	279	16	254	36
Austria	1986	9 560	221	339	418	2 023	212	1 419	2 299	831	1 086	712
Belgium[19]	1985	8 327	169	240	480	1 235	291	343	1 153	890	2 807	719
Bulgaria	1986	4 924	206	62	9	1 456	231	269	1 243	221	958	269
Czechoslovakia	1986	10 020	836	134	95	1 821	337	1 022	2 982	812	1 546	435
Denmark	1986	10 957	253	440	295	2 196	289	653	2 608	707	2 486	970
Finland	1986	8 694	325	176	333	2 122	316	796	2 563	401	1 164	498
France	1985	37 860	886	1 218	756	12 098	392	1 437	4 873	2 678	9 804	3 718
German Democratic Republic[20]	1986	6 486	88	118	286	776	308	494	963	491	1 478	357
Germany, Federal Republic of	1986	63 724	4 536	2 083	2 854	15 849		4 086	8 047	4 580	11 822	7 560
Greece	1985	4 651	70	128	170	1 061	226	267	468	257	1 569	435
Holy See	1986	179	4	25	102	30	5	1	-	3	-	9
Hungary	1986	9 897	289	129	119	2 867	405	876	2 456	730	1 358	628
Ireland[21]	1985	2 679	3	./.	47	270	11	36	114	115	141	214
Italy	1986	16 297	344	882	1 290	3 420	423	628	2 594	1 813	3 452	1 451
Luxembourg	1986	367	14	4	7	112	3	11	19	101	48	48
Malta	1986	346	7	1	68	162	7	1	8	25	38	29
Netherlands[22]	1986	13 368	71	511	733	1 328	215	481	1 837	720	2 646	1 099
Norway[23]	1986	3 284	119	100	189	704	61	119	452	218	1 041	281
Poland	1986	9 881	178	213	386	1 974	385	846	2 727	574	1 799	799
Portugal[24]	1986	10 782	626	203	483	1 571	./.	822	1 514	2 623	1 986	954
Romania	1985	5 276	105	61	47	503	162	756	1 881	250	1 280	231
Spain	1986	38 405	1 462	1 274	2 048	5 315	2 462	2 649	4 293	2 875	12 988	3 039
Sweden[25]	1986	10 587	278	226	437	412	241	511	1 324	745	3 306	909
Switzerland[26]	1986	11 626	197	395	754	2 304	172	984	2 669	1 071	1 509	820
United Kingdom	1985	52 861	2 178	1 497	2 179	9 420	1 234	4 442	10 092	4 251	11 917	5 651
Yugoslavia	1986	10 734	220	132	362	3 763	229	326	1 721	928	2 619	434
Oceania												
Australia[27]	1985	2 603	99	21	48	857	162	123	466	210	367	250
Fiji[28]	1985	13	-	-	-	7	-	6	-	-	-	-
New Caledonia[1]	1985	8	-	-	-	4	-	-	1	-	1	2
New Zealand	1984	3 452	102	16	91	1 262	18	319	799	348	300	197
USSR												
Byelorussian SSR	1986	3 182	136	47	12	1 000	99	191	1 163	98	389	47
Ukrainian SSR[29]	1986	8 155	308	193	68	2 324	117	685	2 834	211	1 141	183
USSR[30]	1986	83 472	2 493	1 541	370	22 245	1 719	7 435	30 711	2 804	11 575	2 033

1. All first editions.
2. Data refer only to school textbooks, government publications and university theses.
3. Data do not include university theses.
4. Data refer to schooltextbooks only and do not include pamphlets.
5. Data do not include school textbooks published by the Ministry of Education.
6. Data refer only to first editions of school textbooks and government publications.
7. University theses (585) are included in the total but not distributed in the 10 classes.

Table 9.4 - cont.

8. Data do not include pamphlets.
9. School textbooks (25), children's books (17) and government publications (7 1st editions) are included in the total but not identified in the 10 classes.
10. School textbooks (6,159) and children's books (4,192) are included in the total but not distributed in the 10 classes.
11. The total includes 549 government publications and one title for which a subject breakdown is not available.
12. Data refer to school textbooks only.
13. Children's books (942) are included in the total but not distributed in the 10 classes. Data do not include pamphlets.
14. The total includes 549 government publications and one title for which a subject breakdown is not available.
15. Data refer to school textbooks, children's books, government publications and university theses only.
16. Data refer only to school textbooks, children's books and government publications.
17. School textbooks (212), children's books (910), and comic books (21) are included in the total but not identified in the 10 classes.
18. Data on philology are included with those of sociology.
19. Children's books (1,658) are included in the total but not distributed in the 10 classes.
20. Data include only books and pamphlets shown in series A of the German National Bibliography (publications of the book market) i.e. those of the series B (publications outside the book market) and C (books published by universities) are excluded. School textbooks (224) and children's books (903) are included in the total but not identified in the 10 classes.
21. School textbooks (13) and children's books (13) and government publications (1,702) are included in the total but not identified in the 10 classes. The discrepancy between the total and the sum made of the 10 classes is due to a variance in classification standards.
22. Data do not include pamphlets. Schools textbooks (2,385) children's books (1,342) and for 1984, 151 other books are included in the total but not identified in the 10 classes.
23. Data do not include textbooks.
24. Data on philology are included with those of literature.
25. Children's books (936) are included in the total but not distributed in the 10 classes. The discrepancy between the total and the sum of the 10 classes is due to a variance in classification standards.
26. School textbooks (259) and children's books (492) are included in the total but not distributed in the 10 classes.
27. Provisional data.
28. Data refer to school textbooks only.
29. Books for the popularization of science for children (546) are included in the total but not distributed in the 10 classes.
30. Books for the popularization of science for children (81) are included in the total but not distributed in the 10 classes.

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Table 9.5 Book production: number of titles by first or later edition

[e.g. Algeria reports, for 1984, a total production of 718 editions of which 551 are books (Columns 3 and 4); 710 are first editions, of which 544 are books (Columns 5 and 6).]

Country	Year	All editions		First editions	
		Total	Of which: books	Total	Of which: books
Africa					
Algeria	1984	718	551	710	544
Angola	1986	14	14	12	12
Burkina Faso	1985	4	4	NA	NA
Burundi	1986	54	37	34	24
Cape Verde	1985	10	10	NA	NA
Egypt	1984	1 277	1 192	900	843
Ethiopia	1985	227	100	11	11
Gambia	1985	72	65	72	65
Madagascar	1984	321	242	308	231
Malawi	1984	134	75	50	38
Mali[1]	1984	160	NA	NA	NA
Mauritius	1986	110	63	96	52
Mozambique	1984	66	29	43	16
Nigeria[2]	1985	2 213	1 415	2 016	1 260
Reunion	1985	73	41	72	40
Rwanda	1986	104	61	101	58
Sierra Leone[3]	1984	NA	*16	NA	NA
Tunisia	1985	540	366	393	267
United Republic of Tanzania	1984	363	166	363	166
Zimbabwe[4]	1986	353	185	323	157
America, North					
Belize[5]	1985	12	-	12	-
Costa Rica	1986	807	801	783	777
Cuba	1986	2 174	1 848	1 241	988
Jamaica	1985	71	23	70	22
Mexico	1986	NA	4 897	NA	NA
Nicaragua	1984	26	26	17	17
Saint Lucia	1985	63	44	18	16
America, South					
Argentina	1986	4 818	4 818	4 818	4 818
Brazil	1984	21 184	15 845	11 860	8 655
Chile	1986	1 499	1 162	263	241
Colombia	1984	15 041	6 500	11 848	4 738
Guyana	1984	55	16	54	15
Peru	1986	635	560	570	513
Uruguay	1986	941	625	850	556
Asia					
Bangladesh	1986	NA	1 806	NA	NA
Brunei Darussalam	1986	15	15	15	15
Burma	1985	673	673	NA	NA
China	1985	40 265	NA	28 833	NA
Cyprus[3]	1985	82	72	32	24
India	1986	12 543	11 529	11 118	10 137
Indonesia	1986	2 480	2 105	1 984	1 673
Iran (Islamic Republic of)	1985	NA	5 568	NA	NA
Israel	1985	2 214	NA	2 038	NA
Japan	1986	44 686	NA	37 390	NA

cont.

Table 9.5 - cont.

Country	Year	All editions		First editions	
		Total	Of which: books	Total	Of which: books
Korea, Republic of	1985	35 837	33 743	21 250	19 756
Kuwait[6]	1985	250	222	196	168
Malaysia	1986	3 397	1 984	3 323	1 913
Mongolia	1986	889	889	NA	NA
Philippines	1986	804	726	640	575
Sri Lanka	1986	2 368	957	2 071	771
Thailand	1986	7 728	7 620	7 116	7 008
Turkey	1985	6 685	6 031	5 551	4 901
Europe					
Albania	1986	959	907	770	718
Austria	1986	9 560	8 653	8 627	7 792
Belgium	1985	8 327	NA	7 392	NA
Bulgaria	1986	4 924	4 106	4 546	3 747
Czechoslovakia	1986	10 020	8 745	8 227	7 070
Denmark	1986	10 957	7 297	9 403	6 104
Finland	1986	8 694	6 808	7 978	6 177
France	1985	37 860	NA	NA	NA
German Democratic Republic[7]	1986	6 486	5 636	3 419	2 981
Germany, Federal Republic of	1986	63 724	50 903	50 218	39 679
Greece	1985	4 651	NA	NA	NA
Holy See	1986	179	179	160	160
Hungary	1986	9 857	8 206	7 701	6 283
Ireland	1985	2 679	628	NA	NA
Italy	1986	16 297	14 721	13 854	12 386
Luxembourg	1986	367	241	361	235
Malta	1986	346	252	335	244
Netherlands	1986	NA	13 368	NA	9 374
Norway[8]	1986	3 284	2 769	2 782	2 335
Poland	1986	9 881	7 920	7 763	5 928
Portugal	1986	10 782	9 052	9 965	8 260
Romania	1985	5 276	NA	NA	NA
Spain	1986	38 405	31 694	32 770	26 602
Sweden	1986	10 587	NA	8 993	NA
Switzerland	1986	11 626	NA	11 359	NA
United Kingdom	1985	52 861	48 897	41 190	37 825
Yugoslavia	1986	10 734	9 000	8 622	7 013
Oceania					
Australia[9]	1985	2 603	1 954	2 359	1 747
Fiji[3]	1985	13	10	6	6
New Caledonia	1985	8	7	8	7
New Zealand	1984	3 452	1 601	3 233	1 520
USSR					
Byelorussian SSR	1986	3 182	1 866	3 056	1 743
Ukrainian SSR	1986	8 155	5 419	7 641	4 960
USSR	1986	83 472	55 002	77 289	51 306

1. Data refer to school textbooks, government publications and university theses only.
2. Data do not include university theses.
3. Data refer to school textbooks only.
4. Data do not include school textbooks published by the Ministry of Education.
5. Data refer only to school textbooks and government publications.
6. Data refer to school textbooks, children's books, government publications and university theses only.
7. Data include only books and pamphlets shown in series A of the German National Bibliography (publications of the book market), i.e. those of series B (publications outside the book market) and C (books published by the universities) are excluded.
8. Data do not include school textbooks.
9. Provisional data.

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Table 9.6 Book production: number of copies by UDC classes. (In thousands)

[e.g. Angola reports, for 1986, a total production of 130,000 copies, all of which are classified as Literature.]

Country	Year	Total	Generalities	Philosophy	Religion	Social science	Philology	Pure science	Applied science	Arts	Literature	Geogr./hist.
Africa												
Angola	1986	130	-	-	-	-	-	-	-	-	130	-
Burkina Faso	1985	9	-	-	-	-	-	-	-	-	3	-
Burundi	1986	448	-	-	60	369	-	-	19	-	-	-
Cape Verde	1985	13	-	-	-	-	-	-	-	-	5	8
Egypt	1984	60 120	65	184	9 892	4 504	8 339	11 144	9 574	1 321	10 020	5 077
Ethiopia	1985	651	52	-	84	217	27	39	145	15	27	45
Gambia[1]	1985	45	0	-	5	12	-	9	15	2	-	2
Madagascar	1984	493	6	16	230	112	21	27	18	11	22	30
Malawi	1984	3 105	0	-	1 690	1 200	-	0	201	2	-	12
Mali[2]	1984	92	-	-	-	49	20	12	10	-	-	1
Mauritius	1986	138	-	21	16	27	28	23	11	10	11	10
Mozambique	1984	3 490	-	-	-	3 362	-	-	29	14	85	-
Rwanda	1986	903	4	2	64	513	78	192	12	12	17	9
Zimbabwe[3]	1984	2 151	5	-	207	45	631	217	111	-	387	92
America, North												
Belize[4]	1985	156	146	-	-	3	2	-	5	-	-	-
Costa Rica[5]	1984	*641	*8	*8	*49	*222	*10	*69	*89	*6	*145	*35
Cuba	1986	44 490	2 404	176	NA	10 992	4 156	4 008	3 869	3 305	10 023	5 557
Nicaragua	1984	146	21	3	7	36	-	-	-	-	67	12
Saint Lucia[6]	1985	95.7	1.0	-	-	2.7	-	-	0.4	-	-	-
America, South												
Brazil	1984	293 102	61 057	3 206	46 479	67 762	14 981	22 930	27 985	20 760	16 811	11 131
Colombia	1984	118 754	6 806	1 198	5 390	25 717	4 080	15 070	19 785	7 185	22 318	11 205
Asia												
Brunei Darussalam[1]	1986	38	19	-	-	1	-	-	-	-	6	12
China[7]	1985	5 965 410	90 350	15 110	./.	1 828 090	46 520	35 580	188 310	45 970	253 640	55 710
Cyprus[8]	1985	610	-	-	-	49	215	218	6	2	45	75
Israel[9]	1985	8 872	227	104	1 485	530	973	818	314	265	2 918	1 209
Japan	1986	710 815	10 601	15 360	2 831	273 512	35 963	32 076	47 930	66 378	207 586	18 578
Korea, Republic of	1985	124 122	5 461	2 796	9 509	29 922	15 946	11 736	6 728	6 620	28 829	6 575
Kuwait[10]	1985	6 107	64	106	303	890	812	1 619	72	272	1 832	138
Malaysia	1986	12 207	118	41	1 342	1 984	3 430	2 169	564	436	1 367	756
Mongolia	1986	6 923	-	-	-	4 702	37	32	460	157	1 535	-
Philippines[11]	1984	14 718	-	-	-	3 925	5 325	5 219	249	-	-	-
Sri Lanka	1986	13 603	22	117	737	9 068	421	910	557	143	926	702
Europe												
Albania[12]	1986	6 665	7	37	-	1 663	./.	1 731	685	16	2 000	526
Bulgaria	1986	58 985	238	641	71	14 419	1 918	2 921	6 955	2 757	27 047	2 018
Czechoslovakia	1986	91 106	5 236	683	470	17 700	4 207	6 749	11 698	5 732	33 516	5 115
German Democratic Republic[13]	1986	143 056	1 399	1 678	3 551	18 030	2 574	3 136	12 974	5 803	31 194	13 579
Holy See	1986	146	3	23	86	19	6	1	-	2	-	6
Hungary	1986	112 858	5 278	752	1 137	13 604	7 836	14 016	17 205	7 503	34 797	10 730
Italy	1986	140 601	7 939	4 343	10 383	27 477	8 492	9 326	14 640	10 081	33 701	14 219
Poland	1986	249 446	1 136	2 618	7 109	20 962	19 640	17 908	34 425	12 680	110 595	22 373
Portugal[14]	1986	36 309	3 353	496	1 902	5 939	./.	2 820	3 529	7 617	8 262	2 391
Romania	1985	69 266	999	1 031	276	6 457	3 616	8 664	9 452	2 518	31 079	5 174
Spain	1986	248 697	8 850	5 840	11 636	24 807	22 274	19 372	21 525	13 293	102 074	19 026
Yugoslavia	1986	53 283	584	414	1 593	28 760	784	669	4 833	3 025	10 995	1 626
Oceania												
Fiji[8]	1985	26	-	-	-	14	-	12	-	-	-	-
New Caledonia[1]	1985	8	-	-	-	6	-	-	0	-	0	2
USSR												
Byelorussian SSR	1986	52 109	301	844	57	9 313	170	535	8 536	655	30 961	737
Ukrainian SSR[15]	1986	158 417	1 630	1 013	820	47 500	652	1 657	15 917	2 407	80 148	2 476
USSR[16]	1986	2 234 413	25 806	18 509	7 723	665 165	16 613	36 739	262 046	47 418	1 082 177	31 220

cont.

Table 9.6 - cont.

1. All first editions.
2. Data refer only to school textbooks, government publications and university theses.
3. School textbooks (456,000) are included in the total but are not identified in the 10 classes.
4. Data refer only to first editions of school textbooks and government publications.
5. Data do not include pamphlets.
6. School textbooks (84,000), children's books (4,500) and government publications (3,100 first editions) are included in the total but are not identified in the ten groups.
7. Data on religion are included with those of philosophy. School textbooks (2,488.5 million) and children's books (917.7 million) are included in the total but not distributed in the 10 groups.
8. Data refer to school textbooks only.
9. The total includes 29,000 copies for which a subject breakdown is not available.
10. Data refer to school textbooks, children's books, government publications and university theses only.
11. Data refer only to first editions of school textbooks, children's books and government publications.
12. Data on philology are included with those of sociology.
13. Data include only books and pamphlets shown in series A of the German National Bibliography (publications of the book market) i.e. those of the series B (publications outside the book market) and C (books published by universities) are excluded. School textbooks (22.8 million) and children's books (26.3 million) are included in the total but are not identified in the 10 groups.
14. Data on philology are included with those of literature.
15. Books for the popularization of science for children (4.2 million) are included in the total but are not distributed in the 10 groups.
16. Books for the popularization of science for children (41.0 million) are included in the total but are not distributed in the 10 groups.

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Table 9.7 Book production: number of copies by first or later edition. (In thousands)

[e.g. Angola reports, for 1986, a total production of 130,000 copies of which all are books (Columns 3 and 4). 116,000 are first editions, of which all are books (Columns 5 and 6).]

Country	Year	All editions		First editions	
		Total	Of which: books	Total	Of which: books
Africa					
Angola	1986	130	130	116	116
Burkina Faso	1985	9	9	NA	NA
Burundi	1986	448	274	300	259
Cape Verde	1985	13	13	NA	NA
Egypt	1984	60 120	57 716	49 597	48 114
Ethiopia	1985	651	270	30	30
Gambia	1985	45	40	45	40
Madagascar	1984	493	335	438	282
Malawi	1984	3 105	1 500	398	259
Mali[1]	1984	92	-	NA	NA
Mauritius	1986	138	88	102	59
Mozambique	1984	3 490	3 130	812	452
Rwanda	1986	903	737	891	725
America, North					
Belize[2]	1985	156	NA	156	NA
Cuba	1986	44 490	41 511	18 585	17 400
Nicaragua	1984	146	146	108	108
Saint Lucia	1985	95.7	89.2	16.5	14.5
America, South					
Brazil	1984	293 102	178 813	152 135	83 017
Colombia	1984	118 754	48 005	88 804	29 935
Asia					
Brunei Darussalam	1986	38	38	38	38
China	1985	5 965 410	NA	NA	NA
Cyprus[3]	1985	610	603	202	197
Israel	1985	8 872	NA	2 693	NA
Japan	1986	710 815	NA	528 993	NA
Korea, Republic of	1985	124 122	114 971	84 710	78 469
Kuwait[4]	1985	6 107	6 083	3 895	3 871
Malaysia	1986	12 207	7 830	11 652	7 286
Mongolia	1986	6 923	6 923	NA	NA
Sri Lanka	1986	13 603	8 853	10 635	7 042
Europe					
Albania	1986	6 665	6 285	3 287	2 907
Bulgaria	1986	58 985	51 525	44 421	37 774
Czechoslovakia	1986	91 106	76 621	57 712	47 471
German Democratic Republic[5]	1986	143 056	110 296	65 482	47 012
Holy See	1986	146	146	106	106
Hungary	1986	112 858	95 564	64 591	51 865
Italy	1986	140 601	132 766	67 676	62 170
Poland	1986	249 446	181 351	133 011	84 647
Portugal	1986	36 309	33 505	31 203	28 491
Romania	1985	69 266	NA	NA	NA
Spain	1986	248 697	199 760	211 911	165 800
Yugoslavia	1986	53 283	45 397	32 716	26 598
Oceania					
Fiji[1]	1985	26	20	12	12
New Caledonia	1985	8	7	8	7
USSR					
Byelorussian SSR	1986	52 109	44 486	46 955	39 431
Ukranian SSR	1986	158 417	122 886	105 659	79 929
USSR	1986	2 234 413	1 599 249	1 829 727	1 244 535

cont.

Table 9.7 - cont.

1. Pamphlets only. Data refer only to school textbooks, government publications and university theses.
2. Data refer only to school textbooks and government publications.
3. Data refer to school textbooks only.
4. Data refer to school textbooks, children's books, government publications and university theses only.
5. Data only include books and pamphlets in series A of the German National Bibliography (publications of the book market), i.e. those of series B (publications outside the book market) and C (books published by the universities) are excluded.

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Table 9.8 Book production: number of titles by language of publication

[e.g. Algeria reports, for 1984, a total of 718 titles (Column 3), out of which 705 were published in a national language (Column 4), 4 in English and one in two or more languages (Columns 5 and 11).]

Country	Year	Total	National language	Foreign languages						Two or more languages
				English	French	German	Spanish	Russian	Others	
Africa										
Algeria[1]	1984	718	705	4	./.	-	-	-	-	1
Angola	1985	47	47	-	-	-	-	-	-	-
Burundi	1986	54	54	-	./.	-	-	-	-	-
Egypt	1984	1 277	1 197	60	19	-	-	-	1	-
Ethiopia	1985	227	155	./.	-	-	-	-	72	-
Madagascar	1984	321	313	2	./.	-	-	2	-	4
Malawi	1984	134	108	./.	-	-	-	-	26	-
Mauritius	1986	110	91	./.	./.	-	-	-	14	5
Mozambique[2]	1984	66	43	-	-	-	-	-	-	-
Reunion	1985	73	67	-	./.	-	-	-	1	5
Rwanda	1986	104	101	1	./.	-	-	-	2	-
Sierra Leone	1984	16	16	./.	-	-	-	-	-	-
Zimbabwe	1986	353	349	./.	-	-	-	-	1	3
America, North										
Belize	1985	12	12	./.	-	-	-	-	-	-
Costa Rica	1984	1 759	1 759	-	-	-	./.	-	-	-
Cuba	1986	2 174	2 086	69	4	1	./.	13	-	1
America, South										
Brazil	1984	21 184	20 676	343	14	11	45	-	43	52
Colombia	1984	15 041	14 933	60	12	-	-	-	36	-
Peru[3]	1986	635	560	9	-	-	./.	-	1	-
Uruguay[4]	1986	941	847	3	-	-	./.	-	-	-
Asia										
Bangladesh	1986	1 806	1 806	./.	-	-	-	-	-	-
Brunei Darussalam[5]	1986	15	15	./.	-	-	-	-	-	-
Burma	1985	673	673	-	-	-	-	-	-	-
Cyprus	1985	82	72	-	-	-	-	-	10	-
Indonesia	1986	2 480	2 480	-	-	-	-	-	-	-
Israel[6]	1985	2 214	1 433	170	8	10	-	8	32	4
Korea, Republic of	1985	35 837	34 902	485	7	9	-	-	32	402
Kuwait[7]	1985	250	*240	*10	-	-	-	-	-	-
Malaysia	1986	3 397	1 943	966	-	-	-	-	203	285
Sri Lanka	1985	6 685	6 125	234	24	40	-	-	58	204
Thailand	1986	7 728	6 834	894	-	-	-	-	-	-
Turkey	1985	6 685	6 125	234	24	40	-	-	58	204
Europe										
Albania	1986	959	881	18	10	4	3	11	23	9
Austria	1986	9 560	9 254	161	40	./.	22	25	58	-
Belgium	1985	8 327	7 578	303	./.	./.	30	5	91	320
Bulgaria	1986	4 924	4 193	157	75	96	79	156	80	88
Czechoslovakia	1986	10 020	9 264	166	29	72	28	100	360	1
Denmark	1986	10 957	9 527	931	44	84	-	-	113	256
Finland	1986	8 694	7 724	881	6	27	4	20	32	-
Holy See	1986	179	92	46	13	10	2	-	2	14
Hungary	1986	9 857	8 833	420	27	126	12	62	92	285
Ireland[8]	1984	799	781	./.	4	2	-	-	-	12

cont.

Table 9.8 - cont.

Country	Year	Total	National language	Foreign languages						Two or more languages
				English	French	German	Spanish	Russian	Others	
Italy	1986	16 297	15 268	306	118	108	18	-	86	393
Luxembourg[9]	1986	367	257	-	./.	./.	-	-	20	90
Malta	1986	346	334	./.	2	3	-	-	5	2
Netherlands[10]	1986	13 368	11 798	1 278	45	192	-	-	65	-
Norway[11]	1986	3 284	3 031	183	2	4	-	-	64	-
Poland	1986	9 881	9 331	324	36	62	13	78	24	13
Spain	1986	38 405	34 994	1 232	676	219	./.	-	650	634
Sweden[12]	1986	10 587	8 947	1 293	34	48	23	1	114	244
Switzerland[9]	1986	11 626	10 088	1 163	./.	./.	-	-	./.	375
Yugoslavia	1986	10 734	9 608	156	31	43	-	6	690	200
Oceania										
Australia[13]	1985	2 603	2 549	./.	1	-	-	-	19	34
New Caledonia[14]	1984	22	17	-	./.	-	-	-	5	-
New Zealand	1984	3 452	3 452	./.	-	-	-	-	-	-
USSR										
Byelorussian SSR	1986	3 182	3 070	-	-	-	-	./.	112	-
Ukrainian SSR	1986	8 155	7 932	75	15	22	5	./.	70	36
USSR	1986	83 472	79 089	1 248	458	411	449	./.	1 599	218

1. The language breakdown refers to 710 first editions.
2. Language breakdown refers to 43 first editions only.
3. Language breakdown refers to 570 titles of first editions only.
4. Language breakdown refers to 850 titles of first editions only.
5. All first editions.
6. Language breakdown does not include the government publications (549).
7. Data refer to school textbooks, children's books, government publications and university theses only.
8. Data do not include university theses.
9. Data in last column include other languages.
10. Data do not include pamphlets.
11. Data do not include school textbooks.
12. The discrepancy between the total and the sum made of the languages is due to a variance in classification standards.
13. Provisional data.
14. All first editions.

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Table 9.9 Translations by country of publication and by UDC classes, 1982

[e.g. Algeria reports a total of 3 published translations in 1982 (Column 2) of which one concerns Literature and two Geography or History (last two columns).]

Country	Total	Generalities	Philosophy	Religion	Social sciences	Pure sciences	Applied sciences	Arts	Literature	Geogr./history
World Total	52 198	405	2 521	3 027	5 768	2 607	4 730	2 893	26 628	3 619
Africa										
Algeria	3	-	-	-	-	-	-	-	1	2
Egypt	-	-	-	-	-	-	-	-	-	-
Ethiopia	-	-	-	-	-	-	-	-	-	-
Malawi	1	-	-	1	-	-	-	-	-	-
Mauritius	1	-	-	-	-	-	-	-	1	-
Morocco	6	-	-	-	2	-	-	-	1	3
Nigeria	-	-	-	-	-	-	-	-	-	-
Tunisia	5	-	1	-	-	-	-	-	3	1
Zimbabwe	3	-	-	-	2	-	-	-	-	1
America, North										
Canada	300	1	49	21	36	8	36	6	122	21
Dominican Republic	-	-	-	-	-	-	-	-	-	-
Mexico	-	-	-	-	-	-	-	-	-	-
Panama	-	-	-	-	-	-	-	-	-	-
United States	1 319	11	60	197	133	96	99	149	402	172
America, South										
Argentina	-	-	-	-	-	-	-	-	-	-
Brazil	519	2	31	31	34	14	26	8	360	13
Chile	22	-	2	1	2	1	1	-	5	1
Colombia	89	2	6	-	17	4	9	-	47	4
Guyana	-	-	-	-	-	-	-	-	-	-
Peru	15	-	-	-	5	-	1	2	-	7
Uruguay	5	1	-	1	-	-	1	-	2	-
Venezuela	10	-	-	-	3	-	-	-	7	-
Asia										
Bangladesh	23	-	1	1	3	1	-	-	11	6
Cyprus	-	-	-	-	-	-	-	-	-	-
India	607	2	43	125	44	21	24	13	255	80
Indonesia	46	-	3	12	11	-	10	2	8	-
Iran (Islamic Republic of)	-	-	-	-	-	-	-	-	-	-
Israel	348	-	14	18	24	10	16	11	208	47
Japan	2 479	14	154	75	380	116	384	174	970	212
Jordan	17	-	-	1	9	1	1	1	1	3
Korea, Republic of	537	7	60	146	90	25	19	37	113	40
Kuwait	3	-	1	-	2	-	-	-	-	-
Lebanon	-	-	-	-	-	-	-	-	-	-
Malaysia	162	8	1	19	47	9	14	-	60	4
Pakistan	-	-	-	-	-	-	-	-	-	-
Singapore	85	1	1	23	12	8	3	2	32	3
Sri Lanka	19	1	1	-	1	2	1	-	11	2

cont.

Table 9.9 - cont.

Country	Total	Generalities	Philosophy	Religion	Social sciences	Pure sciences	Applied sciences	Arts	Literature	Geogr./ history
Syrian Arab Republic	48	-	2	-	13	2	5	1	24	1
Thailand	69	-	2	1	5	2	1	-	51	7
Turkey	811	9	27	60	65	16	45	23	538	28
Europe										
Albania	102	1	-	-	57	-	-	1	37	6
Austria	405	3	15	20	32	33	23	23	220	36
Belgium	798	1	37	37	36	24	120	80	413	50
Bulgaria	732	3	52	6	61	36	80	26	388	80
Czechoslovakia	1 673	28	35	8	131	81	83	41	1 208	58
Denmark	1 387	14	57	68	81	20	106	43	901	97
Finland	1 425	12	54	113	79	24	116	45	907	75
France	1 894	4	86	98	70	62	147	111	1 145	171
German Democratic Republic	841	2	13	31	64	42	24	53	551	61
Germany, Federal Republic of	8 168	22	396	527	515	237	568	520	4 884	499
Greece	-	-	-	-	-	-	-	-	-	-
Hungary	1 227	35	21	10	169	92	113	216	518	53
Iceland	-	-	-	-	-	-	-	-	-	-
Italy	2 034	21	195	189	248	98	218	141	696	228
Luxembourg	-	-	-	-	-	-	-	-	-	-
Malta	7	-	-	2	-	-	-	-	5	-
Netherlands	-	-	-	-	-	-	-	-	-	-
Norway	1 000	3	24	55	43	11	90	35	709	30
Poland	1 009	15	39	66	65	57	59	42	529	137
Portugal	949	14	128	49	103	24	130	62	390	49
Romania	611	8	14	12	95	34	34	68	289	57
Spain	7 381	97	529	592	488	331	1 100	475	3 384	384
Sweden	2 128	14	85	108	111	53	154	63	1 432	108
Switzerland	1 002	17	58	86	66	45	115	83	446	86
United Kingdom	1 070	5	51	100	114	94	102	120	377	107
Yugoslavia	1 599	9	69	71	333	19	75	68	843	112
Oceania										
Australia	7	-	-	-	1	-	1	-	5	-
New Zealand	1	-	-	-	-	-	-	-	-	1
USSR										
USSR	7 196	18	105	36	1 864	854	576	148	3 119	476

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Table 9.10 Translations by original language and by selected languages into which translated, 1982

[e.g. of books originally written in Albanian, 11 were translated into English, 12 into French, 5 into Spanish, 4 into Russian, 1 into Arabic, 5 into German, 5 into Italian, 4 into Danish (see below), 1 into Hungarian and 1 into Turkish.]

Original language	Translations by language into which translated							
	English	French	Spanish	Russian	Arabic	German	Italian	Japanese
Albanian	11	12	5	4	1	5	5	-
Arabic	28	17	52	10	-	25	2	-
Armenian	8	-	-	40	2	2	-	-
Azerbaijani	-	-	1	42	1	-	-	-
Baskir	-	-	-	20	-	-	-	-
Bengali	9	-	11	1	-	1	-	-
Byelorussian	13	1	2	50	-	2	-	-
Bulgarian	32	18	17	80	7	35	2	1
Catalan	2	2	62	1	-	2	1	-
Chinese	58	8	9	5	-	37	4	11
Chuvash	-	-	-	10	-	-	-	-
Czech	80	20	19	58	1	139	3	7
Danish	74	12	79	10	1	100	11	12
Dutch	75	35	54	1	2	157	10	11
English	-	1 632	3 557	525	34	5 795	945	1 862
Estonian	23	1	1	49	-	25	-	-
Finnish	20	2	4	6	-	17	-	3
French	628	-	1 525	144	31	1 294	484	208
Old French	4	-	3	-	-	4	-	-
Georgian	5	2	-	36	1	5	-	-
German	873	368	816	167	8	-	321	190
Middle High German	1	1	1	-	-	11	-	-
Classical Greek	45	25	93	4	-	78	17	5
Modern Greek	9	4	8	1	-	15	1	1
Hebrew	63	10	39	5	-	47	9	-
Hindi	15	-	2	3	-	4	2	1
Hungarian	194	49	15	65	-	182	11	1
Iceland	6	-	1	1	-	12	-	-
Italian	150	126	475	16	-	272	-	29
Jakut	-	-	-	10	-	-	-	-
Japanese	68	15	9	14	-	40	5	-
Kabardin	-	-	-	11	-	-	-	-
Karakalpak	-	-	-	11	-	-	-	-
Kazah	-	-	-	48	1	6	-	-
Kirghiz	-	-	-	36	-	6	-	-
Latin	65	34	76	6	1	110	40	2
Latvian	5	-	-	42	-	7	-	-
Lithuanian	7	1	1	41	1	5	-	-
Macedonian	4	-	-	1	-	2	-	-
Malaysian	35	-	-	1	-	-	-	-
Moldavian	-	2	1	30	-	-	-	-
Mongolian	2	-	-	5	-	2	-	-
Norwegian	17	5	8	9	-	47	2	1
Persian	12	3	1	7	1	5	2	-
Polish	88	32	22	53	1	157	18	5
Portuguese	19	8	51	8	-	44	9	2
Romanian	83	53	13	43	-	67	1	2
Russian	672	292	339	-	63	664	92	70
Sanskrit	36	8	8	2	-	11	4	-
Serbo-Croat	51	28	16	19	3	35	14	-
Slovenian	6	1	1	1	-	3	1	-
Slovak	3	1	1	21	-	16	1	-
Spanish	108	60	-	31	4	160	41	16
Swedish	100	11	40	12	-	227	5	17
Tadzik	-	-	-	20	-	-	-	-
Tamil	16	-	-	1	-	-	-	-
Tatar	-	-	-	28	1	-	-	-
Tibetan	16	-	1	-	-	8	2	1
Turkish	4	2	-	4	1	27	-	1
Turkoman	-	-	-	21	-	-	-	-
Ukranian	34	5	2	79	1	9	-	-
Uzbek	-	-	-	53	4	-	-	-
Vietnamese	3	-	-	6	1	1	-	-
Yiddish	9	5	-	11	-	12	1	-

cont.

Table 9.10 - cont.

Original language	Translations by language into which translated							
	Dutch	Danish	Norwegian	Swedish	Hungarian	Polish	Slovak	Turkish
Albanian	-	4	-	-	1	-	-	1
Arabic	-	4	-	-	-	5	1	91
Armenian	-	-	-	-	1	-	1	-
Azerbaijani	-	-	-	-	1	2	3	1
Baskir	-	-	-	-	1	-	2	-
Bengali	-	-	-	-	-	1	2	-
Byelorussian	-	-	-	-	-	10	4	-
Bulgarian	1	3	-	1	6	17	10	2
Catalan	-	-	-	-	-	1	-	-
Chinese	-	3	1	4	-	1	-	-
Chuvash	-	-	-	-	-	-	-	-
Czech	1	1	7	13	44	24	88	2
Danish	1	-	63	112	3	9	4	11
Dutch	-	11	7	23	3	3	1	14
English	375	723	620	1 385	188	221	109	340
Estonian	-	-	-	4	2	2	4	-
Finnish	1	2	3	62	4	5	1	1
French	102	80	26	135	79	102	32	163
Old French	1	-	1	-	-	-	-	-
Georgian	-	-	-	-	-	3	5	1
German	157	102	54	152	124	108	65	91
Middle High German	-	-	-	-	-	-	-	-
Classical Greek	1	16	2	14	11	29	1	4
Modern Greek	-	1	1	-	1	2	-	2
Hebrew	-	3	1	8	3	-	-	-
Hindi	-	-	-	1	6	-	-	1
Hungarian	4	-	-	1	-	34	35	7
Icelandic	-	5	2	2	-	1	-	-
Italian	13	16	8	17	19	10	15	20
Jakut	-	-	-	-	-	-	-	-
Japanese	-	3	4	4	2	2	2	-
Kabardin	-	-	-	-	-	-	-	-
Karakalpak	-	-	-	-	-	-	-	-
Kazah	-	-	-	-	-	-	1	-
Kirghiz	-	-	-	2	1	-	1	1
Latin	1	5	2	4	7	12	8	-
Latvian	-	-	1	2	-	3	7	-
Lithuanian	-	-	-	-	2	8	3	-
Macedonian	-	-	-	-	1	-	1	4
Malaysian	-	-	-	-	-	-	-	-
Moldavian	-	-	-	-	-	-	-	-
Mongolian	-	-	-	-	5	-	1	-
Norwegian	2	89	-	71	4	3	3	3
Persian	-	-	-	-	1	1	-	4
Polish	2	5	6	10	35	-	30	2
Portuguese	-	3	1	2	4	7	3	-
Romanian	1	1	-	1	51	8	7	-
Russian	12	42	27	48	211	189	206	34
Sanskrit	-	1	-	-	1	-	-	-
Serbo-Croat	-	-	2	2	52	11	39	1
Slovenian	1	-	-	1	5	1	3	-
Slovak	2	-	-	-	43	12	-	-
Spanish	1	12	13	24	15	25	12	11
Swedish	10	188	143	-	6	12	10	3
Tadzik	-	-	-	-	-	-	-	-
Tamil	-	-	-	-	-	-	-	-
Tatar	-	-	-	-	1	-	-	1
Tibetan	-	1	-	-	-	-	-	-
Turkish	1	1	-	2	1	1	3	-
Turkoman	-	-	-	-	-	-	-	-
Ukranian	-	-	-	-	7	13	9	-
Uzbek	-	-	-	-	2	-	-	-
Vietnamese	-	-	-	-	3	2	1	-
Yiddish	-	1	-	8	-	-	-	-

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Libraries

General note

For the compilation of library statistics, the following definitions are used:

1. Library

Irrespective of its title, any organized collection of printed books and periodicals or any other graphic or audio-visual materials, with a staff to provide and facilitate the use of such materials as are required to meet the informational, research, educational or recreational needs of its users. Libraries should be counted in numbers of administrative units and service points, as follows:
Administrative unit: Any independant library, or a group of libraries, under a single director or a single administration.
Service point: Any library serving users in premises of its own, whether the library itself be independant or one of a group of libraries forming an administrative unit. Independant libraries, central libraries and branch libraries (both static and mobile, library vans, ship libraries or train libraries) are considered to be service points provided there is direct service to users in them. The stops of library vans are not counted as service points.

Libraries thus defined are classified as follows:

2. National libraries

Libraries which, irrespective of their title, are responsible for acquiring and conserving copies of all significant publications published in the country and functioning as "deposit" libraries, either by law or under special agreements. Libraries described as "national" but which do not conform to the above definition should not be placed in the national libraries category.

3. Libraries of institutions of higher education

Those primarily serving students and teachers in universities and other institutions of education at the third level. They can also be open to the general public. A distinction should be made between:
(a) the main or central university library, or a group of libraries which may be in different places but under one librarian;
(b) the libraries of university institutes or departments which are neither technically nor administratively under the main or central university library;
(c) libraries attached to institutes of higher education which are not part of a university.

4. Other major non-specialized libraries

Non-specialized libraries of a learned character which are neither libraries of institutions of higher education nor national libraries, though they may fulfil the functions of a national library for a geographical area.

5. School libraries

Those attached to all types of schools below the level of education at the third level and serving primarily the pupils and teachers of such schools, even though they may also be open to the general public. Separate collections for the use of several classes in the same school should be regarded as a single library, which should be counted both as an administrative unit and a service point.

6. Special libraries

Those maintained by an association, government service, parliament, research institution (excluding university institutes), learned society, professional association, museum, business firm, industrial enterprise, chamber of commerce, etc., or other organized group, the greater part of their collection in a specific field or subject, e.g. natural sciences, social sciences, agriculture, chemistry, medicine, economics, engineering, law, history. A distinction should be made between:
(a) libraries which provide materials and services to all members of the public who need them;
(b) those libraries whose collections and services are for the most part designed to provide for the information needs of their primary users, even if in some cases they serve the information needs of specialists outside the group responsible for their maintenance.

7. Public (or popular) libraries

Those which serve the population of a community or region free of charge or for a nominal fee. They may serve the general public or special categories of users, such as children, members of the armed forces, hospital patients, prisoners, workers and employees. A distinction should be made between:
(a) public libraries proper, i.e. those libraries receiving financial support, in whole or in large part from the public authorities (municipal or regional libraries);
(b) libraries financed from private sources.

Each library should appear in one only of the foregoing categories, according to its primary function.

With respect to library holdings, acquisitions, lending, expenditure, personnel, etc., the following definitions and classifications are given:

8. Collection

All library materials provided by the library for its users.
Statistics relating to library collections should cover only the following documents available to users and including an allowance for material on loan:
(a) books or (bound) periodicals, by metres of occupied shelves, volumes and titles;
(b) manuscripts, by metres of occupied shelves and volumes;
(c) microforms of books, periodicals, manuscripts and other library materials, by number of physical units;
(d) audio-visual documents, by number of physical units;
(e) other library materials, by number of physical units.

9. Annual additions

All materials added to collections during the year whether by purchase, donation, exchange or any other method. Statistics relating to additions to collections should cover the following materials only (available to users):
(a) books and (bound) periodicals by titles, volume and metres of shelves;
(b) manuscripts, by number of units and metres of shelves added;
(c) microforms of books, periodicals, manuscripts and other library materials, by number of physical units;
(d) audio-visual materials by number of physical units added;
(e) other library materials, by number of physical units added.

10. Printed

This term covers all methods of reproduction whatever their nature, with the exception of microprinting.

11. Periodicals

Publications constituting one issue in a continuous series under the same title published at regular or irregular intervals, over an indefinite period, individual issues in the series being numbered consecutively or each issue being dated. Newspapers as well as publications appearing annually or less frequently are included in this definition.

12. Title

The terms used to describe a printed item which forms a separate whole, whether issued in one or several volumes.

13. Volume

A physical unit of any printed or manuscript work contained in one binding or portfolio.

14. Audio-visual materials

Non-book, non-microform library materials which require the use of special equipment to be seen and/or heard. This includes materials such as records, tapes, cassettes, motion pictures, slides, transparencies, video recordings, etc.

15. Other library materials

All materials other than books, periodicals, manuscripts, microforms and audio-visual materials. This includes materials such as maps, charts, art prints, photographs, dioramas, etc.

16. Library user

Any person utilizing the services of library.

17. Registered borrower

Any person registered with a library in order to borrow the materials of the collection for use outside the library. Only borrowers registered for the year under report should be counted.

18. Ordinary expenditure

Expenditure incurred in the running of the library. Within the total ordinary expenditure the following only are shown separately:
(a) employees: the total amount of money spent on salaries and wages, allowances and other related costs;
(b) acquisitions: the costs of all items (printed, manuscript and audio-visual materials) added to the library.

19. Trained librarians

All persons employed in libraries who have received a general training in librarianship or information science. The training may be by formal methods or by means of an extended period of work in a library under supervision.

20. Population served

(a) by public libraries: the total number of inhabitants in the district served by public libraries proper (libraries financed wholly or largely by the authorities);
(b) by school libraries: the total number of pupils and teachers of primary and secondary schools served by school libraries;
(c) by libraries of institutions of higher education: the total number of students and teachers in institutions of higher education served by this category of library.

Table 9.11 Libraries: number of libraries and service points

[e.g. Algeria reports having one National Library with one service point, one Library of Institution of Higher Education where data on number of service points are not available and one Special library with one service point. Data refer to the year stated in Column 2.]

Country	Year	Category of library	Number of libraries	Service points
Africa				
Algeria[1]	1980	A. National	1	1
	1981	C. Higher Education	1	NA
	1983	E. Special	1	1
Benin[2]	1980	A. National	1	8
	1984	C. Higher Education	7	7
	1984	E. Special	1	1
	1983	F. Non-Specialized	6	6
Botswana[3]	1984	A. National	1	18
	1985	E. Special	1	1
Burundi	1985	E. Special	2	2
Cameroon	1980	A. National	1	7
	1981	C. Higher Education	1	NA
Central African Republic	1980	C. Higher Education	4	NA
	1985	E. Special	2	2
Chad	1985	B. Public	1	NA
	1984	E. Special	1	NA
	1984	F. Non-Specialized	2	NA
Congo	1984	A. National	1	1
	1984	B. Public	1	4
	1981	C. Higher Education	1	10
	1986	E. Special	1	NA
Côte d'Ivoire	1981	A. National	1	1
	1981	B. Public	1	NA
	1981	F. Non-Specialized	1	1
Egypt	1981	A. National	1	NA
	1980	B. Public	223	NA
	1982	D. School	4 565	NA
	1983	E. Special	380	NA
Ethiopia	1982	A. National	1	13
Gabon	1985	A. National	1	NA
	1981	C. Higher Education	4	4
	1981	D. School	5	5
Gambia	1983	A. National	1	1
	1983	B. Public	1	1
Ghana	1983	A. National	1	2
	1983	B. Public	9	42
	1985	E. Special	1	2
Guinea[4]	1980	A. National	1	3
	1984	C. Higher Education	1	NA
Kenya[5]	1981	A. National	1	1
	1981	B. Public	2	14
	1981	C. Higher Education	1	8

cont.

Table 9.11 - cont.

Country	Year	Category of library	Number of libraries	Service points
Lesotho	1984	A. National	1	7
	1983	B. Public	1	1
Liberia[6]	1983	C. Higher Education	6	6
Madagascar	1983	A. National	1	1
	1983	B. Public	56	56
	1981	C. Higher Education	2	6
	1981	D. School	3	5
	1985	E. Special	24	26
Malawi	1984	A. National	1	6
	1985	B. Public	2	2
	1981	C. Higher Education	1	4
	1985	E. Special	5	5
Mauritius[7]	1984	D. School	27	27
Morocco	1986	E. Special	1	1
Nigeria	1980	A. National	1	8
	1979	B. Public	18	52
	1986	C. Higher Education	46	67
Reunion[8]	1981	C. Higher Education	1	1
Rwanda	1984	C. Higher Education	9	9
	1983	E. Special	5	13
Senegal[9]	1983	A. National	1	NA
	1981	C. Higher Education	1	4
Seychelles	1983	B. Public	1	6
	1982	C. Higher Education	2	2
	1984	D. School	22	22
	1984	E. Special	1	1
Somalia	1983	C. Higher Education	1	3
Togo[10]	1980	A. National	1	NA
	1982	C. Higher Education	1	6
Tunisia	1983	B. Public	280	1 558
	1985	E. Special	29	NA
Uganda	1980	B. Public	1	18
United Republic of Tanzania	1983	A. National	1	5
	1983	B. Public	1	17
	1985	C. Higher Education	7	9
	1985	D. School	135	135
	1985	E. Special	120	120
Zaire	1980	A. National	1	1
Zambia	1983	A. National	1	1
	1984	C. Higher Education	4	8
	1983	D. School	1	1
	1985	E. Special	1	11
Zimbabwe	1981	A. National	1	2
	1983	B. Public	6	6
	1982	C. Higher Education	10	10
	1980	D. School	100	NA
	1985	E. Special	1	1
	1984	F. Non-Specialized	1	1

cont.

Table 9.11 - cont.

Country	Year	Category of library	Number of libraries	Service points
America, North				
Barbados[11]	1983	B. Public	1	10
	1981	C. Higher Education	3	5
	1986	E. Special	1	2
Belize	1985	A. National	1	30
	1984	D. School	29	NA
	1985	E. Special	1	32
Bermuda[12]	1980	B. Public	1	4
	1982	C. Higher Education	1	1
	1982	D. School	22	NA
	1980	F. Non-Specialized	3	3
British Virgin Islands[13]	1983	B. Public	1	5
	1982	D. School	2	2
Canada[14]	1984	A. National	1	NA
	1983	B. Public	1 014	3 136
	1980	C. Higher Education	168	NA
	1981	D. School	7 982	7 982
Cayman Islands	1981	B. Public	1	2
	1982	C. Higher Education	1	1
	1981	D. School	1	1
	1980	F. Non-Specialized	1	NA
Costa Rica[15]	1983	A. National	1	1
	1983	C. Higher Education	1	3
Cuba	1984	A. National	1	1
	1984	B. Public	295	NA
	1984	C. Higher Education	70	70
	1984	D. School	3 261	3 261
	1985	E. Special	6	6
Dominica	1981	B. Public	1	2
El Salvador	1980	A. National	1	1
Grenada	1983	B. Public	1	1
	1984	E. Special	1	1
Guadeloupe[8]	1980	B. Public	1	2
	1984	C. Higher Education	1	2
	1980	F. Non-Specialized	1	1
Guatemala	1983	A. National	NA	100
	1981	C. Higher Education	1	7
	1986	E. Special	16	16
Honduras	1984	C. Higher Education	7	7
	1985	E. Special	1	1
Jamaica	1980	A. National	1	1
	1980	B. Public	1	216
Martinique[8]	1984	C. Higher Education	1	NA
Mexico	1983	A. National	2	2
	1983	B. Public	557	557
	1981	C. Higher Education	329	329
	1981	D. School	1 880	1 880
	1983	E. Special	171	171

cont.

Table 9.11 - cont.

Country	Year	Category of library	Number of libraries	Service points
Netherlands Antilles	1981	B. Public	1	3
Panama	1980	A. National	NA	43
	1980	B. Public	18	18
	1985	E. Special	1	1
Saint Christopher and Nevis	1983	B. Public	1	5
	1984	C. Higher Education	2	2
	1984	D. School	2	2
Saint Lucia	1981	C. Higher Education	1	1
St Pierre and Miquelon[8]	1985	E. Special	1	1
Saint Vincent and the Grenadines	1985	A. National	1	27
Trinidad and Tobago	1983	B. Public	3	18
	1984	C. Higher Education	4	5
	1984	D. School	564	564
	1985	E. Special	31	NA
Turks and Caicos Islands[16]	1984	B. Public	1	3
	1982	D. School	1	17
U.S. Virgin Islands	1984	B. Public	1	12
America, South				
Argentina	1984	E. Special	63	64
Bolivia	1980	A. National	2	5
	1980	B. Public	NA	99
	1983	C. Higher Education	17	NA
	1982	F. Non-Specialized	13	13
Brazil	1984	A. National	1	1
	1982	B. Public	3 600	NA
	1984	C. Higher Education	981	NA
	1984	D. School	14 334	14 334
	1982	E. Special	1 494	NA
	1982	F. Non-Specialized	763	NA
Chile	1984	A. National	1	3
	1983	B. Public	179	NA
	1981	D. School	NA	551
	1985	E. Special	4	6
Colombia[17]	1980	A. National	1	NA
	1985	B. Public	974	1 036
	1985	C. Higher Education	225	NA
Ecuador	1983	E. Special	1	1
French Guiana[8]	1980	B. Public	1	2
	1981	C. Higher Education	1	2
Guyana	1980	A. National	1	28
	1985	C. Higher Education	3	3
	1984	D. School	NA	31
	1985	E. Special	32	32
Peru	1983	A. National	1	NA
	1980	B. Public	520	NA
	1984	C. Higher Education	2	11
	1981	D. School	292	311

cont.

Table 9.11 - cont.

Country	Year	Category of library	Number of libraries	Service points
Uruguay	1983	A. National	1	1
	1984	C. Higher Education	2	5
	1985	E. Special	15	25
	1984	F. Non-Specialized	1	151
Venezuela[18]	1980	A. National	1	8
	1980	B. Public	23	373
	1984	D. School	155	NA
Asia				
Afghanistan	1984	B. Public	55	55
	1984	C. Higher Education	18	18
Bahrain	1983	B. Public	1	10
	1985	C. Higher Education	2	5
	1984	D. School	NA	93
	1983	E. Special	1	1
Bhutan	1983	E. Special	1	2
Brunei Darussalam	1980	B. Public	1	8
	1981	C. Higher Education	5	NA
	1981	D. School	2	15
	1983	E. Special	2	3
	1983	F. Non-Specialized	1	40
China	1985	A. National	1	23
	1985	B. Public	2 344	NA
Cyprus	1981	B. Public	NA	103
	1983	E. Special	68	71
Hong Kong[13]	1983	B. Public	2	34
	1981	C. Higher Education	12	25
	1981	D. School	191	191
India	1983	A. National	8	NA
Indonesia	1981	A. National	1	3
	1979	B. Public	30	44
	1985	E. Special	581	NA
	1985	F. Non-Specialized	26	139
Iran (Islamic Republic of)	1980	A. National	1	1
	1980	B. Public	385	385
	1982	C. Higher Education	198	198
Iraq	1983	A. National	1	3
	1980	F. Non-Specialized	15	15
Japan	1984	A. National	1	3
	1983	B. Public	1 028	2 017
	1982	C. Higher Education	893	1 317
	1981	D. School	40 146	40 146
	1985	E. Special	2 150	NA
	1980	F. Non-Specialized	928	1 862
Jordan	1981	A. National	1	NA
	1983	B. Public	5	12
	1984	C. Higher Education	3	NA
	1983	E. Special	7	14
	1983	F. Non-Specialized	1	NA

cont.

Table 9.11 - cont.

Country	Year	Category of library	Number of libraries	Service points
Korea, Republic of [19]	1984	A. National	2	3
	1984	B. Public	137	137
	1984	C. Higher Education	252	NA
	1984	D. School	5 374	NA
	1985	E. Special	205	NA
Kuwait	1981	B. Public	1	23
	1984	C. Higher Education	5	14
	1984	D. School	446	NA
	1985	E. Special	13	16
Lao People's Democratic Republic	1983	F. Non-Specialized	1	2
Malaysia[20]	1980	A. National	1	2
	1984	B. Public	20	159
	1984	C. Higher Education	8	18
	1984	D. School	7 820	NA
	1984	E. Special	265	265
Oman	1984	D. School	64	NA
Pakistan	1983	A. National	1	2
	1980	B. Public	3	3
Philippines	1984	A. National	1	10
	1984	B. Public	1	507
	1985	E. Special	224	NA
Qatar	1983	A. National	3	7
	1983	B. Public	5	5
	1981	C. Higher Education	2	5
	1982	D. School	122	NA
	1985	E. Special	1	1
	1983	F. Non-Specialized	5	NA
Saudi Arabia	1984	C. Higher Education	4	34
	1984	E. Special	1	4
Singapore[21]	1984	A. National	1	18
	1984	C. Higher Education	5	8
	1984	D. School	396	396
	1984	E. Special	40	40
Sri Lanka	1984	A. National	1	2
	1980	B. Public	650	684
	1984	E. Special	NA	84
Syrian Arab Republic[22]	1980	A. National	1	1
	1983	B. Public	14	NA
	1980	C. Higher Education	1	13
	1985	E. Special	1	3
	1983	F. Non-Specialized	1	NA
Thailand	1983	A. National	1	9
	1981	B. Public	375	402
	1985	E. Special	277	281
	1981	F. Non-Specialized	26	NA
Turkey	1984	A. National	1	1
	1983	B. Public	NA	762
United Arab Emirates[23]	1984	C. Higher Education	1	7

cont.

Table 9.11 - cont.

Country	Year	Category of library	Number of libraries	Service points
Europe				
Albania	1980	A. National	1	2
	1980	B. Public	3 631	3 633
	1984	C. Higher Education	2	15
	1984	D. School	1 847	NA
	1980	F. Non-Specialized	32	40
Andorra	1983	A. National	1	NA
Austria	1983	A. National	1	1
	1984	B. Public	2 172	2 313
	1981	C. Higher Education	796	796
	1983	E. Special	1 434	1 434
	1983	F. Non-Specialized	9	NA
Belgium[24]	1980	A. National	1	1
	1980	B. Public	2 351	NA
	1985	E. Special	717	717
Bulgaria	1983	A. National	1	NA
	1983	B. Public	5 664	NA
	1984	C. Higher Education	50	NA
	1984	D. School	3 446	NA
	1985	E. Special	673	NA
	1983	F. Non-Specialized	27	NA
Czechoslovakia	1980	A. National	15	427
	1984	B. Public	9 674	NA
	1984	C. Higher Education	1 743	1 743
Denmark[25]	1984	A. National	1	NA
	1984	B. Public	249	NA
	1981	C. Higher Education	18	23
	1984	D. School	NA	NA
	1985	E. Special	13	13
Faeroe Islands	1982	A. National	1	NA
	1983	B. Public	12	NA
Finland	1984	A. National	1	5
	1984	B. Public	461	1 785
	1984	C. Higher Education	29	168
	1982	D. School	5 300	NA
	1985	E. Special	19	62
France[26]	1981	A. National	1	8
	1983	B. Public	1 141	2 422
	1984	C. Higher Education	61	184
	1979	F. Non-Specialized	6	6
German Democratic Republic	1983	A. National	2	NA
	1983	B. Public	9 003	18 813
	1984	C. Higher Education	29	504
	1983	F. Non-Specialized	3	NA
Germany, Federal Republic of[27]	1983	A. National	7	NA
	1983	B. Public	NA	13 806
	1985	C. Higher Education	197	NA
	1985	E. Special	628	2 100
	1983	F. Non-Specialized	86	NA
Gibraltar	1983	B. Public	1	1
	1983	E. Special	1	NA

cont.

Table 9.11-cont.

Country	Year	Category of library	Number of libraries	Service points
Greece	1984	A. National	1	1
	1984	E. Special	100	884
Holy See	1980	A. National	1	1
	1980	B. Public	1	NA
	1984	C. Higher Education	17	19
	1980	F. Non-Specialized	3	3
Hungary	1983	A. National	1	4
	1983	B. Public	2 069	10 080
	1982	C. Higher Education	221	221
	1984	D. School	3 958	3 958
	1983	F. Non-Specialized	1	1
Iceland	1982	A. National	1	NA
	1982	B. Public	240	NA
	1982	C. Higher Education	1	NA
Ireland[28]	1983	A. National	1	2
	1983	B. Public	31	NA
	1984	C. Higher Education	8	27
	1985	E. Special	13	16
Italy	1983	A. National	7	7
Liechtenstein	1983	A. National	1	1
Luxembourg[19]	1983	A. National	1	1
	1984	C. Higher Education	1	1
Malta	1983	A. National	1	2
	1983	B. Public	1	43
	1984	C. Higher Education	1	2
	1984	D. School	45	45
	1985	E. Special	9	9
Monaco	1980	A. National	1	1
	1981	D. School	4	7
Netherlands[29]	1982	A. National	1	4
	1983	B. Public	471	1 069
	1981	C. Higher Education	690	1 016
	1985	E. Special	704	869
	1982	F. Non-Specialized	6	6
Norway	1983	A. National	1	3
	1983	B. Public	454	1 395
	1984	C. Higher Education	89	243
	1984	D. School	3 789	3 789
	1985	E. Special	149	162
	1983	F. Non-Specialized	20	32
Poland	1983	A. National	1	1
	1984	B. Public	9 700	23 000
	1984	C. Higher Education	992	NA
	1985	D. School	19 868	NA
	1985	E. Special	4 254	NA
	1983	F. Non-Specialized	127	127
Portugal	1983	A. National	3	NA
	1983	B. Public	178	454
	1984	C. Higher Education	138	NA
	1984	D. School	677	677
	1985	E. Special	202	319
	1983	F. Non-Specialized	9	NA

cont.

Table 9.11 - cont.

Country	Year	Category of library	Number of libraries	Service points
Romania[30]	1984	A. National	2	NA
	1984	B. Public	6 821	NA
	1984	C. Higher Education	43	NA
	1984	D. School	10 832	NA
	1986	E. Special	3 234	NA
San Marino	1983	A. National	1	1
	1983	B. Public	2	2
	1983	D. School	5	17
	1983	E. Special	1	1
Spain	1982	A. National	2	3
	1980	B. Public	1 396	1 662
	1982	C. Higher Education	408	730
	1981	D. School	626	626
	1980	E. Special	435	595
Sweden	1984	A. National	1	7
	1984	B. Public	397	NA
	1984	C. Higher Education	15	90
	1984	D. School	5 387	NA
	1985	E. Special	38	66
	1983	F. Non-Specialized	51	NA
Switzerland	1983	A. National	1	1
	1984	C. Higher Education	13	NA
	1983	F. Non-Specialized	33	33
United Kingdom[31]	1980	A. National	3	17
	1980	B. Public	160	16 244
	1980	C. Higher Education	554	937
Yugoslavia	1983	A. National	8	8
	1983	B. Public	803	1 972
	1983	C. Higher Education	426	432
	1983	D. School	8 263	8 263
	1983	E. Special	1 038	1 040
	1983	F. Non-Specialized	18	18
Oceania				
American Samoa	1983	C. Higher Education	1	1
	1982	D. School	1	26
Australia	1983	A. National	1	1
	1984	C. Higher Education	71	NA
Cook Islands	1980	B. Public	1	1
Fiji	1985	E. Special	68	NA
French Polynesia	1981	B. Public	1	2
	1985	E. Special	5	NA
Guam	1984	B. Public	8	9
	1981	D. School	46	46
Kiribati	1984	A. National	1	18
New Caledonia	1985	E. Special	3	13
New Zealand[19]	1984	A. National	1	33
	1979	B. Public	209	291
	1981	C. Higher Education	1	4
Niue	1983	B. Public	1	5
	1985	E. Special	4	4

cont.

Table 9.11 - cont.

Country	Year	Category of library	Number of libraries	Service points
Norfolk Island	1980	B. Public	1	1
	1982	D. School	1	1
Pacific Islands	1982	C. Higher Education	4	7
Papua New Guinea[32]	1982	C. Higher Education	1	1
	1985	E. Special	1	141
Solomon Islands	1985	A. National	1	10
	1985	B. Public	8	8
Tokelau	1980	B. Public	1	3
Tonga	1981	C. Higher Education	1	4
USSR				
Byelorussian SSR	1980	B. Public	6 957	NA
Ukrainian SSR	1980	B. Public	26 233	NA
USSR	1983	A. National	1	1
	1983	B. Public	109 821	NA
	1980	D. School	154 000	NA
	1983	F. Non-Specialized	448	526

1. Data on libraries of institutions of higher education refer only to the "Université des sciences et de la technologie d'Oran".
2. Data refer to the libraries of the University of Cotonou only.
3. The national library also serves as a public library.
4. Data on libraries of institutions of higher education refer only to one university library.
5. Data on libraries of institutions of higher education refer to the central or main library of the University of Nairobi.
6. Data refer only to main or central universities libraries.
7. Data on school libraries refer to state school libraries only.
8. Data are also counted with those for France.
9. *Data on libraries of institutions of higher education refer to the main or central library of the University of Dakar.*
10. Data on libraries of institutions of higher education refer to the main or central university library.
11. The public library also serves as a national library. Data on libraries of higher education do not include the library of Erdiston Teachers' Training College.
12. Data on libraries of institutions of higher education refer to the library of Bermuda College.
13. The public library also serves as a national library.
14. Data for public libraries refer to libraries financed by public authorities. Data on libraries of institutions of higher education include neither libraries attached to university institutes or departments nor libraries in the provinces of Quebec and British Columbia.
15. Data on libraries of institutions of higher education refer to the University of "Maria Aurora Zamora Gonzalez" only.
16. The public library also serves as a national library.
17. Data on libraries of institutions of higher education refer to 109 central or main libraries.
18. Data on school libraries refer to 155 of the total of 332 libraries.
19. For libraries of institutions of higher education data refer only to main or central university libraries.
20. Data on libraries of institutions of higher education refer to university libraries only.
21. The national library also serves as a public library.
22. Data on libraries of institutions of higher education refer to the University of Damascus only.
23. Data refer to the main or central university library only.
24. *Data on special libraries refer only to the Flemish Community.*
25. The data on libraries of institutions of higher education do not include 400 libraries attached to university institutes or departments and 26 libraries of institutions of higher education which are not part of a university. Data on specialized libraries refer only to libraries open to the public.
26. Data on libraries of institutions of higher education refer only to main or central university libraries. Data refer to Metropolitan France and overseas departments.
27. Data on libraries of institutions of higher education do not include 3,165 libraries attached to institutes or departments.
28. Data relating to public libraries do not include libraries financed from private sources. Data on special libraries refer only to 6 libraries out of a total of 13.
29. Data relating to public libraries do not include libraries financed from private sources.
30. Data on libraries of institutions of higher education refer only to university libraries.
31. Data on libraries of institutions of higher education do not include Scotland.
32. Data on libraries of institutions of higher education refer to the "University of Technology" only.

Source: *Unesco Statistical Yearbook 1987*, Paris, Unesco, 1987.
Unesco Statistical Yearbook 1988, Paris, Unesco, 1988.

Table 9.12 Libraries: collections

[e.g. Algeria reports for the National Library in 1980 having 600,000 volumes, 34,100 metres of shelving, 1,750 microforms, 6,000 audio-visual documents.]

Country	Year	Category of library	No of serv. points	Collections				
				Books		Microforms	Audio-visual documents	Other library material
				No of volumes in thousands	Metres of shelving			
Africa								
Algeria[1]	1980	A. National	1	600	34 100	1 750	6 000	NA
	1981	C. Higher Education	NA	5	NA	NA	NA	5
	1983	E. Special	1	5	NA	214	3	5
Benin[2]	1980	A. National	8	32	NA	NA	NA	NA
	1984	C. Higher Education	7	69	1 720	165	NA	NA
	1984	E. Special	1	2	43	NA	NA	NA
	1983	F. Non-Specialized	6	30	NA	NA	NA	NA
Botswana[3]	1984	A. National	18	337	NA	NA	NA	NA
	1985	E. Special	1	120	6 000	80	-	-
Burundi	1985	E. Special	2	11	NA	1 125	4	-
Cameroon	1980	A. National	7	22	641	-	76	-
	1981	C. Higher Education	NA	85	NA	NA	NA	NA
Central African Republic[4]	1980	C. Higher Education	NA	30	25 000	-	-	-
	1985	E. Special	2	21	216	73	* 50	NA
Chad	1985	B. Public	NA	4	19	172	21	NA
	1984	E. Special	NA	4	NA	172	21	100
	1984	F. Non-Specialized	NA	3	56	NA	NA	NA
Congo	1984	A. National	1	6	125	NA	802	400
	1984	B. Public	4	11	NA	NA	4	NA
	1981	C. Higher Education	10	70	2 800	NA	NA	NA
	1986	E. Special	NA	20	NA	NA	NA	NA
Côte d'Ivoire	1981	A. National	1	65	450	-	-	-
	1981	B. Public	NA	25	714	NA	NA	NA
	1981	F. Non-Specialized	1	12	6 055	NA	NA	NA
Egypt	1981	A. National	NA	1 000	38 360	36 000	21 070	NA
	1980	B. Public	NA	1 329	NA	-	2 000	-
	1982	D. School	NA	8 150	NA	NA	NA	NA
	1983	E. Special	NA	1 639	NA	52 900	1 800	29 000
Ethiopia	1982	A. National	13	59	NA	NA	201	NA
Gabon[5]	1985	A. National	NA	52	NA	NA	NA	NA
	1981	C. Higher Education	4	34	2 380	NA	2	NA
	1981	D. School	5	17	NA	-	8	2
Gambia	1983	A. National	1	4	220	NA	NA	100
	1983	B. Public	1	89	NA	NA	155	NA
Ghana	1983	A. National	2	30	NA	NA	NA	NA
	1983	B. Public	42	1 119	NA	NA	NA	NA
	1985	E. Special	2	3	NA	100	4	1
Guinea[6]	1980	A. National	3	66	615	NA	1	NA
	1984	C. Higher Education	NA	NA	NA	-	-	-
Kenya[7]	1981	A. National	1	19	NA	450	3	500
	1981	B. Public	14	5111	2 700	-	1 372	3 031
	1981	C. Higher Education	8	270	NA	400	-	-
Lesotho	1984	A. National	7	36	NA	NA	NA	NA
	1983	B. Public	1	NA	NA	NA	921	NA

cont.

Table 9.12-cont.

Country	Year	Category of library	No of serv. points	Collections				
				Books		Microforms	Audio-visual documents	Other library material
				No of volumes in thousands	Metres of shelving			
Liberia[8]	1983	C. Higher Education	6	108	NA	2 804	-	-
Madagascar[9]	1983	A. National	1	240	3 843	NA	4	1 512
	1983	B. Public	56	76	1 209	NA	NA	NA
	1981	C. Higher Education	6	174	NA	250	213	331
	1981	D. School	5	19	36 266	NA	714	-
	1986	E. Special	26	97	1 567	530	1 515	63
Malawi	1984	A. National	6	136	NA	NA	NA	NA
	1985	B. Public	2	28	NA	NA	NA	NA
	1981	C. Higher Education	4	269	11 368	1 271	1 735	NA
	1985	E. Special	5	28	647	NA	201	7
Mauritius[10]	1984	D. School	27	149	NA	NA	NA	NA
Morocco	1986	E. Special	1	6	240	1 660	-	-
Nigeria	1980	A. National	8	251	NA	-	NA	NA
	1979	B. Public	52	481	2 019	-	116	6 511
	1986	C. Higher Education	67	2 024	NA	5 147	10 291	NA
Reunion[11]	1981	C. Higher Education	1	30	1 665	120	-	-
Rwanda	1984	C. Higher Education	9	157	NA	1 326	10 301	NA
	1983	E. Special	13	30	607	NA	42	841
Senegal[12]	1983	A. National	NA	25	NA	NA	21	NA
	1981	C. Higher Education	4	227	7 440	1 070	1 071	-
Seychelles	1983	B. Public	6	35	583	NA	NA	NA
	1982	C. Higher Education	2	11	NA	NA	NA	NA
	1984	D. School	22	72	NA	NA	NA	NA
	1984	E. Special	1	11	NA	NA	7 495	NA
Somalia	1983	C. Higher Education	3	40	905	-	-	15
Togo[13]	1980	A. National	NA	6	NA	NA	NA	6
	1982	C. Higher Education	6	50	1 428	NA	-	-
Tunisia	1983	B. Public	1 558	1 315	NA	NA	34	17
	1985	E. Special	NA	720	NA	40 000	NA	46 000
Uganda	1980	B. Public	18	404	NA	-	-	90
United Republic of Tanzania	1983	A. National	5	153	1 800	NA	NA	NA
	1983	B. Public	17	428	9 450	400	6	1 984
	1985	C. Higher Education	9	562	15 990	2 800	675	21 000
	1985	D. School	135	165	7 010	-	-	-
	1985	E. Special	120	451	NA	9 370	-	154 320
Zaire	1980	A. National	1	146	NA	NA	NA	NA
Zambia	1983	A. National	1	0.4	NA	NA	NA	NA
	1984	C. Higher Education	8	838	7 438	56 055	2673	0
	1983	D. School	1	9	NA	NA	1 430	140
	1985	E. Special	11	27	NA	100	-	15 000
Zimbabwe	1981	A. National	2	45	NA	3 100	1 762	3 100
	1983	B. Public	6	NA	NA	NA	NA	NA
	1982	C. Higher Education	10	485	NA	269	NA	144
	1980	D. School	NA	261	NA	NA	NA	NA
	1985	E. Special	1	100	NA	-	1	-
	1984	F. Non-Specialized	1	86	NA	NA	NA	NA

cont.

Table 9.12-cont.

Country	Year	Category of library	No of serv. points	Collections				
				Books		Microforms	Audio-visual documents	Other library material
				No of volumes in thousands	Metres of shelving			
America, North								
Barbados[14]	1983	B. Public	10	173	2 514	432	2 019	17 763
	1981	C. Higher Education	5	95	NA	NA	NA	NA
	1986	E. Special	2	NA	96	51	-	1 622
Belize	1985	A. National	30	105	NA	NA	NA	NA
	1984	D. School	NA	13	NA	NA	NA	NA
	1985	E. Special	32	116	NA	-	650	-
Bermuda[15]	1980	B. Public	4	140	1 818	296	1 096	NA
	1982	C. Higher Education	1	18	360	117	325	5
	1982	D. School	NA	52	1 294	NA	NA	NA
	1980	F. Non-Specialized	3	2	594	NA	NA	NA
British Virgin Islands[16]	1983	B. Public	5	35	498	12	766	25
	1982	D. School	2	7	160	NA	22	NA
Canada[17]	1984	A. National	NA	1 005	58 958	2 216 066	63 500	NA
	1983	B. Public	3 136	51 812	NA	694 607	3 194 792	760 878
	1980	C. Higher Education	NA	43 750	NA	22 731 050	1 444 549	NA
	1981	D. School	7 982	47 606	NA	919 862	5 084 967	5 044 575
Cayman Islands	1981	B. Public	2	6	362	3 000	-	25
	1982	C. Higher Education	1	20	900	3 000	3 030	360
	1981	D. School	1	10	298	-	107	-
	1980	F. Non-Specialized	NA	9	NA	NA	NA	NA
Costa Rica[18]	1983	A. National	1	1 000	NA	NA	NA	NA
	1983	C. Higher Education	3	227	6 826	NA	19 220	3149
Cuba	1984	A. National	1	1 396	NA	NA	NA	NA
	1984	B. Public	NA	3 711	NA	NA	NA	NA
	1984	C. Higher Education	70	2 484	NA	NA	NA	NA
	1984	D. School	3 261	13 855	NA	NA	NA	NA
	1985	E. Special	6	225	NA	NA	NA	NA
Dominica	1981	B. Public	2	15	250	-	26	-
El Salvador	1980	A. National	1	80	2 442	-	-	-
Grenada	1983	B. Public	1	28	711	-	-	-
	1984	E. Special	1	3	74	-	-	NA
Guadeloupe[11]	1980	B. Public	2	90	1 800	-	-	-
	1984	C. Higher Education	2	52	2 371	NA	NA	NA
	1980	F. Non-Specialized	1	24	510	NA	NA	NA
Guatemala	1983	A. National	100	1 824	NA	NA	NA	NA
	1981	C. Higher Education	7	120	818	NA	NA	141 834
	1986	E. Special	16	500	NA	NA	NA	NA
Honduras	1984	C. Higher Education	7	145	NA	NA	300	NA
	1985	E. Special	1	1	NA	NA	NA	NA
Jamaica	1980	A. National	1	40	1 465	1 400	600	30 000
	1980	B. Public	216	1 108	NA	NA	188	NA
Martinique[11]	1984	C. Higher Education	NA	37	NA	NA	NA	NA

cont.

Table 9.12-cont.

Country	Year	Category of library	No of serv. points	Collections				
				Books		Microforms	Audio-visual documents	Other library material
				No of volumes in thousands	Metres of shelving			
Mexico	1983	A. National	2	1 548	NA	415 315	20 000	NA
	1983	B. Public	557	3 720	NA	135 719	4 478	NA
	1981	C. Higher Education	329	3 243	NA	NA	NA	NA
	1981	D. School	1 880	5 403	NA	NA	NA	NA
	1983	E. Special	171	2 300	NA	1 481 908	31 700	NA
Netherlands Antilles	1981	B. Public	3	100	295	300	2 500	NA
Panama	1980	A. National	43	221	6 784	NA	NA	NA
	1980	B. Public	18	26	NA	-	-	-
	1985	E. Special	1	57	NA	NA	NA	NA
Saint Christopher and Nevis	1983	B. Public	5	8	134	NA	NA	NA
	1984	C. Higher Education	2	11	308	-	10	50
	1984	D. School	2	6	NA	-	-	-
Saint Lucia	1981	C. Higher Education	1	24	247	3 120	1 665	-
St Pierre and Miquelon[11]	1985	E. Special	1	10	288	NA	NA	NA
Saint Vincent and the Grenadines	1985	A. National	27	143	NA	NA	NA	NA
Trinidad and Tobago	1983	B. Public	18	246	NA	NA	NA	2 080
	1984	C. Higher Education	5	292	12 004	10 546	15 542	NA
	1984	D. School	564	NA	NA	NA	NA	NA
	1985	E. Special	NA	133	3 587	NA	NA	NA
Turks and Caicos Islands[19]	1984	B. Public	3	26	906	1	6	NA
	1982	D. School	17	6	213	NA	NA	NA
U.S. Virgin Islands	1984	B. Public	12	90	NA	2 000	1 000	30 000
America, South								
Argentina	1984	E. Special	64	1 645	NA	772	18 979	2 220
Bolivia	1980	A. National	5	135	1 200	NA	3 280	NA
	1980	B. Public	99	125	NA	NA	545	100
	1983	C. Higher Education	NA	220	NA	NA	NA	NA
	1982	F. Non-Specialized	13	220	6 220	NA	NA	NA
Brazil[20]	1984	A. National	1	1 993	NA	6 724	NA	145 000
	1982	B. Public	NA	18 106	NA	NA	NA	NA
	1984	C. Higher Education	NA	8 570	NA	596 966	339 017	535 312
	1984	D. School	14 334	20 762	NA	NA	NA	NA
	1982	E. Special	NA	12 854	NA	1 441 102	227 327	284 515
	1982	F. Non-Specialized	NA	2 175	NA	NA	NA	NA
Chile	1984	A. National	3	2 766	NA	NA	774	8 565
	1983	B. Public	NA	783	NA	NA	NA	NA
	1981	D. School	551	1 458	NA	NA	NA	NA
	1985	E. Special	6	86	2 510	NA	NA	11 628
Colombia[21]	1980	A. National	NA	540	18 000	NA	663	NA
	1985	B. Public	1 036	2 381	NA	NA	NA	NA
	1985	C. Higher Education	NA	1 143	NA	NA	NA	NA

cont.

Table 9.12-cont.

Country	Year	Category of library	No of serv. points	Collections				
				Books		Microforms	Audio-visual documents	Other library material
				No of volumes in thousands	Metres of shelving			
Ecuador	1983	E. Special	1	2	60	NA	54	400
French Guiana[11]	1980	B. Public	2	19	406	-	-	-
	1981	C. Higher Education	2	43	2 054	648	233	-
Guyana[22]	1980	A. National	28	179	NA	NA	1 323	52 079
	1985	C. Higher Education	3	150	NA	1 007	8 482	1 736
	1984	D. School	31	129	4 060	-	160	3
	1985	E. Special	32	102	NA	NA	20 749	NA
Peru	1983	A. National	NA	2 690	19 507	24 166	10 180	36 398
	1980	B. Public	NA	4 102	NA	NA	2 250	NA
	1984	C. Higher Education	11	295	9 957	26 700	20 427	185
	1981	D. School	311	516	NA	NA	7 040	NA
Uruguay	1983	A. National	1	879	25 356	410	4 413	30 288
	1984	C. Higher Education	5	152	3 080	-	320	1 233
	1985	E. Special	25	863	18 398	NA	16 273	13 523
	1984	F. Non-Specialized	151	115	2 700	NA	NA	NA
Venezuela[23]	1980	A. National	8	765	3 830	NA	122 351	-
	1980	B. Public	373	977	31 315	NA	5 984	4 867
	1984	D. School	NA	254	NA	NA	635	NA
Asia								
Afghanistan	1984	B. Public	55	350	NA	NA	NA	NA
	1984	C. Higher Education	18	191	NA	-	1 200	-
Bahrain	1983	B. Public	10	175	6 440	NA	720	NA
	1985	C. Higher Education	5	83	4 721	10 900	116	1 285
	1984	D. School	93	158	5 254	NA	NA	NA
	1983	E. Special	1	14	*600	-	*146	*1 000
Bhutan	1983	E. Special	2	10	182	-	-	-
Brunei Darussalam	1980	B. Public	8	97	2 205	NA	NA	NA
	1981	C. Higher Education	NA	48	1 140	NA	NA	NA
	1981	D. School	15	191	2 822	24	139	20
	1983	E. Special	3	9	454	NA	NA	NA
	1983	F. Non-Specialized	40	118	2 468	NA	NA	NA
China	1985	A. National	23	11 767	193 332	NA	NA	NA
	1985	B. Public	NA	255 728	NA	NA	NA	NA
Cyprus	1981	B. Public	103	236	6 201	NA	NA	NA
	1983	E. Special	71	300	8 570	NA	NA	NA
Hong Kong[24]	1983	B. Public	34	1 693	11 329	3 934	55 191	-
	1981	C. Higher Education	25	1 750	549	112 567	26 794	50
	1981	D. School	191	1 422	NA	NA	NA	NA
India	1983	A. National	NA	1 764	51 488	NA	NA	NA
Indonesia	1981	A. National	3	525	9 126	NA	NA	NA
	1979	B. Public	44	460	4 485	-	1	-
	1985	E. Special	NA	4 127	NA	212 812	179 338	817 657
	1985	F. Non-Specialized	139	1 124	NA	NA	NA	NA
Iran (Islamic Republic of)	1980	A. National	1	160	NA	NA	-	20 000
	1980	B. Public	385	2 161	20 000	NA	3 000	NA
	1982	C. Higher Education	198	3 993	33 272	NA	NA	NA

cont.

Table 9.12-cont.

Country	Year	Category of library	No of serv. points	Collections				
				Books		Microforms	Audio-visual documents	Other library material
				No of volumes in thousands	Metres of shelving			
Iraq	1983	A. National	3	NA	9 586	NA	NA	NA
	1980	F. Non-Specialized	15	240	1 800	NA	NA	NA
Japan[25]	1984	A. National	3	4 179	NA	134 790	265 941	442 346
	1983	B. Public	2 017	97 172	NA	NA	NA	NA
	1982	C. Higher Education	1 317	131 499	NA	NA	NA	NA
	1981	D. School	40 146	201 805	NA	NA	NA	NA
	1985	E. Special	NA	*114 182	NA	NA	NA	NA
	1980	F. Non-Specialized	1 862	80 206	NA	NA	NA	NA
Jordan	1981	A. National	NA	17	500	1	-	2 777
	1983	B. Public	12	375	20 000	-	443	89
	1984	C. Higher Education	NA	497	NA	9 508	5 176	2 586
	1983	E. Special	14	419	NA	4 846	2 486	NA
	1983	F. Non-Specialized	NA	26	450	NA	NA	NA
Korea, Republic of[26]	1984	A. National	3	1 589	NA	25 988	3 412	NA
	1984	B. Public	137	2 510	NA	NA	7 115	NA
	1984	C. Higher Education	NA	16 572	NA	NA	NA	NA
	1984	D. School	NA	18 296	NA	NA	NA	NA
	1985	E. Special	NA	3 269	NA	NA	NA	NA
Kuwait[27]	1981	B. Public	23	281	NA	1 588	1 421	279
	1984	C. Higher Education	14	555	NA	8 423	82 428	56 215
	1984	D. School	NA	2 651	NA	NA	236	NA
	1985	E. Special	16	137	NA	8 316	1 464	53
Lao People's Democratic Republic	1983	F. Non-Specialized	2	145	1 328	NA	NA	NA
Malaysia[28]	1980	A. National	2	194	4 800	5 103	235	1 727
	1984	B. Public	159	2 785	NA	NA	1 255	7 554
	1984	C. Higher Education	18	2 890	NA	302 869	471 301	18 225
	1984	D. School	NA	NA	NA	NA	NA	NA
	1984	E. Special	265	354	NA	74 148	2 912 246	689 310
Oman	1984	D. School	NA	NA	109	161	-	-
Pakistan	1983	A. National	2	126	3 025	NA	NA	NA
	1980	B. Public	3	86	687	-	-	-
Philippines[29]	1984	A. National	10	720	14 108	5 173	13 649	8 701
	1984	B. Public	507	NA	NA	NA	NA	978
	1985	E. Special	NA	35 118	NA	NA	NA	NA
Qatar	1983	A. National	7	106	NA	NA	NA	NA
	1982	B. Public	5	124	NA	NA	NA	NA
	1981	C. Higher Education	5	98	3 330	648	-	-
	1982	D. School	NA	214	5 628	NA	NA	NA
	1985	E. Special	1	8	300	160	1 055	-
	1983	F. Non-Specialized	NA	111	NA	NA	NA	NA
Saudi Arabia	1984	C. Higher Education	34	1 098	NA	539 765	NA	NA
	1984	E. Special	4	122	NA	2 434	329	38 510
Singapore[30]	1984	A. National	18	2 162	NA	55 206	44 588	20 937
	1984	C. Higher Education	8	1 628	NA	148 865	53 439	NA
	1984	D. School	396	5 000	NA	NA	NA	NA
	1984	E. Special	40	524	11 062	106 187	1 256 263	37 178
Sri Lanka	1984	A. National	2	76	1 000	103	25	594
	1980	B. Public	684	NA	NA	NA	NA	NA
	1984	E. Special	84	558	NA	1974	174 592	-

cont.

Table 9.12-cont.

Country	Year	Category of library	No of serv. points	Collections				
				Books		Microforms	Audio-visual documents	Other library material
				No of volumes in thousands	Metres of shelving			
Syrian Arab Republic[31]	1980	A. National	1	85	1 689	-	-	-
	1983	B. Public	NA	365	18 250	NA	NA	NA
	1980	C. Higher Education	13	1	NA	NA	NA	NA
	1985	E. Special	3	27	623	-	140	-
	1983	F. Non-Specialized	NA	60	2 720	NA	NA	NA
Thailand	1983	A. National	9	1 155	NA	8 051	30 026	4 644
	1981	B. Public	402	1 599	NA	-	2 414	NA
	1985	E. Special	281	1 871	NA	9 071	17 101	NA
	1981	F. Non-Specialized	NA	764	10 272	NA	NA	NA
Turkey	1984	A. National	1	885	NA	9 376	2 986	105 329
	1983	B. Public	762	6 045	NA	NA	133	NA
United Arab Emirates[32]	1984	C. Higher Education	7	155	13 000	150	4 253	65
Europe								
Albania	1980	A. National	2	803	NA	5 496	-	NA
	1980	B. Public	3 633	5 712	NA	-	-	NA
	1984	C. Higher Education	15	812	15 540	4 541	NA	NA
	1984	D. School	NA	4 268	NA	NA	NA	NA
	1980	F. Non-Specialized	40	1 825	NA	NA	NA	NA
Andorra	1983	A. National	NA	17	NA	-	-	-
Austria	1983	A. National	1	2 435	58 177	188 568	2 386 307	1 583 179
	1984	B. Public	2 313	7 022	NA	NA	NA	NA
	1981	C. Higher Education	796	18 996	NA	NA	NA	NA
	1983	E. Special	1 434	26 034	NA	1 113 636	3 346 489	NA
	1983	F. Non-Specialized	NA	1 809	NA	NA	NA	NA
Belgium[33]	1980	A. National	1	3 366	95 000	15 000	38	-
	1980	B. Public	NA	24 140	NA	NA	NA	NA
	1985	E. Special	717	21 780	NA	-	891 752	-
Bulgaria	1983	A. National	NA	1 603	NA	209 743	NA	641 844
	1983	B. Public	NA	52 977	NA	214 093	NA	1 371 788
	1984	C. Higher Education	NA	5 577	NA	2 102	10 412	424 404
	1984	D. School	NA	15 651	NA	1 091	28 667	98 774
	1985	E. Special	NA	8 361	NA	4 301 725	35 763	18 151 860
	1983	F. Non-Specialized	NA	8 901	NA	NA	NA	NA
Czechoslovakia	1980	A. National	427	17 185	NA	77 853	NA	10 919 753
	1984	B. Public	NA	53 963	NA	NA	NA	910 576
	1984	C. Higher Education	1 743	13 617	NA	NA	NA	NA
Denmark[34]	1984	A. National	NA	2 700	NA	63 191	4 382	3 191 522
	1984	B. Public	NA	33 408	NA	NA	NA	NA
	1981	C. Higher Education	23	6 825	150 000	1 146 814	850 000	NA
	1984	D. School	NA	19 350	NA	NA	NA	NA
	1985	E. Special	13	1 633	34 697	NA	NA	NA
Faeroe Islands	1982	A. National	NA	91	NA	196	NA	655
	1983	B. Public	NA	114	NA	NA	NA	443

cont.

Table 9.12-cont.

Country	Year	Category of library	No of serv. points	Collections				
				Books		Microforms	Audio-visual documents	Other library material
				No of volumes in thousands	Metres of shelving			
Finland	1984	A. National	5	2 442	71 382	128 229	21 949	1 600 000
	1984	B. Public	1 785	29 900	NA	NA	550 000	NA
	1984	C. Higher Education	168	8 731	256 171	937 234	129 427	NA
	1982	D. School	NA	5 600	NA	NA	NA	NA
	1985	E. Special	62	1 955	49 480	173 355	2 500	NA
France[35]	1981	A. National	8	10 000	700 000	NA	400 000	NA
	1983	B. Public	2 422	64 379	1 766 675	NA	1 725 230	NA
	1984	C. Higher Education	184	18 500	930 000	300 500	NA	3 100 000
	1979	F. Non-Specialized	6	3 482	NA	NA	NA	NA
German Democratic Republic	1983	A. National	NA	10 290	NA	50 398	37 815	3 581 061
	1983	B. Public	18 813	46 873	NA	NA	3 731 105	NA
	1984	C. Higher Education	504	22 144	NA	244 952	100 222	5 533 071
	1983	F. Non-Specialized	NA	2 029	NA	NA	NA	NA
Germany, Federal Republic of[36]	1983	A. National	NA	14 096	NA	1 452 453	5 248 307	1 936 663
	1983	B. Public	13 806	75 660	NA	NA	1 701 817	NA
	1985	C. Higher Education	NA	73 256	NA	5 687 942	462 872	14 389 126
	1985	E. Special	2 100	32 246	NA	16 368 581	532 694	30 419 665
	1983	F. Non-Specialized	NA	73 922	NA	NA	NA	NA
Gibraltar	1983	B. Public	1	20	358	NA	NA	NA
	1983	E. Special	NA	38	NA	NA	NA	NA
Greece	1984	A. National	1	2 000	26 400	5 000	NA	NA
	1984	E. Special	884	2 363	53 996	188 994	2 382	321
Holy See	1980	A. National	1	160	4 500	NA	NA	NA
	1980	B. Public	NA	37	NA	NA	NA	NA
	1984	C. Higher Education	19	2 150	NA	1 099	208	5
	1980	F. Non-Specialized	3	597	5 650	NA	NA	NA
Hungary	1983	A. National	4	2 442	NA	3 214 717	NA	NA
	1983	B. Public	10 080	46 370	NA	1 396 402	NA	NA
	1982	C. Higher Education	221	10 958	NA	3 197 090	NA	NA
	1984	D. School	3 958	23 143	NA	NA	NA	NA
	1983	F. Non-Specialized	1	1 118	NA	NA	NA	NA
Iceland	1982	A. National	NA	367	NA	NA	NA	NA
	1982	B. Public	NA	1 395	NA	NA	NA	NA
	1982	C. Higher Education	NA	223	NA	NA	NA	NA
Ireland[37]	1983	A. National	2	790	14 100	12 200	-	20 300
	1983	B. Public	NA	8 221	NA	7 303	74 437	-
	1984	C. Higher Education	27	3 955	117 461	131 957	132 743	10
	1985	E. Special	16	116	1 945	3 087	290	6 300
Italy	1983	A. National	7	13 281	303 205	52 344	3 890	251 001
Liechtenstein	1983	A. National	1	120	NA	150	-	-
Luxembourg[38]	1983	A. National	1	640	19 500	NA	640	NA
	1984	C. Higher Education	1	100	NA	-	-	-

cont.

Table 9.12-cont.

Country	Year	Category of library	No of serv. points	Collections				
				Books		Microforms	Audio-visual documents	Other library material
				No of volumes in thousands	Metres of shelving			
Malta	1983	A. National	2	355	6 950	-	-	-
	1983	B. Public	43	196	6 500	-	1 200	-
	1984	C. Higher Education	2	296	NA	10 650	NA	NA
	1984	D. School	45	141	2 650	-	-	-
	1985	E. Special	9	38	832	3 580	1 040	NA
Monaco	1980	A. National	1	130	3 400	-	-	-
	1981	D. School	7	12	290	NA	96	1 606
Netherlands[39]	1982	A. National	4	1 800	44 300	76 000	20 100	5 900
	1983	B. Public	1 069	36 112	NA	NA	1 583 000	984 000
	1981	C. Higher Education	1 016	17 536	500 000	947 200	788 000	729 000
	1985	E. Special	869	15 353	436 000	11 302 000	438 000	822 000
	1982	F. Non-Specialized	6	1 944	65 600	NA	NA	NA
Norway	1983	A. National	3	1 994	56 790	405 029	167 229	298 447
	1983	B. Public	1 395	15 966	NA	32 108	137 260	111 346
	1984	C. Higher Education	243	7 733	227 333	410 861	351 917	2 984 472
	1984	D. School	3 789	6 645	201 358	NA	NA	NA
	1985	E. Special	162	3 390	94 819	2 294 163	491 238	121 074
	1983	F. Non-Specialized	32	NA	NA	NA	NA	NA
Poland	1983	A. National	1	1 934	NA	126 500	14 105	1 983 535
	1984	B. Public	23 000	113 900	NA	NA	NA	NA
	1984	C. Higher Education	NA	37 598	NA	NA	306 200	8 483 800
	1985	D. School	NA	133 456	NA	NA	NA	1 014 900
	1985	E. Special	NA	31 802	NA	NA	NA	NA
	1983	F. Non-Specialized	127	12 599	NA	NA	NA	NA
Portugal	1983	A. National	NA	3 584	35 429	2 438	5 784	NA
	1983	B. Public	454	7 546	226 384	499	1 281	4 510
	1984	C. Higher Education	NA	1 435	26 923	15 103	4 919	23 624
	1984	D. School	677	2 254	48 723	NA	NA	NA
	1985	E. Special	319	2 573	63 331	8 252	33 231	19 061
	1983	F. Non-Specialized	NA	735	2 206	NA	NA	NA
Romania[40]	1984	A. National	NA	13 964	NA	NA	NA	NA
	1984	B. Public	NA	66 672	NA	NA	NA	NA
	1984	C. Higher Education	NA	22 106	NA	NA	NA	NA
	1984	D. School	NA	55 431	NA	NA	NA	NA
	1986	E. Special	NA	20 551	NA	NA	NA	NA
San Marino	1983	A. National	1	45	800	NA	NA	NA
	1983	B. Public	2	4	96	NA	130	NA
	1983	D. School	17	22	553	NA	2 056	635
	1983	E. Special	1	2	58	NA	NA	NA
Spain[41]	1982	A. National	3	3 714	130 130	4 408	NA	NA
	1980	B. Public	1 662	11 730	279 824	25 877	16 528	NA
	1982	C. Higher Education	730	10 447	376 710	13 026	46 769	-
	1981	D. School	626	2 268	53 352	3 949	45 925	NA
	1980	E. Special	595	8 641	283 883	141 55	227 008	NA
Sweden	1984	A. National	7	2 191	NA	112 770	NA	NA
	1984	B. Public	NA	43 760	NA	161 000	1 282 000	NA
	1984	C. Higher Education	90	15 364	386 700	218 246	NA	NA
	1984	D. School	NA	40 700	1 109 075	NA	NA	NA
	1985	E. Special	66	3 953	86 075	1 869 345	NA	NA
	1983	F. Non-Specialized	NA	NA	524 982	NA	NA	NA

cont.

Table 9.12-cont.

Country	Year	Category of library	No of serv. points	Collections				
				Books		Microforms	Audio-visual documents	Other library material
				No of volumes in thousands	Metres of shelving			
Switzerland	1983	A. National	1	1 200	32 780	201 273	237 842	NA
	1984	C. Higher Education	NA	15 721	389 400	NA	808 400	NA
	1983	F. Non-Specialized	33	10 200	292 000	NA	NA	NA
United Kingdom[42]	1980	A. National	17	20 550	NA	5 967 000	9 567	8 860 000
	1980	B. Public	16 244	131 338	NA	834 825	3 267 000	822 765
	1980	C. Higher Education	937	24 010	599 447	736 966	NA	NA
Yugoslavia	1983	A. National	8	9 101	295 720	16 106	327 027	1 333 742
	1983	B. Public	1 972	27 141	543 743	36 920	107 899	226 971
	1983	C. Higher Education	432	13 286	254 857	22 637	611 773	205 757
	1983	D. School	8 263	32 999	NA	NA	NA	NA
	1983	E. Special	1 040	14 048	261 213	287 641	1 247 690	235 112
	1983	F. Non-Specialized	18	3 007	42 395	NA	NA	NA
Oceania								
American Samoa	1982	C. Higher Education	1	14	350	1 000	540	NA
	1982	D. School	26	76	1 900	NA	5 000	NA
Australia	1983	A. National	1	2 228	NA	1 567 000	352 500	106 000
	1984	C. Higher Education	NA	22 243	NA	NA	NA	NA
Cook Islands	1980	B. Public	1	15	791	-	-	-
Fiji	1985	E. Special	NA	200	NA	NA	NA	NA
French Polynesia	1981	B. Public	2	17	*552	-	-	-
	1985	E. Special	NA	36	1 022	-	*747	*405
Guam	1984	B. Public	9	188	7 900	5 852	23 752	NA
	1981	D. School	46	283	NA	392	86 178	3 359
Kiribati	1984	A. National	18	22	NA	200	NA	NA
New Caledonia[43]	1985	E. Special	13	68	NA	-	-	-
New Zealand[44]	1984	A. National	33	5 335	NA	1 411 120	578 379	53 435
	1979	B. Public	291	6 077	*239 000	9 223	60 606	NA
	1981	C. Higher Education	4	6	NA	NA	86	103
Niue	1983	B. Public	5	6	85	NA	NA	NA
	1985	E. Special	4	3	*38	-	*11	-
Norfolk Island	1980	B. Public	1	5	130	-	-	-
	1982	D. School	1	10	NA	NA	502	NA
Pacific Islands	1982	C. Higher Education	7	24	NA	1 219	9 378	217
Papua New Guinea[45]	1982	C. Higher Education	1	50	15 204	110	1 083	580
	1985	E. Special	141	224	NA	45 000	76 060	NA
Solomon Islands	1985	A. National	10	68	NA	-	-	-
	1985	B. Public	8	22	460	-	-	-
Tokelau	1980	B. Public	3	0.2	10	NA	-	-
Tonga	1981	C. Higher Education	4	6	168	-	86	103

cont.

Table 9.12-cont.

Country	Year	Category of library	No of serv. points	Collections				
				Books		Microforms	Audio-visual documents	Other library material
				No of volumes in thousands	Metres of shelving			
USSR								
Byelorussian SSR	1980	B. Public	NA	87 145	NA	NA	NA	NA
Ukrainian SSR	1980	B. Public	NA	370 727	NA	NA	NA	NA
USSR	1983	A. National	1	880	60	NA	17 300	NA
	1983	B. Public	NA	2 000 100	NA	NA	NA	NA
	1980	D. School	NA	862 000	NA	NA	NA	NA
	1983	F. Non-Specialized	526	NA	2 798	NA	NA	NA

1. Data on libraries of institutions of higher education refer only to the "Université des sciences et de la technologie d'Oran".
2. Data refer to the libraries of the University of Cotonou only.
3. The national library also serves as a public library.
4. Data on metres of shelving for special libraries refer to one library only.
5. Data in Column 5 (no. of volumes) on national library refer to the number of titles only.
6. Data on libraries of institutions of higher education refer only to one university library.
7. The figure concerning the number of metres of shelving in public libraries (Column 6) refers to only one library. Data on libraries of institutions of higher education refer to the central or main library of the University of Nairobi.
8. Data refer only to main or central universities libraries.
9. Data in Column 5 (no. of volumes) on special libraries refer to 22 libraries only.
10. Data on school libraries refer to state school libraries only.
11. Data are also counted with those for France.
12. Data on libraries of institutions of higher education refer to the main or central library of the University of Dakar.
13. Data on libraries of institutions of higher education refer to the main or central university library.
14. The public library also serves as a national library. Data on libraries of higher education do not include the library of Erdiston Teachers' Training College.
15. Data on libraries of institutions of higher education refer to the library of Bermuda College.
16. The public library also serves as a national library.
17. Data for public libraries refer to libraries financed by public authorities. Data on libraries of institutions of higher education include neither libraries attached to university institutes or departments nor libraries in the provinces of Quebec and British Columbia.
18. Data on libraries of institutions of higher education refer to the University of "Maria Aurora Zamora Gonzalez" only.
19. The public library also serves as a national library.
20. Data in Column 5 (no. of volumes) refer to university libraries only.
21. Data on libraries of institutions of higher education refer to 109 central or main libraries.
22. The figure in Column 5 (no. of volumes) on special libraries refer to books only.
23. Data on school libraries refer to 155 of the total of 332 libraries.
24. The public libraries also serve as national library.
25. The figure in number of volumes in the national library does not include bound periodicals.
26. For libraries of institutions of higher education data refer only to main or central university libraries.
27. Data in Column 5 (no. of volumes) on special libraries refer to 12 libraries only.
28. Data on libraries of institutions of higher education refer to university libraries only.
29. The figure in Column 5 (no. of volumes) on special libraries refers to books only.
30. The national library also serves as a public library.
31. Data on libraries of institutions of higher education refer to the University of Damascus only.
32. Data refer to the main or central university library only.
33. Data on special libraries refer only to the Flemish Community.
34. The data on libraries of institutions of higher education do not include 400 libraries attached to university institutes or departments and 26 libraries of institutions of higher education which are not part of a university. Data on specialized libraries refer only to libraries open to the public.
35. Data on libraries of institutions of higher education refer only to main or central university libraries. Data refer to Metropolitan France and overseas departments.
36. Data on libraries of institutions of higher education do not include 3,165 libraries attached to institutes or departments.
37. Data relating to public libraries do not include libraries financed from private sources. Data on special libraries refer only to 6 libraries out of a total of 13.
38. Data on libraries of higher education refer only to university libraries.
39. Data relating to public libraries do not include libraries financed from private sources.
40. Data on libraries of institutions of higher education refer only to university libraries.
41. Data relating to public and special libraries are incomplete.
42. Data on libraries of institutions of higher education do not include Scotland.
43. Data in Column 5 (no. of volumes) refer to books only.
44. Data on libraries of institutiones of higher education refer only to the main or central university library.
45. Data on libraries of institutions of higher education refer to the "University of Technology" only.

Sources: *Unesco Statistical Yearbook 1987*, Paris, Unesco, 1987.
Unesco Statistical Yearbook 1988, Paris, Unesco, 1988.

Table 9.13 Libraries: annual additions

[e.g. Algeria reports for the National Library in 1980 having 19,045 volumes and 531 other materials in annual additions.]

Country	Year	Category of library	Number of Service Points	Annual additions	
				Volumes	Other materials
Africa					
Algeria[1]	1980	A. National	1	19 045	531
	1981	C. Higher Education	NA	3 650	NA
	1983	E. Special	1	402	4
Benin[2]	1980	A. National	8	NA	NA
	1984	C. Higher Education	7	2 859	NA
	1984	E. Special	1	263	-
	1983	F. Non-Specialized	6	NA	NA
Botswana[3]	1984	A. National	18	10 148	1980
	1985	E. Special	1	100	NA
Burundi	1985	E. Special	2	*1 100	-
Cameroon	1980	A. National	7	4 450	NA
	1981	C. Higher Education	NA	1 965	NA
Central African Republic[4]	1980	C. Higher Education	NA	587	-
	1985	E. Special	2	282	NA
Chad	1985	B. Public	NA	1 500	93
	1984	E. Special	NA	1 500	93
	1984	F. Non-Specialized	NA	NA	NA
Congo	1984	A. National	1	40	NA
	1984	B. Public	4	NA	NA
	1981	C. Higher Education	10	3 561	NA
	1986	E. Special	NA	88	-
Côte d'Ivoire	1981	A. National	1	574	-
	1981	B. Public	NA	2 900	NA
	1981	F. Non-Specialized	1	585	NA
Egypt	1980	A. National	NA	24 490	7 471
	1980	B. Public	NA	NA	NA
	1982	D. School	NA	430 440	NA
	1983	E. Special	NA	NA	NA
Ethiopia[5]	1982	A. National	13	1 300	NA
Gabon	1984	A. National	NA	NA	NA
	1981	C. Higher Education	4	1 751	NA
	1981	D. School	5	630	5
Gambia[6]	1983	A. National	1	67	NA
	1983	B. Public	1	7 946	NA
Ghana	1983	A. National	2	822	NA
	1983	B. Public	42	4 828	NA
	1985	E. Special	2	NA	622
Guinea[7]	1980	A. National	3	1 500	NA
	1984	C. Higher Education	NA	2 400	-
Kenya[8]	1981	A. National	1	5 500	450
	1981	B. Public	14	60 586	22
	1981	C. Higher Education	8	14 343	NA

cont.

Table 9.13-cont.

Country	Year	Category of library	Number of Service Points	Annual additions	
				Volumes	Other materials
Lesotho	1984	A. National	7	500	NA
	1983	B. Public	1	120	60
Liberia[9]	1983	C. Higher Education	6	2 628	-
Madagascar	1983	A. National	1	3 093	NA
	1983	B. Public	56	1 346	NA
	1981	C. Higher Education	6	1 343	50
	1981	D. School	5	2 397	-
	1986	E. Special	26	3 860	7
Malawi	1984	A. National	6	19 500	-
	1985	B. Public	2	NA	-
	1981	C. Higher Education	4	NA	NA
	1985	E. Special	5	1 028	-
Mauritius[10]	1984	D. School	27	8 843	NA
Morocco	1986	E. Special	1	1 471	-
Nigeria	1980	A. National	8	28 596	NA
	1979	B. Public	52	59 099	988
	1986	C. Higher Education	67	115 179	NA
Reunion[11]	1981	C. Higher Education	1	1 635	NA
Rwanda[12]	1984	C. Higher Education	9	6 000	56
	1983	E. Special	13	2 551	-
Senegal[13]	1983	A. National	NA	484	NA
	1981	C. Higher Education	4	5 988	1 250
Seychelles	1983	B. Public	6	1 853	NA
	1982	C. Higher Education	2	1 144	NA
	1984	D. School	22	16 580	NA
	1984	E. Special	1	862	81
Somalia	1983	C. Higher Education	3	152	-
Togo[14]	1980	A. National	NA	1 575	-
	1982	C. Higher Education	6	3 600	-
Tunisia	1983	B. Public	1 558	300 000	6
	1985	E. Special	NA	90 000	2 000
Uganda	1980	B. Public	18	6 232	NA
United Republic of Tanzania	1983	A. National	5	152 269	-
	1983	B. Public	17	41 270	-
	1985	C. Higher Education	9	18 500	1 817
	1985	D. School	135	43 400	-
	1985	E. Special	120	134 800	-
Zaire	1980	A. National	1	NA	NA
Zambia	1983	A. National	1	NA	-
	1984	C. Higher Education	8	2 050	NA
	1983	D. School	1	210	0
	1985	E. Special	11	100	-

cont.

Table 9.13-cont.

Country	Year	Category of library	Number of Service Points	Annual additions	
				Volumes	Other materials
Zimbabwe[15]	1981	A. National	2	912	1 951
	1983	B. Public	6	8 115	NA
	1982	C. Higher Education	10	24 459	8
	1980	D. School	NA	78 300	NA
	1985	E. Special	1	508	-
	1984	F. Non-Specialized	1	2 772	NA
America, North					
Barbados[16]	1983	B. Public	10	8 802	NA
	1981	C. Higher Education	5	*5 100	NA
	1986	E. Special	2	46	10
Belize	1985	A. National	30	7 000	-
	1984	D. School	NA	NA	NA
	1985	E. Special	32	4 000	0
Bermuda[17]	1980	B. Public	4	4 000	NA
	1982	C. Higher Education	1	2 645	NA
	1982	D. School	NA	NA	NA
	1980	F. Non-Specialized	3	NA	NA
British Virgin Islands[18]	1983	B. Public	5	1 484	849
	1982	D. School	2	50	NA
Canada[19]	1984	A. National	NA	58 345	127 353
	1983	B. Public	3 136	3 793 927	NA
	1980	C. Higher Education	NA	1 725 749	NA
	1981	D. School	7 982	5 306 732	NA
Cayman Islands	1981	B. Public	2	115	-
	1982	C. Higher Education	1	1 100	NA
	1981	D. School	1	862	-
	1980	F. Non-Specialized	NA	581	NA
Costa Rica[20]	1983	A. National	1	40 828	-
	1983	C. Higher Education	3	10 687	446
Cuba	1984	A. National	1	NA	NA
	1984	B. Public	NA	NA	NA
	1984	C. Higher Education	70	153 530	2 539
	1984	D. School	3 261	517 393	2 045
	1985	E. Special	6	NA	NA
Dominica	1981	B. Public	2	300	20
El Salvador	1980	A. National	1	1 000	NA
Grenada	1983	B. Public	1	1 594	-
	1984	E. Special	1	400	-
Guadeloupe[21]	1980	B. Public	2	9 000	-
	1984	C. Higher Education	2	1 318	NA
	1980	F. Non-Specialized	1	2 500	NA
Guatemala	1983	A. National	100	30 377	NA
	1981	C. Higher Education	7	NA	NA
	1986	E. Special	16	1 416	NA
Honduras	1984	C. Higher Education	7	5 814	NA
	1985	E. Special	1	600	-

cont.

Table 9.13-cont.

Country	Year	Category of library	Number of Service Points	Annual additions	
				Volumes	Other materials
Jamaica	1980	A. National	1	1 800	706
	1980	B. Public	216	68 738	-
Martinique[22]	1984	C. Higher Education	NA	1 317	NA
Mexico	1983	A. National	2	NA	NA
	1983	B. Public	557	NA	NA
	1981	C. Higher Education	329	NA	NA
	1981	D. School	1 880	NA	NA
	1983	E. Special	171	NA	NA
Netherlands Antilles	1981	B. Public	3	11 050	1 075
Panama	1980	A. National	43	13 572	NA
	1980	B. Public	18	450	0
	1985	E. Special	1	1 500	NA
Saint Christopher and Nevis	1983	B. Public	5	2 729	-
	1984	C. Higher Education	2	576	-
	1984	D. School	2	48	-
Saint Lucia	1981	C. Higher Education	1	811	-
St Pierre and Miquelon[23]	1985	E. Special	1	970	-
Saint Vincent and the Grenadines	1985	A. National	27	6 005	-
Trinidad and Tobago	1983	B. Public	18	22 294	NA
	1984	C. Higher Education	5	20 697	8 575
	1984	D. School	564	NA	NA
	1985	E. Special	NA	NA	-
Turks and Caicos Islands[24]	1984	B. Public	3	400	NA
	1982	D. School	17	NA	NA
U.S. Virgin Islands	1984	B. Public	12	9 000	5 000
America, South					
Argentina	1984	E. Special	64	NA	NA
Bolivia	1980	A. National	5	600	NA
	1980	B. Public	99	599	-
	1983	C. Higher Education	NA	3 000	NA
	1982	F. Non-Specialized	13	1 890	NA
Brazil	1984	A. National	1	NA	NA
	1982	B. Public	NA	NA	NA
	1984	C. Higher Education	NA	NA	NA
	1984	D. School	14 334	NA	NA
	1982	E. Special	NA	NA	NA
	1982	F. Non-Specialized	NA	NA	NA
Chile	1984	A. National	3	8 380	2 833
	1983	B. Public	NA	NA	NA
	1981	D. School	551	NA	NA
	1985	E. Special	6	1 813	NA
Colombia	1980	A. National	NA	26 027	NA
	1985	B. Public	1 036	NA	NA
	1985	D. Higher Education	NA	69 472	-

cont.

Table 9.13-cont.

Country	Year	Category of library	Number of Service Points	Annual additions	
				Volumes	Other materials
Ecuador	1983	E. Special	1	330	100
French Guiana[25]	1980	B. Public	2	1 568	-
	1981	C. Higher Education	2	2 176	617
Guyana[26]	1980	A. National	28	10 191	1 191
	1985	C. Higher Education	3	5 650	42
	1984	D. School	31	5 760	30
	1985	E. Special	32	NA	NA
Peru	1983	A. National	NA	69 155	12 995
	1980	B. Public	NA	NA	8 000
	1984	C. Higher Education	11	4 000	3 754
	1981	D. School	311	102 500	NA
Uruguay	1983	A. National	1	17 451	4 214
	1984	C. Higher Education	5	838	-
	1985	E. Special	151	NA	NA
	1984	F. Non-Specialized	25	NA	NA
Venezuela[27]	1980	A. National	8	7 077	3 066
	1980	B. Public	373	87 120	NA
	1984	D. School	NA	566 472	1 600
Asia					
Afghanistan	1984	B. Public	55	NA	NA
	1984	C. Higher Education	18	NA	NA
Bahrain	1983	B. Public	10	4 550	NA
	1985	C. Higher Education	5	13 293	4 023
	1984	D. School	93	39 854	NA
	1983	E. Special	1	1 877	-
Bhutan	1983	E. Special	2	1 303	-
Brunei Darussalam	1980	B. Public	8	9 113	NA
	1981	C. Higher Education	NA	NA	NA
	1981	D. School	15	17 138	NA
	1983	E. Special	3	568	NA
	1983	F. Non-Specialized	40	11 370	NA
China	1985	A. National	23	543 618	-
	1985	B. Public	NA	13 425 000	-
Cyprus	1981	B. Public	103	NA	NA
	1983	E. Special	71	19 000	NA
Hong Kong[28]	1983	B. Public	34	311 822	20 143
	1981	C. Higher Education	25	80 338	22 735
	1981	D. School	191	NA	NA
India	1983	A. National	NA	16 715	-
Indonesia	1981	A. National	3	6 420	NA
	1979	B. Public	44	63 320	NA
	1985	E. Special	NA	NA	NA
	1985	F. Non-Specialized	139	3 240	NA
Iran (Islamic Republic of)	1980	A. National	1	2 000	340
	1980	B. Public	385	NA	2 000
	1982	C. Higher Education	198	199 638	NA

cont.

Table 9.13-cont.

Country	Year	Category of library	Number of Service Points	Annual additions	
				Volumes	Other materials
Iraq	1983	A. National	3	797	-
	1980	F. Non-Specialized	15	12 000	NA
Japan	1984	A. National	3	141 350	47 882
	1983	B. Public	2 017	10 645 000	NA
	1982	C. Higher Education	1 317	7 282 023	NA
	1981	D. School	40 146	9 104 000	NA
	1985	E. Special	NA	*183 200	NA
	1980	F. Non-Specialized	1 862	NA	NA
Jordan	1981	A. National	NA	3 000	NA
	1983	B. Public	12	31 388	-
	1984	C. Higher Education	NA	48 396	785
	1983	E. Special	14	64 388	555
	1983	F. Non-Specialized	NA	10 000	NA
Korea, Republic of[29]	1984	A. National	3	NA	-
	1984	B. Public	137	NA	NA
	1984	C. Higher Education	NA	1 610 877	NA
	1984	D. School	NA	1 400 039	NA
	1985	E. Special	NA	723 925	-
Kuwait[30]	1981	B. Public	23	24 264	903
	1984	C. Higher Education	14	17 126	25 849
	1984	D. School	NA	326 471	NA
	1985	E. Special	16	6 472	166
Lao People's Democratic Republic	1983	F. Non-Specialized	2	500	NA
Malaysia[31]	1980	A. National	2	15 755	-
	1984	B. Public	159	429 588	440
	1984	C. Higher Education	18	92 330	121 991
	1984	D. School	NA	NA	NA
	1984	E. Special	265	NA	NA
Oman	1984	D. School	NA	17	12
Pakistan	1983	A. National	2	4 511	NA
	1980	B. Public	3	2 020	-
Philippines	1984	A. National	10	12 820	5 885
	1984	B. Public	507	2 050	485
	1985	E. Special	NA	NA	NA
Qatar	1983	A. National	7	4 518	-
	1983	B. Public	5	4 916	-
	1981	C. Higher Education	5	18 409	-
	1982	D. School	NA	35 169	NA
	1985	E. Special	1	700	500
	1983	F. Non-Specialized	NA	4 916	NA
Saudi Arabia	1984	C. Higher Education	34	94 751	NA
	1984	E. Special	4	19 146	948
Singapore[32]	1984	A. National	18	390 819	29 064
	1984	C. Higher Education	8	95 491	34 322
	1984	D. School	396	900 000	NA
	1984	E. Special	40	63 250	109 606

cont.

Table 9.13-cont.

Country	Year	Category of library	Number of Service Points	Annual additions	
				Volumes	Other materials
Sri Lanka	1984	A. National	2	5 398	163
	1980	B. Public	684	191 500	NA
	1984	E. Special	84	NA	NA
Syrian Arab Republic[33]	1980	A. National	1	*2 000	-
	1983	B. Public	NA	66 400	-
	1980	C. Higher Education	13	607	NA
	1985	E. Special	3	1 101	95
	1983	F. Non-Specialized	NA	2 500	NA
Thailand	1983	A. National	9	28 875	23 799
	1981	B. Public	402	168	102
	1985	E. Special	281	NA	560
	1981	F. Non-Specialized	NA	138 486	NA
Turkey	1984	A. National	1	23 064	2 296
	1983	B. Public	762	309 320	NA
United Arab Emirates[34]	1984	C. Higher Education	7	15 000	103
Europe					
Albania[35]	1980	A. National	2	22 138	NA
	1980	B. Public	3 633	740 434	NA
	1984	C. Higher Education	15	8 056	NA
	1984	D. School	NA	NA	NA
	1980	F. Non-Specialized	40	114 504	NA
Andorra	1983	A. National	NA	2 876	-
Austria	1983	A. National	1	30 646	67 685
	1984	B. Public	2 313	356 954	NA
	1981	C. Higher Education	796	334 420	NA
	1983	E. Special	1 434	622 409	NA
	1983	F. Non-Specialized	NA	42 422	NA
Belgium[36]	1980	A. National	1	14 333	NA
	1980	B. Public	NA	NA	NA
	1985	E. Special	717	3 655	106
Bulgaria	1983	A. National	NA	41 630	114 039
	1983	B. Public	NA	2 664 511	83 114
	1984	C. Higher Education	NA	290 463	10 846
	1984	D. School	NA	695 467	7 651
	1985	E. Special	NA	331 556	1 271 499
	1983	F. Non-Specialized	NA	438 713	NA
Czechoslovakia[37]	1980	A. National	427	467 631	772 725
	1984	B. Public	NA	NA	-
	1984	C. Higher Education	1 743	456 155	NA
Denmark[38]	1984	A. National	NA	NA	-
	1984	B. Public	NA	NA	NA
	1981	C. Higher Education	23	303 000	118 036
	1984	D. School	NA	NA	NA
	1985	E. Special	13	40 478	575 211

cont.

Table 9.13-cont.

Country	Year	Category of library	Number of Service Points	Annual additions	
				Volumes	Other materials
Faeroe Islands	1982	A. National	NA	1 789	NA
	1983	B. Public	NA	NA	-
Finland	1984	A. National	5	63 500	91 200
	1984	B. Public	1 785	2 400 000	NA
	1984	C. Higher Education	168	283 330	NA
	1982	D. School	NA	260 000	NA
	1985	E. Special	62	50 980	37 214
France[39]	1981	A. National	8	60 000	4 000
	1983	B. Public	2 422	4 781 160	453 800
	1984	C. Higher Education	184	349 500	NA
	1979	F. Non-Specialized	6	13 666	-
German Democratic Republic	1983	A. National	NA	169 105	76 149
	1983	B. Public	18 813	4 110 421	NA
	1984	C. Higher Education	504	395 580	836 183
	1983	F. Non-Specialized	NA	28 569	NA
Germany, Federal Republic of[40]	1983	A. National	NA	542 452	254 249
	1983	B. Public	13 806	NA	NA
	1985	C. Higher Education	NA	2 627 009	1 237 229
	1985	E. Special	2 100	931 802	1 757 602
	1983	F. Non-Specialized	NA	2 474 119	NA
Gibraltar	1983	B. Public	1	NA	NA
	1983	E. Special	NA	NA	-
Greece	1984	A. National	1	270 000	NA
	1984	E. Special	884	52 489	-
Holy See	1980	A. National	1	1 950	-
	1980	B. Public	NA	270	NA
	1984	C. Higher Education	19	33 630	NA
	1980	F. Non-Specialized	3	14 657	NA
Hungary	1983	A. National	4	36 231	95 803
	1983	B. Public	10 080	2 642 203	273 955
	1982	C. Higher Education	221	364 211	129 622
	1984	D. School	3 958	1 530 677	./.
	1983	F. Non-Specialized	1	21 290	NA
Iceland	1982	A. National	NA	NA	NA
	1982	B. Public	NA	NA	NA
	1982	C. Higher Education	NA	NA	NA
Ireland[41]	1983	A. National	2	7 000	2 100
	1983	B. Public	NA	458 329	20 298
	1984	C. Higher Education	27	97 831	38 083
	1985	E. Special	16	9 380	10 135
Italy	1983	A. National	7	159 355	376
Liechtenstein	1983	A. National	1	2 674	-

cont.

Table 9.13-cont.

Country	Year	Category of library	Number of Service Points	Annual additions	
				Volumes	Other materials
Luxembourg[42]	1983	A. National	1	8 500	215
	1984	C. Higher Education	1	NA	-
Malta	1983	A. National	2	1 130	38
	1983	B. Public	43	17 000	300
	1984	C. Higher Education	2	6 000	554
	1984	D. School	45	NA	-
	1985	E. Special	9	3 180	560
Monaco	1980	A. National	1	3 015	-
	1981	D. School	7	760	78
Netherlands[43]	1982	A. National	4	51 700	16 300
	1983	B. Public	1 069	379 000	68 000
	1981	C. Higher Education	1 016	641 500	14 500
	1985	E. Special	869	540 000	706 100
	1982	F. Non-Specialized	6	541 000	NA
Norway[44]	1983	A. National	3	83 001	50 501
	1983	B. Public	1 395	583 000	6 856 000
	1984	C. Higher Education	243	261 038	179 101
	1984	D. School	3 789	276 401	NA
	1985	E. Special	162	128 167	235 854
	1983	F. Non-Specialized	32	NA	NA
Poland	1983	A. National	1	44 707	66 882
	1984	B. Public	23 000	NA	NA
	1984	C. Higher Education	NA	1 164 900	431 200
	1985	D. School	NA	7 105 600	NA
	1985	E. Special	NA	1 147 890	2 616 734
	1983	F. Non-Specialized	127	317 252	NA
Portugal	1983	A. National	NA	41 712	6 578
	1983	B. Public	454	305 076	4 630
	1984	C. Higher Education	NA	47 217	2 154
	1984	D. School	677	115 746	NA
	1985	E. Special	319	122 625	7 412
	1983	F. Non-Specialized	NA	13 864	NA
Romania[45]	1984	A. National	NA	NA	NA
	1984	B. Public	NA	NA	NA
	1984	C. Higher Education	NA	NA	NA
	1984	D. School	NA	NA	NA
	1986	E. Special	NA	NA	NA
San Marino	1983	A. National	1	10	NA
	1983	B. Public	2		
	1983	D. School	17	1 968	202
	1983	E. Special	1	30	NA
Spain[46]	1982	A. National	3	35 283	180
	1980	B. Public	1 662	601 650	1 724
	1982	C. Higher Education	730	NA	NA
	1981	D. School	626	130 054	NA
	1980	E. Special	595	224 914	50 387
Sweden[47]	1984	A. National	7	NA	NA
	1984	B. Public	NA	NA	NA
	1984	C. Higher Education	90	248 000	25 627
	1984	D. School	NA	NA	NA
	1985	E. Special	66	78 000	104 992
	1983	F. Non-Specialized	NA	384 765	NA

cont.

Table 9.13-cont.

Country	Year	Category of library	Number of Service Points	Annual additions	
				Volumes	Other materials
Switzerland	1983	A. National	1	59 972	13 071
	1984	C. Higher Education	NA	395 900	130 900
	1983	F. Non-Specialized	33	211 300	NA
United Kingdom[48]	1980	A. National	17	481 851	190 750
	1980	B. Public	16 244	12 667 000	1 137 386
	1980	C. Higher Education	937	1 665 720	90 851
Yugoslavia	1983	A. National	8	469 387	209 237
	1983	B. Public	1 972	1 177 926	14 309
	1983	C. Higher Education	432	375 285	22 939
	1983	D. School	8 263	2 885 029	NA
	1983	E. Special	1 040	558 405	95 338
	1983	F. Non-Specialized	18	NA	NA
Oceania					
American Samoa	1982	C. Higher Education	1	500	215
	1982	D. School	26	6 000	13 000
Australia	1983	A. National	1	82 295	180 500
	1984	C. Higher Education	NA	NA	NA
Cook Islands	1980	B. Public	1	1 164	-
Fiji	1985	E. Special	NA	*5 500	NA
French Polynesia	1981	B. Public	2	1 291	NA
	1985	E. Special	NA	1 498	260
Guam	1984	B. Public	9	3 098	3 745
	1981	D. School	46	NA	NA
Kiribati	1984	A. National	18	NA	NA
New Caledonia[49]	1985	E. Special	13	559	11
New Zealand[50]	1984	A. National	33	120 659	401 339
	1979	B. Public	291	529 661	2 146
	1981	C. Higher Education	4	2 399	NA
Niue	1983	B. Public	5	420	NA
	1985	E. Special	4	*170	-
Norfolk Island	1980	B. Public	1	386	-
	1982	D. School	1	380	24
Pacific Islands	1982	C. Higher Education	7	4 097	72
Papua New Guinea[51]	1982	C. Higher Education	1	4 737	NA
	1985	E. Special	141	NA	NA
Solomon Islands	1985	A. National	10	5 400	-
	1985	B. Public	8	4 200	-

cont.

Table 9.13-cont.

Country	Year	Category of library	Number of Service Points	Annual additions	
				Volumes	Other materials
Tokelau	1980	B. Public	3	210	0
Tonga	1981	C. Higher Education	4	2 400	NA
USSR					
Byelorussian SSR	1980	B. Public	NA	NA	NA
Ukrainian SSR	1980	B. Public	NA	NA	NA
USSR	1983	A. National	1	1 926 800	65 500
	1983	B. Public	NA	NA	NA
	1980	D. School	NA	NA	NA
	1983	F. Non-Specialized	526	15 314 000	NA

1. Data concerning higher education refer only to the "Université des sciences et de la technologie d'Oran".
2. Data concerning higher education refer to the libraries of the University of Cotonou only.
3. The national library also serves as a public library.
4. Data for special libraries, refer only to one library.
5. Data concerning national libraries refer to the National Library of Addis Ababa.
6. The national library also serves as the public library.
7. Data concerning higher education refer to one university library only.
8. Data concerning higher education refer to the main or central library of the University of Nairobi.
9. Data concerning higher education refer only to main or central university libraries.
10. Data concerning school libraries refer to state school libraries only.
11. Data are also counted with those for France.
12. The figure in Column 6 concerning higher education refers to microforms and audivisual documents only.
13. Data concerning higher education refer to the main or central library of the University of Dakar.
14. Data concerning higher education refer to the main or central university library.
15. The figures in Column 6 concerning higher education refer to main or central university libraries only.
16. Data concerning higher education do not include the library of Erdiston Teacher Training College. The public library also serves as the national library.
17. Data concerning higher education refer to the library of Bermuda College.
18. The public library also serves as the national library.
19. Data concerning public libraries refer only to libraries financed by public authorities. Data concerning higher education include neither libraries attached to university institutes or departments nor libraries in the provinces of Quebec and British Columbia.
20. Data concerning higher education refer to the University of "Maria Aurora Zamora Gonzalez" only.
21. Data are also counted with those for France.
22. Data are also counted with those for France.
23. Data are also counted with those for France.
24. The public library also serves as the national library.
25. Data are also counted with those for France.
26. The figures in Columns 5 and 6 concerning higher education refer to the main or central university library only.
27. Data concerning school libraries refer to 15 libraries of a total of 332.
28. The public library also serves as the national library.
29. Data concerning higher education refer only to the main or central university libraries.
30. Data concerning higher education in Column 6 refer to the main library of the University of Kuwait. Data concerning school libraries in Column 5 refer to 12 libraries only.
31. Data concerning higher education refer to university libraries only.
32. The national library also serves as the public library.
33. Data concerning higher education refer to the University of Damascus only.
34. Data concerning higher education refer to the main or central university library only.
35. The figure in Column 5 concerning higher education refers to the main or central university libraries only.
36. Data refer only to the Flemish Community. Data in columns 2 and 3 concerning special libraries are incomplete.
37. Data in column 3 concerning national libraries do not include audio-visual documents.
38. For special libraries, partial data which refer only to specialized libraries open to the public.
39. Data refer to Metropolitan France and overseas departments. Data in Column 6, national libraries, refer only to audio-visual documents. The figure in Column 6, national libraries refers only to auditory materials. Data concerning higher education refer only to main or central university libraries.
40. Data concerning higher education do not include 3,165 libraries attached to university institutes or departments.
41. Data concerning public libraries refer only to libraries financed by public authorities, and the figure in Column 6 refers to microforms and audio-visual materials only. Data concerning special libraries refer only to 6 libraries out of a total of 13.
42. Data concerning higher education refer to the main or central university library.
43. Data concerning public libraries refer only to libraries financed by public authorities.
44. The figure in Column 6, national libraries, refers to microforms only. Data concerning school libraries refer to libraries of primary schools only.
45. Data concerning higher education refer to university libraries only.
46. Data are incomplete. Concerning national libraries, the figure in Column 6 refers to microforms and audiovisual materials only. The figure in Column 6, special libraries, refers to microforms only.
47. The figure in Column 6, libraries of institutions of higher education, refers to manuscripts and microforms only. The figure in Column 6, special libraries, refers to microforms only.
48. Not including Scotland.
49. Data in Column 5, special libraries, refer to books only.
50. The figure in Column 6, public libraries, refers to microforms only. Data concerning higher education refer only to the main or central university library.
51. Data concerning higher education refer to the University of Technology only.

Sources: *Unesco Statistical Yearbook 1987*, Paris, Unesco, 1987.
Unesco Statistical Yearbook 1988, Paris, Unesco, 1988.

Table 9.14 Libraries: loans

[e.g. Algeria reports for the National Library in 1980, having 11,881 registered borrowers and 80,061 loans to users.]

Country	Year	Category of libraries	Number of service points	Number of registered borrowers	Loans to users
Africa					
Algeria[1]	1980	A. National	1	11 881	80 061
	1981	C. Higher Education	NA	NA	32 640
	1983	E. Special	1	191	NA
Benin[2]	1980	A. National	8	15 427	123 265
	1984	C. Higher Education	7	2 730	17 612
	1984	E. Special	1	NA	NA
	1983	F. Non-Specialized	6	NA	NA
Botswana[3]	1984	A. National	18	48 472	137 096
	1985	E. Special	1	-	80
Burundi	1985	E. Special	2	-	1 100
Cameroon	1980	A. National	7	NA	936
	1981	C. Higher Education	NA	NA	NA
Central African Republic	1980	C. Higher Education	NA	1500	-
	1985	E. Special	2	-	2153
Chad	1985	B. Public	NA	250	NA
	1984	E. Special	NA	NA	250
	1984	F. Non-Specialized	NA	NA	NA
Congo	1984	A. National	1	603	6 500
	1984	B. Public	4	13 550	43 500
	1981	C. Higher Education	10	12 000	NA
	1986	E. Special	NA	-	NA
Côte d'Ivoire	1981	A. National	1	12 000	NA
	1981	B. Public	NA	2 120	24 200
	1981	F. Non-Specialized	1	NA	NA
Egypt	1980	A. National	NA	NA	NA
	1980	B. Public	NA	6 000	NA
	1982	D. School	NA	1 100 000	NA
	1983	E. Special	NA	NA	NA
Ethiopia[4]	1982	A. National	13	NA	NA
Gabon	1985	A. National	NA	-	-
	1981	C. Higher Education	4	788	20 826
	1981	D. School	5	2 846	NA
Gambia[5]	1983	A. National	1	950	100
	1983	B. Public	1	1 735	20 345
Ghana	1983	A. National	2	NA	NA
	1983	B. Public	42	54 514	658 597
	1985	E. Special	2	-	2
Guinea[6]	1980	A. National	3	NA	NA
	1984	C. Higher Education	NA	-	70
Kenya[7]	1981	A. National	1	NA	500
	1981	B. Public	14	97 387	582 000
	1981	C. Higher Education	8	6 700	250 800
Lesotho	1984	A. National	7	23	40 000
	1983	B. Public	1	30 16	21 000

cont.

Table 9.14 - cont.

Country	Year	Category of libraries	Number of service points	Number of registered borrowers	Loans to users
Liberia[8]	1983	C. Higher Education	6	32 41	121 152
Madagascar	1983	A. National	1	NA	20 843
	1983	B. Public	56	NA	18 817
	1981	C. Higher Education	6	14 086	NA
	1981	D. School	5	2 349	8 121
	1986	E. Special	26	-	18 865
Malawi	1984	A. National	6	-	-
	1985	B. Public	2	-	-
	1981	C. Higher Education	4	4 624	40 619
	1985	E. Special	5	-	935
Mauritius[9]	1984	D. School	27	21 907	255 229
Morocco	1986	E. Special	1	-	385
Nigeria	1980	A. National	8	208	313
	1979	B. Public	52	205 678	180 709
	1986	C. Higher Education	67	93 091	NA
Reunion[10]	1981	C. Higher Education	1	NA	NA
Rwanda	1984	C. Higher Education	9	*7 806	*30 000
	1983	E. Special	13	270	1 880
Senegal[11]	1983	A. National	NA	2 132	1 507
	1981	C. Higher Education	4	7 103	48 881
Seychelles	1983	B. Public	6	NA	107 583
	1982	C. Higher Education	2	170	1 639
	1984	D. School	22	6 639	1 515 489
	1984	E. Special	1	NA	2 265
Somalia	1983	C. Higher Education	3	1 162	27 600
Togo[12]	1980	A. National	NA	NA	-
	1982	C. Higher Education	6	4 904	23 145
Tunisia	1983	B. Public	1 558	65 077	1 189 579
	1985	E. Special	NA	-	1 437 000
Uganda	1983	B. Public	18	156 891	397 950
United Republic of Tanzania	1983	A. National	5	-	-
	1980	B. Public	17	10 225	158 989
	1985	C. Higher Education	9	7 000	97 254
	1985	D. School	135	103 500	123 500
	1985	E. Special	120	-	4 680
Zaire	1980	A. National	1	NA	NA
Zambia	1983	A. National	1	-	-
	1984	C. Higher Education	8	9 735	77 165
	1983	D. School	1	1 305	138 640
	1985	E. Special	11	-	4 478
Zimbabwe	1981	A. National	2	NA	118
	1983	B. Public	6	18 000	570 667
	1982	C. Higher Education	10	7 380	304 239
	1980	D. School	NA	27 423	NA
	1985	E. Special	1	-	8 218
	1984	F. Non-Specialized	1	NA	NA

cont.

Table 9.14 - cont.

Country	Year	Category of libraries	Number of service points	Number of registered borrowers	Loans to users
America, North					
Barbados[13]	1983	B. Public	10	63 822	555 767
	1981	C. Higher Education	5	3 679	75 696
	1986	E. Special	2	-	-
Belize	1985	A. National	30	-	-
	1984	D. School	NA	NA	NA
	1985	E. Special	32	-	50 000
Bermuda[14]	1980	B. Public	4	3 318	NA
	1982	C. Higher Education	1	500	5 994
	1982	D. School	NA	6 862	NA
	1980	F. Non-Specialized	3	NA	NA
British Virgin Islands[15]	1983	B. Public	5	9 886	33 947
	1982	D. School	2	720	11 000
Canada[16]	1984	A. National	NA	NA	130 010
	1983	B. Public	3 136	NA	154 807 607
	1980	C. Higher Education	NA	NA	20 405 339
	1981	D. School	7 982	NA	NA
Cayman Islands	1981	B. Public	2	1 630	40 205
	1982	C. Higher Education	1	175	4 200
	1981	D. School	1	800	3 358
	1980	F. Non-Specialized	NA	NA	NA
Costa Rica[17]	1983	A. National	1	-	-
	1983	C. Higher Education	3	17 000	558 315
Cuba	1984	A. National	1	30 259	295 000
	1984	B. Public	NA	553 111	10 298 200
	1984	C. Higher Education	70	56 706	334 500
	1984	D. School	3 261	1 255 778	8 757 700
	1985	E. Special	6	-	18 400
Dominica[18]	1981	B. Public	2	4 000	50 000
El Salvador					
	1980	A. National	1	22 780	295 544
Grenada	1983	B. Public	1	841	NA
	1984	E. Special	1	40	200
Guadeloupe[19]	1980	B. Public	2	15 000	130 000
	1984	C. Higher Education	2	3 237	26 306
	1980	F. Non-Specialized	1	NA	NA
Guatemala	1983	A. National	100	NA	NA
	1981	C. Higher Education	7	45 000	69 792
	1986	E. Special	16	-	489 359
Honduras	1984	C. Higher Education	7	12 957	291 192
	1985	E. Special	1	-	-
Jamaica	1980	A. National	1	NA	12 560
	1980	B. Public	216	614 911	2 477 254
Martinique	1984	C. Higher Education	NA	1 817	11 356

cont.

Table 9.14 - cont.

Country	Year	Category of libraries	Number of service points	Number of registered borrowers	Loans to users
Mexico[20]	1983	A. National	2	NA	207 573
	1983	B. Public	557	8 492 000	13 040 000
	1981	C. Higher Education	329	8 427 513	9 938 439
	1981	D. School	1 880	NA	15 224 489
	1983	E. Special	171	NA	3 839 843
Netherlands Antilles	1981	B. Public	3	9 543	236 259
Panama	1980	A. National	43	49 794	257 252
	1980	B. Public	18	NA	56 550
	1985	E. Special	1	-	20 556
Saint Christopher and Nevis	1983	B. Public	5	-	-
	1984	C. Higher Education	2	67	374
	1984	D. School	2	353	682
Saint Lucia	1981	C. Higher Education	1	605	16 670
St Pierre and Miquelon[21]	1985	E. Special	1	-	5 200
Saint Vincent and the Grenadines	1985	A. National	27	-	-
Trinidad and Tobago	1983	B. Public	18	72 538	395 258
	1984	C. Higher Education	5	4 172	137 843
	1984	D. School	564	NA	NA
	1985	E. Special	NA	-	-
Turks and Caicos Islands[22]	1984	B. Public	3	2 684	13 127
	1982	D. School	17	NA	NA
U.S. Virgin Islands	1984	B. Public	12	10 000	76 000
America, South					
Argentina	1984	E. Special	64	654 288	NA
Bolivia	1980	A. National	5	NA	NA
	1980	B. Public	99	1 119 618	NA
	1983	C. Higher Education	NA	NA	750 000
	1982	F. Non-Specialized	13	NA	NA
Brazil	1984	A. National	1	94 690	0
	1982	B. Public	NA	2 919 155	7 728 684
	1984	C. Higher Education	NA	1 425 220	11 495 996
	1984	D. School	1 434	NA	17 779 466
	1982	E. Special	NA	424 425	2 453 531
	1982	F. Non-Specialized	NA	NA	NA
Chile	1984	A. National	3	1 694	506 528
	1983	B. Public	NA	18 345	4 292 364
	1981	D. School	551	NA	2 516 497
	1985	E. Special	6	-	12 316
Colombia	1980	A. National	NA	NA	178 209
	1985	B. Public	1 036	NA	NA
	1985	C. Higher	NA	NA	NA
Ecuador	1983	E. Special	NA	230	460
French Guiana[23]	1980	B. Public	2	704	14 636
	1981	C. Higher Education	2	2 382	25 422

cont.

Table 9.14 - cont.

Country	Year	Category of libraries	Number of service points	Number of registered borrowers	Loans to users
Guyana[24]	1980	A. National	28	46 112	522 581
	1985	C. Higher Education	3	1 888	102 965
	1984	D. School	31	*1 200	NA
	1985	E. Special	32	-	NA
Peru	1983	A. National	NA	39 672	719 338
	1980	B. Public	NA	NA	2 293 846
	1984	C. Higher Education	11	10 200	666 216
	1981	D. School	311	447 000	894 000
Uruguay	1983	A. National	1	NA	449 316
	1984	C. Higher Education	5	20 434	83 325
	1985	E. Special	25	-	NA
	1984	F. Non-Specialized	151	NA	NA
Venezuela[25]	1980	A. National	8	NA	152 435
	1980	B. Public	373	66 250	2 374 219
	1984	D. School	NA	NA	NA
Asia					
Afghanistan	1984	B. Public	55	11 331	NA
	1984	C. Higher Education	18	30 802	NA
Bahrain	1981	B. Public	10	50 000	29 000
	1985	C. Higher Education	5	3 131	42 000
	1984	D. School	93	209 473	310 885
	1983	E. Special	1	1 800	8 896
Bhutan	1983	E. Special	2	150	2 700
Brunei Darussalam	1980	B. Public	8	6 422	43 503
	1981	C. Higher Education	NA	828	NA
	1981	D. School	15	13 099	20 571
	1983	E. Special	3	31	1 000
	1983	F. Non-Specialized	40	NA	NA
China	1985	A. National	23	-	-
	1985	B. Public	NA	-	-
Cyprus	1981	B. Public	103	NA	144 000
	1983	E. Special	71	NA	NA
Hong Kong[26]	1983	B. Public	34	1 287 186	7 590 033
	1981	C. Higher Education	25	63 166	1 643 646
	1981	D. School	191	216 440	962 920
India	1983	A. National	NA	-	-
Indonesia	1981	A. National	3	5 548	8 520
	1979	B. Public	44	2 768 100	NA
	1985	E. Special	NA	NA	NA
	1985	F. Non-Specialized	139	NA	NA
Iran (Islamic Republic of)	1980	A. National	1	6 000	22 696
	1980	B. Public	385	NA	300 000
	1982	C. Higher Education	198	NA	1 109 616
Iraq	1983	A. National	3	-	-
	1980	F. Non-Specialized	15	NA	NA

cont.

Table 9.14 - cont.

Country	Year	Category of libraries	Number of service points	Number of registered borrowers	Loans to users
Japan[27]	1984	A. National	3	NA	NA
	1983	B. Public	2	10 947 000	188 280 000
	1982	C. Higher Education	1 317	2 205 290	14 871 039
	1981	D. School	40 146	NA	NA
	1985	E. Special	NA	-	NA
	1980	F. Non-Specialized	1 862	NA	NA
Jordan	1981	A. National	NA	350	NA
	1983	B. Public	12	1 176	12 793
	1984	C. Higher Education	NA	27 750	378 650
	1983	E. Special	14	13 752	379 000
	1983	F. Non-Specialized	NA	NA	NA
Korea, Republic of[28]	1984	A. National	3	NA	1 104 666
	1984	B. Public	137	NA	NA
	1984	C. Higher Education	NA	48 697 569	13 087 038
	1984	D. School	NA	5 0193 811	45 075 289
	1984	E. Special	NA	1 417 480	1 362 767
Kuwait[29]	1981	B. Public	23	NA	74 671
	1984	C. Higher Education	14	NA	145 442
	1984	D. School	NA	NA	NA
	1985	E. Special	16	-	28 227
Lao People's Democratic Republic	1983	F. Non-Specialized	2	NA	NA
Malaysia[30]	1980	A. National	2	8 534	167 969
	1984	B. Public	159	811 290	5 022 808
	1984	C. Higher Education	18	NA	1 184 773
	1984	D. School	NA	3 058 869	NA
	1984	E. Special	265	-	58 103
Oman	1984	D. School	NA	1 840	-
Pakistan	1983	A. National	2	-	-
	1980	B. Public	3	NA	70
Philippines	1984	A. National	10	370 136	NA
	1984	B. Public	507	194 073	NA
	1985	E. Special	NA	-	NA
Qatar	1983	A. National	7	4 795	14 504
	1982	B. Public	5	1 355	6 185
	1981	C. Higher Education	5	3 000	17 184
	1982	D. School	NA	13 608	NA
	1985	E. Special	1	-	600
	1983	F. Non-Specialized	NA	NA	NA
Saudi Arabia	1984	C. Higher Education	34	21 288	NA
	1984	E. Special	4	1 400	NA
Singapore	1984	A. National	18	715 501	6 093 392
	1984	C. Higher Education	8	47 823	1 410 977
	1984	D. School	396	471 051	6 500 000
	1984	E. Special	40	27 711	333 055
Sri Lanka	1984	A. National	2	NA	NA
	1980	B. Public	684	197 200	NA
	1984	E. Special	84	23 736	615 482

cont.

Table 9.14 - cont.

Country	Year	Category of libraries	Number of service points	Number of registered borrowers	Loans to users
Syrian Arab Republic[31]	1980	A. National	1	NA	46 470
	1983	B. Public	NA	NA	NA
	1980	C. Higher Education	13	5 000	NA
	1985	E. Special	3	-	3 390
	1983	F. Non-Specialized	NA	NA	NA
Thailand	1983	A. National	9	-	-
	1981	B. Public	402	30 530	NA
	1985	E. Special	281	-	592
	1981	F. Non-Specialized	NA	NA	NA
Turkey	1984	A. National	1	20 452	NA
	1983	B. Public	762	510 700	2 142 733
United Arab Emirates[32]	1984	C. Higher Education	7	7 000	13 818
Europe					
Albania	1980	A. National	2	9 003	294 086
	1980	B. Public	3 633	NA	NA
	1984	C. Higher Education	15	NA	514 155
	1984	D. School	NA	391 696	NA
	1980	F. Non-Specialized	40	NA	NA
Andorra	1983	A. National	NA	NA	NA
Austria[33]	1983	A. National	1	NA	53 388
	1984	B. Public	2 313	813 102	NA
	1981	C. Higher Education	796	NA	675 107
	1983	E. Special	1 434	NA	NA
	1983	F. Non-Specialized	NA	NA	NA
Belgium[34]	1980	A. National	1	8 099	220 000
	1980	B. Public	NA	1 731 256	42 059 745
	1985	E. Special	717	-	74 171 385
Bulgaria	1983	A. National	NA	662 994	6 070 616
	1983	B. Public	NA	2 224 502	34 360 750
	1984	C. Higher Education	NA	124 543	3 045 457
	1984	D. School	NA	832 239	8 923 592
	1985	E. Special	NA	-	7 120 873
	1983	F. Non-Specialized	NA	NA	NA
Czechoslovakia	1980	A. National	427	292 822	6 083 682
	1984	B. Public	NA	2 765 583	95 256 845
	1984	C. Higher Education	1 743	292 828	5 326 660
Denmark[35]	1984	A. National	NA	NA	67 272
	1984	B. Public	NA	NA	87 344 000
	1981	C. Higher Education	23	NA	1 430 590
	1984	D. School	NA	NA	41 625 000
	1985	E. Special	13	-	130 834
Faeroe Islands	1982	A. National	NA	2 809	11 681
	1982	B. Public	NA	7 183	125 670
Finland	1984	A. National	5	NA	419 547
	1984	B. Public	1 785	2 100 000	76 000 000
	1984	C. Higher Education	168	NA	1 645 000
	1982	D. School	NA	NA	3 000 000
	1985	E. Special	62	-	125 950

cont.

Table 9.14 - cont.

Country	Year	Category of libraries	Number of service points	Number of registered borrowers	Loans to users
France[36]	1981	A. National	8	NA	NA
	1983	B. Public	2 422	6 094 000	107 115 000
	1984	C. Higher Education	184	463 000	3 800 000
	1979	F. Non-Specialized	6	NA	NA
German Democratic Republic	1983	A. National	NA	56 905	1 549 925
	1983	B. Public	18 813	4 817 201	97 674 903
	1984	C. Higher Education	504	222 897	5 493 958
	1983	F. Non-Specialized	NA	NA	NA
Germany, Federal Republic of[37]	1983	A. National	NA	72 930	1 476 086
	1983	B. Public	13 806	6 174 357	196 253 123
	1985	C. Higher Education	NA	1 058 591	31 704 495
	1985	E. Special	2 100	-	3 740 796
	1983	F. Non-Specialized	NA	NA	NA
Gibraltar	1983	B. Public	1	NA	45 000
	1983	E. Special	NA	-	-
Greece	1984	A. National	1	NA	NA
	1984	E. Special	884	-	99 514
Holy See	1980	A. National	1	NA	NA
	1980	B. Public	NA	NA	NA
	1984	C. Higher Education	19	14 774	78 374
	1980	F. Non-Specialized	3	NA	NA
Hungary	1983	A. National	4	NA	6 556
	1983	B. Public	10 080	2 251 283	50 553 902
	1982	C. Higher Education	221	142 614	4 391 019
	1984	D. School	3 958	1 016 611	7 514 292
	1983	F. Non-Specialized	1	NA	NA
Iceland	1982	A. National	NA	NA	NA
	1982	B. Public	NA	NA	NA
	1982	C. Higher Education	NA	NA	25 000
Ireland[38]	1983	A. National	2	NA	NA
	1983	B. Public	NA	651 284	14 948 000
	1984	C. Higher Education	27	29 920	981 827
	1985	E. Special	16	-	9 550
Italy	1983	A. National	7	NA	55 682
Liechtenstein	1983	A. National	1	8 930	25 375
Luxembourg[39]	1983	A. National	1	19 500	91 000
	1984	C. Higher Education	1	NA	NA
Malta	1983	A. National	2	NA	NA
	1983	B. Public	43	60 600	NA
	1984	C. Higher Education	2	2 453	71 107
	1984	D. School	45	20 500	132 000
	1985	E. Special	9	-	24 800
Monaco	1980	A. National	1	1 284	21 725
	1981	D. School	7	1 149	NA
Netherlands	1982	A. National	4	NA	60 200
	1983	B. Public	1 069	4 160 000	179 735 000
	1981	C. Higher Education	1 016	NA	3 883 000
	1985	E. Special	869	-	2 943 000
	1982	F. Non-Specialized	6	NA	NA

cont.

Table 9.14 - cont.

Country	Year	Category of libraries	Number of service points	Number of registered borrowers	Loans to users
Norway[40]	1983	A. National	3	33 000	113 833
	1983	B. Public	1 395	1 198 000	17 889 000
	1984	C. Higher Education	243	54 340	815 393
	1984	D. School	3 789	NA	5 362 441
	1985	E. Special	162	-	229 201
	1983	F. Non-Specialized	32	NA	NA
Poland	1983	A. National	1	734	16 735
	1984	B. Public	23 000	7 397 000	148 000 000
	1984	C. Higher Education	NA	767 600	6 188 400
	1985	D. School	NA	6 648 500	90 720 700
	1986	E. Special	NA	-	952 716
	1983	F. Non-Specialized	127	NA	NA
Portugal	1983	A. National	NA	128 467	12 125
	1983	B. Public	454	NA	5 139 352
	1984	C. Higher Education	NA	321 546	864 025
	1984	D. School	677	NA	1 600 149
	1985	E. Special	319	-	161 853
	1983	F. Non-Specialized	NA	NA	NA
Romania[41]	1984	A. National	NA	38 000	1 436 000
	1984	B. Public	NA	4 507 000	52 229 000
	1984	C. Higher Education	NA	389 000	13 322 000
	1984	D. School	NA	3 184 000	2 506 000
	1986	E. Special	NA	-	5 421 000
San Marino	1983	A. National	1	50	20
	1983	B. Public	2	800	500
	1983	D. School	17	3 300	NA
	1983	E. Special	1	NA	NA
Spain[42]	1982	A. National	3	44 661	112 937
	1980	B. Public	1 662	1 307 938	6 278 955
	1982	C. Higher Education	730	379 802	NA
	1981	D. School	626	211 768	271 233
	1980	E. Special	595	175 618	NA
Sweden	1984	A. National	7	3 100	113 232
	1984	B. Public	NA	NA	77 144 000
	1984	C. Higher Education	90	NA	1 168 153
	1984	D. School	NA	1 377 000	24 800 000
	1985	E. Special	66	-	196 181
	1983	F. Non-Specialized	NA	NA	NA
Switzerland	1983	A. National	1	8 880	113 241
	1984	C. Higher Education	NA	148 300	1 380 100
	1983	F. Non-Specialized	33	NA	NA
United Kingdom[43]	1980	A. National	17	NA	20 774
	1980	B. Public	16 244	NA	637 367 000
	1980	C. Higher Education	937	NA	NA
Yugoslavia	1983	A. National	8	92 464	NA
	1983	B. Public	1 972	NA	NA
	1983	C. Higher Education	432	390 665	NA
	1983	D. School	8 263	NA	NA
	1983	E. Special	1 040	1 035 942	NA
	1983	F. Non-Specialized	18	NA	NA

cont.

Table 9.14 - cont.

Country	Year	Category of libraries	Number of service points	Number of registered borrowers	Loans to users
Oceania					
American Samoa	1982	C. Higher Education	1	2 800	NA
	1982	D. School	26	8 000	84 000
Australia[44]	1983	A. National	1	NA	197 000
	1984	C. Higher Education	NA	NA	5 656 254
Cook Islands	1980	B. Public	1	3 330	20 154
Fiji	1985	E. Special	NA	-	NA
French Polynesia	1981	B. Public	2	1 360	34 817
	1985	E. Special	NA	-	50 244
Guam	1984	B. Public	9	17 202	NA
	1981	D. School	46	29 921	NA
Kiribati	1984	A. National	18	6 691	20 000
New Caledonia	1985	E. Special	13	-	NA
New Zealand[45]	1984	A. National	33	NA	2 172 003
	1979	B. Public	291	1 150 822	29 366 000
	1981	C. Higher Education	4	507	NA
Niue	1983	B. Public	5	1 312	10 183
	1985	E. Special	4	-	*40
Norfolk Island	1980	B. Public	1	231	12 065
	1982	D. School	1	325	14 650
Pacific Islands	1982	C. Higher Education	7	1 412	970
Papua New Guinea[46]	1982	C. Higher Education	1	2 615	49 867
	1985	E. Special	141	-	NA
Solomon Islands	1985	A. National	10	4 150	NA
	1985	B. Public	8	5 100	NA
Tokelau	1980	B. Public	3	NA	NA
Tonga	1981	C. Higher Education	4	507	1 960
USSR					
Byelorussian SSR	1980	B. Public	NA	5 416 000	114 084 000
Ukrainian SSR	1980	B. Public	NA	31 386 000	665 542 000
USSR[47]	1983	A. National	1	272 900	11 800 000
	1983	B. Public	NA	109 111 900	2 382 613
	1980	D. School	NA	NA	NA
	1983	F. Non-Specialized	526	NA	NA

1. Data concerning higher education refer only to the "Université des sciences et de la technologie d'Oran".
2. Data concerning higher education refer to the libraries of the University of Cotonou only.
3. The national library also serves as a public library.
4. Data concerning national libraries refer to the National Library of Addis Ababa.
5. The national library also serves as the public library.
6. Data concerning higher education refer to one university library only.
7. Data concerning higher education refer to the main or central library of the University of Nairobi.
8. Data concerning higher education refer only to main or central university libraries.
9. Data concerning school libraries refer to state school libraries only.
10. Data are also counted with those for France.
11. Data concerning higher education refer to the main or central library of the University of Dakar.
12. Data concerning higher education refer to the main or central university library.
13. Data concerning higher education do not include the library of Erdiston Teachers' Training College. The public library also serves as the national library.
14. Data concerning higher education refer to the library of Bermuda College.
15. The public library also serves as the national library.
16. Data concerning public libraries refer only to libraries financed by public authorities. Data concerning higher education include neither libraries attached to university institutes or departments nor libraries in the provinces of Quebec and British Columbia.

Table 9.14 - cont.

17. Data concerning higher education refer to the University of "Maria Aurora Zamora Gonzalez" only.
18. The figure in Column 5, public libraries, refers to the number of visits to reading rooms and not to the number of registered borrowers.
19. Data are also counted with those for France.
20. The figure in Column 5, public libraries, refers to the number of visits to reading rooms and not to the number of registered borrowers.
21. Data are also counted with those for France.
22. The public library also serves as the national library.
23. Data are also counted with those for France.
24. The figure in Column 5 concerning higher education refers to the main or central university library only.
25. Data concerning school libraries refer to 155 libraries of a total of 332.
26. The public library also serves as the national library.
27. The figure in Column 5 concerning higher education refers only to the main or central university libraries.
28. Data concerning higher education refer only to the main or central university libraries.
29. Data concerning higher education in Column 6 refer to the main library of the University of Kuwait. Data concerning school libraries in Column 5 refer to 12 libraries only.
30. The figure in Column 5, public libraries, refers only to libraries financed by public authorities. Data concerning higher education refer to university libraries only. The figure in Column 6, special libraries, refers to 47 libraries only.
31. Data concerning higher education refer to the University of Damascus only.
32. Data concerning higher education refer to the main or central university library only.
33. The figure in Column 6 concerning higher education refers to the main or central university libraries only.
34. Data refer only to the Flemish Community.
35. Data do not include 400 libraries attached to university institutes or departments and 26 libraries of institutions of higher education which are not part of a university. For special libraries, partial data which refer only to specialized libraries open to the public.
36. Data refer to Metropolitan France and overseas departments. Data concerning higher education refer only to main or central university libraries.
37. Data concerning higher education do not include 3,165 libraries attached to university institutes or departments.
38. Data concerning public libraries refer only to libraries financed by public authorities. Data concerning special libraries refer only to 6 libraries out of a total of 13.
39. Data concerning higher education refer to the main or central university library.
40. Data concerning school libraries refer to libraries of primary schools only.
41. Data concerning higher education refer to university libraries only.
42. Data are incomplete.
43. Not including Scotland.
44. The figure in Column 6, national libraries, refers only to works consulted in reading rooms.
45. Data concerning higher education refer only to the main or central university library.
46. Data concerning higher education refer to the University of Technology only.
47. The figure in Column 6, public libraries, is shown in millions.

Sources: *Unesco Statistical Yearbook 1987*, Paris, Unesco, 1987.
Unesco Statistical Yearbook 1988, Paris, Unesco, 1988.

Table 9.15 Libraries: expenditures and employees

[e.g. Algeria reports for year 1980 (Column 2) having for national libraries (Column 3) a total current expenditure of $710,000 (Column 5) out of which staff takes 66% (Column 6). The total number of library employees is 82 (Column 7), out of which 9 hold a diploma (Column 8) and 3 are trained on the job (Column 9).]

Country	Year	Category of libraries	Number of Service Points	Current expenditure		Library employees		
				Total (in $ thousands)	Staff %	Total	Holding a diploma	Trained on the job
Africa								
Algeria[1]	1980	A. National	1	710	66	82	9	3
	1981	C. Higher Education	NA	58	NA	13	1	NA
	1983	E. Special	1	NA	NA	7	5	2
Benin[2]	1980	A. National	8	79	85	42	2	10
	1984	C. Higher Education	7	NA	NA	59	7	13
	1984	E. Special	1	2	NA	1	1	-
	1983	F. Non-Specialized	6	NA	NA	NA	NA	NA
Botswana[3]	1984	A. National	18	614	62	190	48	-
	1985	E. Special	1	14	NA	2	1	1
Burundi	1985	E. Special	2	5	69	4	NA	4
Cameroon	1980	A. National	7	96	68	22	4	-
	1981	C. Higher Education	NA	NA	NA	40	7	-
Central African Republic	1980	C. Higher Education	NA	18	NA	12	3	-
	1985	E. Special	2	NA	NA	6	3	3
Chad	1985	B. Public	NA	NA	NA	4	1	3
	1984	E. Special	NA	NA	NA	4	1	3
	1984	F. Non-Specialized	NA	NA	NA	NA	NA	NA
Congo	1984	A. National	1	NA	NA	8	3	5
	1984	B. Public	4	NA	NA	21	4	17
	1981	C. Higher Education	10	64	10	53	9	-
	1986	E. Special	NA	NA	NA	NA	NA	NA
Côte d'Ivoire	1981	A. National	1	NA	NA	90	10	30
	1981	B. Public	NA	0	77	7	1	6
	1981	F. Non-Specialized	1	NA	NA	NA	NA	NA
Egypt[4]	1980	A. National	NA	119	NA	800	160	300
	1980	B. Public	NA	NA	NA	1 029	NA	NA
	1982	D. School	NA	NA	NA	NA	NA	13.6
	1983	E. Special	NA	NA	NA	1 264	NA	NA
Ethiopia[5]	1982	A. National	13	150	78	70	20	10
Gabon[6]	1985	A. National	NA	NA				
	1981	C. Higher Education	4	128	48	20	8	7
	1981	D. School	5	4	NA	6	NA	2
Gambia[7]	1983	A. National	1	4 573	90	24	4	13
	1983	B. Public	1	59	70	24	4	13
Ghana	1983	A. National	2	NA	NA	NA	NA	NA
	1983	B. Public	42	5 601	32	471	45	NA
	1985	E. Special	2	21	NA	5	2	-
Guinea[8]	1980	A. National	3	36	80	17	5	NA
	1984	C. Higher Education	NA	NA	NA	8	-	8
Kenya[9]	1981	A. National	1	85	24	300	26	50
	1981	B. Public	14	92	28	349	28	50
	1981	C. Higher Education	8	7	NA	127	-	24
Lesotho	1984	A. National	7	1	NA	20	5	1
	1983	B. Public	1	NA	NA	6	2	3

cont.

Table 9.15-cont.

Country	Year	Category of libraries	Number of Service Points	Current expenditure		Library employees		
				Total (in $ thousands)	Staff %	Total	Holding a diploma	Trained on the job
Liberia[10]	1983	C. Higher Education	6	346	8	65	7	16
Madagascar[11]	1983	A. National	1	NA	NA	19	2	7
	1983	B. Public	56	NA	NA	84	NA	75
	1981	C. Higher Education	6	311	82	127	3	10
	1981	D. School	5	2	NA	29	-	29
	1985	E. Special	26	NA	NA	51	5	28
Malawi	1984	A. National	6	NA	NA	NA	NA	NA
	1985	B. Public	2	NA	NA	NA	NA	NA
	1981	C. Higher Education	4	341	51	105	13	NA
	1985	E. Special	5	20	5	6	2	1
Mauritius[12]	1984	D. School	27	22	NA	30	1	7
Morocco	1986	E. Special	1	NA	NA	10	6	2
Nigeria	1980	A. National	8	6 038	22	514	58	-
	1979	B. Public	52	2 925	58	1 045	128	-
	1986	C. Higher Education	67	7 536	47	2 088	398	7
Reunion[13]	1981	C. Higher Education	1	NA	NA	12	5	-
Rwanda	1984	C. Higher Education	9	160	56	70	4	5
	1983	E. Special	13	61	63	13	1	1
Senegal[14]	1983	A. National	NA	11	NA	4	4	-
	1981	C. Higher Education	4	267	NA	67	18	-
Seychelles[15]	1983	B. Public	6	67	78	15	-	10
	1982	C. Higher Education	2	NA	NA	NA	NA	NA
	1984	D. School	22	22	NA	22	-	NA
	1984	E. Special	1	25	NA	11	4	-
Somalia	1983	C. Higher Education	3	10	NA	13	-	-
Togo[16]	1980	A. National	NA	157	82	40	9	7
	1982	C. Higher Education	6	105	68	41	7	-
Tunisia	1983	B. Public	1 558	1 776	80	534	60	333
	1985	E. Special	NA	1 508	-	348	61	77
Uganda	1980	B. Public	18	170	NA	103	15	8
United Republic of Tanzania	1985	A. National	5	NA	NA	NA	NA	NA
	1980	B. Public	17	1 135	44	341	47	-
	1985	C. Higher Education	9	664	29	282	40	10
	1985	D. School	135	23	NA	80	2	-
	1985	E. Special	120	807	53	360	25	-
Zaire	1980	A. National	1	NA	NA	17	NA	8
Zambia[17]	1983	A. National	1	NA	NA	NA	NA	NA
	1984	C. Higher Education	8	1 482	21	130	8	-
	1983	D. School	1	20	NA	4	2	1
	1985	E. Special	11	6	96	5	2	2
Zimbabwe[18]	1981	A. National	2	NA	NA	10	5	2
	1983	B. Public	6	92	NA	25	3	22
	1982	C. Higher Education	10	NA	NA	99	6	25
	1980	D. School	NA	NA	NA	40	5	35
	1985	E. Special	1	17	29	7	5	-
	1984	F. Non-Specialized	1	NA	NA	NA	NA	NA

cont.

Table 9.15 - cont.

Country	Year	Category of libraries	Number of Service Points	Current expenditure		Library employees		
				Total (in $ thousands)	Staff %	Total	Holding a diploma	Trained on the job
America, North								
Barbados[19]	1983	B. Public	10	618	69	69	10	21
	1981	C. Higher Education	5	4 902	29	40	9	-
	1986	E. Special	2	NA	NA	1	1	-
Belize	1985	A. National	30	NA	NA	NA	NA	NA
	1984	D. School	NA	NA	24	NA	NA	NA
	1985	E. Special	32	150	66	32	2	-
Bermuda[20]	1980	B. Public	4	321	70	20	6	-
	1982	C. Higher Education	1	128	26	5	1	2
	1982	D. School	NA	NA	NA	6	3	3
	1980	F. Non-Specialized	3	NA	NA	NA	NA	NA
British Virgin Islands[21]	1983	B. Public	5	236	52	14	4	2
	1982	D. School	2	24	67	1	-	1
Canada[22]	1984	A. National	NA	23 910	57	540	183	NA
	1983	B. Public	3 136	302 847	64	11 355	1 954	NA
	1980	C. Higher Education	NA	185 038	64	7 928	1 701	NA
	1981	D. School	7 982	25 535	NA	4 633	425	NA
Cayman Islands	1981	B. Public	2	NA	2	2	-	47
	1982	C. Higher Education	1	NA	69	2	2	-
	1981	D. School	1	NA	NA	2	1	-
	1980	F. Non-Specialized	NA	NA	NA	NA	NA	NA
Costa Rica[23]	1983	A. National	1	NA	NA	NA	NA	NA
	1983	C. Higher Education	3	NA	NA	139	70	-
Cuba	1983	A. National	1	NA	NA	379	189	190
	1983	B. Public	NA	NA	NA	1 420	992	428
	1984	C. Higher Education	70	NA	NA	571	150	209
	1984	D. School	3 261	NA	NA	4 632	274	4 052
	1985	E. Special	6	NA	NA	51	3	48
Dominica	1981	B. Public	2	61	42	8	2	-
El Salvador	1980	A. National	1	212	92	63	2	NA
Grenada	1980	B. Public	1	51	54	11	1	-
	1984	E. Special	1	12	64	3	1	1
Guadeloupe[24]	1980	B. Public	2	192	62	8	2	1
	1984	C. Higher Education	2	117	NA	20	10	NA
	1980	F. Non-Specialized	1	NA	NA	NA	NA	NA
Guatemala	1983	A. National	100	30 482	58	NA	NA	NA
	1981	C. Higher Education	7	272	95	58	16	16
	1986	E. Special	16	NA	NA	51	7	-
Honduras	1984	C. Higher Education	7	678	66	101	11	87
	1985	E. Special	1	NA	NA	NA	NA	NA
Jamaica	1980	A. National	1	309	69	58	10	-
	1980	B. Public	216	3 344	69	1 057	43	-
Martinique[25]	1984	C. Higher Education	NA	31	NA	18	3	-
Mexico	1983	A. National	2	298	41	393	NA	NA
	1983	B. Public	557	865	35	1 933	NA	NA
	1981	C. Higher Education	329	2 268	65	2 219	204	2 015
	1981	D. School	1 880	487	30	3 786	NA	NA
	1983	E. Special	171	1 885	16	1 064	NA	NA

cont.

Table 9.15 - cont.

Country	Year	Category of libraries	Number of Service Points	Current expenditure		Library employees		
				Total (in $ thousands)	Staff %	Total	Holding a diploma	Trained on the job
Netherlands Antilles	1981	B. Public	3	1 298	74	56	14	-
Panama	1980	A. National	43	218 351	96	145	6	5
	1980	B. Public	18	NA	37	NA	NA	17
	1985	E. Special	1	25	96	4	3	1
Saint Christopher and Nevis[26]	1983	B. Public	5	NA				
	1984	C. Higher Education	2	2	NA	2	-	-
	1984	D. School	2	1	NA	2	-	-
Saint Lucia	1981	C. Higher Education	1	2 004	44	10	1	1
St Pierre and Miquelon[27]	1985	E. Special	1	NA	NA	1	1	-
Saint Vincent and The Grenadines	1985	A. National	27	NA				
Trinidad and Tobago	1983	B. Public	18	12 966	54	313	35	-
	1984	C. Higher Education	5	6 531	71	110	24	NA
	1984	D. School	564	735	NA	183	35	NA
	1985	E. Special	NA	NA	NA	NA	NA	NA
Turks and Caicos Islands[28]	1983	B. Public	3	NA	67	7	1	NA
	1982	D. School	17	NA	NA	5	NA	NA
U.S. Virgin Islands	1984	B. Public	12	1 247	72	82	13	3
America, South								
Argentina	1984	E. Special	64	318	90	444	NA	NA
Bolivia[29]	1980	A. National	5	NA	NA	40	-	8
	1980	B. Public	99	394	99	110	1	54
	1983	C. Higher Education	NA	1768	NA	70	1	30
	1982	F. Non-Specialized	13	NA	NA	NA	NA	NA
Brazil	1984	A. National	1	NA	NA	10 533	NA	NA
	1982	B. Public	NA	NA	10 533	NA	NA	NA
	1984	C. Higher Education	NA	NA	NA	11 950	NA	NA
	1984	D. School	14 334	NA	NA	NA	NA	NA
	1982	E. Special	NA	NA	NA	4 927	1 707	313
	1982	F. Non-Specialized	NA	NA	NA	NA	NA	NA
Chile[30]	1984	A. National	3	NA	NA	128	37	7
	1983	B. Public	NA	839	84	476	82	4
	1981	D. School	551	NA	NA	758	14	322
	1985	E. Special	6	NA	NA	11	5	1
Colombia	1980	A. National	NA	312	82	100	10	40
	1985	B. Public	1 036	NA	NA	NA	NA	NA
	1985	C. Higher Education	NA	NA	NA	NA	NA	NA
Ecuador	1983	E. Special	1	18	23	1	-	1
French Guiana[31]	1980	B. Public	2	16	NA	6	-	-
	1981	C. Higher Education	2	146	-	21	7	NA
Guyana[32]	1980	A. National	28	350	42	75	4	9
	1985	C. Higher Education	3	590	42	91	NA	NA
	1984	D. School	31	1 099	91	28	-	28
	1985	E. Special	32	NA	NA	63	6	57

cont.

Table 9.15 - cont.

Country	Year	Category of libraries	Number of Service Points	Current expenditure		Library employees		
				Total (in $ thousands)	Staff %	Total	Holding a diploma	Trained on the job
Peru	1983	A. National	NA	NA	NA	237	65	NA
	1983	B. Public	NA	NA	NA	NA	6	577
	1984	C. Higher Education	11	NA	NA	87	16	10
	1981	D. School	311	NA	NA	316	41	-
Uruguay	1983	A. National	1	558	80	180	53	3
	1984	C. Higher Education	5	NA	NA	56	11	-
	1985	E. Special	25	208	NA	170	124	NA
	1984	F. Non-Specialized	151	NA	NA	NA	NA	NA
Venezuela[33]	1980	A. National	8	1 373	96	110	32	67
	1980	B. Public	373	3 045	44	1 102	29	1 073
	1984	D. School	NA	NA	NA	254	NA	NA
Asia								
Afghanistan	1984	B. Public	55	256	91	457	71	NA
	1984	C. Higher Education	18	NA	NA	33	4	0
Bahrain[34]	1981	B. Public	10	859	94	70	4	7
	1985	C. Higher Education	5	NA	NA	39	7	2
	1984	D. School	93	838	NA	83	18	65
	1983	E. Special	1	186	34	5	2	NA
Bhutan	1983	E. Special	2	117	19	26	1	-
Brunei Darussalam	1980	B. Public	8	274	78	53	1	NA
	1981	C. Higher Education	NA	NA	NA	10	NA	5
	1981	D. School	15	280	68	64	1	18
	1983	E. Special	3	97	42	8	1	7
	1981	F. Non-Specialized	40	NA	NA	NA	NA	NA
China	1985	A. National	23	NA	NA	NA	NA	NA
	1985	B. Public	NA	NA	NA	NA	NA	NA
Cyprus[35]	1981	B. Public	103	NA	NA	115	1	114
	1983	E. Special	71	569	17	66	3	53
Hong Kong[36]	1983	B. Public	34	5 888	52	441	51	-
	1981	C. Higher Education	25	7 079	66	412	73	1
	1981	D. School	191	NA	NA	191	NA	NA
India	1983	A. National	NA	NA	NA	NA	NA	NA
Indonesia[37]	1981	A. National	3	584	16	105	57	1
	1979	B. Public	44	467	NA	317	NA	NA
	1985	E. Special	NA	12 804	54	5 943	978	1 384
	1985	F. Non-Specialized	139	NA	NA	NA	NA	NA
Iran (Islamic Republic of)[38]	1980	A. National	1	609	59	60	4	45
	1980	B. Public	385	NA	NA	900	20	NA
	1982	C. Higher Education	198	5 376	NA	1 196	156	NA
Iraq	1983	A. National	3	NA	NA	NA	NA	NA
	1980	F. Non-Specialized	15	NA	NA	NA	NA	NA
Japan[39]	1984	A. National	3	34 914	73	877	132	NA
	1983	B. Public	2 017	234 469	56	12 336	5 502	NA
	1982	C. Higher Education	1 317	398 269	40	11 519	NA	NA
	1981	D. School	40 146	81 207	NA	NA	NA	NA
	1985	E. Special	NA	203 527	NA	*18 000	NA	NA
	1980	F. Non-Specialized	1 862	NA	NA	NA	NA	NA

cont.

Table 9.15 - cont.

Country	Year	Category of libraries	Number of Service Points	Current expenditure		Library employees		
				Total (in $ thousands)	Staff %	Total	Holding a diploma	Trained on the job
Jordan	1981	A. National	NA	NA	NA	20	NA	5
	1980	B. Public	12	218	26	2	8	NA
	1984	C. Higher Education	NA	NA	NA	179	27	87
	1983	E. Special	14	1 281	NA	146	23	53
	1983	F. Non-Specialized	NA	NA	NA	NA	NA	NA
Korea, Republic of[40]	1983	A. National	3	5 476	52	447	134	0
	1983	B. Public	137	6 806	NA	1 515	NA	NA
	1984	C. Higher Education	NA	21 117	NA	2 457	1 383	0
	1984	D. School	NA	3 953	NA	2 447	1 303	-
	1984	E. Special	NA	944	NA	714	NA	NA
Kuwait[41]	1981	B. Public	23	2 832	64	170	8	-
	1984	C. Higher Education	14	7 162	56	256	48	50
	1984	D. School	NA	10 712	82	751	387	263
	1985	E. Special	16	3 591	NA	87	31	31
Lao People's Democratic Republic	1983	F. Non-Specialized	2	NA	NA	NA	NA	NA
Malaysia[42]	1980	A. National	2	1 111	58	145	36	0
	1984	B. Public	159	5 611	34	672	64	-
	1984	C. Higher Education	18	NA	NA	1 242	384	NA
	1984	D. School	NA	NA	NA	NA	NA	NA
	1982	E. Special	265	NA	NA	236	40	-
Oman	1984	D. School	NA	NA	NA	63	-	6
Pakistan	1983	A. National	2	1 128	9	90	16	NA
	1980	B. Public	3	61	82	550	13	3
Philippines	1984	A. National	10	594	44	258	92	52
	1984	B. Public	507	NA	NA	764	180	180
	1985	E. Special	NA	NA	NA	1 902	518	360
Qatar	1982	A. National	7	NA	NA	NA	NA	NA
	1982	B. Public	5	NA	NA	NA	NA	NA
	1981	C. Higher Education	5	2 013	25	38	-	-
	1982	D. School	NA	NA	NA	127	30	40
	1985	E. Special	1	NA	NA	NA	1	NA
	1983	F. Non-Specialized	NA	NA	NA	NA	NA	NA
Saudi Arabia	1984	C. Higher Education	34	NA	NA	99	50	-
	1984	E. Special	4	NA	NA	30	26	4
Singapore[43]	1984	A. National	18	5 384	57	398	62	NA
	1984	C. Higher Education	8	2 308	22	374	84	17
	1984	D. School	396	2 157	NA	NA	NA	NA
	1984	E. Special	40	1 612	33	198	48	61
Sri Lanka[44]	1984	A. National	2	NA	NA	81	NA	NA
	1980	B. Public	684	333	NA	952	7	239
	1984	E. Special	84	416	39	297	54	-
Syrian Arab Republic[45]	1980	A. National	1	NA	NA	14	1	NA
	1983	B. Public	NA	NA	NA	NA	NA	NA
	1980	C. Higher Education	13	33 376	53	60	4	30
	1985	E. Special	3	23	74	4	-	4
	1983	F. Non-Specialized	NA	NA	NA	NA	NA	NA
Thailand	1983	A. National	9	827	53	229	62	NA
	1981	B. Public	402	48	59	238	238	-
	1985	E. Special	281	NA	NA	1 451	1 416	35
	1981	F. Non-Specialized	NA	NA	NA	NA	NA	NA

cont.

Table 9.15-cont.

Country	Year	Category of libraries	Number of Service Points	Current expenditure		Library employees		
				Total (in $ thousands)	Staff %	Total	Holding a diploma	Trained on the job
Turkey	1984	A. National	1	523	38	188	22	11
	1983	B. Public	762	5 218	82	2 992	135	747
United Arab Emirates[46]	1984	C. Higher Education	7	2 452	55	84	15	68
Europe								
Albania	1980	A. National	2	NA	NA	57	32	21
	1980	B. Public	3 633	NA	NA	7 182	33	86
	1984	C. Higher Education	15	NA	NA	68	4	NA
	1984	D. School	NA	NA	NA	NA	NA	NA
	1980	F. Non-Specialized	40	NA	NA	NA	NA	NA
Andorra[47]	1980	A. National	NA	308	NA	1	-	1
Austria[48]	1983	A. National	1	2 403	NA	207	166	27
	1984	B. Public	2 313	NA	NA	5 011	NA	NA
	1981	C. Higher Education	796	NA	NA	NA	485	NA
	1983	E. Special	1 434	NA	NA	1 891	NA	NA
	1980	F. Non-Specialized	NA	NA	NA	NA	NA	NA
Belgium[49]	1980	A. National	1	11 831	58	265	-	38
	1980	B. Public	NA	NA	NA	NA	NA	NA
	1985	E. Special	717	28 035	58	23	NA	NA
Bulgaria[50]	1983	A. National	NA	5 546	39	785	662	123
	1983	B. Public	NA	20 908	47	3 298	2 414	884
	1984	C. Higher Education	NA	4 632	27	461	368	93
	1984	D. School	NA	3 018	52	778	480	298
	1985	E. Special	NA	7 571	24	792	565	227
	1983	F. Non-Specialized	NA	NA	NA	NA	NA	NA
Czechoslovakia[51]	1980	A. National	427	15 272	35	2 548	1 288	NA
	1983	B. Public	NA	22 833	48	13 704	368	9 893
	1984	C. Higher Education	1 743	3 398	NA	846	795	NA
Denmark[52]	1980	A. National	NA	10 218	75	357	142	NA
	1984	B. Public	NA	NA	NA	NA	NA	NA
	1981	C. Higher Education	23	27 207	62	864	385	0
	1984	D. School	NA	NA	NA	NA	NA	NA
	1985	E. Special	13	4 127	69	164	71	94
Faeroe Islands[53]	1982	A. National	NA	240	72	10	6	NA
	1982	B. Public	NA	354	NA	22	6	-
Finland[54]	1984	A. National	5	3 136	69	187	81	0
	1984	B. Public	1 785	92 013	52	3 536	1 326	1 586
	1984	C. Higher Education	168	14 012	52	732	345	-
	1982	D. School	NA	353	NA	5 300	NA	NA
	1983	E. Special	62	4 904	59	212	110	-
France[55]	1981	A. National	8	36 799	NA	1 300	300	NA
	1983	B. Public	2 422	8	60	10 966	4 072	NA
	1984	C. Higher Education	184	13 503	4	3 316	1 360	NA
	1979	F. Non-Specialized	6	NA	NA	NA	NA	NA
German Democratic Republic[56]	1983	A. National	NA	NA	NA	998	474	-
	1983	B. Public	18 813	38 037	NA	7 131	5 103	2 651
	1984	C. Higher Education	504	NA	NA	1 907	1 029	8
	1983	F. Non-Specialized	NA	NA	NA	NA	NA	NA

cont.

Table 9.15-cont.

Country	Year	Category of libraries	Number of Service Points	Current expenditure		Library employees		
				Total (in $ thousands)	Staff %	Total	Holding a diploma	Trained on the job
Germany, Federal Republic of[57]	1983	A. National	NA	46 812	63	1 522	NA	NA
	1983	B. Public	13 806	266 610	63	8 941	NA	NA
	1985	C. Higher Education	NA	56 494	NA	6 559	NA	NA
	1983	E. Special	2 100	38 245	45	2 061	NA	NA
	1983	F. Non-Specialized	NA	NA	NA	NA	NA	NA
Gibraltar[58]	1983	B. Public	1	15	NA	4	1	3
	1983	E. Special	NA	14	NA	4	-	1
Greece	1984	A. National	1	231	NA	70	17	11
	1984	E. Special	884	2 450	31	342	103	102
Holy See	1980	A. National	1	NA	NA	NA	NA	NA
	1980	B. Public	NA	NA	NA	3	1	-
	1984	C. Higher Education	19	3 029	52	68	34	34
	1980	F. Non-Specialized	3	NA	NA	NA	NA	NA
Hungary[59]	1983	A. National	4	174	NA	457	254	58
	1983	B. Public	10 080	3 203	NA	5 052	NA	NA
	1982	C. Higher Education	221	3 544	NA	1 336	517	231
	1984	D. School	3 958	1 149	NA	NA	NA	NA
	1983	F. Non-Specialized	1	NA	NA	NA	NA	NA
Iceland	1982	A. National	NA	NA	NA	NA	NA	NA
	1982	B. Public	NA	NA	NA	NA	NA	NA
	1982	C. Higher Education	NA	NA	NA	NA	NA	NA
Ireland[60]	1983	A. National	2	745	NA	55	5	7
	1983	B. Public	NA	19 560	53	1 040	206	-
	1984	C. Higher Education	27	7 516	58	358	119	76
	1985	E. Special	16	284	40	24	9	4
Italy[61]	1983	A. National	7	4 448	NA	1 444	NA	NA
Liechtenstein	1983	A. National	1	269	42	7	1	NA
Luxembourg[62]	1983	A. National	1	748	62	28	5	8
	1984	C. Higher Education	1	NA	NA	5	-	1
Malta[63]	1983	A. National	2	199	86	26	2	2
	1983	B. Public	43	257	85	44	1	-
	1984	C. Higher Education	2	191	NA	22	3	2
	1984	D. School	45	28	69	28	3	7
	1985	E. Special	9	NA	NA	17	2	8
Monaco	1980	A. National	1	236 571	68	8	2	2
	1981	D. School	7	99	79	5	-	4
Netherlands[64]	1982	A. National	4	7 207	63	214	20	45
	1983	B. Public	1 069	230 772	51	6 040	2 708	NA
	1981	C. Higher Education	1 016	14 866	NA	1 982	898	544
	1985	E. Special	869	NA	NA	2 309	1 204	826
	1982	F. Non-Specialized	6	NA	NA	NA	NA	NA
Norway[65]	1983	A. National	3	1 215	NA	179	106	73
	1983	B. Public	1 395	50 005	59	2 819	NA	NA
	1984	C. Higher Education	243	5 465	NA	568	386	182
	1984	D. School	3 789	2 113	NA	NA	NA	NA
	1985	E. Special	162	2 848	NA	454	212	NA
	1983	F. Non-Specialized	32	NA	NA	NA	NA	NA

cont.

Table 9.15 - cont.

Country	Year	Category of libraries	Number of Service Points	Current expenditure		Library employees		
				Total (in $ thousands)	Staff %	Total	Holding a diploma	Trained on the job
Poland[66]	1983	A. National	1	1 623	NA	754	NA	NA
	1984	B. Public	23 000	NA	NA	NA	NA	NA
	1984	C. Higher Education	NA	1 858	NA	5 413	NA	NA
	1985	D. School	NA	NA	NA	NA	NA	NA
	1985	E. Special	NA	NA	NA	11 146	NA	NA
	1983	F. Non-Specialized	127	NA	NA	NA	NA	NA
Portugal	1983	A. National	NA	1 828	74	397	47	102
	1983	B. Public	454	9 196	47	815	104	182
	1984	C. Higher Education	NA	1 081	41	384	56	139
	1984	D. School	697	NA	NA	NA	NA	NA
	1985	E. Special	319	4	64	940	132	164
	1983	F. Non-Specialized	NA	NA	NA	NA	NA	NA
Romania[67]	1984	A. National	NA	NA	NA	NA	NA	NA
	1984	B. Public	NA	NA	NA	NA	NA	NA
	1984	C. Higher Education	NA	NA	NA	NA	NA	NA
	1984	D. School	NA	NA	NA	NA	NA	NA
	1985	E. Special	NA	NA	NA	NA	NA	NA
San Marino[68]	1983	A. National	1	NA	NA	5	NA	1
	1983	B. Public	2	NA	64	3	1	2
	1983	D. School	17	10	NA	6	-	6
	1983	E. Special	1	1	NA	1	NA	NA
Spain[69]	1980	A. National	3	3 753	80	507	7	NA
	1980	B. Public	1 662	17 100	70	4 648	805	3 843
	1982	C. Higher Education	730	NA	NA	NA	NA	NA
	1981	D. School	626	951	32	1 752	154	1 598
	1980	E. Special	595	NA	NA	NA	NA	NA
Sweden	1983	A. National	7	6 136	57	175	49	NA
	1983	B. Public	NA	184 614	53	5 820	2 227	NA
	1984	C. Higher Education	90	25 196	63	1 063	38	NA
	1984	D. School	NA	NA	NA	NA	NA	NA
	1985	E. Special	66	NA	NA	297	133	-
	1983	F. Non-Specialized	NA	NA	NA	NA	NA	NA
Switzerland	1983	A. National	1	3 366	75	79	18	12
	1984	C. Higher Education	NA	34 008	67	890	256	NA
	1983	F. Non-Specialized	33	NA	NA	NA	NA	NA
United Kingdom[70]	1980	A. National	17	113 402	41	2 650	NA	NA
	1980	B. Public	16 244	719 472	54	27 624	NA	NA
	1980	C. Higher Education	937	83 742	56	4 009	NA	NA
Yugoslavia[71]	1983	A. National	8	443 639	NA	1 159	433	726
	1983	B. Public	1 972	4 256	NA	3 905	1 377	2 528
	1983	C. Higher Education	432	3 034	NA	891	849	42
	1983	D. School	8 263	NA	NA	NA	NA	NA
	1983	E. Special	1 040	5 015	NA	1 258	621	637
	1983	F. Non-Specialized	18	NA	NA	NA	NA	NA
Oceania								
American Samoa	1982	C. Higher Education	1	NA	NA	5	2	3
	1982	D. School	26	140	87	25	-	19
Australia[72]	1983	A. National	1	19 661	61	653	167	-
	1984	C. Higher Education	NA	147 786	31	3 982	1 221	NA
Cook Islands	1980	B. Public	1	NA	64	2	1	1

cont.

Table 9.15 - cont.

Country	Year	Category of libraries	Number of Service Points	Current expenditure		Library employees		
				Total (in $ thousands)	Staff %	Total	Holding a diploma	Trained on the job
Fiji	1985	E. Special	NA	*443	83	*80	30	*50
French Polynesia[73]	1981	B. Public	2	NA	3	0	3	38
	1985	E. Special	NA	127	NA	11	-	8
Guam	1984	B. Public	9	NA	37	2	3	38
	1981	D. School	46	NA	NA	58	21	10
Kiribati	1984	A. National	18	NA	53	9	1	3
New Caledonia	1985	E. Special	13	NA	NA	NA	NA	NA
New Zealand[74]	1984	A. National	33	11 876	34	400	194	NA
	1979	B. Public	291	63	1 349	350	59	92
	1981	C. Higher Education	4	3 401	57	2	1	1
Niue	1983	B. Public	5	NA	NA	2	1	1
	1985	E. Special	4	NA	*100	3	-	3
Norfolk Island[75]	1980	B. Public	1	NA	55	1	-	-
	1982	D. School	1	NA	NA	1	-	1
Pacific Islands	1982	C. Higher Education	7	NA	80	9	2	6
Papua New Guinea[76]	1982	C. Higher Education	1	631	40	30	9	-
	1985	E. Special	141	NA	NA	141	NA	NA
Solomon Islands	1985	A. National	10	NA	NA	22	3	10
	1985	B. Public	8	NA	NA	14	-	9
Tokelau	1980	B. Public	3	NA	-	NA	NA	NA
Tonga	1981	C. Higher Education	4	NA	NA	NA	NA	NA
USSR								
Byelorussian SSR	1980	B. Public	NA	121	NA	NA	NA	NA
USSR	1983	A. National	1	NA	NA	NA	2 318	NA
	1983	B. Public	NA	NA	NA	NA	121 820	NA
	1980	D. School	NA	NA	NA	NA	NA	NA
	1983	F. Non-Specialized	526	NA	NA	NA	NA	NA
Ukrainian SSR	1980	B. Public	NA	NA	NA	NA	NA	NA

1. Data concerning higher education refer to the "Université des sciences et de la technologie d'Oran". The figure in Column 5 does not include expenditure for employees.
2. Data concerning higher education refer to the libraries of the University of Cotonou only. The figure in Column 5, special libraries, refers only to expenditure for acquisitions.
3. The national library also serves as a public library. The figure in Column 5, special libraries, refers only to expenditure for acquisitions.
4. The figure in Column 5, national libraries, refers only to expenditure for acquisitions.
5. Data concerning national libraries refer to the National Library of Addis Ababa.
6. The figure in Column 5, school libraries, does not include expenditure for employees.
7. The national library also serves as the public library.
8. Data concerning higher education refer to one university library only.
9. Data concerning higher education refer to the main or central library of the University of Nairobi and the figure in Column 5 refers only to expenditure for acquisitions.
10. Data concerning higher education refer only to main or central university libraries.
11. The figure in Column 5, national libraries, refers only to expenditure for the employees. The figure in Column 5, public libraries, refers to acquisitions only. The figure in Column 5, school libraries, does not include expenditure for employees.
12. Data concerning school libraries refer to state school libraries only and the figure in Column 5 refers only to expenditure for acquisitions.
13. Data are also counted with those of France.
14. The figure in Column 5, national libraries, does not include expenditure for employees. Data concerning higher education refer to the main or central library of the University of Dakar and the figure in Column 5 does not include expenditure for employees.
15. The figure in Column 5, school libraries, refers only to expenditure for acquisitions.
16. Data concerning higher education refer to the main or central university library.
17. The figure in Column 5, school libraries, refers only to expenditure for acquisitions.
18. The figure in Column 5, public libraries, represents expenditure for employees and for acquisitions.
19. Data do not include the library of Erdiston Teacher Training College. The public library also serves as the national library.
20. Data concerning higher education refer to the library of Bermuda College.
21. The public library also serves as the national library.
22. Data concerning public libraries refer only to libraries financed by public authorities. Data concerning higher education include neither libraries attached to university institutes or departments nor libraries in the provinces of Quebec and British Colombia. The figure in Column 5, special libraries, refers only to expenditure for acquisitions.
23. Data concerning higher education refer to the University of "Maria Aurora Zamora Gonzales" only.
24. Data are also counted with those for France.
25. Data are also counted with those for France. The figure in Column 5, concerning higher education, refers to expenditure on acquisitions only.
26. The figure in Column 5, school libraries, refers only to expenditure for acquisitions.

Table 9.15 - cont.

27. Data are also counted with those for France
28. The public library also serves as the national library.
29. The figure in Column 5, libraries of institutions of higher education, does not include expenditure for employees.
30. The figure in Column 7, national libraries, includes part-time employees but not calculated in full-time equivalent.
31. Data are also counted with those of France. The figure in Column 5, public libraries, does not include expenditure for employees.
32. The figures in Columns 5 and 7, libraries of institutions of higher education, refer to the main or central university library only.
33. Data concerning school libraries refer to 155 libraries out of a total of 332.
34. The figure in Column 5, school libraries, refers only to expenditure for employees and acquisitions.
35. The figure in Column 5, special libraries, includes only expenditure for employees and for acquisitions.
36. The public library also serves as the national library.
37. The figure in Column 5, public libraries, refers to acquisitions only.
38. The figure in Column 5, libraries of institutions of higher education, refers only to expenditure for acquisitions.
39. The figure in Column 5, school libraries, refers only to expenditure for acquisitions. The figure in Column 5, special libraries, does not include expenditure for employees.
40. Data concerning higher education refer only to the main or central university libraries.
41. The figure in Column 5, special libraries, refers to to 11 libraries only.
42. The figure in Column 5, public libraries, refers only to libraries financed by public authorities. Data concerning higher education refer to university libraries only. The figure in *Column 7, special libraries, refers to 89 libraries only.*
43. The national library also serves as the public library. The figures in Columns 5 and 6, libraries of institutions of higher education, refer to main or central university libraries only. The figure in Column 5, special libraries, refers only to expenditure for acquisitions.
44. The figure in Column 5, public libraries, represents only expenditure for employees.
45. Data concerning higher education refer to the University of Damascus only.
46. Data concerning higher education refer to the main or central university library only.
47. The figure in Column 5, national libraries, refers only to expenditure for acquisitions.
48. The figure in Column 8, libraries of institutions of higher education, refers to central university libraries only.
49. Data refer only to the Flemish Community.
50. *Data in Columns 6, 7 and 8, school libraries, include library personnel of post-secondary schools.*
51. The figure in Column 5, libraries of institutions of higher education, refers to expenditure for acquisitions.
52. Data concerning higher education do not include 400 libraries attached to university institutes or departments and 26 libraries of institutions of higher education which are not part of a university. Public libraries - partial data which refer only to specialized libraries open to the public.
53. The figure in Column 5, public libraries, represents expenditure for employees and for acquisitions.
54. The figure in Column 5, school libraries, refers only to expenditure for acquisitions.
55. Data refer to Metropolitan France and overseas departments. Data concerning higher education refer only to main or central university libraries.
56. The figure in Column 5, public libraries, represents expenditure for employees and for acquisitions.
57. Data concerning higher education do not include 3,165 libraries attached to university institutes or departments and Column 5 refers only to expenditure for acquisitions. The figure in Column 5, special libraries, includes only expenditure for employees and for acquisitions.
58. The figure in Column 5, public libraries, refers only to expenditure for employees and for acquisitions. The figure in Column 5, special libraries, refers only to expenditure for employees.
59. The figure in Column 5 refers only to expenditure for acquisitions.
60. The figure in Column 5, national libraries, includes only expenditure for employees and for acquisitions. Data concerning national libraries refer only to libraries financed by public authorities. Data concerning special libraries refer only to 6 libraries out of a total of 13.
61. Data in Column 5, national libraries, refer only to expenditure for acquisitions.
62. Data concerning higher education refer to the main or central university library.
63. The figure in Column 5, libraries of institutions of higher education, does not include expenditure for acquisitions.
64. Data concerning public libraries refer only to libraries financed by public authorities. The figure in Column 7 includes part-time employees but not in full-time equivalent.
65. The figure in Column 5, national libraries, does not include expenditure for employees. Column 7, public libraries, includes part-time employees but not in full-time equivalent. The figure in Column 5, libraries of institutions of higher education, refers only to expenditure for acquisitions. Data concerning school libraries refer to libraries of primary schools only and the figure in Column 5 refers only to expenditure for acquisitions. The figure in Column 5, special libraries, refers only to expenditure for acquisitions.
66. *The figure in Column 5, national and public libraries, does not include expenditure for employees. The figure in Column 5, libraries of institutions of higher education, refers* only to expenditure for acquisitions.
67. Data concerning higher education refer to university libraries only.
68. The figure in Column 5, national libraries, includes only expenditure for employees and for acquisitions. The figure in Column 5, special libraries, refers only to expenditure for acquisitions.
69. Data are incomplete.
70. Not including Scotland. The figure in Column 7, national libraries, refers to full-time employees only.
71. The figure in Column 5 refers only to expenditure for acquisitions.
72. Data concerning higher education in Columns 4, 6 and 7 refer to university libraries only.
73. The figure in Column 5, special libraries, refers only to 4 libraries.
74. Data concerning higher education refer only to the main or central university library.
75. The figure in Column 5, school libraries, refers only to expenditure for employees and for acquisitions.
76. Data concerning higher education refer to the University of Technology only.

Source: *Unesco Statistical Yearbook 1987*, Paris, Unesco, 1987.
Unesco Statistical Yearbook 1988, Paris, Unesco, 1988.

Cinema

The statistics in this section relate to the production and importation of long films intended for commercial exhibition in cinemas, and to the number, seating capacity and annual attendance of such cinemas.

General note:

The minimum length for films classified as long films varies considerably from country to country, ranging from 1,000 metres in some countries to more than 3,000 metres in others; a number of countries, however, have adopted standards close to 2,000 metres. Wherever possible, the minimum length of the films covered by the statistics is given. Where such information is lacking, data refer, without exact definition, to long or feature films. Films produced or imported solely for television broadcasting are not included.

Definition of data:

P	=	Production completed in the year stated.
I	=	Imported in the year stated.
C	=	Approved by censor for public showing in the year stated.
S	=	Commercially shown for the first time in the year stated.
O	=	Other criteria

Table 9.16 Long films: number of films produced, 1985

[e.g. Algeria reports a total production of 2 films in 1985 (Column 5), with a minimum length of 2,600 metres (Column 3). According to the definition of data (Column 4) their production was completed in the year stated.]

Country	Production	Length	Definition of data	Number of films produced
Africa				
Algeria	Total Co-prod	2 600	P	2 -
Cameroon	Total Co-prod	3 000	0	2 -
Egypt	Total Co-prod	2 000	NA	NA NA
Ghana	Total	2 400	P	-
Libyan Arab Jamahiriya	Total Co-prod	NA	NA	NA NA
Nigeria	Total Co-prod	1 800	C	NA NA
Sierra Leone	Total Co-prod	NA	NA	NA NA
Sudan	Total Co-prod	NA	NA	NA NA
Tunisia	Total	NA	NA	NA
America, North				
Canada	Total	2 100	NA	NA
Costa Rica	Total	NA	S	2
Cuba	Total Co-prod	2 000	P	10 3
Guatemala	Total	NA	P	3
Mexico	Total Co-prod	NA	O	88 5
United States	Total	NA	NA	NA
America, South				
Argentina	Total Co-prod	1 600	P	NA NA
Bolivia	Total	1 600	C	2
Brazil	Total Co-prod	1 600	C	86 NA
Colombia	Total Co-prod	2 500	C	9 1
Guyana	Total Co-prod	3 200	S	NA NA
Peru	Total Co-prod	2 000	NA	NA NA
Uruguay	Total Co-prod	1 800	P	1 1
Venezuela	Total Co-prod	2 400	S	16 1

cont.

Table 9.16 - cont.

Country	Production	Length	Definition of data	Number of films produced
Asia				
Afghanistan	Total Co-prod	NA	P	3 -
Brunei Darussalam	Total	2 300	NA	NA
Burma	Total Co-prod	NA	NA	NA NA
Cyprus	Total	NA	S	2
Hong Kong	Total Co-prod	NA	C	NA NA
India	Total Co-prod	2 000	C	912 -
Indonesia	Total Co-prod	2 000	P	63 1
Iran (Islamic Republic of)	Total Co-prod	2 500	C	42 -
Iraq	Total Co-prod	NA	NA	1 -
Israel	Total Co-prod	2 000	C	14 1
Japan	Total Co-prod	1 600	P	319 1
Korea, Democratic People's Republic of	Total Co-prod	NA	P	37 1
Korea, Republic of	Total Co-prod	2 500	C	81 7
Lebanon	Total	NA	NA	NA
Malaysia	Total Co-prod	2 000	NA	1 -
Pakistan	Total Co-prod	3 600	O	92 4
Philippines	Total	2 400	NA	NA
Qatar	Total	NA	NA	NA
Singapore	Total Co-prod	3 000	O	25 2
Sri Lanka	Total Co-prod	3 600	NA	NA NA
Syrian Arab Republic	Total Co-prod	2 800	NA	1 -
Thailand	Total	NA	O	134
Turkey	Total Co-prod	2 500	C	96 NA
Viet Nam	Total Co-prod	1 800	NA	NA NA
Europe				
Albania	Total	NA	P	14
Austria	Total Co-prod	2 000	S	18 9
Belgium	Total Co-prod	1 600	P	NA NA

cont.

Table 9.16 - cont.

Country	Production	Length	Definition of data	Number of films produced
Bulgaria	Total Co-prod	1 800	P	40 8
Czechoslovakia	Total Co-prod	1 800	O	50 5
Denmark	Total Co-prod	1 600	S	10 2
Finland	Total Co-prod	1 700	S	13 -
France	Total Co-prod	1 600	O	151 45
German Democratic Republic	Total Co-prod	2 300	P	16 1
Germany, Federal Republic of	Total Co-prod	1 600	S	71 18
Greece	Total Co-prod	2 000	C	33 -
Hungary	Total Co-prod	2 000	P	21 -
Iceland	Total Co-prod	2 000	NA	NA NA
Ireland	Total Co-prod	1 500	C	2 -
Italy	Total Co-prod	1 600	S	73 7
Netherlands	Total Co-prod	1 776	S	NA NA
Norway	Total Co-prod	2 000	C	12 -
Poland	Total Co-prod	2 100	P	43 7
Portugal	Total Co-prod	1 600	P	5 2
Romania	Total Co-prod	1 800	S	26 NA
Spain	Total Co-prod	1 600 NA	P NA	65 12
Sweden	Total Co-prod	2 000	S	NA NA
Switzerland	Total Co-prod	1 600	S	44 20
United Kingdom	Total Co-prod	2 000	O	NA NA
Yugoslavia	Total Co-prod	2 000	C	25 1
Oceania				
Australia	Total	1 500	O	34
USSR				
USSR	Total Co-prod	1 800	P	156 7

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Table 9.17 Long films: number of films imported, by country of origin

[e.g. Algeria reports having imported a total of 140 films in 1985. Out of these 32.1% were from the United States, 15.0% from France, 0.7% from Italy, 17.9% from India, 7.9% from USSR, etc.]

Country	Year	Def.of data	Total	United States	France	Italy	India	USSR	United Kingdom	Federal Republic of Germany	Japan	Hong Kong	Other Countries
Africa													
Algeria	1985	S	140	32.1	15.0	0.7	17.9	7.9	4.3	-	-	1.4	20.7
Angola	1985	I	134	17.2	14.2	9.7	-	15.7	3.7	3.0	-	-	36.6
Egypt	1984	I	243	38.7	3.3	32.5	1.2	1.2	2.5	0.8	0.8	-	18.9
Ethiopia	1985	I	178	44.4	2.8	-	34.8	7.9	2.8	-	-	-	7.3
Ghana	1985	O	29	-	-	3.4	24.1	58.6	10.3	3.4	-	-	-
Guinea	1985	I	231	48.1	5.2	6.1	15.2	9.5	0.9	-	3.0	11.3	0.9
Mauritania	1981	NA	190	31.6	21.1	5.3	42.1	-	-	-	-	-	-
Mauritius	1985	C	324	-	78.4	-	21.6	-	-	-	-	-	-
Morocco	1983	C	302	21.2	17.2	9.3	18.9	2.0	7.9	1.0	2.6	15.9	4.0
Mozambique	1983	C	68	7.4	2.9	10.3	-	16.2	4.4	-	27.9	-	30.9
Rwanda	1985	C	144	6.3	0.7	4.2	-	-	-	-	0.7	2.8	85.4
Somalia	1983	S	449	-	-	74.4	25.6	-	-	-	-	-	-
Sudan	1982	C	137	18.2	7.3	3.7	25.5	7.3	10.9	3.7	-	7.3	16.1
United Republic of Tanzania	1981	S	162	32.7	1.2	11.1	32.1	8.0	4.9	0.6	1.2	8.0	-
America, North													
Bermuda	1981	I	122	79.5	1.6	-	-	-	9.0	-	-	8.2	1.6
Canada	1984	O	1 520	38.5	17.0	4.6	NA	NA	1.3	1.3	NA	7.1	30.2
Costa Rica	1985	C	223	59.2	4.9	12.6	-	-	1.3	1.3	-	0.9	19.7
Cuba	1985	S	125	14.4	12.0	7.2	-	18.4	4.0	0.8	4.0	-	39.2
El Salvador	1985	NA	478	49.8	9.4	13.2	0.4	-	1.9	3.1	0.4	0.6	21.1
Guatemala	1985	I	361	52.6	6.9	8.6	0.6	-	0.3	3.3	0.6	5.3	21.9
Haiti	1981	I	422	40.8	41.5	0.7	-	-	1.9	-	-	10.0	5.2
Mexico	1985	C	288	51.4	2.1	2.4	0.3	0.7	5.9	1.4	1.4	1.7	32.6
Nicaragua	1981	NA	231	68.8	1.7	5.2	-	0.4	3.0	-	-	2.2	18.6
America, South													
Argentina	1983	C	205	51.2	5.9	18.5	0.5	1.5	2.4	3.4	1.5	-	15.1
Brazil	1985	C	178	76.4	9.6	3.4	-	0.6	6.2	1.1	-	-	2.8
Colombia	1985	C	505	51.9	4.6	15.8	-	1.0	1.2	3.0	0.2	2.4	20.0
Guyana	1981	C	367	63.2	-	-	17.7	-	-	-	-	19.1	-
Peru	1981	C	707	44.0	3.5	12.2	1.1	1.4	2.0	1.8	1.8	4.0	28.1
Venezuela	1985	I	807	73.6	3.5	16.1	-	0.5	2.5	1.4	-	2.5	-
Asia													
Afghanistan	1985	NA	33	-	./.	./.	-	84.8	./.	./.	-	-	15.2
Bahrain	1985	NA	281	20.6	NA	-	62.6	NA	-	NA	NA	-	16.7
Brunei Darussalam	1981	S	437	33.0	-	-	-	-	1.1	-	-	41.2	24.7
Cyprus	1985	C	88	45.5	4.5	11.4	-	-	3.4	6.8	1.1	3.4	23.9
Hong Kong	1983	C	429	28.4	5.1	6.8	0.7	0.5	4.9	7.7	8.2	-	37.8
India	1985	I	182	59.9	1.6	5.5	-	6.6	12.6	2.2	0.5	4.9	6.0
Indonesia	1983	NA	186	39.8	2.7	3.2	13.4	-	1.6	0.5	0.5	30.1	8.1
Iran (Islamic Republic of)	1983	NA	96	13.5	2.1	22.9	-	26.0	10.4	-	2.1	-	22.9
Iraq	1981	NA	93	35.5	7.5	6.5	10.8	3.2	3.2	-	-	-	33.3
Israel	1985	C	196	65.8	7.7	3.1	-	1.5	9.2	1.0	0.5	-	11.2
Japan	1985	C	264	68.2	11.7	3.4	0.4	0.8	3.8	3.4	-	3.0	5.3
Jordan	1983	S	438	30.8	1.1	19.4	11.4	-	0.7	-	-	6.8	29.7
Korea, Democratic People's Republic of	1985	I	68	-	-	-	-	45.6	-	NA	NA	NA	54.4
Korea, Republic of	1983	C	26	61.5	3.8	7.7	-	-	3.8	3.8	-	11.5	7.7
Kuwait	1985	I	239	38.1	1.7	14.6	37.7	-	2.1	-	3.3	2.5	-
Lao People's Democratic Republic	1981	NA	78	-	-	-	23.1	60.3	-	-	-	-	16.7
Malaysia	1983	C	1 045	22.3	1.3	3.5	11.9	0.3	6.5	2.0	2.6	36.6	13.0
Maldives	1983	C	49	8.2	2.0	-	85.7	2.0	-	-	-	-	2.0
Philippines	1981	NA	999	42.3	1.3	2.1	-	-	22.0	0.4	1.7	27.6	2.5
Qatar	1983	I	887	31.9	-	-	39.5	-	-	-	-	-	28.6
Singapore	1983	C	533	34.7	1.7	5.1	12.8	-	4.1	3.0	1.7	26.1	10.9
Sri Lanka	1985	I	61	37.7	-	3.3	18.0	-	16.4	-	-	24.6	-
Syrian Arab Republic	1985	NA	91	-	-	-	26.4	6.6	-	-	-	-	67.0
Turkey	1984	C	640	51.7	3.9	8.9	0.5	1.3	6.1	7.3	0.6	3.0	16.7
Yemen	1981	S	174	28.7	2.9	5.7	20.1	5.7	4.0	2.9	4.0	2.9	23.0

cont.

Table 9.17 - cont.

Country	Year	Def.of Data	Total	United States	France	Italy	India	USSR	United Kingdom	Federal Republic of Germany	Japan	Hong Kong	Other Countries
Europe													
Albania	1985	I	10	-	20.0	-	20.0	-	-	-	10.0	-	50.0
Austria	1985	S	366	52.5	15.6	4.4	-	-	4.9	13.1	1.1	0.5	7.9
Bulgaria	1985	I	191	6.8	4.7	3.1	1.0	29.3	2.6	0.5	3.7	0.5	47.6
Czechoslovakia	1985	S	148	11.5	9.5	2.0	-	25.7	0.7	4.7	1.4	-	44.6
Denmark	1985	S	217	62.7	6.9	3.7	-	0.5	8.3	2.8	-	-	15.2
Finland	1985	S	224	55.8	3.1	2.2	-	4.9	7.6	0.9	-	-	25.4
France	1985	S	298	40.6	-	6.7	9.1	8.1	8.4	2.3	1.3	9.7	13.8
German Democratic Republic	1985	I	128	7.0	3.9	1.6	-	26.6	3.1	5.5	-	-	52.3
Germany, Federal Republic of	1985	S	248	59.3	12.1	6.5	-	-	10.5	-	1.2	1.6	8.9
Gibraltar[1]	1981	C	369	89.7	-	-	-	-	./.	1.9	-	-	8.4
Greece	1985	C	271	65.7	8.9	7.0	-	0.7	5.2	8.1	0.7	1.1	2.6
Hungary	1985	I	186	23.7	9.7	5.4	-	15.6	3.8	2.7	1.1	-	38.2
Ireland	1985	C	172	69.8	4.7	1.2	-	-	14.0	-	0.6	-	9.9
Italy	1985	S	279	56.3	18.6	-	-	0.7	6.5	5.4	0.4	0.7	11.5
Netherlands	1982	S	332	56.3	13.3	2.4	-	-	4.8	10.5	0.9	4.2	7.5
Norway	1985	C	256	58.6	8.2	1.6	-	-	8.6	2.0	1.2	0.8	19.1
Poland	1985	I	103	8.7	5.8	-	-	38.8	1.0	1.0	1.0	-	43.7
Portugal	1985	S	235	56.6	11.5	6.4	1.3	0.9	7.7	3.8	-	2.6	9.4
Romania	1985	S	95	NA	NA	NA	NA	34.7	NA	NA	NA	NA	65.3
San Marino	1985	S	280	43.9	6.1	32.1	-	1.1	6.1	2.5	2.5	-	5.7
Spain	1985	C	344	52.0	16.0	6.1	-	0.9	5.8	9.0	-	-	10.2
Switzerland	1985	I	358	49.7	23.2	5.9	-	-	4.5	12.0	-	-	4.7
United Kingdom	1983	O	265	54.7	./.	./.	./.	./.	-	./.	./.	./.	45.3
Yugoslavia	1985	I	212	48.1	9.4	6.6	0.9	9.0	4.2	0.9	0.9	1.4	18.4
Oceania													
Australia	1985	C	819	32.8	6.2	2.3	NA	1.3	9.6	6.5	2.0	9.4	29.8
French Polynesia	1985	I	80	61.3	22.5	7.5	-	-	-	-	3.8	5.0	-
New Caledonia	1985	NA	64	57.8	26.6	4.7	-	-	7.8	-	-	3.1	-
New Zealand	1985	C	469	58.2	7.0	3.4	0.2	0.6	12.6	4.7	1.9	0.2	11.1
Vanuatu	1981	I	207	18.4	39.6	8.2	-	-	8.2	11.1	3.9	10.6	-

General note: Due to lack of precise information, the column "Other countries" may include data for certain of the principal countries of origin and the symbol ./. has been used in such cases.

1. Data on films imported from the United Kingdom and the United States are counted together.

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Table 9.18 Cinemas: annual attendance, seating capacity and gross box office receipts

[e.g. Algeria reports that for the year 1985 (Column 2) a total annual attendance of 0.9 per inhabitant, 5.1 seats per 1,000 inhabitants and no information about gross box office receipts.]

Country	Year	Total annual attendance per inhabitant	Seats per 1,000 inhabitants	Gross box office receipts, $
Africa				
Algeria	1985	0.9	5.1	NA
Angola	1985	0.4	3.8	NA
Benin	1985	0.4	NA	0.5
Burkina Faso	1981	0.6	2.2	0.001
Burundi	1981	0.0	0.6	0.07
Egypt	1984	0.7	3.6	26.6
Ethiopia	1985	NA	*0.9	593.2
Gabon	1985	NA	6.1	2.2
Ghana	1981	0.3	0.8	0.6
Guinea	1985	0.4	10.1	NA
Mauritania	1980	NA	4.7	NA
Mauritius	1985	9.5	38.1	NA
Morocco	1983	1.9	7.7	16.1
Mozambique	1983	0.7	2.0	NA
Nigeria	1981	0.1	NA	NA
Rwanda	1985	NA	1.5	NA
Sudan	1983	0.6	4.8	NA
United Republic of Tanzania	1981	0.2	0.8	8.7
Zimbabwe	1985	0.6	NA	NA
America, North				
Bermuda	1981	2.7	21.9	0.8
Canada[1]	1984	3.2	42.6	254.1
Costa Rica	1985	*0.1	NA	0.2
Cuba	1985	7.6	27.6	27.9
El Salvador	1985	NA	9.3	NA
Guatemala	1982	1.0	9.4	9.2
Haiti	1981	0.4	2.7	1.7
Nicaragua	1981	1.8	26.5	3.0
United States	1983	5.1	24.0	3 766.0
America, South				
Argentina	1983	1.7	21.3	6.6
Brazil	1985	0.7	5.2	73.0
Chile	1985	1.0	8.9	NA
Colombia	1985	2.0	9.7	32.6
Guyana	1981	15.1	47.0	10.3
Peru	1980	1.9	NA	19.0
Uruguay	1981	2.1	27.3	8.0
Venezuela	1985	0.8	9.8	7.5
Asia				
Brunei Darussalam	1981	13.0	33.2	NA
Democratic Yemen	1982	2.0	12.3	NA
Hong Kong	1983	12.2	19.3	NA
India	1985	6.5	8.0	363.8
Indonesia	1985	NA	5.8	NA
Iran (Islamic Republic of)	1985	0.6	3.7	25.0
Japan	1985	1.3	NA	728.1
Korea, Democratic People's Republic of	1985	9.2	32.0	NA
Korea, Republic of	1985	1.2	NA	79.2
Kuwait	1985	0.6	10.0	1.7

cont.

Table 9.18 - cont.

Country	Year	Total annual attendance per inhabitant	Seats per 1,000 inhabitants	Gross box office receipts, $
Maldives	1983	NA	16.5	NA
Pakistan	1985	NA	4.6	NA
Qatar	1983	1.9	14.1	1.3
Singapore	1983	12.5	26.7	13.1
Sri Lanka	1985	2.3	12.4	1.4
Syrian Arab Republic	1985	1.1	4.6	NA
Turkey	1985	0.5	6.1	8.8
Viet Nam	1984	5.9	NA	NA
Yemen	1980	2.5	4.7	NA
Europe				
Albania	1983	1.3	9.6	NA
Austria	1985	NA	16.9	NA
Belgium	1982	2.1	NA	50.1
Bulgaria	1985	10.6	79.0	44.5
Czechoslovakia	1985	4.9	NA	39.0
Denmark	1985	2.2	14.8	23.8
Finland	1985	1.4	18.2	26.6
France	1985	3.2	23.4	478.6
German Democratic Republic	1985	4.2	20.6	NA
Germany, Federal Republic of[2]	1985	1.7	13.0	262.9
Gibraltar	1981	5.9	79.3	NA
Hungary	1985	6.6	52.2	16.6
Iceland	1980	11.4	NA	NA
Ireland	1985	3.2	14.6	31.7
Italy	1985	2.1	NA	262.1
Malta	1985	2.6	41.8	0.9
Monaco	1981	3.8	53.8	NA
Netherlands	1981	2.0	11.0	85.3
Norway	1985	3.1	30.2	34.7
Poland	1985	2.9	12.7	36.8
Portugal	1985	1.9	17.6	14.3
Romania	1985	8.3	14.1	NA
San Marino	1985	4.5	145.5	0.033
Spain	1985	2.6	NA	148.8
Sweden	1983	2.3	NA	59.6
Switzerland	1985	2.6	20.1	58.7
United Kingdom	1983	1.1	9.0	185.5
Yugoslavia	1985	3.5	18.9	27.5
Oceania				
Australia	1983	NA	21.7	NA
French Polynesia	1985	0.6	6.1	0.4
New Caledonia	1985	2.0	18.3	0.045
Norfolk Island	1981	5.0	50.0	NA
Wallis and Futuna Islands				
USSR				
Byelorussian SSR	1985	NA	NA	NA
USSR	1985	14.7	NA	NA
Ukrainian SSR	1985	NA	NA	NA

General note: It should be noted that for several countries the figure shown for annual attendance per inhabitant does not include attendance at mobile and/or drive-in cinemas due to the lack of statistical information.

1. Gross box office receipts do not include taxes.
2. Data on attendance refer to 35 mm cinemas only.

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Radio and television

This section presents statistical information on radio and television broadcasting.

As concerns television broadcasting, the information available leads to the assumption that in the following 39 countries and territories no television service has yet been introduced :

Africa : Botswana, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Gambia, Guinea-Bissau, Malawi, Rwanda, St Helena, São Tomé and Principe, Western Sahara.

America, North : Anguilla, Belize, Caymen Islands, Dominica, Saint Vincent and the Grenadines, Turks and Caicos Islands.

America, South : Falkland Islands (Malvinas), Guyana.

Asia : Bhutan, East Timor.

Europe : Holy See, Liechtenstein, San Marino.

Oceania : Cook Islands, Fiji, Kiribati, Nauru, Niue, Norfolk Islands, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu.

Production

General note:

Status:

T - Total
G - Governmental
P - Public
C - Commercial

Table 9.19 Radio broadcasting: programmes by function and by type of institution

[e.g. Botswana reports having a governmental broadcasting institution (Column 3), broadcasting 6,833 hours annually, of which 18.9% are informative programmes, 10.5% educational, 2.3% cultural, etc.]

Country	Year	Status	Total annual broadcasting hours	Type of programmes						
				Informative	Educational	Cultural	Religious	Advertisements	Entertainment	Other
Africa										
Botswana	1984	G	6 833	18.9	10.5	2.3	6.6	2.7	59.0	-
Burkina Faso	1985	G	17 732	15.5	15.4	11.8	1.0	21.1	34.5	0.6
Cameroon	1985	G	26 520	50.5	6.6	3.6	4.5	0.4	33.4	1.0
Congo	1983	G	5 757	23.9	19.3	13.3	-	0.2	30.7	12.5
Egypt	1983	G	56 455	9.0	1.8	14.7	18.6	0.2	44.0	11.8
Equatorial Guinea	1983	G	6 205	16.2	15.6	2.9	3.1	-	42.9	19.3
Ethiopia	1985	G	6 180	30.6	33.7	7.3	-	0.3	28.1	-
Ghana	1985	G	11 597	43.4	18.2	0.8	2.8	1.6	29.4	3.8
Mauritius	1983	P	7 818	17.5	9.0	-	2.0	-	71.4	-
Reunion	1985	P	5 557	10.1	0.4	0.9	1.2	0.5	87.0	-
Rwanda	1983	G	5 003	18.1	17.4	-	3.0	1.8	59.2	0.5
Senegal	1985	P	9 672	26.3	5.4	3.0	3.2	-	12.4	49.7
Sudan	1983	G	6 480	25.0	6.0	15.0	10.0	5.0	37.8	1.2
Swaziland	1983	G	5 386	14.4	21.3	15.4	6.7	15.4	17.0	9.8
America, North										
Bahamas	1985	G	13 015	8.9	0.7	0.2	16.1	-	74.1	-
Belize	1983	G	11 492	22.2	3.7	2.5	3.6	4.4	63.6	-
British Virgin Islands	1983	C	4 716	26.7	5.0	-	12.1	NA	56.2	-
Cuba[1]	1985	G	305 916	20.4	1.4	./.	-	15.1	63.1	-
Guadeloupe	1985	P	6 753	17.4	-	23.8	0.7	1.9	56.2	0.0
Honduras	1985	T	1 287 720	13.0	3.2	1.9	5.8	9.6	66.4	-
	1985	G	6 570	33.0	9.1	3.8	0.8	-	53.3	-
	1985	P	15 325	4.8	30.0	10.0	40.0	-	15.2	-
	1985	C	1 265 825	13.0	2.9	1.8	5.4	9.8	67.1	-
Martinique	1985	P	6 758	26.4	7.5	2.3	2.2	3.1	7.7	50.7
Mexico	1983	T	4 900 000	6.5	3.8	3.3	-	27.7	52.4	6.3
	1983	G	350 000	-	11.3	1.4	-	36.2	48.6	2.6
	1983	P	310 000	1.8	45.2	37.1	-	2.3	6.5	7.3
	1983	C	4 240 000	7.4	0.2	1.0	-	28.9	26.1	6.5
Saint Christopher and Nevis	1985	G	3 170	21.1	6.3	1.6	7.9	-	63.1	-
St Pierre and Miquelon[2]	1985	P	5 849	21.7	./.	./.	./.	./.	78.3	./.
America, South										
Brazil	1985	T	9 752 517	16.1	4.0	1.3	3.6	16.4	57.4	1.3
French Guiana	1985	P	6 975	14.3	NA	13.1	0.4	1.8	70.4	-
Guyana	1985	P	14 050	21.4	15.2	0.8	8.5	5.6	48.5	-
Uruguay	1983	T	645 000	24.2	1.4	0.5	0.4	19.1	54.4	-
Asia										
Brunei Darussalam	1983	G	10 637	30.4	7.4	1.5	7.7	-	53.0	-
Cyprus	1985	P	12 600	13.8	4.6	7.0	1.2	2.3	71.1	-
India	1983	G	383 931	21.5	15.9	11.1	0.1	2.3	46.1	3.1
Indonesia[3]	1985	T	3 199 592	18.0	12.6	14.0	2.5	18.2	34.7	-
	1985	G	492 751	25.0	20.0	./.	./.	10.0	45.0	-
	1985	P	45 990	22.2	16.7	11.1	11.1	-	38.9	-
	1985	C	2 660 851	16.7	11.1	16.7	2.8	20.0	32.8	-
Iran (Islamic Republic of)	1985	G	8 860	15.3	7.0	16.7	15.2	-	15.5	30.3

cont.

Table 9.19 - cont.

Country	Year	Status	Total annual broadcasting hours	Type of programmes						
				Informative	Educational	Cultural	Religious	Advertisements	Entertainment	Other
Israel	1983	P	34 281	11.5	2.4	8.1	0.8	2.3	48.6	26.2
Japan[4]	1985	T	540 919	13.5	6.2	18.6	./.	0.8	60.6	0.3
	1985	P	20 417	23.8	26.6	29.2	./.	-	20.5	-
	1985	C	520 502	13.0	5.4	18.2	./.	0.8	62.2	0.3
Jordan	1983	G	36 264	24.2	17.7	15.1	16.7	-	26.4	-
Korea, Republic of	1985	P	67 379	12.1	12.0	21.5	9.3	1.7	39.7	3.7
Kuwait	1985	G	21 640	11.3	NA	4.4	11.9	NA	70.3	2.2
Malaysia	1985	G	23 270	16.3	14.2	-	8.3	3.1	58.1	-
Maldives	1985	G	4 871	29.8	9.1	5.6	10.7	11.2	30.8	2.8
Oman	1985	G	11 499	12.0	4.6	6.4	7.8	-	69.1	-
Pakistan	1985	G	81 285	25.4	11.9	5.0	9.6	2.3	45.8	-
Qatar	1985	G	15 902	10.7	0.5	9.3	7.7	-	67.8	4.0
Singapore	1983	G	33 336	17.5	12.7	14.0	2.1	2.7	51.1	-
Sri Lanka	1985	G	33 192	9.4	12.1	2.1	8.5	2.4	56.9	8.6
Syrian Arab Republic	1985	G	41 450	13.1	6.2	-	7.7	-	7.1	66.0
Thailand	1985	G	6 494	21.9	56.1	5.4	2.9	-	13.7	-
Turkey	1983	P	81 057	12.6	15.5	1.0	0.9	3.7	65.7	0.6
United Arab Emirates[5]	1983	G	18 460	15.5	8.1	10.8	11.1	4.1	47.5	2.8
Europe										
Albania	1985	G	7 565	20.5	7.4	5.0	-	-	66.8	0.3
Austria	1985	P	44 424	NA	NA	NA	NA	NA	NA	NA
Belgium[6]	1983	P	49 175	17.5	1.4	./.	0.7	-	64.7	15.7
Bulgaria	1985	P	29 105	26.5	4.3	6.1	-	2.8	54.4	5.9
Czechoslovakia	1985	G	43 077	15.4	4.0	19.0	-	0.5	47.7	13.4
Finland	1985	P	12 431	23.8	2.4	28.3	1.8	-	41.0	2.6
German Democratic Republic	1985	G	50 605	22.4	3.1	2.9	0.1	-	71.5	-
Gibraltar	1983	P	6 570	14.3	-	0.8	1.1	0.5	83.3	-
Hungary	1985	G	25 236	6.8	7.1	5.6	0.1	0.9	67.6	12.0
Ireland[7]	1985	P	16 956	16.5	0.4	./.	1.7	./.	60.0	21.3
Italy[8]	1985	P	48 557	23.8	0.3	37.3	./.	2.2	35.0	1.2
Malta	1985	P	12 409	23.4	1.5	3.9	2.1	1.4	39.0	28.7
Poland	1985	G	47 164	42.6	3.1	-	-	2.4	51.1	0.8
Portugal	1985	T	51 068	8.0	1.8	16.0	2.4	5.8	60.7	5.2
	1985	P	36 712	8.4	1.5	22.0	0.8	7.3	53.9	6.0
	1985	C	14 356	7.0	2.5	0.7	6.3	2.0	78.2	3.3
Romania	1983	G	32 812	18.6	15.1	6.7	-	0.4	57.3	1.8
Spain[9]	1983	P	40 460	36.2	2.1	11.8	0.3	0.7	48.3	0.6
Switzerland	1985	P	61 606	11.2	-	8.7	0.8	-	78.3	1.0
Yugoslavia	1985	P	435 099	14.5	7.2	2.4	-	5.1	68.3	2.5
Oceania										
French Polynesia	1985	P	5 694	16.5	3.3	NA	1.7	1.9	76.6	-
New Caledonia	1985	P	6 334	11.8	3.2	9.3	1.8	0.6	73.2	-
Norfolk Island	1983	G	5 512	13.7	-	-	1.9	-	54.7	29.7
Tonga	1985	P	4 915	15.3	7.1	10.2	10.2	12.2	40.7	4.4
Vanuatu	1983	G	4 500	22.2	11.1	11.1	11.1	1.1	40.0	3.3

1. Cultural programmes are included with entertainment programmes.
2. Educational, cultural and religious programmes and advertisements are included with entertainment programmes.
3. Cultural programmes are included with entertainment programmes and religious programmes with educational programmes for governmental broadcasting organizations.
4. Religious programmes are included with cultural programmes.
5. Data refer to Abu Dhabi only.
6. Cultural programmes are included with informative programmes. The category "programmes not elsewhere classified" includes regional programmes and programmes for a specific audience.
7. Cultural programmes and advertisements are not identified separately.
8. Religious programmes are included with informative programmes.
9. Data on commercial broadcasting organizations are not available.

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Table 9.20. Television broadcasting: programmes by function and by type of institution

[e.g. Burkina Faso reports having a governmental broadcasting institution (Column 3), 1,300 annual broadcasting hours, of which 16.8% are informative programmes, 0.5% educational, 12.8% cultural programmes, etc.]

Country	Year	Status	Total annual broadcasting hours	Type of programmes						
				Informative	Educational	Cultural	Religious	Advertisements	Entertainment	Other
Africa										
Burkina Faso	1983	G	1 300	16.8	0.5	12.8	0.5	0.8	58.8	10.0
Egypt	1983	G	9 648	12.8	10.9	16.5	7.6	2.9	11.5	37.7
Ethiopia	1985	G	1 424	62.6	15.4	-	-	1.7	20.2	-
Ghana	1985	G	1 664	24.2	19.9	2.3	3.7	5.8	44.1	-
Mauritius	1983	P	2 583	15.4	17.4	9.1	1.0	-	57.1	-
Reunion	1985	P	2 164	9.5	21.0	4.8	0.8	-	53.5	10.4
Senegal	1985	P	2 184	26.2	4.7	14.3	2.4	-	29.4	23.1
Sudan	1983	G	2 190	23.0	9.0	8.0	9.0	7.0	36.0	8.0
America, North										
Bahamas	1985	G	3 498	15.6	31.9	-	7.0	-	37.1	8.4
Canada	1985	T	753 310	25.7	13.4	0.2	4.2	-	56.4	0.1
	1985	P	439 386	27.3	16.0	0.3	4.1	-	52.2	0.1
	1985	C	313 924	23.4	9.8	0.1	4.4	-	62.3	0.0
Cuba[1]	1985	G	10 867	35.7	2.7	./.	-	11.4	50.1	-
Guadeloupe	1985	P	3 860	20.0	0.1	17.5	0.6	1.2	60.5	-
Honduras	1985	C	39 593	12.2	8.0	4.2	1.6	19.4	54.7	-
Martinique	1985	P	3 360	7.6	10.7	22.9	-	1.1	50.4	7.2
Mexico[2]	1985	T	2 903 575	10.2	5.3	./.	-	6.9	74.2	3.5
	1985	G	1 642 500	17.2	7.6	./.	-	2.3	68.2	4.7
	1985	C	1 261 075	1.1	2.2	./.	-	12.8	82.0	1.9
Saint Christopher and Nevis	1985	G	1 550	16.1	-	3.2	3.2	-	77.4	NA
America, South										
Brazil[3]	1985	T	510 954	27.0	6.2	2.2	1.4	22.1	27.4	13.7
Colombia	1983	P	10 868	13.9	NA	3.1	0.2	13.6	64.6	4.5
French Guiana	1985	P	3 027	14.2	NA	16.5	0.6	0.3	65.3	3.1
Uruguay	1983	T	47 020	6.6	2.6	0.3	0.2	20.8	69.5	-
Asia										
Brunei Darussalam	1983	G	3 285	9.9	14.2	3.2	4.7	-	67.9	-
Cyprus	1985	P	2 217	29.5	0.7	12.4	0.1	9.5	47.8	-
Indonesia[4]	1985	G	8 519	28.9	22.5	./.	./.	-	39.8	8.9
Iran (Islamic Republic of)	1985	G	5 089	18.9	17.2	3.2	10.9	-	26.4	23.4
Israel[5]	1983	P	2 366	16.1	-	15.0	1.6	-	28.8	38.5
Japan[6]	1985	T	702 808	16.4	12.6	23.8	./.	0.6	45.7	0.8
	1985	P	13 251	21.3	45.3	23.3	./.	-	10.2	-
	1985	C	689 557	16.3	12.0	23.8	./.	0.6	46.4	0.8
Jordan	1983	G	5 380	10.0	19.5	17.1	3.1	0.3	42.7	7.2
Korea, Republic of	1985	P	18 295	17.2	27.2	15.9	0.1	2.7	36.8	0.1
Kuwait	1985	G	5 935	11.9	NA	11.4	9.5	3.2	49.0	15.0
Malaysia	1985	T	10 075	14.8	11.4	0.2	5.2	4.6	46.1	17.6
	1985	G	6 656	14.8	15.5	-	7.0	7.0	53.5	2.1
	1985	C	3 419	14.8	3.3	0.7	1.8	-	31.7	47.7
Maldives	1985	G	2 123	31.3	7.9	-	11.5	2.5	44.5	2.4
Oman	1985	G	3 650	11.0	19.9	13.7	11.0	-	27.4	17.0
Pakistan	1983	G	2 924	21.0	5.3	5.2	10.4	9.3	40.9	7.8
Qatar	1985	G	8 051	11.0	3.8	7.3	9.9	1.3	64.9	1.8
Singapore	1983	G	6 016	19.4	15.8	2.2	-	-	62.7	-

cont.

Table 9.20 - cont.

Country	Year	Status	Total annual broadcasting hours	Type of programmes						
				Informative	Educational	Cultural	Religious	Advertisements	Entertainment	Other
Sri Lanka[7]	1985	G	2 200	27.5	30.1	./.	1.9	NA	27.0	13.5
Syrian Arab Republic	1985	G	15 608	18.2	NA	7.7	2.2	4.3	35.7	31.9
Thailand	1985	G	3 692	11.3	16.9	1.4	0.7	4.9	64.8	-
Turkey	1985	P	2 975	12.3	26.1	6.1	1.4	5.3	48.7	-
United Arab Emirates[8]	1983	G	6 420	8.6	8.4	9.3	15.6	3.1	45.6	9.3
Europe										
Albania	1985	G	1 836	29.0	20.0	6.0	-	-	45.0	-
Belgium[9]	1983	P	8 756	22.2	14.7	./.	2.1	-	51.0	9.9
Bulgaria	1985	P	4 545	19.8	5.4	2.2	-	1.0	51.3	20.3
Czechoslovakia	1985	G	9 636	30.3	10.5	2.4	-	1.3	49.9	5.7
Finland	1985	T	4 978	32.5	5.0	4.0	1.3	2.6	54.5	0.2
	1985	P	4 000	36.2	6.2	4.9	1.4	-	51.3	0.1
	1985	C	978	17.5	-	0.7	0.7	13.0	67.4	0.7
France	1983	P	12 166	41.9	NA	NA	1.3	1.4	41.8	13.7
German Democratic Republic	1985	G	8 265	15.9	8.9	11.1	0.0	-	57.3	6.8
Gibraltar	1983	P	1 850	11.2	2.8	3.2	0.5	-	82.2	-
Hungary	1985	G	4 963	18.2	8.0	6.1	-	3.3	49.8	14.6
Ireland[10]	1985	P	6 187	19.1	0.4	./.	1.6	7.8	59.4	11.9
Italy[11]	1985	P	20 457	37.1	3.1	16.2	./.	2.2	37.2	4.2
Malta	1985	P	2 638	25.0	5.0	2.0	1.0	4.0	59.0	4.0
Poland	1985	G	9 161	36.1	13.9	6.3	-	2.6	36.8	4.3
Portugal	1985	P	12 604	15.4	9.4	2.6	2.0	1.9	57.3	11.4
Romania	1983	G	5 057	14.9	16.6	5.2	-	1.0	54.7	7.7
Spain	1983	P	6 497	15.6	1.6	16.3	1.4	3.7	47.1	14.1
Switzerland	1985	P	13 268	20.6	3.6	12.4	1.3	2.8	46.2	13.2
Yugoslavia	1985	P	25 725	29.7	8.4	4.2	-	4.3	40.0	13.4
Oceania										
French Polynesia	1985	P	2 975	19.2	5.5	4.2	0.9	0.5	69.7	-
New Caledonia	1985	P	2 648	20.5	-	19.3	0.8	-	59.4	-
New Zealand	1985	P	*9 600	36.5	2.1	10.4	1.0	12.7	37.3	12.1

1. Cultural programmes are included with entertainment programmes.
2. Cultural programmes are included with educational programmes.
3. Not including cinema films (data not available).
4. Cultural programmes are included with entertainment programmes, religious programmes are included with educational programmes.
5. The category "Other" includes 312 hours of children's programmes. Data exclude 2,002 hours of educational programmes broadcast by governmental institutions.
6. Religious programmes are included with cultural programmes.
7. Not including advertisements (data not available). Cultural programmes are not identified separately.
8. Data refer to Abu Dhabi only.
9. Cultural programmes are included with informative programmes. The category "Other" includes programmes for a specific audience.
10. Cultural programmes are not identified separately.
11. Religious programmes are included with cultural programmes.

Source: *Unesco Statistical Yearbook 1988*, Unesco, Paris, 1988.

Distribution

General note:

The figures relate in principle to transmitters regularly used and used for domestic broadcasting to the general public.

Status:

T - Total
G - Governmental
P - Public
C - Commercial

Table 9.21. Radio broadcasting: number of transmitters and their transmitting power by frequency band

[e.g. Algeria reports for 1985, public owned transmitters (Column 3), having 1 low frequency transmitter of 1500 kW (Columns 4 and 5), 17 medium frequency transmitters of 2,910 kW (Columns 6 and 7), 12 high frequency transmitters of 1,050 kW (Columns 8 and 9) and 0 high or super high transmitters (Columns 10 and 11).]

Country	Year	Ownership	Frequency							
			Low		Medium		High		High & Super high	
			Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (ERP)
Africa										
Algeria	1985	P	1	1 500	17	2 910	12	1 050	-	-
Angola	1985	G	-	-	24	187	31	527	18	8
Benin	1985	G	-	-	2	150	3	70	2	0
Botswana	1984	G	-	-	3	101	4	200	4	78
Burkina Faso	1983	G	-	-	3	151	2	24	4	80
Burundi	1985	G	-	-	1	100	2	50	10	9
Cameroon	1985	G	-	-	14	562	11	410	-	-
Cape Verde	1985	G	-	-	1	5	2	11	2	NA
Central African Republic	1985	G	-	-	1	100	2	200	1	NA
Chad	1983	G	-	-	3	22	3	106	1	NA
Comoros	1985	G	-	-	1	40	2	8	1	0
Congo	1983	G	-	-	5	52	5	133	-	-
Côte d'Ivoire	1985	G	-	-	3	21	2	110	20	NA
Djibouti	1985	G	-	-	1	20	1	20	-	-
Egypt	1983	G	-	-	127	5 831	27	3 522	-	-
Equatorial Guinea	1985	G	-	-	-	-	5	310	-	-
Ethiopia	1985	G	-	-	4	251	4	400	-	-
Gabon	1985	T	-	-	7	83	21	NA	6	NA
	1985	G	-	-	7	83	2	200	5	NA
	1985	C	-	-	-	-	19	NA	1	NA
Gambia	1985	T	-	-	5	25	-	-	2	NA
	1985	G	-	-	4	22	-	-	2	NA
	1985	C	-	-	1	3	-	-	-	-
Ghana	1985	G	-	-	-	-	12	330	5	21
Guinea	1985	G	-	-	3	301	5	214	1	3
Guinea-Bissau	1983	G	-	-	1	100	1	10	-	-
Kenya	1985	G	-	-	18	1 030	12	1 235	3	3
Lesotho	1985	G	-	-	1	100	1	100	1	1
Liberia[1]	1985	T	-	-	2	20	9	330	3	3
	1985	P	-	-	1	10	8	280	-	-
	1985	C	-	-	1	10	1	50	3	3
Libyan Arab Jamahiriya	1985	G	-	-	16	1 751	11	NA	3	NA
Madagascar	1985	G	-	-	22	188	4	240	3	1
Malawi	1983	P	-	-	14	197	2	120	-	-
Mali	1985	G	-	-	2	130	4	NA	2	NA
Mauritania	1985	G	-	-	1	20	3	300	-	-
Mauritius	1983	P	-	-	2	20	2	20	1	5
Morocco	1985	G	1	800	21	2 511	6	350	6	218
Mozambique	1985	G	-	-	13	200	23	944	4	NA
Niger	1985	G	-	-	9	23	5	88	3	4
Nigeria	1985	G	-	-	55	2 015	13	570	9	NA
Reunion	1985	P	-	-	2	40	-	-	13	1
Rwanda[2]	1983	G	-	-	-	-	2	55	6	11
São Tomé and Principe	1985	G	-	-	2	25	1	10	2	1
Senegal	1985	P	-	-	14	303	4	112	1	0
Seychelles	1985	G	-	-	1	10	-	-	-	-

cont.

Table 9.21. - cont.

Country	Year	Ownership	Frequency							
			Low		Medium		High		High & Super high	
			Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (ERP)
Sierra Leone	1985	G	-	-	2	100	1	250	1	1
Somalia	1985	G	-	-	2	450	2	60	-	-
St Helena	1985	G	-	-	1	0	-	-	-	-
Sudan	1983	G	-	-	6	2 400	-	-	-	-
Swaziland	1983	G	-	-	2	110	-	-	6	113
Togo	1985	G	-	-	2	30	4	220	-	-
Tunisia	1985	G	-	-	6	2 560	5	500	1	20
Uganda	1985	G	-	-	6	470	2	40	-	-
United Republic of Tanzania	1985	G	-	-	8	321	7	190	-	-
Zaire	1985	G	-	-	1	2	9	NA	3	61
Zambia	1985	G	-	-	18	913	10	570	3	10
Zimbabwe	1985	P	-	-	10	14	5	NA	58	322
America, North				-						
Anguilla	1985	T	-	-	3	66	-	-	1	0
	1985	G	-	-	1	1	-	-	-	-
	1985	C	-	-	2	65	-	-	1	0
Antigua and Barbuda[3]	1985	T	-	-	3	30	-	-	2	NA
	1985	G	-	-	1	10	-	-	-	-
	1985	P	-	-	1	10	-	-	1	NA
	1985	C	-	-	1	10	-	-	1	NA
Bahamas	1985	G	-	-	4	22	-	-	2	100
Barbados	1985	T	-	-	2	30	-	-	2	NA
	1985	G	-	-	1	10	-	-	1	2
	1985	C	-	-	1	20	-	-	1	NA
Belize	1983	G	-	-	5	23	1	1	5	21
Bermuda	1985	C	-	-	3	3	-	-	3	19
British Virgin Islands	1983	C	-	-	1	10	-	-	-	-
Canada	1985	T	-	-	730	8 001	-	-	877	15 965
	1985	P	-	-	340	919	-	-	417	4 794
	1985	C	-	-	390	7 082	-	-	460	11 171
Cayman Islands	1981	G	-	-	2	11	-	-	2	0
Costa Rica	1985	T	-	-	70	472	10	48	NA	NA
	1985	G	-	-	1	30	-	-	-	-
	1985	P	-	-	10	40	4	10	NA	NA
	1985	C	-	-	59	402	6	38	NA	NA
Cuba	1985	G	-	-	160	1 129	-	-	-	-
Dominica	1985	T	-	-	3	30	-	-	1	NA
	1985	G	-	-	1	10	-	-	-	-
	1985	P	-	-	1	10	-	-	1	NA
	1985	C	-	-	1	10	-	-	-	-
Dominican Republic	1985	C	-	-	123	473	3	52	NA	NA
El Salvador	1985	C	-	-	77	329	2	20	-	-
Greenland	1985	G	-	-	6	30	1	8	31	1
Grenada	1985	G	-	-	1	20	-	-	-	-
Guadeloupe	1985	T	-	-	2	45	-	-	18	7
	1985	P	-	-	2	45	-	-	9	4
	1985	C	-	-	-	-	-	-	9	3
Guatemala	1985	C	-	-	91	364	13	75	NA	NA
Haiti	1985	T	-	-	33	102	2	4	NA	NA
	1985	G	-	-	1	20	-	-	NA	NA
	1985	C	-	-	32	82	2	4	NA	NA

cont.

Table 9.21. - cont.

Country	Year	Ownership	Frequency							
			Low		Medium		High		High & Super high	
			Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (ERP)
Honduras	1985	T	-	-	145	473	8	11	56	120
	1985	G	-	-	3	3	1	1	2	2
	1985	P	-	-	1	1	3	3	2	1
	1985	C	-	-	141	469	4	7	53	117
Jamaica	1985	T	-	-	7	45	-	-	13	37
	1985	G	-	-	3	15	-	-	9	6
	1985	C	-	-	4	30	-	-	4	31
Martinique	1985	T	-	-	2	40	-	-	44	NA
	1985	P	-	-	2	40	-	-	6	0
	1985	C	-	-	-	-	-	-	38	NA
Mexico	1985	T	-	-	661	NA	29	NA	197	NA
	1985	G	-	-	25	NA	11	NA	11	NA
	1985	C	-	-	636	NA	18	NA	186	NA
Montserrat[2]	1985	T	-	-	3	221	-	-	2	0
	1985	G	-	-	1	1	-	-	-	-
	1985	C	-	-	2	220	-	-	2	0
Netherlands Antilles[4]	1985	C	-	-	11	532	-	-	7	26
Nicaragua	1985	T	-	-	40	208	4	103	-	-
Panama	1985	C	-	-	85	559	-	-	-	-
Puerto Rico	1985	T	-	-	68	245	-	-	-	-
	1985	P	-	-	1	10	-	-	-	-
	1985	C	-	-	67	235	-	-	-	-
Saint Christopher and Nevis	1985	G	-	-	1	20	-	-	-	-
Saint Lucia	1985	C	-	-	2	20	-	-	1	NA
St Pierre and Miquelon	1985	T	-	-	1	20	-	-	4	1
	1985	P	-	-	1	20	-	-	3	1
	1985	C	-	-	-	-	-	-	1	0
Saint Vincent and the Grenadines	1985	C	-	-	2	20	-	-	-	-
Trinidad and Tobago	1985	T	-	-	2	70	-	-	3	41
	1985	G	-	-	1	50	-	-	1	20
	1985	C	-	-	1	20	-	-	2	21
Turks and Caicos Islands	1983	P	-	-	2	3	-	-	-	-
U.S. Virgin Islands	1985	C	-	-	4	11	-	-	4	70
America, South										
Argentina	1985	T	-	-	165	2 204	10	328	NA	NA
	1985	G	-	-	40	839	-	-	NA	NA
	1985	P	-	-	8	92	-	-	NA	NA
	1985	C	-	-	117	1 273	10	328	NA	NA
Bolivia	1985	T	-	-	129	302	62	106	NA	NA
Brazil	1985	T	65	NA	1 108	NA	169	NA	387	NA
Chile	1985	T	-	-	153	491	-	-	149	424
Colombia	1985	C	-	-	404	4 770	35	223	-	-
Ecuador	1985	T	-	-	257	1 271	41	159	72	200
Falkland Islands (Malvinas)	1985	G	-	-	-	-	1	4	1	1
French Guiana	1985	P	-	-	2	30	3	4	10	1
Guyana	1985	G	-	-	7	61	1	10	5	2
Paraguay	1985	C	-	-	40	413	8	210	-	-
Peru	1985	C	-	-	239	829	174	NA	-	-
Suriname	1985	T	-	-	5	20	1	0	8	5
	1985	G	-	-	1	10	-	-	1	1
	1985	C	-	-	4	10	1	0	7	4

cont.

Table 9.21. - cont.

Country	Year	Ownership	Frequency							
			Low		Medium		High		High & Super high	
			Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (ERP)
Uruguay	1983	T	-	-	99	1 350	12	80	4	400
Venezuela	1985	T	-	-	179	5 256	42	274	-	-
	1985	G	-	-	8	1 150	5	121	-	-
	1985	P	-	-	3	60	-	-	-	-
	1985	C	-	-	168	4 046	37	153	-	-
Asia										
Afghanistan	1985	G	-	-	3	135	2	60	-	-
Bahrain	1985	G	-	-	2	101	-	-	3	3
Bangladesh	1985	G	-	-	9	1 261	3	208	13	13
Bhutan	1985	P	-	-	-	-	1	0	-	-
Brunei Darussalam	1985	G	-	-	4	421	-	-	4	20
Burma	1985	G	-	-	1	50	4	200	1	0
China	1985	G	-	-	400	NA	171	NA	-	-
Cyprus	1985	P	-	-	4	44	-	-	2	20
Democratic Kampuchea	1985	G	-	-	2	NA	4	NA	-	-
Democratic Yemen	1985	G	-	-	3	451	4	400	-	-
Hong Kong	1983	T	-	-	6	72	-	-	18	16
	1983	G	-	-	2	40	-	-	9	10
	1983	P	-	-	1	2	-	-	5	5
	1983	C	-	-	3	30	-	-	4	NA
India	1983	T	-	-	157	5 318	30	1 565	4	60
	1983	G	-	-	128	5 240	30	1 565	4	60
	1983	C	-	-	29	78	-	-	-	-
Indonesia	1985	T	-	-	466	1 256	150	1 828	129	16
	1985	G	-	-	62	1 155	142	1 827	129	16
	1985	P	-	-	7	2	-	-	-	-
	1985	C	-	-	397	99	8	1	-	-
Iran (Islamic Republic of)	1985	G	-	-	231	15 707	11	3 900	107	384
Iraq	1983	G	-	-	11	4 670	24	10 700	11	110
Israel	1983	T	-	-	22	2 059	16	1 550	25	820
Japan	1985	T	-	-	534	NA	2	NA	598	NA
	1985	P	-	-	326	NA	-	-	505	NA
	1985	C	-	-	208	NA	2	NA	93	NA
Jordan	1983	G	-	-	9	2 232	2	200	6	148
Korea, Democratic People's Republic of	1985	G	-	-	18	6 250	14	NA	-	-
Korea, Republic of	1985	P	-	-	241	8 024	./.	./.	./.	./.
Kuwait	1985	G	-	-	3	3 200	8	3 000	3	25
Lao People's Democratic Republic	1985	G	-	-	7	185	10	44	1	0
Lebanon	1985	T	-	-	10	NA	3	92	9	NA
Macau	1985	T	-	-	3	NA	-	-	2	NA
	1985	G	-	-	1	1	-	-	1	1
	1985	C	-	-	2	NA	-	-	1	NA
Malaysia	1985	G	-	-	60	2 510	21	2 630	2	11
Maldives	1985	G	-	-	2	5	-	-	-	-
Mongolia	1985	G	6	660	7	560	8	286	1	NA
Nepal	1985	G	-	-	3	210	1	100	-	-
Oman	1985	G	-	-	3	310	4	260	7	2
Pakistan	1985	G	-	-	23	2 272	16	1 161	12	20

cont.

Table 9.21. - cont.

Country	Year	Ownership	Frequency							
			Low		Medium		High		High & Super high	
			Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (ERP)
Qatar	1985	G	-	-	8	1 752	1	250	2	20
Saudi Arabia	1985	G	-	-	34	14 533	-	-	24	NA
Singapore	1983	G	-	-	9	830	7	310	5	100
Sri Lanka	1985	G	-	-	25	573	15	440	19	12
Syrian Arab Republic	1985	G	-	-	10	2 300	4	2 000	15	150
Thailand	1985	G	-	-	202	5 336	5	180	NA	NA
Turkey	1985	P	4	NA	9	NA	5	NA	37	NA
United Arab Emirates[5]	1983	G	-	-	8	3 150	5	2 120	2	3
Viet Nam	1985	G	-	-	16	NA	21	NA	1	NA
Yemen	1985	G	-	-	3	720	2	70	-	-
Europe										
Albania	1985	G	-	-	13	1 500	18	690	1	100
Andorra	1985	T	-	-	-	-	-	-	9	0
	1985	G	-	-	-	-	-	-	8	0
	1985	C	-	-	-	-	-	-	1	0
Austria	1985	P	-	-	6	1 350	5	910	593	2 546
Belgium	1983	P	-	-	8	1 180	-	-	33	131
Bulgaria	1985	G	1	500	19	3 411	2	265	17	485
Czechoslovakia	1985	G	1	1 500	71	5 026	11	1 840	43	1 235
Denmark	1985	P	1	300	1	250	-	-	46	1 394
Faeroe Islands	1985	P	-	-	1	5	-	-	3	120
Finland	1985	T	1	200	6	248	4	380	104	674
	1985	P	1	200	6	248	4	380	102	674
	1985	C	-	-	-	-	-	-	2	0
France	1983	P	1	2 000	39	4 161	19	4 700	781	1 113
German Democratic Republic	1985	G	1	750	65	3 199	-	-	64	3 210
Germany, Federal Republic of[6]	1985	P	2	1 000	44	8 147	6	280	394	9 895
Gibraltar	1983	P	-	-	1	2	-	-	1	0
Greece	1985	G	-	-	29	799	1	70	37	244
Hungary	1985	G	-	-	13	2 820	7	745	31	191
Iceland	1985	G	2	120	4	20	-	-	28	479
Ireland	1985	P	-	-	8	NA	-	-	18	NA
Italy	1985	P	1	10	128	2 700	9	585	2 041	5 564
Luxembourg	1985	C	1	2 000	1	1 200	2	506	3	250
Malta	1985	G	-	-	1	5	-	-	2	7
Monaco	1985	C	1	1 400	2	1 500	-	-	6	NA
Netherlands	1983	P	-	-	7	935	5	410	38	886
Norway[7]	1985	P	4	221	7	1 350	-	-	844	NA
Poland	1985	G	2	2 200	24	3 123	-	-	81	3 581
Portugal	1985	P	-	-	34	680	7	700	51	480
Romania	1985	G	1	NA	36	NA	-	-	54	NA
Spain	1983	P	-	-	75	3 408	16	27 870	173	669
Sweden	1985	P	1	300	1	600	-	-	353	NA
Switzerland	1985	P	-	-	5	1 601	-	-	191	690
United Kingdom[8]	1985	T	3	500	202	2 476	-	-	500	*8 100
Yugoslavia	1985	P	-	-	383	10 577	6	271	530	5 039

cont.

Table 9.21. - cont.

Country	Year	Ownership	Frequency							
			Low		Medium		High		High & Super high	
			Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (kW)	Number of transmitters	Transmitting power (ERP)
Oceania										
American Samoa	1985	C	-	-	1	10	-	-	-	-
Australia[9]	1985	T	-	-	245	1 498	11	140	79	2 000
	1985	G	-	-	96	1 009	11	140	36	1 795
	1985	P	-	-	6	7	-	-	36	91
	1985	C	-	-	143	482	-	-	7	114
Cook Islands	1985	C	-	-	2	11	1	1	2	2
Fiji	1985	T	-	-	12	94	-	-	2	6
	1985	P	-	-	12	94	-	-	1	3
	1985	C	-	-	-	-	-	-	1	3
French Polynesia	1985	P	-	-	1	20	4	48	9	1
Guam	1985	C	-	-	2	15	-	-	3	10
Kiribati	1985	P	-	-	1	10	-	-	-	-
Nauru	1985	G	-	-	1	0	-	-	-	-
New Caledonia	1985	T	-	-	1	20	1	20	23	NA
	1985	P	-	-	1	20	1	20	19	NA
	1985	C	-	-	-	-	-	-	4	NA
New Zealand	1985	T	-	-	81	530	2	15	19	528
	1985	P	-	-	27	361	2	15	5	25
	1985	C	-	-	54	169	-	-	14	493
Niue	1985	G	-	-	1	0	-	-	-	-
Norfolk Island	1983	G	-	-	1	0	1	0	NA	NA
Papua New Guinea	1985	P	-	-	8	32	30	174	16	3
Samoa	1985	G	-	-	8	19	-	-	-	-
Solomon Islands	1985	P	-	-	3	25	2	10	-	-
Tonga	1985	P	-	-	2	20	-	-	-	-
Tuvalu	1985	G	-	-	1	10	-	-	-	-
Vanuatu	1985	G	-	-	1	10	2	12	2	0

1. Data on high frequency transmitters do not include transmitters of the "Voice of America".
2. Data exclude transmitters of "Deutsche Welle".
3. Data do not include transmitters of the BBC, "Deutsche Welle" and "Voice of America".
4. Data exclude high frequency transmitters of "Transworld Radio" and "Radio Nederland".
5. Data refer to Abu Dhabi only.
6. Data do not include transmitters of foreign military forces.
7. Data do not include low power transmitters.
8. Data on power of very high frequency transmitters refer only to transmitters of 1 kW and over.
9. Data on power of very high frequency transmitters for the public service refer only to transmitters of 1 kW and over.

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

General note: For the following countries the statistics shown in this table include relay transmitters (number in brackets) for which the transmitting power has not been given: *Africa*: Morocco (26), Niger (3), Uganda (2). *America, North*: Costa Rica (6), Guatemala (19), Martinique (6), Nicaragua (5), Puerto Rico (8). *America, South*: Argentina (144), Bolivia (27), Peru (126), Suriname (3), Venezuela (5). *Asia*: Democratic Yemen (2), Lebanon (4), Philippines (35), Saudi Arabia (63), Syrian Arab Republic (28), Yemen (10). *Europe*: Bulgaria (250), Faeroe Islands (20), German Democratic Republic (550), Germany, Federal Republic of(2,007 UHF), Greece (350), Iceland (121), Norway (1,434), Switzerland (1,000). *Oceania*: New Zealand (553).
Transmitting power expressed in effective radiated power (ERP)

Table 9.22 Television broadcasting: number of transmitters and their transmitting power

[e.g. Angola reports, 1985 (Column 2), under governmental ownership (Column 3) a total of 3 transmitters (Column 4), data on transmitting power not available, (Column 5), out of which all are of very high frequency (Columns 6 and 7).]

Country	Year	Owner-ship	Total		Very high frequency		Ultra high frequency		Number of colour trans-mitters
			Number of trans-mitters	Trans-mitting power	Number of trans-mitters	Trans-mitting power	Number of trans-mitters	Trans-mitting power	
Africa									
Angola	1985	G	3	NA	3	NA	-	-	NA
Benin	1985	G	1	1	1	1	-	-	-
Burkina Faso	1985	G	2	NA	2	NA	-	-	NA
Burundi	1985	G	1	NA	1	NA	-	-	NA
Congo	1985	G	1	10	1	10	-	-	NA
Côte d'Ivoire	1985	G	11	85	11	85	-	-	NA
Djibouti	1985	G	1	0	1	0	-	-	NA
Egypt	1983	G	74	261	74	261	-	-	NA
Equatorial Guinea	1985	G	1	NA	1	NA	-	-	NA
Ethiopia	1985	G	18	60	18	60	-	-	18
Gabon	1985	G	8	4	8	4	-	-	NA
Ghana	1985	G	6	41	6	41	-	-	2
Guinea	1985	G	1	1	1	1	-	-	NA
Kenya	1985	G	4	75	4	75	-	-	NA
Lesotho	1985	G	3	0	3	0	-	-	NA
Liberia	1985	G	5	NA	5	NA	-	-	NA
Libyan Arab Jamahiriya	1985	G	13	*100	13	*100	-	-	NA
Madagascar	1985	G	41	3	41	3	-	-	41
Mauritania	1985	G	1	2	1	2	-	-	NA
Mauritius	1983	P	4	5	4	5	-	-	4
Morocco	1985	G	77	1 718	77	1 718	-	-	NA
Mozambique	1985	G	1	1	1	1	-	-	NA
Niger	1985	G	12	72	12	72	-	-	NA
Nigeria	1985	G	61	NA	61	NA	-	-	NA
Reunion	1985	P	32	3	24	1	8	2	24
Senegal	1985	G	3	20	3	20	-	-	3
Seychelles	1985	G	7	NA	7	NA	-	-	7
Sierra Leone	1985	G	2	11	2	11	-	-	NA
Somalia	1985	G	1	NA	1	NA	-	-	NA
Sudan	1983	G	20	80	20	80	-	-	NA
Swaziland	1985	G	11	16	11	16	-	-	NA
Togo	1985	G	4	NA	4	NA	-	-	NA
Tunisia	1983	G	20	4 900	16	2 200	4	2 700	20
Uganda	1985	G	9	381	9	381	-	-	NA
United Republic of Tanzania	1985	G	2	10	2	10	-	-	NA
Zaire	1985	G	18	123	18	123	-	-	NA
Zambia	1985	G	9	1 032	9	1 032	-	-	NA
Zimbabwe	1985	C	14	139	14	139	-	-	NA
America, North									
Antigua and Barbuda	1985	G	2	51	2	51	-	-	NA
Bahamas	1985	G	1	50	1	50	-	-	NA

cont.

Table 9.22 - cont.

Country	Year	Owner-ship	Total		Very high frequency		Ultra high frequency		Number of colour trans-mitters
			Number of trans-mitters	Trans-mitting power	Number of trans-mitters	Trans-mitting power	Number of trans-mitters	Trans-mitting power	
Barbados	1985	C	1	60	1	60	-	-	NA
Bermuda	1985	C	2	50	2	50	-	-	NA
British Virgin Islands	1985	C	1	30	1	30	-	-	1
Canada	1985	T	2 002	68 016	1 442	29 526	560	38 490	NA
	1985	P	849	30 326	575	11 081	274	19 245	NA
	1985	C	1 153	37 690	867	18 445	286	19 245	NA
Costa Rica	1985	T	12	1 190	12	1 190	-	-	NA
	1985	P	1	100	1	100	-	-	NA
	1985	C	11	1 090	11	1 090	-	-	NA
Cuba	1985	G	78	2 147	78	2 147	-	-	78
Dominican Republic	1985	C	19	385	19	385	-	-	NA
El Salvador	1985	T	5	543	5	543	-	-	NA
	1985	G	2	218	2	218	-	-	NA
	1985	C	3	325	3	325	-	-	NA
Greenland	1985	G	7	0	7	0	-	-	NA
Guadeloupe	1985	P	21	6	10	3	11	3	NA
Guatemala	1985	T	24	NA	24	NA	-	-	NA
	1985	G	1	NA	1	NA	-	-	NA
	1985	C	23	549	23	549	-	-	NA
Haiti	1985	P	4	4	4	4	-	-	NA
Honduras	1985	C	39	72	36	70	3	2	-
Jamaica	1985	C	8	163	8	163	-	-	NA
Martinique	1985	P	10	1	10	1	-	-	NA
Mexico	1985	T	430	NA	407	NA	23	NA	NA
	1985	G	226	NA	223	NA	3	NA	NA
	1985	P	27	NA	26	NA	1	NA	NA
	1985	C	177	NA	158	NA	19	NA	NA
Montserrat	1985	C	1	NA	1	NA	-	-	NA
Netherlands Antilles	1985	T	3	28	3	28	-	-	NA
	1985	P	2	23	2	23	-	-	NA
	1985	C	1	5	1	5	-	-	NA
Nicaragua	1985	G	7	250	7	250	-	-	NA
Panama	1985	T	14	1 396	14	1 396	-	-	NA
	1985	P	1	90	1	90	-	-	NA
	1985	C	13	1 306	13	1 306	-	-	NA
Puerto Rico	1985	T	19	1 083	19	1 083	-	-	NA
Saint Christopher and Nevis	1985	G	1	5	1	5	-	-	-
St Pierre and Miquelon	1985	P	8	15	3	4	5	11	8
Trinidad and Tobago	1985	T	5	NA	5	NA	-	-	NA
U.S. Virgin Islands	1985	C	2	145	2	145	-	-	NA
America, South									
Argentina	1985	C	183	1 343	183	1 343	-	-	NA
Bolivia	1985	G	42	12	42	12	-	-	NA
Brazil	1983	T	137	NA	137	NA	-	-	NA
	1983	G	2	NA	2	NA	-	-	NA
	1983	P	12	NA	12	NA	-	-	NA
	1983	C	123	NA	123	NA	-	-	NA
Chile	1985	T	131	NA	131	NA	-	-	NA
Colombia	1983	P	49	271	49	271	-	-	-
Ecuador	1985	C	27	NA	27	NA	-	-	NA
French Guiana	1985	P	14	3	10	1	4	2	14
Paraguay	1985	C	5	180	5	180	-	-	NA
Peru	1985	T	138	408	138	408	-	-	NA
Suriname	1985	G	6	8	6	8	-	-	NA
Uruguay	1983	T	33	5 930	33	5 930	-	-	33
	1983	G	12	1 870	12	1 870	-	-	12
	1983	C	21	4 060	21	4 060	-	-	21

cont.

Table 9.22 - cont.

Country	Year	Owner-ship	Total		Very high frequency		Ultra high frequency		Number of colour trans-mitters
			Number of trans-mitters	Trans-mitting power	Number of trans-mitters	Trans-mitting power	Number of trans-mitters	Trans-mitting power	
Venezuela	1985	T	63	4 613	63	4 613	-	-	NA
	1985	G	28	1 618	28	1 618	-	-	NA
	1985	P	1	1	1	1	-	-	NA
	1985	C	34	2 994	34	2 994	-	-	NA
Asia									
Afghanistan	1985	G	1	10	1	10	-	-	1
Bahrain	1985	G	2	NA	2	NA	-	-	NA
Bangladesh	1985	G	11	1 844	11	1 844	-	-	NA
Brunei Darussalam	1983	G	2	30	2	30	-	-	2
Burma	1985	G	2	NA	2	NA	-	-	NA
China	1985	G	*5 400	NA	*5 400	NA	-	-	NA
Cyprus	1985	P	29	146	2	40	27	106	29
Democratic Kampuchea	1985	G	2	41	2	41	-	-	NA
Democratic Yemen	1985	G	5	1	5	1	-	-	NA
Hong Kong[1]	1983	C	52	64	-	-	52	64	52
India	1985	G	174	2 555	174	2 555	-	-	174
Indonesia	1985	T	207	464	NA	NA	NA	NA	NA
	1985	G	167	460	NA	NA	NA	NA	NA
	1985	P	40	4	NA	NA	NA	NA	NA
Iran (Islamic Republic of)	1985	G	585	430	585	430	-	-	NA
Iraq	1983	G	35	5 829	29	5 778	6	51	35
Israel	1983	P	56	960	29	490	27	470	56
Japan[2]	1985	T	13 119	NA	1 457	NA	11 662	NA	13 119
	1985	P	6 914	NA	972	NA	5 942	NA	6 914
	1985	C	6 205	NA	485	NA	5 720	NA	6 205
Jordan	1983	G	46	2 278	11	2 207	35	71	46
Korea, Democratic People's Republic of	1985	G	11	NA	11	NA	-	-	NA
Korea, Republic of	1985	P	144	3 278	144	3 278	-	-	NA
Kuwait[3]	1985	G	10	55	-	-	10	55	NA
Lao People's Democratic Republic	1985	G	2	10	2	10	-	-	NA
Lebanon	1985	G	18	183	18	183	-	-	NA
Macau	1985	G	4	2	4	2	-	-	NA
Malaysia	1985	T	65	1 324	63	724	2	600	2
	1985	G	59	324	59	324	-	-	NA
	1985	C	6	1 000	4	400	2	600	6
Maldives	1983	G	2	1	2	1	-	-	2
Mongolia	1985	G	20	30	20	30	-	-	
Nepal	1985	G	1	0	1	0	-	-	1
Oman	1985	G	34	NA	14	NA	20	NA	34
Pakistan	1983	G	19	1 914	19	1 914	-	-	19
Philippines	1985	T	67	2 425	67	2 425	-	-	NA
Qatar	1985	G	9	2 670	2	800	7	1 870	9
Saudi Arabia	1985	G	120	256	120	256	-	-	NA
Singapore	1983	G	8	400	8	400	-	-	8
Sri Lanka	1985	G	12	420	12	420	-	-	12
Syrian Arab Republic	1985	G	40	2 910	40	2 910	-	-	NA
Thailand	1985	G	48	120	48	120	-	-	NA
Turkey	1985	P	325	NA	325	NA	-	-	NA
United Arab Emirates[4]	1983	G	15	8 963	7	4 556	8	4 406	15
Yemen	1985	G	17	15	17	15	-	-	NA
Europe									
Albania[2]	1985	G	216	462	185	425	31	37	216
Andorra	1985	G	54	11	9	1	45	10	54
Austria	1985	P	951	8 131	273	851	681	7 280	951
Belgium	1983	P	32	*6 700	14	NA	18	NA	32
Bulgaria	1985	G	266	2941	NA	NA	NA	NA	NA

cont.

Table 9.22 - cont.

Country	Year	Ownership	Total		Very high frequency		Ultra high frequency		Number of colour transmitters
			Number of transmitters	Transmitting power	Number of transmitters	Transmitting power	Number of transmitters	Transmitting power	
Czechoslovakia	1985	G	81	15 479	28	1 432	53	14 047	81
Denmark	1985	P	34	NA	34	NA	-	-	34
Faeroe Islands	1985	T	23	10	23	10	-	-	NA
Finland[5]	1985	P	214	17 234	89	1 302	125	15 932	214
France	1983	T	10 670	129 537	38	1 447	10 632	128 090	10 670
	1983	P	10 613	128 000	-	-	10 613	128 000	10 613
	1983	C	57	1 537	38	1447	19	90	57
German Democratic Republic	1985	G	576	13 935	NA	NA	NA	NA	NA
Germany, Federal Republic of	1983	P	5 718	35 500	1 129	2 458	4 589	33 042	5718
Gibraltar	1983	P	4	0	2	0	2	0	2
Greece	1985	G	372	1 525	NA	NA	NA	NA	NA
Hungary	1985	G	109	301	66	105	43	196	NA
Iceland	1985	G	130	2 142	130	2 142	-	-	NA
Ireland	1985	P	77	NA	55	NA	22	NA	77
Italy	1985	P	2 711	25 960	1 205	1 831	1 506	24 129	2 711
Luxembourg	1985	C	3	2 100	3	2 100	-	-	NA
Malta	1985	G	1	2	1	2	-	-	1
Monaco	1985	C	5	2 200	1	1 200	4	2 000	NA
Netherlands	1983	P	29	4 188	4	220	25	3 968	29
Norway	1985	P	1 486	1 812	NA	NA	NA	NA	NA
Poland	1985	G	230	NA	NA	NA	NA	NA	NA
Portugal	1985	P	23	4 385	13	700	10	3 685	23
Spain[6]	1983	P	1027	13 989	558	2 464	469	11 525	1 027
Sweden	1985	P	845	NA	NA	NA	NA	NA	NA
Switzerland	1985	P	1 077	3 728	NA	NA	NA	NA	NA
Yugoslavia	1985	P	1 061	29 550	NA	NA	NA	NA	NA
Oceania									
American Samoa	1985	G	3	NA	3	NA	-	-	NA
Australia	1985	T	*400	NA	400	NA	-	-	NA
French Polynesia	1985	P	15	NA	15	NA	-	-	NA
Guam	1985	T	2	50	2	50	-	-	NA
	1985	G	1	28	1	28	-	-	NA
	1985	C	1	22	1	22	-	-	NA
New Caledonia	1985	P	35	15	35	15	-	-	35
New Zealand	1985	P	743	2 743	740	2 743	3	0	743

1. Not including relay transmitters.
2. Super high frequency transmitters are included with ultra high frequency transmitters.
3. Transmitters are super high frequency transmitters.
4. Data refer to Abu Dhabi only.
5. The transmitters used by "Oy Mainos T.V." (commercial institution) are included with those of the public service institution.
6. Data on transmitters operated by commercial broadcasting organizations have not been communicated.

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Reception

General note:

Generally, data refer to the end of the year. Data for radio receivers relate to all types of receivers for radio broadcasts to the general public, including those connected to a cable distribution system (wired receivers).

Definition of data:

L - Number of licences issued
R - Estimated number of receivers in use

Table 9.23 Radio broadcasting: number of receivers, and receivers per 1,000 inhabitants, 1986

[e.g. Algeria reports an estimate (Column 2) of 5,800,000 radio receivers in use (Column 3) or 223 receivers per 1,000 inhabitants (Column 4).]

Country	Definition of data	Number of receivers in use and/or licences issued (thousands) 1986	Number of receivers in use and/or licences issued per 1,000 inhabitants 1986
Africa			
Algeria	R	5 800	223
	L	-	-
Angola	R	400	45
Benin	R	310	74
Botswana	R	140	122
Burkina Faso	R	170	24
Burundi	R	270	56
Cameroon	R	1 250	123
Cape Verde	R	52	154
Central African Republic	R	158	60
Chad	R	1 200	234
Comoros	R	54	118
Congo	R	210	118
Côte d'Ivoire	R	1 350	133
Djibouti	R	32	85
Egypt	R	15 000	313
Equatorial Guinea	R	103	257
Ethiopia	R	8 300	186
Gabon	R	117	100
Gambia	R	110	168
Ghana	R	2 650	189
Guinea	R	200	32
Guinea-Bissau	R	33	36
Kenya	R	1 800	84
	L	NA	NA
Lesotho	R	100	64
Liberia	R	510	225
Libyan Arab Jamahiriya	R	850	228
Madagascar	R	2 000	194
Malawi	R	1 800	251
Mali	R	300	36
Mauritania	R	260	134
Mauritius	L	275	257
Morocco	R	4 600	205
Mozambique	R	500	35
Niger	R	350	56
Nigeria	R	16 000	162
Reunion	R	123	228
Rwanda	R	360	57
São Tomé and Principe	R	28	280
Senegal	R	720	109
Seychelles	R	30	380

cont.

Table 9.23 - cont.

Country	Definition of data	Number of receivers in use and/or licences issued (thousands) 1986	Number of receivers in use and/or licences issued per 1,000 inhabitants 1986
Sierra Leone	R	820	224
Somalia	R	250	53
St Helena	R	2	333
Sudan	R	5 600	253
Swaziland	R	105	157
Togo	R	680	223
Tunisia	R	1 200	166
	L	NA	NA
Uganda	R	1 500	94
United Republic of Tanzania	R	2 000	86
Western Sahara	R	35	220
Zaire	R	3 000	97
Zambia	R	528	77
Zimbabwe	R	480	53
	L	NA	NA
America, North			
Antigua and Barbuda	R	22	272
Bahamas	R	120	515
Barbados	R	220	863
Belize	R	100	599
Bermuda	R	70	864
British Virgin Islands	R	7	531
Canada	R	22 500	877
Cayman Islands	R	20	1 000
Costa Rica	R	700	263
Cuba	R	3 400	335
Dominica	R	37	481
Dominican Republic	R	1 050	164
El Salvador	R	2 000	349
Greenland	R	20	370
Grenada	R	50	442
Guadeloupe	R	82	243
	L	NA	NA
Guatemala	R	500	61
Haiti	R	200	30
Honduras	R	1 700	377
Jamaica	R	950	400
Martinique	L	58	175
Mexico	R	16 000	197
Montserrat	R	6	538
Netherlands Antilles	R	200	746
Nicaragua	R	870	257
Panama	R	410	184
Puerto Rico	R	2 350	671
Saint Christopher and Nevis	R	23	479
Saint Lucia	R	93	701
St Pierre and Miquelon	R	4	667

cont.

Table 9.23 - cont.

Country	Definition of data	Number of receivers in use and/or licences issued (thousands) 1986	Number of receivers in use and/or licences issued per 1,000 inhabitants 1986
Saint Vincent and the Grenadines	R	66	629
Trinidad and Tobago	R	550	456
Turks and Caicos Islands	R	5	625
United States	R	510 000	2 126
U.S. Virgin Islands	R	93	877
America, South			
Argentina	R	20 000	645
Bolivia	R	3 850	587
Brazil	R	50 540	365
Chile	R	4 100	335
Colombia	R	4 500	153
Ecuador	R	2 850	295
Falkland Islands (Malvinas)	R	1	500
French Guiana	R	60	714
	L	NA	NA
Guyana	R	355	366
Paraguay	R	624	165
Peru	R	5 000	247
Suriname	R	246	644
Uruguay	R	1 800	592
Venezuela	R	7 550	425
Asia			
Afghanistan	R	1 500	87
Bahrain	R	225	513
Bangladesh	R	4 120	40
	L	NA	NA
Bhutan	R	20	14
Brunei Darussalam	R	55	228
Burma	R	3 000	79
China	R	150 000	140
	L	-	-
Cyprus	R	195	289
	L	-	-
Democratic Kampuchea	R	800	106
Democratic Yemen	R	300	136
Hong Kong	R	3 500	620
India	R	60 000	78
	L	NA	NA
Indonesia	R	20 000	118
Iran (Islamic Republic of)	R	11 000	240
Iraq	R	3 250	198
Israel	R	2 000	463
Japan	R	100 000	824
Jordan	R	850	232

cont.

Table 9.23 - cont.

Country	Definition of data	Number of receivers in use and/or licences issued (thousands) 1986	Number of receivers in use and/or licences issued per 1,000 inhabitants 1986
Korea, Democratic People's Republic of	R	2 250	108
Korea, Republic of	R	40 000	952
Kuwait	R	500	268
Lao People's Democratic Republic	R	450	107
Lebanon	R	2 100	770
Macau	R	100	244
Malaysia	R	6 850	431
	L	NA	NA
Maldives	R	20	106
Mongolia	R	250	127
Nepal	R	500	30
Oman	R	850	664
Pakistan	R	10 000	97
	L	1 250	12
Philippines	R	7 500	134
Qatar	R	158	485
Saudi Arabia	R	3 850	323
Singapore	L	775	300
Sri Lanka	R	2 750	167
	L	NA	NA
Syrian Arab Republic	R	2 500	229
Thailand	R	9 300	178
Turkey	R	8 200	163
	L	6 590	131
United Arab Emirates	R	434	323
Viet Nam	R	6 200	101
Yemen	R	200	28
Europe			
Albania	R	500	160
Andorra	R	8	200
Austria	R	4 210	561
	L	2 631	351
Belgium	R	7 500	757
	L	4 516	456
Bulgaria [1]	R	3 250	357
	L	2 020	222
Czechoslovakia	R	9 000	577
	L	4 240	272
Denmark	R	4 900	956
	L	2 129	415
Faeroe Islands	L	18	429
Finland	R	4 860	992
	L	-	-
France	R	49 000	896
	L	NA	NA
German Democratic Republic	R	10 500	627
	L	6 650	397
Germany, Federal Republic of	R	58 000	955
	L	26 656	439

cont.

Table 9.23 - cont.

Country	Definition of data	Number of receivers in use and/or licences issued (thousands) 1986	Number of receivers in use and/or licences issued per 1,000 inhabitants 1986
Gibraltar	R	36	1 161
Greece	R	4 050	408
Hungary	R	6 145	576
	L	-	-
Iceland	L	151	616
Ireland	R	2 060	563
	L	-	-
Italy	R	40 000	697
	L	15 000	261
Liechtenstein	R	18	643
Luxembourg	R	228	628
Malta	L	155	402
Monaco	R	27	1 007
Netherlands	R	13 000	893
	L	4 922	338
Norway	R	3 250	783
	L	-	-
Poland	R	15 500	415
	L	10 511	281
Portugal	R	2 165	211
	L	-	-
Romania	L	3 300	143
San Marino	L	13	568
Spain	R	11 473	295
Sweden	R	7 300	875
	L	-	-
Switzerland	R	5 320	834
	L	2 558	401
United Kingdom	R	65 000	1 157
	L	-	-
Yugoslavia	R	8 000	344
	L	4 460	192
Oceania			
American Samoa	R	40	1 111
Australia	R	20 000	1 259
Cook Islands	R	11	550
Fiji	R	500	568
French Polynesia	R	94	566
Guam	R	160	1 379
Kiribati	R	14	208
Nauru	R	5	625
New Caledonia	R	85	548
New Zealand	R	3 000	896
Niue	R	1	342
Norfolk Island	R	2	1 000
Pacific Islands	R	NA	NA
Papua New Guinea	R	225	63
Samoa	R	70	427

cont.

Table 9.23 - cont.

Country	Definition of data	Number of receivers in use and/or licences issued (thousands) 1986	Number of receivers in use and/or licences issued per 1,000 inhabitants 1986
Solomon Islands	R	30	107
Tokelau	R	1	525
Tonga	R	81	725
Tuvalu	R	2	250
Vanuatu	R	36	247
USSR			
Byelorussian SSR	R	NA	NA
Ukrainian SSR	R	NA	NA
USSR	R	185 000	660

1. Data do not include licences for receivers connected by wire to a redistribution system.

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Table 9.24 Television-broadcasting: number of receivers and receivers in use per 1,000 inhabitants, 1986.

[e.g. Algeria reports having an estimated (def. of data, Column 2) number of 1,610,000 receivers (Column 3) or 72 receivers per 1,000 inhabitants (Column 4.]

Country	Definition of data	Number of receivers in use and/or licences issued (in 1,000)	Number of receivers in use and/or licences issued per 1,000 inhabitants
Africa			
Algeria	R	1 610	72
Angola	R	40	4.5
Benin	R	16	3.7
Burkina Faso	R	38	5.3
Burundi	R	1	0.2
Central African Republic	R	5	1.9
Congo	R	6	3.1
Côte d'Ivoire	R	550	54
Djibouti	R	14	37
Egypt	R	4 000	83
Equatorial Guinea	R	2	5.7
Ethiopia	R	74	1.7
	L	NA	NA
Gabon	R	23	20
Ghana	R	146	10
Guinea	R	10	1.6
Kenya	R	115	5.4
	L	NA	NA
Lesotho	R	1	0.6
Liberia	R	40	18
Libyan Arab Jamahiriya	R	245	66
Madagascar	R	55	5.3
Mali	R	1	0.1
Mauritania	R	1	0.5
Mauritius	R	110	103
	L	NA	NA
Morocco	L	1 203	54
Mozambique	R	10	0.7
Niger	R	15	2.4
Nigeria	R	550	5.6
Reunion	R	NA	NA
	L	90	166
Senegal	R	220	33
Seychelles	R	3	34
Sierra Leone	R	31	8.5
Somalia	R	2	0.4
Sudan	R	1 150	52
Swaziland	R	8	12
Togo	R	16	5.2
Tunisia	R	500	69
Uganda	R	100	6.2
United Republic of Tanzania	R	13	0.6
Western Sahara	R	3	20
Zaire	R	15	0.5
Zambia	R	100	15
Zimbabwe	R	130	14

cont.

Table 9.24 - cont.

Country	Definition of data	Number of receivers in use and/or licences issued (in 1,000)	Number of receivers in use and/or licences issued per 1,000 inhabitants
America, North			
Antigua and Barbuda	R	20	241
Bahamas	R	52	223
Barbados	R	66	259
Bermuda	R	50	617
British Virgin Islands	R	3	200
Canada	R	14 000	546
Cayman Islands	R	4	210
Costa Rica	R	210	79
Cuba	R	2 050	202
Dominican Republic	R	515	81
El Salvador	R	400	70
Greenland	R	8	148
Guadeloupe	R	71	210
	L	NA	NA
Guatemala	R	300	37
Haiti	R	25	3.7
Honduras	R	300	67
Jamaica	R	250	105
Martinique	L	45	136
Mexico	R	9 490	117
Netherlands Antilles	R	59	220
Nicaragua	R	200	59
Panama	R	360	161
Puerto Rico	R	865	247
Saint Christopher and Nevis	R	7	149
Saint Lucia	R	2	18
St Pierre and Miquelon	R	4	617
Saint Vincent and the Grenadines	R	8	76
Trinidad and Tobago	R	345	286
United States	R	195 000	813
U.S. Virgin Islands	R	60	566
America, South			
Argentina	R	6 650	214
Bolivia	R	500	76
Brazil	R	26 000	188
Chile	R	2 000	164
Colombia	R	3 000	102
Ecuador	R	700	73
French Guiana	L	14	161
Paraguay	R	88	23
Peru	R	1 701	84
Suriname	R	48	126
Uruguay	R	520	171
Venezuela	R	2 500	141
Asia			
Afghanistan	R	115	6.7
Bahrain	R	173	394
Bangladesh	R	320	3.1
Brunei Darussalam	R	38	158
Burma	R	30	0.8
China	R	10 500	9.8
	L	-	-
Cyprus	R	90	133
	L	NA	NA

cont.

Table 9.24 - cont.

Country	Definition of data	Number of receivers in use and/or licences issued (in 1,000)	Number of receivers in use and/or licences issued per 1,000 inhabitants
Democratic Kampuchea	R	55	7.3
Democratic Yemen	R	44	20
Hong Kong	R	1 312	232
India	L	5 000	6.5
Indonesia	R	6 600	39
Iran (Islamic Republic of)	R	2 600	57
Iraq	R	1 000	61
Israel	R	1 125	261
	L	655	152
Japan	R	71 000	585
	L	NA	NA
Jordan	R	250	68
Korea, Democratic People's Republic of	R	250	12
Korea, Republic of	R	7 900	188
	L	NA	NA
Kuwait	R	450	241
Lao People's Democratic Republic	R	5	1.2
Lebanon	R	820	301
Macau	R	2	4.9
Malaysia	R	1 800	113
	L	NA	NA
Maldives	R	4	20
	L	NA	NA
Mongolia	R	60	31
Nepal	R	22	1.3
Oman	R	940	734
Pakistan	R	500	15
	L	NA	NA
Philippines	R	2 000	36
Qatar	R	128	393
Saudi Arabia	R	3 210	269
Singapore	R	NA	NA
	L	550	213
Sri Lanka	R	460	28
	L	333	20
Syrian Arab Republic	R	625	57
Thailand	R	5 200	100
Turkey	R	8 300	165
	L	NA	NA
United Arab Emirates	R	145	108
Viet Nam	R	2 050	34
Yemen	R	50	7.1
Europe			
Albania	R	250	80
Andorra	R	6	140
Austria	R	3 268	436
	L	2 426	323
Belgium	L	2 984	301
Bulgaria	L	1 720	189
Czechoslovakia	R	NA	NA
	L	4 380	281

cont.

Table 9.24 - cont.

Country	Definition of data	Number of receivers in use and/or licences issued (in 1,000)	Number of receivers in use and/or licences issued per 1,000 inhabitants
Denmark	R	NA	NA
	L	1 977	386
Faeroe Islands	R	10	238
Finland	R	2 350	480
	L	1 822	372
France	R	22 000	402
	L	18 168	332
German Democratic Republic	L	6 080	363
Germany, Federal Republic of	L	23 011	379
Gibraltar	L	9	290
Greece	L	1 725	174
Hungary	R	4 255	399
	L	2 920	274
Iceland	L	75	306
Ireland	R	950	260
	L	790	216
Italy	R	NA	NA
	L	14 605	255
Liechtenstein	R	9	321
Luxembourg	R	92	253
Malta	R	NA	NA
	L	128	332
Monaco	R	20	741
Netherlands	R	6 800	467
	L	4 755	327
Norway	L	1 443	348
Poland	L	9 691	259
Portugal	L	1 618	157
Romania	L	4 050	175
San Marino	L	7	318
Spain	R	12 500	322
Sweden	L	3 278	393
Switzerland	R	2 624	411
	L	2 282	358
United Kingdom	R	30 000	534
	L	19 448	346
Yugoslavia	L	4 090	176
Oceania			
American Samoa	R	8	222
Australia	R	7 500	472
French Polynesia	R	28	171
Guam	R	83	709
New Caledonia	R	41	262
New Zealand	R	1 200	358
	L	NA	NA
Pacific Islands	R	8	53
Samoa	R	6	34
USSR			
Byelorussian SSR	R	2 550	250
Ukrainian SSR	R	15 200	295
USSR	R	90 000	321

General note: In a few of the countries listed above for which only the estimated number of receivers in use (R) is shown, a licence system for television receivers may be in force but information on this matter has not been communicated.

Source: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.

Consolidated data

Table 9.25 Radio and television broadcasting: annual revenue by source and type of institution

[e.g. Algeria reports, 1981 (Column 2) for radio and TV (Column 3), public institution (Column 4) having no available figure on total revenue of (Column 5), but a distribution of which 95% are government funds (Column 6), and 5% other income (Column 10).]

Country	Year	Radio/TV	Type of institution	Revenue					
				Total in millions US $	Of which (%)				
					Government funds	Licence fees	Private endowments	Advertising	Other income
Africa									
Algeria	1981	Radio+TV	P	NA	95.0	-	-	-	5.0
Benin	1981	Radio+TV	G	750	39.0	13.0	-	26.0	22.0
Botswana	1983	Radio	G	1 641	100.0	-	-	-	-
Burkina Faso	1983	Radio	G	NA	100.0	-	-	-	-
	1983	TV	G	NA	100.0	-	-	-	-
Ethiopia	1985	Radio	G	NA	96.1	-	-	3.9	-
	1985	TV	G	NA	80.8	15.4	-	3.8	-
Ghana	1985	Radio+TV	G	3 035	88.0	-	-	11.0	1.0
Madagascar	1985	Radio+TV	G	145	100.0	-	-	-	-
Malawi	1983	Radio	P	2 468	71.7	-	-	20.7	7.6
Mauritius	1983	Radio+TV	P	1 512	14.2	32.6	-	47.3	6.0
Reunion	1985	Radio+TV	P	NA	NA	NA	NA	NA	NA
Rwanda	1981	Radio	G	557	94.2	3.6	-	2.2	-
Senegal	1985	Radio+TV	P	2 598	74.6	-	-	23.3	2.1
St Helena	1981	Radio	G	NA	100.0	-	-	-	-
Zimbabwe	1981	Radio	P	5 217	2.8	24.1	-	69.9	3.2
	1981	TV	P	6 087	8.4	33.8	-	52.0	5.8
America, North									
Bahamas	1985	Radio+TV	G	5 900	-	-	-	100.0	-
Belize	1983	Radio	G	400	100.0	-	-	-	-
British Virgin Islands	1983	Radio	C	NA	-	-	-	100.0	-
Canada	1985	Radio	C	424 176	-	-	-	98.0	2.0
	1985	TV	P	12 454	-	-	-	96.0	4.0
	1985	TV	C	704 029	-	-	-	92.0	8.0
Cayman Islands	1981	Radio	G	NA	54.2	-	-	45.8	-
	1981	Radio	P	NA	-	-	-	-	100.0
Costa Rica	1981	TV	G	2 003	87.6	-	-	10.6	1.8
Cuba	1985	Radio	G	NA	100.0	-	-	-	-
	1985	TV	G	NA	100.0	-	-	-	-
Guadeloupe	1985	Radio+TV	P	NA	-	70.0	-	20.0	10.0
Honduras	1985	Radio	G	250	100.0	-	-	-	-
	1985	Radio	P	550	-	-	-	-	100.0
	1985	Radio	C	15 850	-	-	-	100.0	-
	1985	TV	C	9 250	-	-	-	100.0	-
Martinique	1985	Radio+TV	P	NA	NA	NA	NA	NA	NA
Mexico	1982	Radio	G	2 695	NA	NA	NA	NA	NA
	1982	Radio	C	65 813	NA	NA	NA	NA	NA
	1982	TV	G	1 082	NA	NA	NA	NA	NA
	1982	TV	C	37 304	NA	NA	NA	NA	NA
Saint Christopher and Nevis	1985	Radio+TV	G	259	100.0	-	-	-	-
Trinidad and Tobago	1981	TV	C	9 583	-	-	-	99.0	1.0
Turks and Caicos Islands	1983	Radio	P	NA	100.0	-	-	-	-
America, South									
Chile	1982	Radio+TV	G	40 521	1.1	-	0.1	82.5	16.3
	1982	Radio+TV	P	6 349	1.1	-	2.2	93.3	3.4
	1982	Radio+TV	C	17 629	0.9	-	0.6	92.9	5.6

cont.

Table 9.25 - cont.

Country	Year	Radio/TV	Type of institution	Revenue					
				Total in millions US $	Of which (%)				
					Government funds	Licence fees	Private endowments	Advertising	Other income
French Guiana	1985	Radio+TV	P	NA	-	95.6	-	4.0	0.4
Guyana	1985	Radio	P	1 011	5.0	9.0	-	66.0	20.0
Asia									
Afghanistan	1981	Radio	G	643	-	1.6	-	40.3	58.1
	1981	TV	G	46	-	65.2	-	21.7	13.1
Brunei Darussalam	1983	Radio+TV	G	10 338	-	95.0	-	5.0	-
Cyprus	1985	Radio+TV	P	11 765	6.9	28.9	-	56.6	7.6
Hong Kong	1981	Radio	G	4 552	100.0	-	-	-	-
	1981	TV	G	6 819	100.0	-	-	-	-
India	1981	Radio	G	68 145	50.0	25.6	24.4	-	-
	1981	TV	G	17 152	-	33.0	-	67.0	-
Indonesia	1985	Radio	G	NA	95.0	-	-	5.0	-
	1985	Radio	P	NA	-	-	-	-	100.0
	1985	Radio	C	NA	-	-	-	100.0	-
	1985	TV	G	NA	20.0	78.0	-	-	2.0
Iran (Islamic Republic of)	1985	Radio	G	11 202	100.0	-	-	-	-
	1985	TV	G	59 362	100.0	-	-	-	-
Israel	1983	Radio+TV	P	NA	19.0	49.0	-	26.0	6.0
Japan	1985	Radio+TV	P	1 446 533	-	96.4	-	-	3.6
	1985	Radio+TV	C	5 700 813	-	-	-	94.1	5.9
Korea, Republic of	1985	Radio+TV	P	473 956	NA	NA	NA	NA	NA
Kuwait	1985	Radio	G	NA	100.0	-	-	-	-
	1985	TV	G	NA	53.0	-	-	47.0	-
Malaysia	1985	Radio+TV	G	113 773	58.3	13.3	-	28.4	-
	1985	TV	C	13 089	-	-	-	100.0	-
Oman	1985	Radio	G	NA	100.0	-	-	-	-
	1985	TV	G	NA	100.0	-	-	-	-
Pakistan	1985	Radio	G	17 234	69.1	13.1	-	17.5	0.3
	1983	TV	G	49 294	35.9	26.0	-	32.0	6.1
Singapore	1983	Radio+TV	G	45 906	-	23.0	-	65.0	12.0
Sri Lanka	1985	Radio	G	NA	-	29.7	-	52.1	18.2
	1985	TV	G	3 314	2.4	42.7	-	44.7	10.3
Thailand	1985	Radio	G	5 339	100.0	-	-	-	-
	1985	TV	G	3 682	48.0	-	-	52.0	-
United Arab Emirates[1]	1983	Radio	G	7 082	-	74.0	-	26.0	-
	1983	TV	G	20 430	-	76.0	-	24.0	-
Europe									
Austria	1985	Radio	P	84 054	-	56.1	-	39.7	4.2
	1985	TV	P	187 298	-	56.5	-	35.7	7.8
Belgium	1983	Radio+TV	P	205 097	84.3	-	1.0	-	14.7
Denmark	1981	Radio+TV	P	164 818	3.1	90.6	-	-	6.3
Finland	1985	Radio+TV	P	192 917	0.4	75.4	-	21.9	2.3
	1985	TV	C	79 219	-	-	-	94.0	6.0
France	1983	Radio	P	240 388	6.9	85.6	-	1.6	5.9
	1983	TV	P	866 684	0.4	56.3	-	39.9	3.4
German Democratic Republic	1985	TV	G	381 462	NA	NA	NA	NA	NA
Gibraltar	1983	Radio+TV	P	NA	63.0	12.0	-	25.0	-
Hungary	1985	Radio	G	20 531	95.0	-	-	-	5.0
	1985	TV	G	47 367	100.0	-	-	-	-
Ireland	1985	Radio+TV	P	74 947	0.1	40.0	-	47.5	12.4
Italy	1985	Radio+TV	P	949 377	-	56.0	-	31.6	12.4
Malta	1985	Radio	P	171	-	-	-	98.0	2.0
	1985	TV	P	2 132	2.0	31.0	-	65.0	2.0
Monaco	1981	Radio	P	48 390	-	-	-	100.0	-
	1981	TV	C	6 329	-	-	-	56.2	43.8

cont.

Table 9.25 - cont.

Country	Year	Radio/TV	Type of institution	Revenue					
				Total in millions US $	Of which (%)				
					Government funds	Licence fees	Private endowments	Advertising	Other income
Netherlands	1983	Radio+TV	P	341 906	-	69.3	-	26.6	4.1
Norway	1981	Radio+TV	P	157 805	-	78.2	-	-	21.8
Portugal	1985	Radio	P	30 995	7.9	78.6	1.0	11.6	1.9
	1985	TV	P	62 246	8.8	36.7	-	39.0	15.5
Spain	1983	Radio	P	105 569	-	-	-	11.0	89.0
	1983	TV	P	347 632	-	-	-	95.6	4.4
Sweden	1981	Radio	P	NA	NA	NA	NA	NA	NA
	1981	TV	P	178 550	-	97.0	-	-	3.0
Switzerland	1985	Radio	P	63 492	-	97.0	-	-	3.0
	1985	TV	P	170 940	-	63.0	-	33.0	4.0
Oceania									
American Samoa	1981	Radio	C	NA	-	-	-	100.0	-
	1981	TV	G	NA	75.0	-	-	-	25.0
Fiji	1981	Radio	P	2 339	50.0	-	-	50.0	-
French Polynesia	1985	Radio+TV	P	207	-	88.7	-	11.3	-
New Caledonia	1985	Radio+TV	P	NA	-	90.0	-	10.0	-
Tonga	1985	Radio	P	419	-	-	-	38.1	61.9
Tuvalu	1983	Radio	G	NA	100.0	-	-	-	-
Vanuatu	1983	Radio	G	352	98.0	-	-	1.0	1.0

1. Data refer to Abu Dhabi only.

Source: *Unesco Statistical Yearbook 1987*, Paris, Unesco, 1987.

Table 9.26 Radio and television broadcasting: personnel employed by type of personnel and type of institution.

[e.g. Algeria reports, for 1981 (Column 2) concerning radio and television (Column 3), which is a public institution (Column 4), having a total staff of 2,800 (Column 5). Out of these 16.1% are programme personnel, 7.9% journalistic, 39.3% technical production personnel, etc.]

Country	Year	Radio/ TV	Type of Inst.	Total Staff	Type of personnel %						
					Programme	Journalistic	Technical Production	Technical Transmission	Other Technical	Administrative	Other
Africa											
Algeria	1981	Radio+TV	P	2 800	16.1	7.9	39.3	./.	./.	16.1	20.7
Benin	1981	Radio	G	78	66.7	33.3	-	-	-	-	-
	1981	TV	G	76	46.1	7.9	19.7	9.2	-	17.1	-
Botswana	1983	Radio	G	231	9.5	18.6	8.7	4.3	-	12.6	46.3
Burkina Faso	1983	Radio	G	165	32.1	24.2	30.3	./.	./.	7.3	6.1
	1983	TV	G	52	-	19.2	38.5	19.2	3.8	9.6	9.6
Chad	1983	Radio	G	125	43.2	11.2	10.4	17.6	2.4	5.6	9.6
Ethiopia	1985	Radio	G	742	11.5	17.1	1.6	15.1	3.2	27.6	23.9
	1985	TV	G	446	-	4.7	14.4	13.0	-	34.8	33.2
Ghana	1985	Radio+TV	G	2 889	7.9	6.4	50.7	./.	./.	25.9	9.0
Guinea-Bissau	1981	Radio	G	89	12.4	16.9	39.3	18.0	5.6	-	7.9
Madagascar	1985	Radio	G	253	61.3	16.6	10.3	11.9	./.	NA	NA
	1985	TV	G	96	45.8	12.5	33.3	./.	./.	8.3	-
Malawi	1983	Radio	P	433	38.8	./.	49.4	./.	./.	11.8	-
Mali	1981	Radio	G	178	20.2	9.6	24.7	14.0	-	9.0	22.5
	1981	TV	G	158	22.8	10.8	27.8	15.8	12.7	10.1	-
Mauritius	1983	Radio+TV	P	181	21.0	12.2	16.6	4.4	7.7	17.7	20.4
Reunion	1985	Radio+TV	P	114	21.1	12.3	37.7	./.	./.	21.1	7.9
Rwanda	1983	Radio	G	84	33.3	16.7	11.9	-	8.3	11.9	17.9
Senegal	1985	Radio+TV	P	820	41.5	./.	54.9	./.	./.	1.8	1.8
Sierra Leone	1982	Radio+TV	G	634	26.2	5.0	12.9	3.2	21.1	23.7	7.9
St Helena	1981	Radio	G	22	9.1	./.	-	-	-	-	90.9
Sudan	1983	Radio	G	436	64.0	./.	29.1	./.	./.	6.9	NA
Swaziland	1983	Radio	G	104	16.3	15.4	7.7	16.3	9.6	8.7	26.0
	1983	TV	G	473	46.3	./.	48.0	./.	./.	5.7	NA
America, North											
Bahamas	1985	Radio+TV	G	204	12.7	8.8	21.1	3.9	1.5	9.8	42.2
Belize	1983	Radio	G	58	24.1	10.3	13.8	13.8	6.9	10.3	20.7
British Virgin Islands	1983	Radio	C	6	50.0	16.7	-	-	-	33.3	-
Canada	1985	Radio+TV	P	12 334	60.4	./.	12.6	./.	./.	24.0	3.0
	1985	Radio	C	9 666	59.1	./.	4.4	./.	./.	16.8	19.7
	1985	TV	C	6 905	62.7	./.	12.4	./.	./.	14.4	10.5

cont.

Table 9.26 - cont.

Country	Year	Radio/ TV	Type of Inst.	Total Staff	Type of personnel %						
					Prog-ramme	Jour-nal-istic	Tech-nical Pro-duc-tion	Tech-nical Trans-mis-sion	Other Tech-nical	Admi-nis-trat-ive	Other
Cayman Islands	1981	Radio	G	21	9.5	19.0	4.8	4.8	-	19.0	42.9
Costa Rica	1981	TV	G	306	8.8	9.8	37.3	12.4	-	24.5	7.2
	1981	TV	C	256	16.0	16.8	12.5	12.5	6.3	25.0	10.9
Cuba	1985	Radio	G	6 146	NA	NA	49.4	./.	./.	13.4	37.2
	1985	TV	G	3 103	NA	NA	51.5	./.	./.	12.9	35.6
Guadeloupe[1]	1985	Radio+TV	P	109	13.8	15.6	33.9	11.9	8.3	6.4	10.1
Honduras	1985	Radio	G	51	21.6	11.8	11.8	11.8	9.8	15.7	17.6
	1985	Radio	P	60	33.3	-	11.7	13.3	-	25.0	16.7
	1985	Radio	C	2 997	17.7	12.5	9.0	8.5	5.3	17.3	29.6
	1985	TV	C	324	17.3	13.3	29.0	./.	./.	21.6	18.8
Martinique	1985	Radio+TV	P	116	NA	17.2	5.2	NA	36.2	14.7	26.7
Mexico	1982	Radio	G	739	41.4	0.1	18.9	./.	./.	18.8	20.7
	1982	Radio	C	5 113	22.9	0.5	14.9	./.	./.	16.7	45.0
	1982	TV	G	486	13.8	0.4	81.3	./.	./.	2.1	2.5
	1982	TV	C	11 675	29.5	0.2	19.3	./.	./.	22.6	28.5
Saint Christopher and Nevis	1985	Radio+TV	G	25	12.0	12.0	28.0	20.0	12.0	16.0	-
St Pierre and Miquelon	1985	Radio+TV	P	62	21.0	14.5	38.7	6.5	3.2	14.5	1.6
Trinidad and Tobago	1981	TV	C	178	19.7	6.2	43.8	3.9	-	9.6	16.9
Turks and Caicos Islands	1983	Radio	P	5	-	40.0	20.0	./.	./.	40.0	-
America, South											
Bolivia	1981	Radio	G	27	3.7	33.3	14.8	-	48.1	-	-
	1981	Radio	P	216	13.0	45.8	3.2	-	38.0	-	-
	1981	Radio	C	740	0.9	53.8	2.2	-	43.1	-	-
Chile	1982	Radio+TV	G	1 004	17.3	12.5	17.7	8.6	1.7	29.1	13.1
	1982	Radio+TV	P	469	4.7	5.8	3.4	10.7	2.8	7.2	65.5
	1982	Radio+TV	C	1 787	7.3	8.7	8.3	13.3	4.4	19.6	38.3
Colombia	1983	Radio	P	96	18.8	1.0	13.5	66.7	-	-	-
	1983	TV	P	1 030	4.2	0.1	29.7	32.1	-	12.4	21.5
Guyana	1985	Radio	P	124	12.9	7.3	16.1	9.7	-	5.6	48.4
Asia											
Afghanistan	1981	Radio	G	965	25.9	2.1	25.5	-	8.0	5.2	33.4
	1981	TV	G	622	30.1	3.2	30.7	-	11.3	8.0	16.7
Brunei Darussalam	1983	Radio+TV	G	839	32.8	6.0	42.3	4.8	-	2.9	11.3
Cyprus	1985	Radio	P	121	52.9	13.2	16.5	./.	./.	1.7	15.7
	1985	TV	P	338	8.9	2.1	30.5	5.0	4.1	4.1	45.3
India	1981	Radio	G	15 415	31.0	0.7	23.9	-	2.8	6.8	34.7
	1981	TV	G	4 526	29.8	1.5	10.6	23.9	4.9	16.8	12.5
Indonesia	1985	Radio	G	7 201	28.0	15.0	27.3	./.	./.	29.6	-
	1985	Radio	P	112	12.5	6.3	6.3	6.3	6.3	37.5	25.0
	1985	Radio	C	6 480	12.5	6.3	6.3	6.3	6.3	37.5	25.0
	1985	TV	G	4 534	12.4	11.4	25.1	20.3	-	30.8	-
Iran (Islamic Republic of)	1985	Radio+TV	G	11 457	5.0	./.	30.6	./.	./.	45.9	18.5

cont.

Table 9.26 - cont.

Country	Year	Radio/ TV	Type of Inst.	Total Staff	Type of personnel %						
					Programme	Journalistic	Technical Production	Technical Transmission	Other Technical	Administrative	Other
Israel	1983	Radio	P	918	67.1	./.	20.2	./.	./.	12.7	-
	1983	TV	P	578	60.7	./.	22.3	./.	./.	17.0	-
Japan	1985	Radio+TV	P	16 110	36.6	./.	26.9	./.	./.	9.5	26.9
	1985	Radio+TV	C	24 432	32.2	./.	22.2	./.	./.	12.9	32.8
Jordan	1983	Radio	G	500	40.0	12.0	-	24.0	-	24.0	-
	1983	TV	G	860	16.9	16.0	20.9	5.1	5.9	17.7	17.4
Korea, Republic of	1985	Radio+TV	P	8 542	19.6	12.0	19.1	-	4.6	27.6	13.7
Kuwait	1985	Radio	G	547	45.9	15.2	4.0	6.2	11.2	4.8	12.8
	1985	TV	G	1 628	4.6	./.	41.2	./.	10.7	27.6	15.8
Malaysia	1985	Radio+TV	G	5 888	37.3	4.1	33.0	./.	./.	25.6	-
	1985	TV	C	412	20.1	10.0	33.7	./.	./.	36.2	-
Maldives	1985	Radio	G	111	24.3	11.7	11.7	9.0	3.6	25.2	14.4
	1985	TV	G	77	16.9	9.1	26.0	5.2	2.6	22.1	18.2
Oman	1985	Radio	G	332	30.1	20.2	33.7	./.	./.	16.0	-
	1985	TV	G	222	9.0	5.9	36.0	14.0	3.6	22.5	9.0
Pakistan	1985	Radio	G	5 628	17.6	4.3	26.8	./.	./.	39.0	12.3
Philippines	1981	Radio+TV	G	1 664	20.0	./.	30.0	./.	./.	50.0	-
	1981	Radio+TV	P	650	20.0	./.	30.2	./.	./.	49.8	-
	1981	Radio+TV	C	16 472	20.0	./.	30.0	./.	./.	50.0	-
Qatar	1985	Radio	G	327	17.7	8.6	9.8	15.9	5.5	25.7	16.8
	1985	TV	G	550	36.4	9.1	7.3	7.3	36.4	3.6	-
Saudi Arabia	1981	Radio	G	529	31.8	6.0	10.6	8.1	10.2	5.1	28.2
	1981	TV	G	649	17.6	3.2	9.4	7.7	30.7	4.3	27.1
Singapore	1983	Radio+TV	G	2 503	20.4	4.9	13.5	2.6	1.1	22.5	34.9
Sri Lanka	1985	Radio	G	2 317	19.2	./.	15.7	./.	./.	64.8	0.3
	1985	TV	G	568	28.0	3.5	13.2	2.6	9.5	13.4	29.8
Syrian Arab Republic	1985	Radio+TV	G	2 325	5.5	./.	79.4	./.	./.	10.8	4.3
Thailand	1985	Radio	G	966	20.5	6.2	42.7	8.4	-	22.3	-
	1985	TV	G	402	30.6	7.0	27.4	12.9	15.9	6.2	-
Turkey	1985	Radio+TV	P	5 181	31.6	./.	18.6	./.	./.	31.8	18.0
United Arab Emirates[2]	1983	Radio	G	223	18.4	12.6	20.2	17.9	-	15.2	15.7
	1983	TV	G	385	19.2	2.6	38.4	7.5	-	9.4	22.9
Europe											
Austria	1985	Radio+TV	P	3 213	26.1	./.	35.7	./.	./.	12.9	25.4
Belgium	1983	Radio+TV	P	5 308	28.4	./.	42.2	./.	./.	8.1	21.3
Denmark	1981	Radio+TV	P	3 179	25.7	./.	24.8	-	11.5	32.4	5.6
Finland	1985	Radio+TV	P	4 580	28.8	0.3	30.8	9.5	9.3	12.7	8.6
	1985	TV	C	704	18.5	7.2	19.6	-	22.9	31.8	-

cont.

Table 9.26 - cont.

Country	Year	Radio/ TV	Type of Inst.	Total Staff	Type of personnel %						
					Prog-ramme	Jour-nal-istic	Tech-nical Pro-duc-tion	Tech-nical Trans-mis-sion	Other Tech-nical	Admi-nis-trat-ive	Other
France	1983	Radio	P	3 256	4.8	16.6	3.4	19.0	2.0	25.2	29.2
	1983	TV	P	6 220	19.5	17.3	38.2	-	3.0	19.5	2.6
Gibraltar	1983	Radio+TV	P	62	40.3	4.8	19.4	8.1	-	25.8	1.6
Hungary	1985	Radio	G	1 987	21.0	16.4	13.3	2.9	6.6	20.8	18.9
	1985	TV	G	3 224	31.9	1.0	16.0	1.1	2.4	20.7	26.9
Ireland	1985	Radio+TV	P	2 220	30.7	6.6	27.9	6.3	8.3	7.5	12.7
Italy	1985	Radio+TV	P	13 581	11.2	11.7	28.8	8.8	7.6	27.7	4.2
Malta	1985	Radio	P	176	11.4	10.2	12.5	4.0	7.4	5.1	49.4
	1985	TV	P	150	25.3	20.7	26.0	./.	2.0	2.7	23.3
Monaco	1981	Radio	P	601	18.3	14.6	12.8	7.2	10.6	31.3	5.2
	1981	TV	C	94	33.0	-	37.2	6.4	4.3	13.8	5.3
Netherlands	1983	Radio+TV	P	6 320	NA	NA	NA	NA	NA	NA	NA
Norway	1981	Radio+TV	P	2 470	29.8	4.7	27.0	-	13.6	15.6	9.2
Portugal	1985	Radio	P	2 028	25.4	9.9	11.5	11.3	1.3	12.9	27.6
	1985	TV	P	2 399	14.4	9.7	24.9	1.3	11.1	28.7	9.8
Spain	1983	Radio	P	2 994	12.5	21.3	32.4	2.9	1.2	20.3	9.3
	1983	TV	P	4 864	30.8	11.6	38.2	-	1.8	11.7	6.0
Sweden	1981	Radio	P	NA	NA	NA	NA	NA	NA	NA	NA
	1981	TV	P	3 463	./.	./.	44.8	-	7.7	11.9	1.1
Switzerland[3]	1985	Radio+TV	P	3 265	23.5	19.1	36.3	./.	5.9	12.9	2.3
Yugoslavia	1985	Radio+TV	P	19 965	22.9	21.1	21.5	./.	./.	16.8	17.7
Oceania											
American Samoa	1981	Radio	C	11	54.5	9.1	-	9.1	-	18.2	9.1
	1981	TV	G	35	31.4	11.4	31.4	11.4	-	8.6	5.7
Fiji	1981	Radio	P	158	25.3	17.7	14.6	10.8	-	25.3	6.3
French Polynesia	1985	Radio+TV	P	77	9.1	23.4	42.9	./.	./.	16.9	7.8
New Caledonia	1985	Radio+TV	P	70	8.6	21.4	45.7	./.	4.3	11.4	8.6
Niue	1983	Radio	G	6	33.3	33.3	-	-	-	-	33.3
Norfolk Island	1983	Radio	G	18	88.9	./.	-	5.6	-	5.6	-
Pacific Islands	1981	Radio	C	18	22.2	16.7	27.8	-	-	33.3	-
Tonga	1985	Radio	P	47	21.3	14.9	6.4	8.5	12.8	31.9	4.3
Tuvalu	1983	Radio	G	7	28.6	28.6	14.3	-	14.3	-	-
Vanuatu	1983	Radio	G	40	22.5	27.5	7.5	5.0	2.5	20.0	15.0

General note: The symbol ./. indicates that data are included in the column immediately to the left of this symbol.

1. Data refer to R.F.O only.
2. Data refer to Abu Dhabi only.
3. Transmission is the responsibility of the national post and telegraph service "P.T.T.".

Source: *Unesco Statistical Yearbook 1987*, Paris, Unesco, 1987

Postal and telegraphic services

Table 9.27 Postal services: number of post offices, 1986.

[e.g. Algeria reports a total of 2,185 post offices (Column 2) out of which all are permanent (Column 3). Of these 1,255 are located in urban districts (Column 4) and 930 in rural districts (Column 5).]

Country	Total number of post offices open to the public	Number of permanent post offices	Number of post offices in urban districts	Number of post offices in rural districts
Africa				
Algeria[1]	2 185	2 185	1 255	930
Angola	133	133	82	51
Benin	178	178	62	116
Botswana	150	150	13	137
Burkina Faso[1]	216	72	72	144
Burundi[1]	17	17	4	13
Cameroon[1]	261	213	NA	NA
Cape Verde	NA	59	22	37
Central African Republic	76	76	8	68
Chad	32	32	27	5
Congo[1]	133	123	18	115
Côte d'Ivoire	1 135	345	152	983
Egypt	8 843	6 933	4 274	4 569
Equatorial Guinea	19	19	18	1
Ethiopia	483	483	143	340
Ghana	997	997	272	725
Kenya	853	853	229	624
Lesotho	130	130	18	112
Liberia	50	50	13	37
Libyan Arab Jamahiriya	317	317	113	204
Madagascar	8 844	809	213	8 631
Malawi[1]	263	263	34	229
Mali	122	120	89	33
Mauritius	109	99	25	84
Morocco	1 130	1 130	389	741
Mozambique	328	328	102	226
Niger	255	60	47	208
Nigeria	3 466	3 397	535	2 931
Rwanda	26	26	11	15
São Tomé and Principe	10	10	2	8
Senegal	NA	136	79	57
Sierra Leone	NA	98	18	80
St Helena[1]	10	10	1	9
Sudan	792	768	271	521
Togo	389	49	26	363
Tunisia	643	593	298	345
Uganda	360	360	NA	NA
United Republic of Tanzania	738	738	NA	NA
Zambia	422	418	79	343
Zimbabwe	311	303	115	196
America, North				
Anguilla	22	1	1	21
Bahamas	127	127	7	120
Barbados	16	16	4	12
Belize	112	29	26	84
British Virgin Islands	9	9	4	5
Canada	13 153	13 153	8 574	4 579
Cayman Islands	12	12	1	11
Costa Rica[1]	330	330	90	240
Cuba	826	825	674	152
El Salvador	394	394	137	257

cont.

Table 9.27 - cont.

Country	Total number of post offices open to the public	Number of permanent post offices	Number of post offices in urban districts	Number of post offices in rural districts
Jamaica[1]	788	788	NA	NA
Mexico	7 075	6 142	1 715	5 360
Montserrat[1]	11	11	1	10
Netherlands Antilles[1]	14	14	NA	NA
Panama	268	268	169	99
Saint Lucia	54	54	8	46
Saint Vincent and the Grenadines	50	50	4	46
Trinidad and Tobago	230	230	100	130
Turks Islands	7	7	3	4
United States	39 270	39 270	NA	NA
America, South				
Argentina	5 690	5 690	NA	NA
Brazil	11 631	11 608	7 002	4 611
Chile	1 061	1 061	568	493
Colombia	1 622	1 621	850	732
Ecuador	526	526	160	366
Guyana	131	115	10	121
Paraguay	405	405	50	355
Peru	2 633	2 633	2 212	421
Venezuela	633	625	107	526
Asia				
Bahrain	10	10	9	1
Bangladesh	7 684	7 684	672	7 012
Brunei Darussalam	13	12	9	4
Burma	1 114	1 114	622	492
China	50 969	50 969	8 107	42 862
Cyprus	720	720	216	504
Democratic Yemen	111	111	48	63
Hong Kong	147	100	90	57
India	144 396	144 396	15 586	128 810
Indonesia	16 950	7 182	4 009	12 941
Iran (Islamic Republic of)[1]	3 815	3 815	NA	NA
Israel[1]	1 404	582	NA	NA
Japan	23 698	23 698	NA	NA
Jordan	783	782	285	498
Korea, Republic of	2 830	2 825	884	1 946
Kuwait	57	57	57	-
Macau	8	8	8	-
Malaysia	5 698	2 100	474	5 224
Maldives[1]	26	26	3	23
Oman	103	103	NA	NA
Pakistan	12 006	12 006	2 626	9 380
Philippines	2 096	2 096	1 819	277
Qatar	24	24	24	-
Saudi Arabia	443	443	NA	NA
Singapore	131	131	131	-
Sri Lanka	3 751	3 751	NA	NA
Syrian Arab Republic	556	448	94	462
Thailand	4 017	3 989	1 022	2 995
Turkey	63 116	28 086	1 637	61 479
United Arab Emirates	104	104	64	40
Yemen	141	141	91	50
Europe				
Austria[1]	NA	2 650	NA	NA
Belgium	NA	1 842	NA	NA
Channel Islands:Guernsey	22	22	9	13
Channel Islands:Jersey	24	24	10	14
Czechoslovakia	6 634	5 994	NA	NA

cont.

Table 9.27 - cont.

Country	Total number of post offices open to the public	Number of permanent post offices	Number of post offices in urban districts	Number of post offices in rural districts
Denmark	1 287	1 287	138	1 149
France[2]	17 297	17 132	4 135	13 052
German Democratic Republic	11 972	11 972	2 235	9 737
Germany, Federal Republic of	17 826	17 554	NA	NA
Gibraltar	4	4	4	-
Greece	NA	1 221	422	799
Holy See	5	4	5	-
Hungary	3 218	3 218	897	2 321
Iceland	137	137	70	67
Italy	14 373	14 320	NA	NA
Liechtenstein	12	12	12	-
Luxembourg	106	106	34	72
Netherlands	2 878	2 554	NA	NA
Norway	2 738	2 738	NA	NA
Poland	8 297	8 297	3 102	5 195
Portugal	7 932	7 803	182	7 750
San Marino	10	10	4	6
Spain	12 938	6 355	1 872	11 066
Switzerland	3 784	3 784	NA	NA
United Kingdom	21 211	21 211	NA	NA
Yugoslavia	3 892	3 892	NA	NA
Oceania				
American Samoa[1]	47	47	4	43
Australia	4 537	4 537	2 618	1 919
Cook Islands	12	12	1	11
Fiji	225	225	20	205
French Polynesia	91	91	7	84
Nauru[1]	1	1	1	-
New Caledonia	267	50	20	247
New Zealand	1 242	1 241	730	512
Norfolk Island	1	1	0	1
Papua New Guinea	114	114	NA	NA
Tuvalu	9	9	1	8
Wallis and Futuna Islands[1]	6	6	-	6
USSR				
USSR	94 750	93 076	28 264	66 486

1. Data refer to 1985
2. Figures in column 3 and 4 do not include mobile post offices.

Source: *Statistique des services postaux 1986*, Berne, UPU, 1988.

Table 9.28 Postal services: number of letter boxes and post-office boxes, 1986.

[e.g. Algeria reports having 4,427 letter boxes and 55,196 post-office boxes.]

Country	Number of letter boxes	Number of post-office boxes
Africa		
Algeria[1]	4 427	55 196
Angola	147	32 758
Botswana	150	31 000
Burkina Faso[1]	89	12 201
Burundi[1]	25	4 747
Cameroon[1]	320	NA
Cape Verde	NA	942
Central African Republic	90	6 163
Chad	42	3 098
Congo[1]	108	9 765
Côte d'Ivoire	98	105 462
Egypt	3 748	26 923
Equatorial Guinea	25	2500
Ethiopia	467	39 049
Ghana	1 473	74 764
Kenya	NA	366 319
Lesotho	131	15 361
Liberia	37	4 533
Libyan Arab Jamahiriya	1 800	78 568
Madagascar	1 093	15 808
Malawi	329	23 570
Mali	39	5 290
Mauritius	271	1 899
Morocco	1 849	44 812
Mozambique	321	14 900
Niger	85	9 200
Nigeria	4 879	224 570
Rwanda	33	5 200
São Tomé and Principe	7	270
Senegal	NA	11 500
Sierra Leone	107	4 067
St Helena[1]	12	66
Sudan	823	15 009
Togo	85	14 921
Tunisia	2 400	15 300
Uganda	366	41 633
United Republic of Tanzania	829	85 508
Zambia	257	46 322
Zimbabwe	629	45 040
America, North		
Anguilla	2	336
Bahamas	156	19 077
Barbados	187	1 864
Belize	135	1 213
British Virgin Islands	10	901
Canada	32 651	1 785 000
Cayman Islands	7	3 272
Costa Rica[1]	57	37 103
Cuba	5 161	14 384
El Salvador	18	5 683

cont.

Table 9.28 - cont.

Country	Number of letter boxes	Number of post-office boxes
Jamaica[1]	500	6 000
Mexico	15 091	271 002
Montserrat[1]	1	-
Netherlands Antilles[1]	109	3 962
Panama	51	38 568
Saint Lucia	61	1 370
Saint Vincent and the Grenadines	3	1 592
Trinidad and Tobago	471	3 055
Turks Islands	176	131
United States	395 000	17 100 000
America, South		
Argentina	4 447	129 430
Brazil	24 329	396 351
Chile	1 576	74 064
Colombia	3 254	198 000
Ecuador	22	25 400
Guyana	274	1 704
Paraguay	48	6 550
Peru	2 723	34 383
Venezuela	570	59 300
Asia		
Bahrain	165	18 550
Bangladesh	12 109	9 488
Burma	2 200	1 950
China	176 843	NA
Cyprus	736	11 977
Democratic Yemen	148	6 220
Hong Kong	730	45 471
India	495 143	65 674
Indonesia	18 755	45 296
Iran (Islamic Republic of)[1]	18 000	34 833
Israel[1]	25 000	131 800
Japan	150 380	NA
Jordan	980	88 060
Korea, Republic of	46 736	29 870
Kuwait	379	54 300
Macau	53	4 025
Malaysia	13 900	30 300
Maldives[1]	27	100
Oman	404	33 400
Pakistan	23 521	33 293
Philippines	1 810	14 235
Qatar	197	14 552
Saudi Arabia	1 798	171 365
Singapore	695	19 596
Sri Lanka	15 350	2 334
Syrian Arab Republic	1 066	33 345
Thailand	18 685	22 358
Turkey	68 898	65 958
United Arab Emirates	430	52 636
Yemen	112	13 482
Europe		
Austria[1]	23 174	93 468
Belgium	19 372	36 020
Channel Islands:Guernsey	132	381
Channel Islands:Jersey	NA	600
Czechoslovakia	35 500	37 500

cont.

Table 9.28 - cont.

Country	Number of letter boxes	Number of post-office boxes
Denmark	11 100	39 400
France	159 800	306 000
German Democratic Republic	38 169	88 493
Germany, Federal Republic of	111 873	711 127
Gibraltar	21	571
Greece	13 114	26 812
Holy See	26	-
Hungary	21 076	38 661
Iceland	207	12 765
Italy	70 796	304 805
Liechtenstein	69	2 165
Luxembourg	1 127	6 362
Netherlands	16 931	293 105
Poland	62 252	NA
Portugal	27 236	48 514
San Marino	56	120
Spain	45 439	168 750
Sweden	40 969	240 100
Switzerland	20 811	220 745
United Kingdom	100 000	21 000
Yugoslavia	23 791	73 241
Oceania		
American Samoa[1]	15	4 295
Australia	16 510	850 517
Cook Islands	12	1 000
Fiji	109	23 412
French Polynesia	83	14 000
Nauru[1]	1	500
New Caledonia	117	11 260
New Zealand	4 874	152 199
Norfolk Island	7	552
Papua New Guinea	97	35 141
Tuvalu	1	100
Wallis and Futuna Islands[1]	1	160
USSR		
USSR	586 731	NA

1. Data refer to 1985.

Source: *Statistique des services postaux 1986*, Berne, UPU,1988.

Table 9.29 Number of inhabitants and average area in km^2 served by a post office, 1986

[e.g. Algeria reports that the average area served by one post office is 1,090 km^2 (Column 2), an average of 10,515 inhabitants served by one post office (Column 3) and that no part of the population lacks postal services (Column 4).]

Country	Average area in km^2 served by a post office	Average number of inhabitants served by a post office	Percentage of population without postal services
Africa			
Algeria[1]	1 090	10 515	-
Angola	9 373	64 661	-
Benin	632	24 011	NA
Botswana	3 878	7 519	73
Burkina Faso[1]	1 269	37 037	NA
Burundi[1]	1 637	266 088	-
Cameroon[1]	1 819	33 823	NA
Central African Republic	8 197	32 310	-
Chad	40 125	161 875	76
Congo[1]	2 571	14 394	NA
Côte d'Ivoire	284	8 590	-
Egypt	112	5 450	NA
Equatorial Guinea	1 476	20 473	10
Ethiopia	2 533	86 956	NA
Ghana	239	12 242	NA
Kenya	683	20 937	-
Lesotho	235	11 538	-
Liberia	2 227	30 427	-
Libyan Arab Jamahiriya	5 520	10 943	80
Madagascar	66	1 228	NA
Malawi[1]	450	23 828	-
Mali	10 165	66 307	NA
Mauritius	17	9 545	-
Morocco	629	20 091	10
Mozambique	2 439	43 782	NA
Niger	4 968	28 058	NA
Nigeria	266	28 443	-
Rwanda	1 013	24 348	14
São Tomé and Principe	97	9 600	NA
St Helena[1]	12	600	-
Sudan	3 163	27 265	NA
Togo	145	8 094	-
Tunisia	239	11 041	NA
Uganda	537	36 111	NA
United Republic of Tanzania	1 201	30 302	-
Zambia	1 793	15 213	-
Zimbabwe	1 255	24 263	NA
America, North			
Anguilla	2	318	-
Bahamas	109	1 649	-
Barbados	26	15 875	-
Belize	205	1 517	-
British Virgin Islands	17	1 222	-
Canada	722	1 961	-
Cayman Islands	24	1 666	5
Costa Rica[1]	154	7 879	-
Cuba	134	12 347	-
El Salvador	53	13 547	3

cont.

Table 9.29 - cont.

Country	Average area in km^2 served by a post office	Average number of inhabitants served by a post office	Percentage of population without postal services
Jamaica[1]	13	2 779	NA
Mexico	278	10 947	5
Montserrat[1]	11	1 090	-
Netherlands Antilles[1]	68	19 458	-
Panama	287	6 833	NA
Saint Lucia	11	1 851	35
Saint Vincent and the Grenadines	7	2 580	-
Trinidad and Tobago	22	5 213	-
Turks Islands	38	1 323	-
United States	234	5 768	-
America, South			
Argentina	661	5 371	NA
Brazil	731	11 899	11
Chile	713	10 627	2
Colombia	703	17 162	NA
Ecuador	529	18 340	19
Guyana	1 648	6 488	2
Paraguay	1 004	7 481	12
Peru	488	7 674	8
Venezuela	1 440	27 731	NA
Asia			
Bahrain	66	35 079	-
Bangladesh	18	13 206	-
Brunei Darussalam	443	16 923	-
Burma	608	33 707	NA
China	188	20 798	NA
Cyprus	12	934	-
Democratic Yemen	3 034	20 522	-
Hong Kong	7	38 183	-
India	22	4 745	-
Indonesia	113	9 938	2
Iran (Islamic Republic of) [1]	431	12 389	NA
Israel [1]	15	3 050	-
Japan	15	5 134	NA
Jordan	113	3 571	10
Korea, Republic of	35	14 544	-
Kuwait	313	31 578	-
Macau	2	50 000	-
Malaysia	57	2 827	1
Maldives [1]	11	6 978	-
Oman	2 912	14 563	-
Pakistan	66	8 135	3
Philippines	152	26 717	NA
Qatar	476	10 416	NA
Saudi Arabia	5 079	15 830	10
Singapore	4	19 847	-
Sri Lanka	17	4 294	1
Syrian Arab Republic	333	19 086	-
Thailand	127	13 080	NA
Turkey	12	816	-
United Arab Emirates	747	15 600	3
Yemen	1 382	65 774	1
Europe			
Channel Islands:Guernsey	3	2 545	-
Channel Islands:Jersey	10	3 358	-
Czechoslovakia	19	2 339	-
Denmark	33	3 981	-
France	37	3 195	-

cont.

Table 9.29 - cont.

Country	Average area in km^2 served by a post office	Average number of inhabitants served by a post office	Percentage of population without postal services
German Democratic Republic	9	1 389	NA
Germany, Federal Republic of	13	3 423	-
Gibraltar	1	7 300	-
Hungary	28	3 300	-
Iceland	751	1 781	-
Italy	20	3 985	-
Liechtenstein	13	2 283	-
Luxembourg	24	3 470	-
Netherlands	11	5 078	-
Norway	118	1 524	-
Poland	37	4 528	-
Portugal	11	1 289	-
San Marino	6	2 300	-
Spain	39	2 968	-
Switzerland	10	1 737	-
United Kingdom	11	2 658	-
Yugoslavia	65	6 001	-
Oceania			
American Samoa[1]	2	3 326	-
Australia	1 694	3 449	-
Cook Islands	19	1 458	5
Fiji	81	3 179	NA
French Polynesia	44	1 857	5
Nauru[1]	21	7 000	-
New Caledonia	71	561	2
New Zealand	216	2 553	-
Norfolk Island	35	2 000	-
Papua New Guinea	4 060	34 182	-
Tuvalu	2	972	-
Wallis and Futuna Islands[1]	36	2 065	-
USSR			
USSR	236	2 973	NA

1. Data refer to 1985.

Source: *Statistique des service postaux 1986*, Berne, UPU, 1988.

Table 9.30 Postal services: total number of ordinary and registered letter-post items, 1986. (In thousands)

[Algeria reports having 275,000,000 domestic letter-post items (Column 2), 38,530,000 international dispatches of letter-post items (Column 3) and receiving 44,950,000 letter-post items (Column 4).]

Country	Domestic	International dispatch	International receipt
Africa			
Algeria[1]	275 000	38 530	44 950
Angola	5 111	1 673	1 439
Benin	2 285	1 245	2 450
Botswana	15 878	2 906	20 902
Burkina Faso[1]	5 182	3 617	14 093
Cape Verde	446	967	1 090
Chad	302	496	703
Congo[1]	327	7 422	12 020
Côte d'Ivoire	27 201	NA	NA
Egypt	243 433	91 022	127 127
Ghana	49 928	15 031	46 680
Kenya	178 798	31 841	0
Libyan Arab Jamahiriya	NA	21 476	30 059
Madagascar	30 954	5 003	4 726
Malawi[1]	NA	24 264	48 126
Mali	4 990	1 283	2 305
Mauritius	14 918	6 666	9 851
Morocco	NA	23 887	25 461
Mozambique	8 007	58 893	8 794
Niger	1 295	856	1 844
Rwanda	6 885	2 522	4 144
São Tomé and Principe	19	72	138
Sierra Leone	3 678	6 208	20 100
St Helena[1]	4	65	59
Sudan	42 357	9 996	11 776
Tunisia	111 543	30 900	37 283
Uganda	6 605	3 291	3 712
United Republic of Tanzania	111 893	NA	NA
Zambia	25 798	664	1 698
Zimbabwe	128 377	15 668	26 317
America, North			
Anguilla	115	165	156
Bahamas	4 919	10 395	33 170
Barbados	11 056	NA	3 269
Belize	620	453	2 022
Canada	7 563 820	279 290	NA
Cayman Islands	975	1 809	NA
Costa Rica[1]	13 396	5 586	10 057
El Salvador	2 328	5 525	21 108
Mexico	347 164	134 550	146 887
Montserrat	169	224	0
Netherlands Antilles	7 881	2 247	3 917
Panama	1 686	12 731	13 204
Saint Lucia	NA	910	801
Trinidad and Tobago	13 943	3 122	NA
United States	146 040 006	787 621	NA

cont.

Table 9.30 - cont.

Country	Domestic	International dispatch	International receipt
America, South			
Argentina	600 193	28 909	48 876
Brazil	NA	24 142	NA
Colombia	119 770	36 838	34 392
Ecuador	6 944	5 484	NA
Guyana	9 270	6 443	16 558
Paraguay	1 458	1 351	3 651
Peru	NA	20 039	14 389
Asia			
Bahrain	10 100	16 000	21 400
Bangladesh	355 091	72 701	86 543
Brunei Darussalam	370	1 142	3 273
Burma	68 870	2 532	8 335
Democratic Yemen	687	670	1 401
Hong Kong	414 732	NA	NA
India	11 443 102	242 906	507 661
Indonesia	363 173	27 336	41 428
Israel[1]	NA	41 000	59 000
Japan	17 870 885	105 353	132 494
Jordan	36 087	27 356	37 730
Korea, Republic of	1 318 949	30 509	NA
Macau	2 193	1 870	3 669
Malaysia	755 034	56 075	41 630
Maldives	12	1 082	274
Pakistan	549 241	101 509	NA
Philippines	NA	101 288	194 348
Qatar	NA	12 900	16 523
Saudi Arabia	101 025	187 283	NA
Singapore	233 061	77 456	51 530
Sri Lanka	537 965	28 268	30 550
Syrian Arab Republic	16 360	4 004	5 384
Thailand	367 684	40 261	25 639
Turkey	891 671	141 963	53 217
United Arab Emirates	20 490	34 551	64 509
Yemen	2 076	3 081	10 839
Europe			
Austria[1]	2 460 600	238 352	216 203
Belgium	2 552 838	225 219	215 416
Channel Islands:Guernsey	NA	6 021	NA
Channel Islands:Jersey	NA	15 597	14 343
Czechoslovakia	NA	38 988	38 300
Denmark	1 566 771	650 00	66 000
France	16 048 600	370 800	355 500
German Democratic Republic	1 030 806	254 180	168 642
Germany, Federal Republic of	14 214 595	457 864	618 753
Gibraltar	1 327	2 262	1 585
Greece	341 902	53 294	30 319
Holy See	2 702	23 510	4 503
Hungary	1 696 390	82 074	NA
Italy	6 650 259	365 852	465 829
Liechtenstein	13 360	2 214	NA

cont.

Table 9.30-cont.

Country	Domestic	International dispatch	International receipt
Luxembourg	82 869	39 766	36 146
Netherlands	4 785 200	540 600	203 400
Norway	1 640 975	41 359	55 501
Poland	1 370 578	178 594	129 890
Portugal	451 038	40 452	35 650
Spain	4 126 163	249 559	162 765
Sweden	3 347 767	NA	NA
Switzerland	3 973 609	213 155	165 229
United Kingdom	12 019 200	516 200	500 000
Yugoslavia	1 109 076	67 546	56 217
Oceania			
Australia	3 109 209	122 600	164 624
Cook Islands	159	1 096	559
French Polynesia	6 214	3 869	4 168
Nauru[1]	NA	67	101
New Caledonia	11 482	2 947	4 485
Norfolk Island	313	260	346
Papua New Guinea	NA	15 672	24 530
Wallis and Futuna Islands[1]	6	82	145
USSR			
USSR	58 831 000	NA	NA

1. Data refer to 1985.

Source: *Statistique des services postaux 1986*, Berne, UPU, 1988.

Table 9.31 Public telegram service, 1986.

[Burundi reports 1,613 domestic paid telegrams (Column 2), 3,474 international outgoing full rate telegrams (Column 3) and the figure for international outgoing LT telegrams is not available (Column 4).]

Country	Number of domestic paid telegrams	Number of international outgoing full rate telegrams	Number of international outgoing LT telegrams
Africa			
Algeria[1]	2 172 982	228 884	NA
Botswana[1]	NA	260 133	31 411
Burundi	1 613	3 474	NA
Central African Republic	47 922	13 225	12 000
Chad[2]	70 924	678 964	./.
Congo	89 181	25 362	NA
Djibouti	177	18 509	NA
Egypt	9 880 000	707 000	NA
Ethiopia[2]	291 645	13 620	./.
Ghana	33 403	60 930	60 000
Kenya	1 211 610	17 200	138 848
Madagascar	171 737	10 912	NA
Malawi	199 674	20 593	NA
Mayotte Island	22	4	NA
Morocco	952 701	119 139	-
Mozambique	NA	38 835	228
Reunion	38 705	7 593	NA
Rwanda	26 944	2 475	NA
Senegal	197 643	129 626	NA
Swaziland	107 352	27 339	NA
Togo	8 532	23 982	NA
Tunisia	371 242	84 273	NA
United Republic of Tanzania	1 199 300	961 432	191 521
Zambia[3]	23 212 484	1 274 430	2 242
Zimbabwe	792 862	30 400	NA
America, North			
Ascension	NA	1 400	NA
Bahamas	11 765	11 412	1 619
Canada[4]	NA	495 230	NA
Costa Rica	NA	45 480	NA
Cuba	17 375 800	7 671 300	NA
El Salvador	1 639 875	17 605	NA
Guadeloupe	101 461	5 043	NA
Honduras	1 986 000	13 400	NA
Martinique	93 105	4 516	NA
Mexico	12 962 079	227 603	NA
Panama	336 100	20 403	NA
St Pierre and Miquelon	718	353	NA
United States	20 040 489	2 228 612	NA
America, South			
Argentina	13 822 000	228 700	NA
Bolivia[5]	173 240	22 289	1 550
Brazil	27 623 770	48 318	42 848
Chile	2 331 936	51 454	7 392
Colombia	20 366 000	72 338 000	NA
Ecuador	NA	35 536	12 349
French Guiana	16 457	2 605	NA
Guyana	NA	1 176 828	214 593
Paraguay	221 965	34 985	3 666
Peru	NA	38 000	NA
Uruguay	1 091 507	45 475	NA

cont.

Table 9.31 cont.

Country	Number of domestic paid telegrams	Number of international outgoing full rate telegrams	Number of international outgoing LT telegrams
Asia			
Bahrain[2]	17 715	107 038	./.
Brunei Darussalam[6]	1 510	24 820	NA
China	197 498 000	1 093 000	NA
Cyprus	97 766	44 467	1 636
Hong Kong	7 596	863 010	65 133
India	59 584 000	1 710 000	NA
Iran (Islamic Republic of)	5 701 034	55 326	11 612
Israel[7]	380 000	107 000	41 000
Japan[7]	40 050 000	476 000	117 000
Jordan	NA	152 358	NA
Korea, Republic of	11 251 000	96 000	37 000
Kuwait	113 508	429 228	NA
Macau	574	30 197	27
Malaysia	872 597	4 314 927	NA
Oman	11 234	82 813	84 630
Pakistan	2 650 000	276 358	67 657
Qatar[2]	8 066	109 166	./.
Saudi Arabia	NA	690 164	NA
Singapore	14 018	234 650	36 168
Sri Lanka	NA	118 930	26 640
Syrian Arab Republic[2]	159 000	82 000	./.
Thailand	7 071 687	96 099	NA
Turkey	8 094 923	100 377	NA
United Arab Emirates	60 370	294 968	133 863
Viet Nam	NA	275 000	NA
Yemen	NA	54 972	NA
Europe			
Austria	1 148 011	212 767	4 771
Belgium	592 373	216 144	-
Channel Islands:Guernsey[2]	778	519	./.
Czechoslovakia	9 095 000	271 000	NA
Denmark	196 000	113 000	NA
Finland	477 000	59 000	NA
France	10 681 359	1 472 824	NA
German Democratic Republic[2]	10 966 900	2 366 100	./.
Germany, Federal Republic of	3 830 843	1 599 612	40 810
Greece	2 645 996	215 826	NA
Hungary	11 944 000	422 000	5 000
Iceland	575 753	13 743	NA
Ireland	121 900	30 186	NA
Italy	22 016 000	2 020 000	14 000
Malta	NA	19 242	1 037
Netherlands	415 000	297 280	11 040
Norway	251 944	98 501	-
Poland	17 942 700	701 221	6 779
Portugal	1 068 034	97 704	-
San Marino	4 940	NA	NA
Spain	6 206 599	357 745	NA
Sweden	110 245	123 000	NA
Switzerland	1 018 000	619 000	32 000
United Kingdom	-	836 000	NA
Yugoslavia	11 504 000	884 301	NA

cont.

Table 9.31 - cont.

Country	Number of domestic paid telegrams	Number of international outgoing full rate telegrams	Number of international outgoing LT telegrams
Oceania			
Australia	2 665 275	382 732	-
Fiji	124 851	6 812	NA
French Polynesia	59 300	19 600	NA
Nauru	NA	22 000	200
New Caledonia	9 050	24 610	NA
New Zealand[8]	927 875	297 661	./.
Papua New Guinea	NA	16 522	NA
Solomon Islands	NA	3 598	NA
Tuvalu	4 556	10 685	NA
Vanuatu	NA	3 504	-

1. Number of words.
2. Column 4 included in column 3.
3. Data in columns 2 and 3 refer to number of words.
4. Telegrams to the United States not included in column 3.
5. LT telegrams included in column 3.
6. Data in column 3 refer to number of words.
7. Data refer to 1987.
8. Data refer to 1987. Column 3 includes LT and ship traffic.

Source: *Yearbook of Common Carrier Telecommunication Statistics*, Geneva, ITU, 1988, 15th ed.

Telecommunication

This section is divided into two parts and presents statistics on telecommunication services, including satellites, and data common to posts and telecommunications.

Telecommunication services

General note:

In Table 9.34 a symbol is used after the country name, referring to the unit of measurement. It should be read as follows:

/m/ = minutes
/p/ = pulses
/c/ = calls

Table 9.32 Telephone service: size of system, 1986

[e.g. Algeria reports having 821,835 telephone stations (Column 2) and 578,571 main lines (Column 3). Data on percentage of main lines which are residential (Column 4) and which are equipped for customer dialing to international destinations (Column 5) are not available and 85 per cent respectively.]

Country	Telephone stations (sets) of all kinds connected to the public network	Main lines	Percentage of main lines which are residential	Percentage of main lines equipped for direct customer dialing to international destination
Africa				
Algeria	821 835	578 571	NA	85
Ascension	500	320	65	70
Benin	15 492	12 971	NA	70
Botswana	21 409	10 955	38	96
Burkina Faso	16 769	9 582	58	74
Burundi	7 910	6 631	55	12
Central African Republic	NA	3 902	NA	15
Chad	4 668	2 359	NA	NA
Congo	18 541	10 303	NA	82
Djibouti	80 250	4 299	40	100
Egypt	1 393 630	1 076 450	72	-
Ethiopia	132 209	104 860	68	NA
Ghana	72 662	38 472	44	NA
Kenya	291 627	129 453	43	NA
Madagascar	43 600	23 457	NA	NA
Malawi	44 694	21 228	32	NA
Mayotte Island	NA	1 333	NA	100
Morocco	325 278	251 687	NA	94
Mozambique	61 847	39 840	NA	NA
Reunion	131 201	107 369	NA	100
Rwanda	9 116	5 444	39	NA
Senegal	NA	24 807	37	NA
Sierra Leone	14 900	15 100	30	NA
Swaziland	20 134	9 440	48	50
Togo	NA	9 000	55	90
Tunisia	291 260	216 661	NA	13
United Republic of Tanzania	117 301	54 460	NA	NA
Zambia	85 385	46 647	86	99
Zimbabwe	256 369	111 567	85	99
America, North				
Anguilla	1 400	992	66	NA
Bahamas	108 054	48 433	69	99
Canada[1]	19 598 050	12 250 680	75	NA
Cayman Islands	13 677	7 781	NA	93
Costa Rica	343 530	214 706	77	98
Cuba	543 200	287 800	NA	NA
El Salvador	128 795	95 619	61	85
Guadeloupe[2]	106 744	92 215	NA	100
Honduras	52 100	50 100	67	86
Martinique	120 229	90 509	NA	100
Mexico	7 616 651	3 820 568	59	90
Panama	231 822	176 654	76	82
Saint Lucia	14 104	8 210	NA	NA
St Pierre and Miquelon	4 083	2 554	NA	100

cont.

Table 9.32-cont.

Country	Telephone stations (sets) of all kinds connected to the public network	Main lines	Percentage of main lines which are residential	Percentage of main lines equipped for direct customer dialing to international destination
America, South				
Argentina	3 206 298	2 859 209	NA	NA
Bolivia	182 433	158 638	78	NA
Brazil	12 193 268	7 249 741	71	90
Chile	795 854	557 987	70	91
Colombia	2 289 087	1 798 793	60	21
Ecuador	351 886	305 988	70	-
French Guiana	28 209	20 539	NA	100
Guyana	33 000	20 000	52	NA
Paraguay	92 702	81 002	67	NA
Peru	NA	439 000	67	NA
Suriname	38 315	29 903	90	7
Uruguay	399 004	306 926	77	95
Venezuela	1 581 063	1 321 763	70	99
Asia				
Bahrain	119 077	73 522	71	100
Brunei Darussalam	35 636	22 300	NA	85
China	7 059 000	6 596 000	NA	NA
Cyprus	243 659	164 861	NA	100
Hong Kong[3]	2 461 200	1 844 403	73	20
India	4 056 899	3 165 214	NA	NA
Iran (Islamic Republic of)[4]	1 943 678	1 480 235	65	88
Israel[5]	1 935 000	1 313 000	78	100
Japan[6]	NA	46 325 000	69	NA
Jordan	NA	235 550	70	NA
Korea, Republic of	9 288 000	7 659 000	80	66
Kuwait	310 132	236 188	65	87
Macau	60 533	47 591	71	100
Malaysia	1 380 957	1 042 827	69	4
Oman	74 347	49 565	40	99
Pakistan	623 000	519 540	NA	NA
Qatar	115 471	74 281	77	100
Saudi Arabia[7]	NA	1 082 826	79	100
Singapore	1 115 722	830 497	73	11
Sri Lanka	125 250	92 065	34	75
Syrian Arab Republic	637 000	455 000	77	73
Thailand	999 678	878 339	62	54
Turkey	4 221 883	2 779 615	59	89
United Arab Emirates	358 147	231 869	69	100
Viet Nam	115 000	NA	NA	NA
Europe				
Austria	3 842 535	2 818 437	NA	100
Belgium	4 555 955	3 257 390	NA	100
Channel Islands: Guernsey	51 259	27 908	NA	NA
Channel Islands: Jersey	73 088	39 835	70	100
Czechoslovakia	3 707 000	1 944 000	69	NA
Denmark	4 195 000	2 683 000	NA	100
Finland	NA	2 272 000	NA	100
France	NA	23 911 097	NA	NA
German Democratic Republic	3 755 370	1 630 207	60	NA
Germany, Federal Republic of	39 127 806	26 399 284	NA	100

cont.

Table 9.32-cont.

Country	Telephone stations (sets) of all kinds connected to the public network	Main lines	Percentage of main lines which are residential	Percentage of main lines equipped for direct customer dialing to international destination
Greece	3 920 105	3 291 971	69	100
Hungary	1 541 000	770 000	68	64
Iceland[8]	NA	110 373	NA	100
Ireland	NA	750 805	67	99
Italy	28 873 730	18 252 973	79	100
Malta	140 424	107 523	77	100
Netherlands[9]	*9 080 000	6 029 000	78	100
Norway[10]	NA	1 861 412	NA	100
Poland	4 418 200	2 625 111	72	35
Portugal	1 936 422	1 511 559	73	100
San Marino	13 100	8 200	72	100
Spain[11]	14 747 825	9 801 009	77	100
Sweden	NA	5 373 000	78	100
Switzerland	5 622 976	3 381 492	75	100
United Kingdom	NA	22 137 000	80	100
Yugoslavia	3 598 133	2 720 591	81	100
Oceania				
Australia	NA	6 668 006	80	61
Fiji	58 382	33 230	NA	-
French Polynesia	41 210	26 800	NA	97
Nauru	1 600	1 200	62	-
New Caledonia	NA	20 312	NA	100
New Zealand[12]	2 314 970	1 327 766	76	96
Papua New Guinea[13]	63 212	29 740	10	13
Solomon Islands	4 983	2 482	NA	26
Tuvalu	150	120	12	NA
Vanuatu	3 240	2 047	40	NA

1. The figure in column 2 includes company or system owned telephones only. (Since 1982, telephone subscribers have the option of owning their own station equipment.)
2. The figure in column 5 includes lines of subscribers who have asked not to have the international automatic service.
3. Concerning the figure in column 5: since 1982, owing to the lack of a national call charge, individual lines are connected to a special (IDD) charging and routing equipment, at the subscriber's request.
4. Data refer to 1987.
5. Data refer to 1987. The figure in column 2 excludes telephone sets owned by subscribers.
6. Data refer to 1987. Concerning column 5: the automatic and semi-automatic international telephone service is provided only by KDD. Number of lines registered for International Subscriber Dialling (ISD), 1987 = 721,436.
7. The figures in columns 2 and 3 include independent exchanges.
8. The figure in column 3 does not include data for Keflavik military air base.
9. The figure in column 2 includes PABX.
10. The figure in column 2 includes mobile telephone stations.
11. The figure in column 4 refers to residential main stations as a proportion of the total number of main stations, excluding public stations, stations exempt from charges and PABX.
12. Data refer to 1987.
13. The figure in column 5 does not include automatic access to Australia.

Source: *Yearbook of Common Carrier Telecommunication Statistics*, Geneva, ITU, 1988, 15th ed.

Table 9.33 Telephone service: demand, 1986

[e.g. Algeria reports 133,724 new applications for main lines (Column 2) and 410,900 on waiting lists for main lines (Column 3).]

Country	New applications for main lines	Waiting list for main lines
Africa		
Algeria	133 724	410 900
Benin	393	2 014
Botswana	4 062	4 062
Burkina Faso	607	2 777
Burundi	1 325	4 325
Chad	470	311
Congo	2 602	1 927
Djibouti	515	-
Egypt	NA	73 539
Ethiopia	NA	68 220
Ghana	3 716	28 036
Kenya[1]	NA	48 501
Malawi	3 557	4 085
Mayotte Island	603	119
Morocco	44 368	174 086
Mozambique	3 239	28 395
Reunion	24 706	13 612
Rwanda	2 726	2 450
Senegal	7 111	8 183
Swaziland	1 810	1 810
Togo	3 064	2 269
Tunisia	46 800	100 000
United Republic of Tanzania	7 644	66 718
Zambia	3 970	27 593
Zimbabwe	30 211	26 357
America, North		
Anguilla	235	NA
Bahamas	786	11 819
Cayman Islands	1 329	212
Costa Rica[2]	14 228	3 249
El Salvador	15 469	11 200
Guadeloupe	16 743	13 246
Honduras[3]	95 400	37 500
Martinique	13 979	14 163
Mexico	934 017	756 800
Panama	27 323	18 577
St Pierre and Miquelon	453	015
America, South		
Bolivia	90 000	43 000
Brazil	2 700 000	NA
Chile	606	228 420
Colombia	385 104	564 307
French Guiana	4 982	502
Guyana	17 902	466

cont.

Table 9.33-cont.

Country	New applications for main lines	Waiting list for main lines
Paraguay	4 704	3 880
Suriname	4 013	3 000
Uruguay	30 000	64 653
Venezuela	1 467 182	317 577
Asia		
Bahrain[4]	14 048	260
Brunei Darussalam	NA	11 989
China	NA	273 600
Cyprus	32 856	43 733
Hong Kong	102 818	1 984
India	426 619	976 155
Iran (Islamic Republic of)[5]	NA	377 735
Israel[6]	98 510	108 000
Japan[7]	1 464 000	NA
Jordan	NA	4 000
Korea, Republic of	1 267 000	160 000
Kuwait	31 305	4 008
Macau	9 811	1 299
Malaysia	240 479	127 855
Oman	18 955	9 412
Pakistan	NA	366 830
Qatar[8]	13 891	442
Singapore	111 752	108
Sri Lanka	NA	16 739
Syrian Arab Republic	112 323	1 108 800
Thailand	102 388	287 287
Turkey	NA	2 115 391
United Arab Emirates	45 625	2 237
Yemen	366	NA
Europe		
Austria[9]	202 974	40 371
Belgium[10]	338 902	19 073
Finland	NA	1 500
France	NA	28 025
Germany, Federal Republic of[11]	NA	27 827
Greece[12]	274 919	1 015 309
Ireland	74 180	20 933
Italy[13]	1 086 505	265 475
Malta	8 268	18 965
Netherlands[14]	368 000	51 000
Norway	133 229	NA
Poland	1 930 368	1 800 368
Portugal	187 878	81 763
San Marino	98	1 010
Spain[15]	774 046	292 567
Sweden	400 000	NA
Switzerland[16]	104 466	4 444
United Kingdom[17]	1 813 000	-

cont.

Table 9.33-cont.

Country	New applications for main lines	Waiting list for main lines
Oceania		
Australia[18]	599 688	5 689
Fiji[19]	NA	10 992
French Polynesia[20]	5 200	350
Nauru	132	150
New Caledonia	2 979	526
New Zealand[21]	32 744	2 803
Papua New Guinea	1 699	1 491
Solomon Islands[22]	220	40
Tuvalu	15	15
Vanuatu	304	502

1. The figure in column 3 refers to applications for subscriptions which cannot be completed within 1 month.
2. The figure in column 3 refers to applications for subscriptions which cannot be completed within 3 months.
3. The figure in column 2 includes existing subscribers.
4. The figure in column 3 refers to applications for subscriptions which cannot be completed within 4 weeks.
5. Data refer to 1987.
6. Data refer to 1987.
7. Data refer to 1987.
8. The figure in column 3 refers to applications for subscriptions which cannot be completed within 1 month.
9. The figure in column 3 refers to applications for subscriptions which cannot be completed within 3 months.
10. The figure in column 3 refers to applications for subscriptions which cannot be completed within 3 months.
11. The figure in column 3 refers to applications for subscriptions which cannot be completed within 4 weeks.
12. The figure in column 3 refers to applications for subscriptions which cannot be completed within 1 month.
13. The figure in column 3 refers to applications for subscriptions which cannot be completed within 1 month.
14. The figure in column 3 refers to applicants who requested, either in consultation with the PTT or not, that the instalment, cancellation or alteration of telephone service be completed by a given date which has meanwhile passed.
15. The figure in column 2 refers to net annual demand. The figure in column 3 refers to all main service applications until the contract is signed, regardless of the date on which the subscriber has access to the network.
16. The figure in column 3 refers to applications for subscriptions which cannot be completed within 3 months.
17. The figure in column 3 refers to applications for subscriptions which cannot be completed within 8 weeks.
18. The figure in column 3 refers to applications for subscriptions which cannot be completed within 3 months.
19. The figure in column 3 refers to applications for subscriptions which cannot be completed within 1 month.
20. The figure in column 3 refers to applications for subscriptions which cannot be completed within 3 weeks.
21. Data refer to 1987. The figure in column 3 refers only to hardcore waiters.
22. The figure in column 3 refers to applications for subscriptions which cannot be completed within 6 weeks.

Source: *Yearbook of Common Carrier Telecommunication Statistics*, Geneva, ITU, 1988, 15th ed.

Table 9.34 Telephone service: total traffic, 1986. (In thousands)

[e.g. Algeria reports having a total traffic of 2,451,343,000 pulses, a total national traffic of 1,488,957,000 pulses and a total outgoing international traffic of 962,386,000 pulses.]

Country	Total traffic	Total national traffic	Total outgoing international traffic
Africa			
Algeria /p/	2 451 343	1 488 957	962 386
Ascension /c/	NA	NA	220
Benin /c/	75 562	NA	2 382
Botswana /m/	NA	NA	6 984
Burundi /m/	NA	NA	635
Central African Republic /c/	77	NA	61
Chad /m/	4 758	4 488	269
Congo /c/	NA	NA	425
Djibouti /p/[1]	41 610	16 709	2 431
Egypt /m/	4 633 300	4 606 000	27 300
Ethiopia /m/	NA	NA	2 393
Ghana /c/[2]	*397	292	*105
Kenya /c/[3]	14 212	14 062	150
Madagascar /c/	28 748	28 430	318
Malawi /m/	NA	NA	3 290
Morocco /p/[4]	1 742 817	779 314	963 503
Mozambique /c/	NA	NA	317
Reunion /p/	310 315	NA	NA
Rwanda /m/	NA	NA	453
Senegal /m/	NA	NA	10 666
Sierra Leone /m/	NA	NA	637
Swaziland /m/	44 806	43 66	1 146
Togo /m/[5]	NA	NA	1 040
Tunisia /p/	1 200 708	721 128	479 580
United Republic of Tanzania /c/[6]	10 151	9 526	625
Zambia /m/	8 804	3 975	5 829
Zimbabwe /m/	256 901	238 944	17 957
America, North			
Anguilla /c/	1 269	1 211	58
Bahamas /c/[7]	NA	NA	25 832
Canada /c/[8]	36 660 253	36 632 018	28 235
Costa Rica /m/	1 250 422	1 232 714	17 708
Cuba /c/	127 300	125 800	1 500
El Salvador /m/[9]	NA	650 361	19 710
Guadeloupe /p/	369 570	NA	NA
Honduras /m/	427 900	413 700	14 200
Martinique /p/	298 729	NA	NA
Mexico /c/	3 621 992	3 582 031	39 961
Panama /c/	886 599	883 070	3 529
St Pierre and Miquelon /p/	12 949	NA	NA
United States /c/	415 096 055	414 617 285	478 770
America, South			
Argentina /c/	NA	NA	5 864
Bolivia /m/	NA	NA	3 795
Brazil /c/	19 636 100	19 623 000	13 100
Chile /m/	4 686 930	NA	17 086
Colombia /m/	NA	18 261 812	49 869
Ecuador /m/[10]	NA	NA	12 700

cont.

Table 9.34-cont.

Country	Total traffic	Total national traffic	Total outgoing international traffic
French Guiana /p/	112 080	NA	NA
Guyana /p/[11]	NA	88 458	289
Paraguay /p/[12]	NA	320 374	6 527
Suriname /p/[13]	NA	121 638	3 037
Uruguay /c/	697 140	691 760	5 380
Venezuela /m/	12 919 933	12 845 096	74 837
Asia			
Bahrain /p/[14]	NA	215 265	35 296
Brunei Darussalam /m/	NA	NA	8 275
China /c/	920 860	903 200	17 660
Cyprus /p/	1 890 039	795 730	1 094 309
Hong Kong /m/	NA	NA	184 203
India /c/	NA	NA	5 736
Iran (Islamic Republic of) /c/[15]	11 622 834	11 617 118	5 716
Israel /p/[16]	9 060 000	6 500 000	53 300
Japan /m/[17]	NA	NA	320 000
Jordan /m/	NA	NA	21 412
Korea, Republic of /p/[18]	NA	40 406 000	15 424
Kuwait /c/	NA	NA	9 400
Macau /c/	130 151	123 852	6 299
Malaysia /p/[19]	NA	8 490 642	25 796
Oman /p/[20]	NA	386 282	13 634
Pakistan /c/	NA	3 182 630	2 130
Qatar /c/[21]	NA	399 000	27 000
Saudi Arabia /c/	NA	NA	41 738
Singapore /c/	3 266 881	3 245 270	21 611
Syrian Arab Republic /m/	NA	NA	*15 000
Thailand /c/	1 651 887	1 651 163	4 698
Turkey /p/[22]	NA	8 946 281	76 027
United Arab Emirates /m/	455 214	NA	119 965
Viet Nam /m/	NA	NA	1 239
Yemen /c/	NA	NA	1 474
Europe			
Austria /m/	NA	NA	321 017
Belgium /c/	NA	NA	106 896
Channel Islands: Guernsey /c/	43 887	43 446	442
Channel Islands: Jersey /c/	58 542	57 888	654
Czechoslovakia /c/	6 073 770	6 066 000	7 770
Denmark /c/	4 209 000	4 141 000	68 000
Finland /c/	2 487 300	2 466 860	20 440
France /p/[23]	87 606 000	NA	*8 097 000
German Democratic Republic /c/	2 141 400	2 128 079	13 321
Germany, Federal Republic of /c/	28 989 078	28 520 880	468 198
Greece /c/	8 437 202	8 406 857	30 345
Hungary /p/[24]	3 199 000	2 346 000	853 000
Iceland /p/[25]	NA	597 316	1 716
Ireland /p/[26]	2 700 124	2 286 467	37 283
Italy /c/	18 937 375	18 796 237	141 138
Malta /c/	76 651	75 000	1 651
Netherlands /c/[27]	*6 240 000	*6 100 000	140 187
Norway /p/[28]	NA	6 745 470	203 944
Poland /c/	NA	NA	4 103
Portugal /p/	7 061 371	NA	NA
San Marino /c/	9 041	6 840	2 201
Spain /c/	NA	NA	99 327

cont.

Table 9.34-cont.

Country	Total traffic	Total national traffic	Total outgoing international traffic
Sweden /p/[29]	33 031 004	25 497 660	7 533 344
Switzerland /m/	12 243 000	11 441 000	802 000
Yugoslavia /p/	33 463 183	NA	NA
Oceania			
Australia /c/	8 654 650	8 614 262	40 388
Fiji /m/[30]	NA	166 917	3 507
French Polynesia /p/[31]	NA	48 200	3 600
Nauru /c/	2 100	1 800	300
New Caledonia /p/[32]	3 230	25 680	3 230
New Zealand /m/[33]	895 292	829 210	66 082
Papua New Guinea /c/	NA	64 762	NA
Solomon Islands /m/	NA	NA	613
Tuvalu /m/	42	39	3
Vanuatu /m/	NA	NA	719

1. Figure in column 4 in minutes.
2. Operator controlled calls.
3. Operator controlled calls.
4. Figures in columns 2 and 4 not including manual traffic measured in calls.
5. Manual traffic.
6. Figure in column 4 refers to operator controlled calls.
7. Figure in column 4 in minutes.
8. Figure in column 4 excluding traffic to United States.
9. Figure in column 3 in pulses.
10. Figure in column 4 excluding automatic traffic.
11. Figure in column 4 in calls.
12. Figure in column 4 in minutes.
13. Figure in column 4 in minutes.
14. Figure in column 4 in minutes.
15. Data refer to 1987.
16. Data refer to 1987. Figure in column 4 in minutes.
17. Data refer to 1987.
18. Figure in column 4 in minutes.
19. Figure in column 4 in minutes.
20. Figure in column 4 in minutes.
21. Figure in column 4 in minutes.
22. Figure in column 4 in minutes.
23. Chargeable pulses.
24. Not including traffic measured in calls.
25. Figure in column 2 not including operator controlled calls measured in minutes. Figure in column 4 in calls.
26. Figure in columns 2 and 3 not including operator controlled calls. Figure in column 4 in minutes and not including calls to United Kingdom.
27. Figure in column 2 excluding special calls (speaking clock, etc...)
28. Figure in column 4 in minutes.
29. Automatic traffic only.
30. Figure in column 3 in pulses.
31. Figure in column 4 in minutes.
32. Figure in column 4 in minutes.
33. Data refer to 1987.

Source: *Yearbook of Common Carrier Telecommunication Statistics*, Geneva, ITU, 1988, 15th ed.

Table 9.35 Telex service, 1986

[e.g. Algeria reports having 7,759 subscriber lines (Column 2), a total traffic of 31,568,000 minutes (Column 3) and an outgoing international traffic of 8,415,000 minutes (Column 4).]

Country	Size of telex system: subscriber lines	Traffic (in minutes)	
		Total traffic	Outgoing international traffic
Africa			
Algeria	7 759	31 568 000	8 415 000
Benin[1]	284	14 293 930	329 968
Botswana	651	2 672 126	1 513 196
Burkina Faso	313	NA	NA
Burundi	191	NA	293 366
Central African Republic	154	NA	380 236
Chad	110	292 375	281 650
Congo	468	NA	808 957
Djibouti	195	559 612	535 322
Egypt	6 081	17 985 270	9 685 270
Ethiopia	727	2 168 869	1 197 993
Ghana	406	1 081 334	982 950
Kenya	2 290	4 981 182	3 610 161
Madagascar	387	987 968	860 515
Malawi	549	NA	853 246
Mayotte Island	35	NA	NA
Morocco[2]	6 729	4 222 003	2 036 512
Mozambique	722	NA	1 679 356
Reunion	597	1 400 000	302 000
Rwanda	100	NA	275 502
Senegal	915	NA	2 124 407
Sierra Leone	320	702 798	656 148
Swaziland	351	2 027 612	1 655 316
Togo	430	1 718 683	1 488 009
Tunisia	30 820	5 452 381	3 719 374
United Republic of Tanzania	1 231	7 684 324	4 714 490
Zambia	1 478	4 996 958	1 685 476
Zimbabwe	2 102	3 620 861	2 044 061
America, North			
Anguilla	36	NA	10 310
Ascension	5	NA	9 000
Bahamas[3]	544	1 127 411	1 051 603
Canada[4]	42 000	NA	14 961 787
Cayman Islands	246	NA	NA
Costa Rica	1 623	2 553 247	1 969 882
Cuba	3 945	35 038 800	1 685 600
El Salvador	879	4 778 247	972 068
Guadeloupe	689	990 000	128 000
Honduras	806	638 600	1 113 400
Martinique	562	1 153 000	200 000
Mexico	23 916	NA	NA
Netherlands Antilles	635	NA	1 306 869
Panama	1 737	3 484 716	2 603 398
Saint Lucia	166	NA	NA
St Pierre and Miquelon	45	86 000	26 000
United States	100 515	NA	179 234 682

cont.

Table 9.35-cont.

Country	Size of telex system: subscriber lines	Traffic	
		Total traffic	Outgoing international traffic
America, South			
Argentina	11 620	NA	NA
Bolivia	1 170	2 743 450	1 247 538
Brazil	88 390	420 300 000	20 100 000
Chile	6 915	1 664 672	5 147 977
Colombia	6 251	31 898 000	5 801 000
Ecuador	3 030	NA	3 562 673
French Guiana	284	664 000	94 000
Guyana[2]	142	364 999	312 856
Paraguay	931	1 160 935	1 150 098
Peru	3 519	NA	4 033 000
Suriname	315	1 361 245	1 208 857
Uruguay	1 600	2 593 450	2 423 923
Venezuela	18 000	11 304 775	9 463 220
Asia			
Bahrain	2 092	10 159 780	7 886 635
Brunei Darussalam	500	NA	811 413
Burma	130	NA	472 077
China	5 391	NA	12 360 000
Cyprus	3 479	6 688 539	4 310 478
Hong Kong	28 813	83 592 124	46 985 078
India	30 180	NA	50 663 000
Iran (islamic Republic of)	4 764	NA	6 423 863
Israel	6 080	22 852 000	6 352 000
Japan	45 000	NA	51 181 000
Jordan	2 612	NA	3 913 858
Korea, Republic of[2]	10 000	NA	8 229 000
Kuwait	3 271	10 907 000	7 072 000
Macau	641	976 531	787 732
Malaysia	11 383	NA	9 638 840
Oman	1 805	4 716 557	2 501 527
Pakistan[2]	6 940	NA	2 960 000
Qatar	1 055	2 678 864	1 826 701
Saudi Arabia[2]	15 793	14 800 424	6 625 015
Singapore	17 604	62 748 695	30 182 658
Sri Lanka	1 330	NA	4 748 760
Syrian Arab Republic	2 141	NA	1 992 000
Thailand	5 806	12 364 024	7 465 200
Turkey	17 550	NA	18 204 474
United Arab Emirates	6 141	18 682 691	10 749 745
Viet Nam	NA	NA	788 000
Yemen	965	503 756	428 671
Europe			
Austria	25 774	NA	36 641 611
Belgium	27 570	135 813 064	73 421 445
Channel Islands: Guernsey	324	NA	NA
Channel Islands: Jersey	512	NA	NA
Czechoslovakia	11 119	NA	6 481 000
Denmark	13 367	59 611 000	41 473 000
Finland	8 300	25 150 000	15 250 000
France	134 293	541 612 000	148 820 000
German Democratic Republic	16 724	NA	9 352 801

cont.

Table 9.35-cont.

Country	Size of telex system: subscriber lines	Traffic	
		Total traffic	Outgoing international traffic
Germany, Federal Republic of	164 952	561 961 294	188 698 410
Greece	21 643	54 922 546	20 834 075
Hungary	11 345	NA	9 008 000
Iceland	520	1 684 519	1 413 763
Ireland	7 143	34 318 983	13 310 922
Italy	69 363	371 433	158 551
Malta	928	2 692 081	2 349 745
Netherlands	40 200	NA	88 064 000
Norway	11 026	40 009 141	20 444 130
Poland	30 733	NA	9 236 000
Portugal	20 898	77 070 000	22 267 000
San Marino	94	103 120	95 020
Spain	39 958	117 222 000	45 779 000
Sweden	18 408	48 649 000	31 759 000
Switzerland	40 129	159 146 000	73 826
United Kingdom	111 505	NA	345 095
Yugoslavia	12 999	NA	17 343 540
Oceania			
Australia[2]	45 025	64 797 000	15 381 000
Fiji[1]	681	NA	1 232 479
French Polynesia	232	715 800	677 000
Nauru	17	54 300	54 000
New Caledonia	195	NA	NA
New Zealand	6 471	19 752 705	8 299 454
Papua New Guinea	1 376	NA	1 552 604
Solomon Islands	118	NA	256 599
Tuvalu	5	NA	23 000
Vanuatu	98	263 573	240 246

1. Figure in column 3 in pulses.
2. Figures in calls.
3. Figure in column 2 includes service and gentex connections.
4. Figure in column 2 includes TWX networks.

Source: *Yearbook of Common Carrier Telecommunication Statistics*, Geneva, ITU, 1988, 15th ed.

Table 9.36 Data transmission: size of data transmission system, 1986

[Algeria reports having no available data on the number of data terminal equipments on the public telephone and telex networks (Column 2), but 228 private leased circuits (Column 3) and no data terminal equipment connected to dedicated public data networks (Column 4).]

Country	Size of data system		
	Number of data equipments on the public telephone and telex networks	Number of private leased circuits	Number of data terminal equipments connected to dedicated public data networks
Africa			
Algeria	NA	228	-
Ascension	NA	13	NA
Botswana	60	11	3
Burundi	NA	5	NA
Central African Republic	NA	102	NA
Djibouti	NA	5	NA
Ethiopia	NA	1	NA
Ghana	1	17	NA
Kenya	285	65	NA
Malawi	52	362	NA
Morocco	NA	284	NA
Senegal	3	65	NA
Sierra Leone	NA	2	NA
Swaziland	2	13	NA
Tunisia	304	307	100
United Republic of Tanzania	2	716	NA
Zambia	155	277	NA
Zimbabwe	962	644	520
America, North			
Anguilla	1	1	NA
Bahamas	NA	94	NA
Cayman Islands	NA	22	38
Costa Rica	NA	446	NA
El Salvador	1	21	1
Mexico	NA	2 851	1 191
Panama	98	227	2
Bolivia	9	146	NA
Brazil	NA	NA	97
Chile	364	1 030	135
Colombia	3 820	NA	NA
Guyana	NA	21	NA
Paraguay	NA	4	NA
Suriname	150	11	NA
Uruguay	NA	69	NA
Venezuela	NA	12 350	NA
Asia			
Bahrain	NA	149	NA
Brunei Darussalam	NA	240	NA
Cyprus	307	470	NA
Hong Kong	NA	1 744	1 003
India	NA	907	NA
Iran (Islamic Republic of) 1)	320	160	NA
Israel 2)	NA	7 350	940
Kuwait	NA	614	NA
Macau	641	765	NA
Malaysia	1 922	4 544	222

cont.

Table 9.36 - cont.

Country	Size of data system		
	Number of data equipments on the public telephone and telex networks	Number of private leased circuits	Number of data terminal equipments connected to dedicated public data networks
Oman	1 623	156	317
Qatar	148	78	NA
Saudi Arabia	22 600	3 295	NA
Singapore	3 276	24 184	90
Sri Lanka	NA	41	NA
Thailand[3]	NA	296	90
Turkey	86	901	26
United Arab Emirates	457	364	NA
Yemen	NA	6	2
Europe			
Austria[4]	10 300	16 909	6 115
Belgium[5]	7 082	93 603	1 035
Channel Islands: Guernsey	117	112	48
Czechoslovakia	2 835	NA	NA
Denmark	NA	NA	10 750
Finland[6]	28 900	29 900	4 700
France[7]	40 386	NA	166 179
Germany, Federal Republic of	105 563	4 593	146 409
Greece	388	2 596	NA
Hungary	376	616	183
Ireland	NA	4 822	682
Italy	41 313	NA	157 270
Malta	NA	6	NA
Netherlands	NA	11 214	NA
Norway	NA	4 623	10 364
Poland	915	570	NA
Portugal	980	5 600	481
Spain[8]	12 889	44 600	32 553
Sweden[9]	NA	NA	21 633
Switzerland	18 700	18 383	3 110
Oceania			
Australia	14 429	86 076	32 201
Fiji	26	210	-
French Polynesia	NA	296	16
Nauru	10	1	NA
New Zealand[10]	NA	18 887	NA
Papua New Guinea	574	594	NA
Solomon Islands	NA	5	NA
Vanuatu	4	73	NA

1. Data refer to 1987.
2. Data refer to 1987.
3. Figure in column 3 refers to international circuits only.
4. Figure in column 3 refers to number of data terminal equipment.
5. Figure in column 2 refers to terminals equipment provided by RTT.
6. Figure in column 3 refers to number of data terminal equipment (modems) on leased circuits; number of private leased circuits is not available.
7. Figure in column 2 including "Caducée" and "Transpac".
8. Figure in column 2 refers only to terminals connected to the automatic telephone network. Figure in column 3 includes telegraph-type circuits. Figure in column 4 includes public message switching service.
9. Figure in column 2 refers to the total number of modems.
10. Data refer to 1987.

Source: *Yearbook of Common Carrier Telecommunication Statistics*, Geneva, ITU, 1988, 15th ed.

Table 9.37 Communication satellite organisations: member states, 1988

[e.g. Algeria is a member of Intelsat, Inmarsat and Arabsat but not of Intersputnik or Eutelsat.]

Country	INTELSAT	INTER-SPUTNIK	INMAR-SAT	ARABSAT	EUTEL-SAT
Africa					
Algeria	X		X	X	
Angola	X				
Benin	X				
Burkina Faso	X				
Cameroon	X				
Central African Republic	X				
Chad	X				
Congo	X				
Côte d'Ivoire	X				
Djibouti				X	
Egypt	X		X	X	
Ethiopia	X				
Gabon	X		X		
Ghana	X				
Guinea	X				
Kenya	X				
Liberia			X		
Libyan Arab Jamahiriya	X			X	
Madagascar	X				
Malawi	X				
Mali	X				
Mauritania	X			X	
Mauritius	X				
Morocco	X			X	
Niger	X				
Nigeria	X		X		
Rwanda	X				
Senegal	X				
Somalia	X			X	
Sudan	X			X	
Togo	X				
Tunisia	X		X	X	
Uganda	X				
United Republic of Tanzania	X				
Zaire	X				
Zambia	X				
America, North					
Bahamas	X				
Barbados	X				
Canada	X		X		
Costa Rica	X				
Cuba		X			
Dominican Republic	X				
El Salvador	X				
Guatemala	X				
Haiti	X				
Honduras	X				
Jamaica	X				
Mexico	X				
Nicaragua	X	X			
Panama	X		X		
Trinidad and Tobago	X				
United States	X		X		

cont.

Table 9.37 cont.

Country	INTELSAT	INTER-SPUTNIK	INMAR-SAT	ARABSAT	EUTEL-SAT
America, South					
Argentina	X		X		
Bolivia	X				
Brazil	X		X		
Chile	X		X		
Colombia	X		X		
Ecuador	X				
Paraguay	X				
Peru	X		X		
Uruguay	X				
Venezuela	X				
Asia					
Afghanistan	X	X			
Bahrain			X	X	
Bangladesh	X				
China	X		X		
Cyprus	X				X
Democratic Yemen		X		X	
India	X		X		
Indonesia	X		X		
Iran (Islamic Republic of)	X		X		
Iraq	X		X	X	
Israel	X		X		
Japan	X		X		
Jordan	X			X	
Korea, Democratic People's Republic of		X			
Korea, Republic of	X		X		
Kuwait	X		X	X	
Lao People's Democratic Republic		X			
Lebanon	X			X	
Malaysia	X		X		
Mongolia		X			
Oman	X		X	X	
Pakistan	X		X		
Philippines	X		X		
Qatar	X		X	X	
Saudi Arabia	X		X	X	
Singapore	X		X		
Sri Lanka	X		X		
Syrian Arab Republic	X			X	
Thailand	X				
Turkey	X				X
United Arab Emirates	X		X	X	
Viet Nam	X	X			
Yemen	X			X	
Europe					
Austria	X				X
Belgium	X		X		X
Bulgaria		X	X		
Czechoslovakia		X	X		
Denmark	X		X		X
Finland	X		X		X
France	X		X		X
German Democratic Republic		X	X		
Germany, Federal Republic of	X		X		X
Greece	X		X		X

cont.

Table 9.37 cont.

Country	INTELSAT	INTER-SPUTNIK	INMAR-SAT	ARABSAT	EUTEL-SAT
Holy See	X				X
Hungary		X			
Iceland	X				X
Ireland	X				X
Italy	X		X		X
Liechtenstein	X				X
Luxembourg	X				X
Malta	X				
Monaco	X				X
Netherlands	X		X		X
Norway	X		X		X
Poland		X	X		X
Portugal	X		X		X
Romania		X			
San Marino					X
Spain	X		X		X
Sweden	X		X		X
Switzerland	X				X
United Kingdom	X		X		X
Yugoslavia	X				X
Oceania					
Australia	X		X		
Fiji	X				
New Zealand	X		X		
Papua New Guinea	X				
USSR					
USSR		X	X		

Source: Compiled by Unesco, 1989.

Data common to post and telecommunication services

Table 9.38 Incomes and expenditures in telecommunication services, 1986

[e.g. Algeria reports a total current expenditure of $320 million (Column 2), a total annual gross investment of $211 million (Column 3); investment as a share of GDP is not available (Column 4).]

Country	Total current expenditure for all telecommunication services (in millions $)	Total annual gross investments in telecommunications including land and buildings (in millions $)	Telecommunications investments as a share of GDP per mil
Africa			
Algeria	320	211	NA
Benin	9	2	NA
Botswana[1]	17	56	77.47
Burkina Faso	10	15	10.27
Burundi	6	1	0.75
Central African Republic	3	9	6.73
Chad[2]	NA	0	NA
Congo	20	8	4.13
Djibouti	11	NA	NA
Egypt	381	NA	NA
Ethiopia	41	6	NA
Ghana	5	29	5.83
Morocco	117	98	6.34
Mozambique	25	2	NA
Reunion	85	37	NA
Rwanda	6	10	NA
Senegal	33	9	NA
Sierra Leone	1	NA	NA
Swaziland	6	14	51.42
Togo[3]	11	NA	NA
Tunisia	53	49	6.53
United Republic of Tanzania	20	NA	NA
Zambia	20	24	31.81
Zimbabwe	78	31	6.28
America, North			
Bahamas[4]	55	36	NA
Canada	7 693	2 136	5.79
El Salvador	50	9	NA
Guadeloupe	74	30	NA
Honduras	60	45	15.15
Martinique	80	31	NA
Panama	83	22	NA
St Pierre and Miquelon	2	NA	NA
United States	106 740	22 351	5.31
America, South			
Bolivia	31	4	0.07
Brazil	1 784	1 137 559	26.41
Chile	177	67	0.26
Colombia	641	124	NA
Ecuador	72	49	5.76
French Guiana	21	5	NA
Paraguay	0	77	NA
Suriname	26	5	5.22
Uruguay	115	NA	NA
Venezuela[5]	176	218	NA
Asia			
Bahrain	80	NA	NA
Brunei Darussalam	14	NA	NA

cont.

Table 9.38 - cont.

Country	Total current expenditure for all telecommunication services (in millions $)	Total annual gross investments in telecommunications including land and buildings (in millions $)	Telecommunications investments as a share of GDP per mil
China[6]	571	243	NA
Cyprus	67	35	11.35
India	832	686	3.96
Iran (Islamic Republic of)[7]	NA	652	NA
Israel[8]	734	273	NA
Japan[9]	31 468	11 446	NA
Korea, Republic of	955	1 745	24.57
Malaysia	539	558	NA
Oman	70	15	1.92
Singapore	371	128	8.00
Sri Lanka	34	21	3.63
Syrian Arab Republic	232	36	1.79
Thailand[10]	248	NA	NA
Turkey	482	663	5.35
United Arab Emirates	167	82	NA
Europe			
Austria	1	805	9.88
Belgium[11]	1 571	519	4.54
Channel Islands: Guernsey	NA	28	NA
Channel Islands: Jersey	16	NA	NA
Czechoslovakia	NA	120	2.04
Denmark	NA	460	6.06
Finland	983	447	5.99
France	139 204	NA	NA
Germany, Federal Republic of[12]	16 343	6 389	8.24
Greece	606	161	4.54
Hungary	202	117	NA
Iceland	70	15	3.95
Ireland	369	97	7.47
Italy	9 658	4 076	6.62
Malta	24	9	28.30
Netherlands	2 639	707	3.97
Norway	1 461	498	8.43
Poland	15	NA	NA
Portugal	715	218	7.36
Spain	3 086	1 557	7.06
Sweden	3 827	1 353	11.09
Switzerland	2 711	1 291	NA
United Kingdom	14 410	3 500	6.46
Yugoslavia	370	138	2.23
Oceania			
Australia	3 329	1 334	9.57
Fiji	23	12	7.49
French Polynesia	NA	6	NA
New Caledonia	24	9	NA
Papua New Guinea	57	17	7.61
Tuvalu	0	NA	1.39
Vanuatu	0	NA	1.46

1. Concerning data in column 3: capital costs of plants and buildings, etc. were revalued by consultants on historical costs, useful life, etc in 1972. Department works as a commercial Department under "special fund order" from 1 April 1974.
2. Figure in column 3 (= $121.000) includes postal services.
3. Expenditure relating to the Posts and Telecommunications.
4. Figures from Grand Bahama Telephone Company not included.
5. Figure in column 3 includes annual gross investment in land and buildings owned by the Ministry of Communications.
6. Figure in column 3 not including the joint investments in telecommunication and posts.
7. Data refer to 1987.
8. Data refer to 1987.
9. Data refer to 1987.
10. Figure in column 2 concerns national telephone service.
11. The expenditure and income of the radio and television licensing service are not included in these calculations.
12. Figure in column 2 excluding "DBP's own work to be recorded on the assets sides".

Source: *Yearbook of Common Carrier Telecommunication Statistics*, Geneva, ITU, 1988, 15th ed.

Table 9.39 Postal services: financial results 1986. (US $1,000)

[e.g. Algeria reports no available data on total receipts and total expenditure (Columns 2 and 3) but a total amount invested in postal services of $1,645,000 (Column 4).]

Country	Total receipts	Total expenditure	Amount invested in postal services
Africa			
Algeria[1]	NA	NA	1 645
Angola	4 480	5 476	NA
Botswana	5 929	2 362	NA
Burkina Faso[1]	NA	NA	77
Burundi[1]	741	420	NA
Cape Verde	658	1 613	NA
Central African Republic	1 034	1 850	NA
Chad	3 667	1 043	NA
Congo[1]	NA	NA	123
Côte d'Ivoire	13 729	NA	886
Egypt	120 242	108 317	4 522
Equatorial Guinea	NA	45	NA
Ethiopia	3 346	2 939	206
Indonesia	116 701	101 422	4 354
Madagascar	3 112	NA	NA
Malawi[1]	3 141	NA	542
Mali	NA	NA	121
Mauritius	2 641	2 002	NA
Morocco	23 160	NA	6 910
Mozambique	3 946	3 838	NA
Niger	2 561	NA	NA
Nigeria	7 438	NA	NA
São Tomé and Principe	191	102	NA
Senegal	5 667	6 369	1 351
St Helena[1]	NA	118	NA
Sudan	NA	NA	748
Togo	1 677	924	99
Tunisia[2]	22 348	NA	3 689
United Republic of Tanzania[3]	NA	10 907	27 399
Zambia	1 812	1 552	NA
Zimbabwe	16 551	14 738	363
America, North			
Anguilla	164	67	NA
Bahamas	14 825	4 212	9 832
Barbados[4]	3 988	2 968	4
Belize	490	295	NA
Canada	1 836 035	1 915 768	71 099
Cayman Islands	68	84	NA
Costa Rica[1]	3 761	4 800	294
El Salvador	2 109	3 354	NA
Mexico	56 694	91 681	502 656
Montserrat[1]	1 001	110	NA
Panama	6 305	4 214	NA
Saint Vincent and the Grenadines	489	NA	NA
Trinidad and Tobago	4 939	13 772	NA
Turks Islands	NA	10	NA
United States	30 817 927	31 021 203	1 246 960
America, South			
Argentina	214 324	198 402	3 894
Brazil	298 211	195 481	6 144
Chile	22 208	16 958	688
Colombia	22 622	20 639	245
Ecuador	6 695	6 748	358
Guyana	864	639	55
Paraguay	2 701	1 797	131
Venezuela	26 544	500 024	NA

cont.

Table 9.39 - cont.

Country	Total receipts	Total expenditure	Amount invested in postal services
Asia			
Bangladesh	13 508	19 015	NA
Burma	2 972	3 947	530
Cyprus	17 646	5 121	NA
Democratic Yemen	1 468	1 102	NA
Hong Kong	115 466	107 578	578
India	470 915	651 838	29 834
Indonesia	116 701	101 422	4 354
Jordan	5 519	9 060	1 261
Korea, Republic of	NA	NA	45 722
Kuwait	12 375	21 184	NA
Macau	3 980	2 666	29
Malaysia	78 283	65 582	3 415
Maldives[1]	NA	64	23
Oman	6 110	6 374	NA
Pakistan	31 931	38 463	4 207
Philippines	24 368	25 074	219
Qatar	10 380	5 148	3 115
Saudi Arabia	36 497	66 851	NA
Singapore	27 812	27 361	1 044
Sri Lanka[5]	18 365	19 663	724
Syrian Arab Republic	7 551	10 660	2 429
Thailand	60 372	95 245	2 876
Turkey	53 294	50 214	23 888
United Arab Emirates	20 345	15 542	348
Yemen	1 078	2 030	777
Europe			
Belgium	985 769	955	23 487
Channel Islands: Guernsey	4 208	3 749	695
Channel Islands: Jersey	9 051	6 660	49
Denmark	NA	NA	23 730
Germany, Federal Republic of	7 715 254	8 665 903	403 946
Gibraltar	1 688	1 134	7
Greece	87 551	133 585	5 439
Hungary	109 782	103 381	20 350
Iceland[6]	4 709 149	NA	1 942
Italy	419 110	493 986	682
Liechtenstein	6 995	7 064	NA
Luxembourg[7]	118 454	66 532	NA
Netherlands	1 506 148	1 502 507	112 920
Norway	770 727	739 970	24 849
Poland	148 083	170 212	9 059
Portugal	113 740	160 211	14 360
Spain	436	583 625	56 338
Sweden	1 485 854	1 551 958	NA
Switzerland	1 063 595	NA	104 550
United Kingdom	4 668 288	4 199	145 570
Yugoslavia	163 756	289 969	15 300
Oceania			
American Samoa[1]	2 100 222	1 666 313	662 444
Australia	867 336	835 705	55 625
Cook Islands	1 103	410	70
Fiji	3 002	2 044	553
French Polynesia	6 255	6 987	862
Nauru[1]	26	101	NA
New Caledonia	7 177	8 276	1 262
New Zealand	135 278	NA	NA
Papua New Guinea	5 853	2 399	NA
Tuvalu	49	47	NA
Wallis and Futuna Islands[1]	317	169	NA

cont.

Table 9.39 - cont.

Country	Total receipts	Total expenditure	Amount invested in postal services
USSR			
USSR	NA	2 775 511	NA

1. Data refer to 1985.
2. Figure in column 4 includes the acquisition of land.
3. Figure in column 4 includes telecommunications.
4. Figure in column 4 includes telecommunications and financial services.
5. Figure in column 4 includes telecommunications.
6. Approximately 34% of the expenditure indicated is attributable to the post.
7. Including telecommunications.

Source: *Statistique des services postaux 1986*, Berne, UPU, 1988.

Table 9.40 Postal and telecommunication services: staff, 1986

[e.g. Algeria reports having a total staff of 17,506 (Column 2) and a total telecommunication staff of 16,800 (Column 3).]

Country	Total staff in postal service	Total staff in telecommunication services
Africa		
Algeria	17 506	16 800
Angola	1 250	NA
Ascension	NA	30
Benin	967	1 197
Botswana	787	896
Burkina Faso	755	917
Burundi	198	480
Cape Verde	208	NA
Central African Republic	550	553
Chad	614	240
Congo	2 010	1 087
Côte d'Ivoire	3 093	NA
Djibouti	NA	372
Egypt	24 695	57 617
Ethiopia	1 820	5 349
Ghana	2 150	4 431
Kenya	4 462	11 010
Lesotho	550	NA
Liberia	381	NA
Madagascar	3 341	3 367
Malawi	1 538	1 248
Mali	704	NA
Mauritius	870	NA
Mayotte Island	NA	10
Morocco	5 894	6 862
Mozambique	1 140	2 416
Niger	627	NA
Nigeria	12 900	NA
Reunion	NA	743
Rwanda	371	506
São Tomé and Principe	70	NA
Senegal	1 437	1 988
Sierra Leone	427	254
St Helena	16	NA
Swaziland	NA	471
Togo	569	621
Tunisia	13 036	6 272
United Republic of Tanzania	1 340	5 819
Zambia	1 659	2 655
Zimbabwe	2 722	7 169
America, North		
Anguilla	8	34
Bahamas	425	1 647
Barbados	511	NA
Belize	151	NA
British Virgin Islands	23	NA
Canada	61 640	99 400
Cayman Islands	48	217
Costa Rica	1 764	3 168
El Salvador	1 642	5 753
Guadeloupe	NA	730
Martinique	NA	753
Mexico	33 178	NA
Montserrat	30	NA
Netherlands Antilles	442	NA
Panama	1 488	3 807

cont.

Table 9.40 - cont.

Country	Total staff in postal service	Total staff in telecommunication services
Saint Lucia	137	NA
St Pierre and Miquelon	NA	51
Saint Vincent and the Grenadines	157	NA
Trinidad and Tobago	1 455	NA
Turks Islands	15	NA
United States	784 557	NA
America, South		
Argentina[1]	27 680	40 154
Bolivia	NA	1 514
Brazil	74 578	104 023
Chile	5 383	10 945
Colombia	7 310	24 392
Ecuador	1 688	5 991
French Guiana	NA	255
Guyana	650	1 190
Paraguay[2]	1 200	4 698
Peru	6 533	NA
Suriname	NA	1 108
Uruguay	NA	8 711
Venezuela	6 977	16 572
Asia		
Bahrain	266	2 072
Bangladesh	31 854	NA
Brunei Darussalam	329	652
Burma	11 053	NA
China[3]	./.	982 800
Cyprus	1 126	2 048
Democratic Yemen	429	NA
Hong Kong	4 580	14 610
India	543 000	305 883
Iran (Islamic Republic of)[4]	11 862	40 722
Israel[5]	4 270	8 875
Japan[6]	NA	305 000
Jordan	2 376	NA
Korea, Republic of	32 991	48 470
Kuwait	1 200	6 646
Macau	237	570
Malaysia	11 800	28 059
Maldives	57	NA
Oman	692	1 759
Pakistan	46 000	41 032
Philippines	19 399	NA
Qatar	335	1 400
Saudi Arabia	10 336	21 450
Singapore	1 971	12 421
Sri Lanka	24 492	8 656
Syrian Arab Republic	2 340	12 692
Thailand	14 055	17 554
Turkey	29 272	NA
United Arab Emirates	1 020	4 169
Viet Nam	NA	42 100
Yemen	715	NA
Europe		
Austria	58 002	18 292
Belgium	46 436	26 996
Channel Islands: Guernsey	220	NA
Channel Islands: Jersey	280	312
Czechoslovakia	NA	23 636

cont.

Table 9.40 - cont.

Country	Total staff in postal service	Total staff in telecommunication services
Denmark	35 100	NA
Finland	NA	20 870
France	303 700	165 198
Germany, Federal Republic of	272 781	214 349
Gibraltar	69	NA
Greece[7]	10 791	29 595
Holy See	68	NA
Hungary[8]	./.	63 000
Iceland	2 165	*1 476
Ireland	NA	15 298
Italy	NA	110 232
Liechtenstein	72	NA
Luxembourg	1 466	NA
Malta	NA	1 568
Netherlands	68 485	29 674
Norway[9]	30 284	17 692
Poland	NA	63 300
Portugal	17 588	23 229
San Marino	90	NA
Spain	58 675	NA
Sweden	67 204	43 367
Switzerland	39 107	18 733
United Kingdom[10]	200 170	223 084
Yugoslavia	73 093	33 958
Oceania		
American Samoa	264	NA
Australia	46 469	93 495
Cook Islands	26	NA
Fiji	450	1 315
French Polynesia	253	348
Nauru	14	48
New Caledonia	394	NA
New Zealand[11]	15 576	24 165
Norfolk Island	6	NA
Papua New Guinea	355	1 675
Solomon Islands	NA	161
Tuvalu	6	25
Vanuatu	NA	115
Wallis and Futuna Islands	18	NA
USSR		
USSR	775 000	NA

1. Figure in column 3 relates solely to ENTEL.
2. Figure in column 3 refers only to ANTELCO staff.
3. Figure in column 3 refers to Postal and Telecommunication staff.
4. Data refer to 1987.
5. Data refer to 1987.
6. Data refer to 1987.
7. Figure in column 3 excluding private telecommunication staff (1986 = 13 458).
8. Figure in column 3 including postal staff.
9. Figure in column 3 refers to man-years.
10. Data refer to 1987. For figure in column 3, full-time and part-time staff is counted on the same basis.
11. Data refer to 1987.

Sources: *Statistique des services postaux 1986*, Berne, UPU, 1988.
Yearbook of Common Carrier Telecommunication Statistics, Geneva, ITU, 1988, 15th ed.

Intersectoral Data

General Data

Table 9.41 Population figures and GNP

[e.g. Algeria reports a population of 22,420,000 (column 2), 9 inhabitants per sq. km (column 3), a GNP per capita of $2,590 (column 4).]

Country	Population 1986 In millions	Inhab. per sq.km, 1986	GNP per Capita, 1986 ($)
Africa			
Algeria	*22.42	*9	2 590
Angola	*8.98	*7	NA
Benin	4.04	36	270
Botswana	1.13	2	840
Burkina Faso	6.75	25	150
Burundi	4.85	174	240
Cameroon	10.45	22	910
Cape Verde	*0.33	*82	460
Central African Republic	2.74	4	290
Chad	*5.14	*4	NA
Comoros	0.48	221	320
Congo	*1.79	*5	990
Côte d'Ivoire	*10.16	*32	730
Djibouti	0.46	21	NA
Egypt	49.61	50	760
Equatorial Guinea	*0.40	14	NA
Ethiopia	44.93	37	120
Gabon	*1.17	*4	3 080
Gambia	*0.66	*58	230
Ghana	*14.04	*59	390
Guinea	6.22	25	NA
Guinea-Bissau	*0.91	*25	170
Ivory Coast	*10.16	*32	730
Kenya	21.16	36	300
Lesotho	*1.56	*51	370
Liberia	2.22	20	460
Libyan Arab Jamahiriya	*3.74	*2	NA
Madagascar	*10.30	*18	230
Malawi	7.28	61	160
Mali	8.44	7	180
Mauritania	*1.95	*2	420
Mauritius	0.99	484	1 200
Morocco	*22.48	*50	590
Mozambique	14.17	18	210
Namibia	*1.59	*2	NA
Niger	*6.70	*5	260
Nigeria	98.52	107	640
Reunion	*0.54	*215	NA
Rwanda	*6.27	*238	290
São Tomé and Principe	*0.11	NA	340
Senegal	*6.61	*34	420
Seychelles	0.07	NA	NA
Sierra Leone	*3.67	*51	310
Somalia	*4.76	*7	280

cont.

Table 9.41-cont.

Country	Population 1986 In millions	Inhab. per sq.km, 1986	GNP per Capita, 1986 ($)
St Helena[1]	6	NA	NA
Sudan	*22.18	*9	320
Swaziland	0.67	39	690
Togo	*3.05	*54	250
Tunisia	*7.23	*44	1 140
Uganda	*16.02	*68	230
United Republic of Tanzania	22.46	24	250
Western Sahara	*0.16	*1	NA
Zaire	*30.85	*13	160
Zambia	*6.90	*9	300
Zimbabwe	8.41	22	620
America, North			
Anguilla[1]	7	NA	NA
Antigua and Barbuda	0.08	NA	2 380
Bahamas	0.24	17	7 190
Barbados	0.25	NA	5 150
Belize	0.17	7	1 170
Bermuda	0.06	NA	NA
British Virgin Islands[1]	13	NA	NA
Canada	25.61	3	14 120
Cayman Islands[1]	22	NA	NA
Costa Rica	2.67	53	1 480
Cuba	10.25	92	NA
Dominica	*0.08	NA	1 210
Dominican Republic	6.42	132	710
El Salvador	4.91	233	820
Greenland	0.05	0	NA
Grenada	*0.11	NA	1 240
Guadeloupe	0.33	185	NA
Guatemala	8.19	75	930
Haiti	5.36	193	330
Honduras	4.51	40	740
Jamaica	*2.37	*216	840
Martinique	0.33	299	NA
Mexico	79.56	40	1 860
Montserrat	*0.01	NA	NA
Netherlands Antilles	0.26	NA	NA
Nicaragua	3.38	26	790
Panama	2.23	29	2 330
Puerto Rico	*3.50	*393	NA
Saint Christopher and Nevis	*0.05	NA	1 700
Saint Lucia	0.14	NA	1 320
St Pierre and Miquelon[1]	6	NA	NA
Saint Vincent and the Grenadines	*0.10	NA	960
Trinidad and Tobago	*1.20	*234	5 360
Turks and Caicos Islands	8	NA	NA
U.S. Virgin Islands	0.11	NA	NA
United States	241.60	26	17 480
America, South			
Argentina	31.03	11	2 350
Bolivia	6.55	6	600
Brazil	138.49	16	1 810
Chile	12.33	16	1 320
Colombia	29.19	26	1 230
Ecuador	9.65	34	1 160

cont.

Table 9.41-cont.

Country	Population 1986 In millions	Inhab. per sq.km, 1986	GNP per Capita, 1986 ($)
Falkland Islands (Malvinas)[1]	2	0	NA
French Guiana	*0.08	*1	NA
Guyana	*0.97	*5	500
Paraguay	3.81	9	1 000
Peru	20.21	16	1 090
Suriname	*0.38	*2	2 510
Uruguay	2.98	17	1 900
Venezuela	17.79	20	2 920
Asia			
Afghanistan	18.61	29	NA
Bahrain	0.41	NA	8 510
Bangladesh	100.62	699	160
Bhutan	*1.45	*31	150
Brunei Darussalam	*0.24	*42	15 400
Burma	39.41	58	200
China	*1 072.22	*112	300
Cyprus	0.67	72	4 360
Democratic Kampuchea	*7.49	*41	NA
Democratic Yemen	2.36	7	470
East Timor	*0.68	*46	NA
Hong Kong	5.53	5292	6 910
India	766.14	233	290
Indonesia	166.94	88	490
Iran (Islamic Republic of)	49.76	30	NA
Iraq	*16.45	*38	NA
Israel	4.30	207	6 210
Japan	121.49	322	12 840
Jordan	*3.66	*37	1 540
Korea, Democratic People's Republic of	*20.88	*173	NA
Korea, Republic of	41.57	422	2 370
Kuwait	1.79	100	13 890
Lao People's Democratic Republic	*4.22	*18	NA
Lebanon	*2.71	*261	NA
Macau[2]	0.39	NA	NA
Malaysia	16.11	49	1 830
Maldives	*0.19	*NA	310
Mongolia	1.94	1	NA
Nepal	17.13	122	150
Oman[2]	2.00	NA	4 980
Pakistan	99.16	125	350
Philippines	56.00	187	560
Qatar	*0.33	*30	13 200
Saudi Arabia	*12.01	*6	6 950
Singapore	2.59	NA	7 410
Sri Lanka	16.12	246	400
Syrian Arab Republic	10.61	57	1 570
Thailand	52.65	102	810
Turkey	50.30	64	1 110
United Arab Emirates	*1.38	*17	14 680
Viet Nam	*60.92	*185	NA
Yemen	*7.05	*36	550
Europe			
Albania	3.02	105	NA
Andorra	0.05	NA	NA

cont.

Table 9.41-cont.

Country	Population 1986 In millions	Inhab. per sq.km, 1986	GNP per Capita, 1986 ($)
Austria	7.56	90	9 990
Belgium	*9.91	*325	9 230
Bulgaria	8.96	81	NA
Czechoslovakia	15.53	121	NA
Denmark	5.12	119	12 600
Faeroe Islands	0.05	36	NA
Finland	4.92	15	12 160
France	55.39	101	10 720
German Democratic Republic	16.62	154	NA
Germany, Federal Republic of	61.05	246	12 080
Gibraltar	0.03	NA	NA
Greece	9.97	76	3 680
Holy See[1]	1	NA	NA
Hungary	10.63	114	2 020
Iceland	0.24	2	13 410
Ireland	3.54	50	5 070
Italy	57.22	190	8 550
Liechtenstein	0.03	NA	NA
Luxembourg	*0.36	*139	15 770
Malta	*0.38	NA	3 450
Monaco	*0.03	NA	NA
Netherlands	14.56	356	10 020
Norway	4.17	13	15 400
Poland	37.46	120	2 070
Portugal	10.29	112	2 250
Romania	*23.17	*98	NA
San Marino	0.02	NA	NA
Spain	38.67	77	4 860
Sweden	8.37	19	13 160
Switzerland	6.50	157	17 680
United Kingdom	56.76	233	8 870
Yugoslavia	23.27	91	2 300
Oceania			
American Samoa	0.04	NA	NA
Australia	15.97	2	11 920
Cook Islands	0.02	NA	NA
Fiji	*0.70	*38	1 810
French Polynesia	*0.17	*43	NA
Guam	*0.12	NA	NA
Kiribati	*0.06	NA	NA
Nauru[1]	8	NA	NA
New Caledonia	0.15	8	NA
New Zealand	3.25	12	7 460
Niue[1]	3	NA	NA
Norfolk Island[1]	2	NA	NA
Pacific Islands	*0.16	*90	NA
Papua New Guinea	3.40	7	720
Samoa	*0.16	*56	680
Solomon Islands	0.28	10	530
Tokelau[1]	2	NA	NA
Tonga	0.11	NA	740
Tuvalu[1]	8	NA	NA
Vanuatu	0.14	9	NA

cont.

Table 9.41-cont.

Country	Population 1986 In millions	Inhab. per sq.km, 1986	GNP per Capita, 1986 ($)
USSR			
Byelorussian SSR	10.0	48	NA
Ukrainian SSR	51.1	85	NA
USSR	280.14	13	NA

1. Population expressed in thousands.
2. Data refer to 1985.

Sources: *Unesco Statistical Yearbook 1988*, Paris, Unesco, 1988.
World Development Report 1988, Washington D.C., World Bank, 1988.

Table 9.42. Advertising expenditures, 1986

[e.g. Argentina reports advertising expenditures of $900,220,000 (Column 2) which represents 1.18% of GNP (Column 3) and a per capita expenditure of $28.87 (Column 4).]

Country	1986 Adv. Expenditures (millions $)	1986 Adv. as a % of GNP	1986 Per Capita Adv. Expenditures (in $)
Argentina	900.22	1.18	28.87
Australia	2 379.53	1.58	150.67
Austria	504.79	0.53	66.89
Bahrain	6.90	0.19	15.62
Belgium	769.57	0.67	77.99
Bolivia	43.58	1.12	6.85
Brazil	1 958.40	0.69	13.67
Canada	4 797.44	1.41	187.22
Chile	144.23	0.94	11.76
China	173.00	0.07	0.17
Colombia	315.00	1.00	10.52
Costa Rica	48.17	1.28	17.75
Cyprus	11.78	0.40	17.51
Denmark	*1 035.97	*1.33	*203.13
Dominican Republic	64.17	1.26	9.46
El Salvador	23.80	0.44	4.66
Finland	1 195.41	1.71	242.43
France	4 475.48	0.63	81.02
Germany, Federal Republic of	8 093.64	0.89	133.26
Greece	157.65	0.40	15.84
Guatemala	88.57	0.58	10.29
Hong Kong	278.07	0.74	50.88
India	657.85	0.30	0.84
Indonesia	136.10	0.17	0.77
Ireland	158.52	0.68	43.74
Israel	312.25	1.10	74.20
Italy	3 074.72	0.60	53.73
Jamaica	18.36	0.93	8.03
Japan	18 309.00	0.92	150.81
Jordan	2.27	0.05	0.82
Korea, Republic of	965.88	0.98	47.02
Kuwait	36.73	0.15	20.74
Lebanon	8.88	NA	3.32
Malaysia	164.84	0.64	10.42
Malta	7.07	0.54	19.98
Mexico	382.79	0.32	4.68
Morocco	14.38	0.10	0.61
Nepal	1.62	0.07	0.09
Netherlands	1 721.18	0.99	118.38
New Zealand	356.95	1.42	108.00
Norway	632.87	0.93	151.95
Oman	1.17	NA	0.92
Pakistan	87.74	0.25	0.86
Panama	49.50	1.03	22.30
Papua New Guinea	7.80	0.32	2.30
Peru	206.21	0.84	10.20
Philippines	100.28	0.33	1.73
Portugal	97.15	0.35	9.62
Qatar	4.62	0.09	15.14
Saudi Arabia	44.87	0.05	3.90
Singapore	131.04	0.74	50.71
Spain	3 002.40	1.32	76.84

cont.

Table 9.42-cont.

Country	1986 Adv. Expenditures (millions $)	1986 Adv. as a % of GNP	1986 Per Capita Adv. Expenditures (in $)
Sri Lanka	17.75	0.27	1.07
Sweden	1 093.36	0.85	130.78
Switzerland	1 377.48	0.95	213.04
Thailand	215.12	0.51	4.10
Trinidad and Tobago	32.68	0.45	27.14
Turkey	180.99	0.31	3.49
United Arab Emirates	20.83	0.08	15.71
United Kingdom	8 222.12	1.49	145.63
United States	102 140.00	2.43	424.07
Venezuela	252.57	1.27	14.20
Yugoslavia	183.32	0.43	7.87
Zimbabwe	19.29	0.35	2.15

Source: *World Advertising Expenditures*, New York, Starch INRA Hooper Inc. and International Advertising Association, 21st ed.

Table 9.43 Total 1986 advertising expenditures in various media, 1986. (In millions of US dollars)

[e.g. Argentina reports a total expenditure of $900 million (Column 2) of which $291,560,000 refers to print (Column 3) $281,120,000 refers to TV advertising (Column 4) $92,380,000 to radio advertising (Column 5) etc.]

Country	Total 1986 Expenditures	Total Print	Total TV	Total Radio	Total Cinema	Outdoor Transit	Direct Adver.	Miscellaneous
Argentina	900	291.56	281.12	92.38	22.94	75.55	69,45	67.21
Australia	2 380	1 142.61	814.93	212.77	36.40	172.82	-	-
Austria	505	260.40	143.41	61.76	3.74	35.48	-	-
Bahrain	7	2.81	4.07	-	-	-	-	-
Belgium	770	432.95	85.09	6.59	11.31	96.31	0.14	-
Bolivia	44	17.50	20.00	6.00	10.00	0.05	0.02	-
Brazil[1]	1 958	490.43	822.49	112.94	2.21	30.29	-	12.06
Canada	4 797	1736.39	798.14	438.77	-	348.14	1 138.65	337.35
Chile	144	58.29	62.86	15.35	1.40	4.77	1.59	-
Colombia	315	74.11	170.24	70.65	-	-	-	-
Costa Rica	48	1.71	37.38	8.94	0.14	-	-	-
Cyprus	12	3.79	6.17	1.82	-	-	-	-
Dominican Republic	64	12.83	38.50	12.19	0.64	-	-	-
El Salvador	24	8.50	11.33	3.97	-	-	-	-
Finland	1 195	857.05	115.78	7.94	1.49	17.79	176.25	19.11
France	4 475	2 640.41	827.97	380.48	67.16	559.47	-	-
Germany, Federal Republic of	8 094	5 023.42	700.18	271.50	65.49	240.60	918.08	873.94
Greece	158	63.51	83.35	10.79	*2.02	*0.01	-	-
Guatemala	89	25.00	48.30	15.00	0.02	0.25	-	-
Hong Kong	278	115.50	134.28	4.16	1.04	11.09	-	12.01
India	658	383.34	82.11	19.32	9.66	26.57	-	136.85
Indonesia	136	97.92	-	23.78	4.76	5.86	3.77	-
Ireland	159	68.42	57.85	17.34	1.02	13.68	-	-
Israel	312	69.48	10.18	19.34	4.07	21.88	16.70	15.91
Italy	3 075	1 293.90	1 498.20	114.41	8.17	160.04	-	-
Jamaica	18	9.31	3.62	4.36	0.12	0.96	-	-
Japan	18 309	6 528.60	6 462.60	946.20	-	3 969.00	-	402.60
Jordan	2	1.15	1.12	-	-	-	-	-
Korea, Republic of	966	394.96	352.73	52.24	5.31	39.49	99.57	21.57
Kuwait	37	25.74	11.00	-	-	-	-	-
Lebanon	9	3.35	4.32	0.60	1.60	0.45	-	-
Malaysia	165	91.49	55.99	2.29	0.31	10.85	1.55	2.36
Malta	7	4.17	2.34	0.17	0.10	0.18	0.10	-
Mexico	383	56.67	172.32	69.44	3.00	31.60	-	49.76
Morocco	14	2.02	6.20	1.85	0.06	0.95	0.56	2.75
Nepal	2	0.50	.25	0.31	0.01	0.15	0.12	0.29
Netherlands	1 721	1 445.66	172.20	33.62	4.92	64.78	-	-
New Zealand	357	189.60	97.45	44.49	-	-	25.42	-
Norway	633	612.45	-	-	6.81	13.61	-	-
Oman	1	1.17	-	-	-	-	-	-
Pakistan	88	36.66	28.72	4.58	0.37	3.67	4.58	9.17
Panama	50	13.00	25.50	5.00	0.50	1.50	-	5.00
Peru	206	9.43	181.37	15.41	-	-	-	-
Philippines	100	28.34	51.95	19.00	0.28	0.71	-	-
Portugal	97	26.13	52.26	12.73	-	6.03	-	-
Qatar	5	2.24	2.38	-	-	-	-	-
Saudi Arabia	45	35.22	9.65	-	-	-	-	-
Singapore	131	73.57	45.98	5.06	0.69	5.52	-	-
Spain	3 002	1 141.20	725.04	294.48	16.56	105.12	345.60	374.40
Sri Lanka	18	9.08	3.48	2.93	-	2.27	-	-
Sweden	1 093	1 053.40	-	-	5.37	34.50	-	-

cont.

Table 9.43-cont.

Country	Total 1986 Expenditures	Total Print	Total TV	Total Radio	Total Cinema	Outdoor Transit	Direct Adver.	Miscellaneous
Switzerland	1 377	1 104.48	99.12	19.82	11.89	142.17	-	-
Thailand	215	68.04	104.48	42.00	0.60	-	0.26	-
Trinidad and Tobago	33	11.18	12.47	8.60	0.43	-	-	-
Turkey	181	60.05	106.09	4.61	-	10.24	-	-
United Arab Emirates	21	11.44	9.40	-	-	-	-	-
United Kingdom	8 222	4 611.80	2 463.26	133.82	27.94	288.24	697.06	-
United States	102 140	32 499.00	22 585.00	6 949.00	-	985.00	17 145.00	21 977.00
Venezuela	253	69.25	162.80	12.82	-	7.70	-	-
Zimbabwe	19	11.80	4.22	2.38	0.48	0.41	-	-

1. The total includes additional production costs.
* Estimate, not included in total expenditures.

Source: *World Advertising Expenditures*, New York, Starch INRA Hooper Inc. and International Advertising Association, 21st ed.

Table 9.44 External debt, 1986. (In millions of $)
[e.g. Algeria reports an external debt of $24,574,000,000 (Column 2) and a repayment due 1987 of $3,450,000,000 (Column 3).]

Country	Total external debt	Repayment due in 1987
Africa		
Algeria	24 574	3 450
Angola	55 163	260
Benin	1 073	80
Botswana	578	40
Burkina Faso	689	20
Burundi	563	20
Cameroon	3 600	440
Central African Republic	435	20
Comoros	161	3
Congo	3 589	480
Côte d'Ivoire	11 250	740
Djibouti	250	50
Egypt	38 396	2 680
Equatorial Guinea	164	5
Ethiopia	2 246	120
Gabon	2 191	380
Gambia	314	10
Ghana	3 312	90
Guinea	1 530	50
Guinea-Bissau	318	10
Kenya	4 836	360
Lesotho	194	10
Liberia	1 553	NA
Libyan Arab Jamahiriya	2 287	310
Madagascar	2 958	120
Malawi	1 122	50
Mali	1 790	20
Mauritania	1 807	70
Mauritius	695	30
Morocco	18 313	1 370
Mozambique	1 390	160
Namibia	9	10
Niger	1 458	80
Nigeria	29 100	3 030
Rwanda	457	20
São Tomé and Principe	83	2
Senegal	3 478	160
Seychelles	144	10
Sierra Leone	641	20
Somalia	1 777	40
Sudan	8 616	270
Swaziland	270	30
Togo	1 212	130
Tunisia	6 696	620
Uganda	1 191	30
United Republic of Tanzania	4 232	220
Zaire	6 876	310
Zambia	5 158	300
Zimbabwe	2 675	220
America, North		
Bahamas	1 398	NA

cont.

Table 9.44-cont.

Country	Total external debt	Repayment due in 1987
Barbados	581	NA
Belize	175	10
Bermuda	638	NA
Cayman Islands	166	NA
Costa Rica	4 487	260
Cuba	9 310	320
Dominica	91	1
Dominican Republic	3 417	240
El Salvador	1 964	110
Grenada	76	3
Guadeloupe	105	10
Guatemala	3 911	290
Haiti	765	50
Honduras	3 263	380
Jamaica	4 454	270
Martinique	114	4
Mexico	109 625	9 740
Montserrat	5	NA
Netherlands Antilles	1 084	NA
Nicaragua	5 715	180
Panama	5 906	NA
Saint Christopher and Nevis	44	NA
Saint Lucia	41	NA
St Pierre and Miquelon	6	2
Saint Vincent and the Grenadines	34	NA
Trinidad and Tobago	1 850	220
Turks and Caicos Islands	29	20
America, South		
Argentina	55 163	4 120
Bolivia	4 814	220
Brazil	115 418	9 330
Chile	23 606	1 790
Colombia	13 854	1 410
Ecuador	8 792	910
French Guiana	75	1
Guyana	970	40
Paraguay	2 127	180
Peru	17 700	920
Suriname	58	10
Uruguay	3 935	450
Venezuela	42 546	2 460
Asia		
Afghanistan	1 288	20
Bahrain	1 316	NA
Bangladesh	8 258	250
Bhutan	17	NA
Brunei Darussalam	234	1
Burma	4 881	140
China	26 635	1 790
Cyprus	9 310	150
Democratic Kampuchea	643	NA
Democratic Yemen	2 023	50
Hong Kong	8 260	NA
India	43 520	2 080

cont.

Table 9.44-cont.

Country	Total external debt	Repayment due in 1987
Indonesia	42 240	3 690
Iran (Islamic Republic of)	4 133	1 080
Iraq	12 905	3 510
Israel	33 446	1 210
Jordan	5 205	350
Korea, Democratic People's Republic of	1 042	10
Korea, Republic of	54 375	4 200
Kuwait	8 887	770
Lao People's Democratic Republic	565	3
Lebanon	932	NA
Macau	914	10
Malaysia	22 914	1 570
Maldives	85	2
Mongolia	5 510	NA
Nepal	789	30
Oman	2 958	500
Pakistan	15 177	620
Philippines	27 230	3 090
Qatar	630	70
Saudi Arabia	14 299	640
Singapore	4 426	NA
Sri Lanka	4 568	290
Syrian Arab Republic	4 527	150
Thailand	18 743	1 470
Turkey	27 641	2 020
United Arab Emirates	9 210	320
Viet Nam	7 907	40
Yemen	2 633	180
Europe		
Albania	52	NA
Andorra	184	NA
Bulgaria	4 986	650
Czechoslovakia	4 133	590
German Democratic Republic	16 601	2 120
Gibraltar	196	20
Greece	27 292	1 930
Hungary	15 671	1 500
Malta	350	10
Poland	35 241	2 900
Portugal	17 877	1 730
Romania	6 400	1 400
Yugoslavia	23 448	2 540
Oceania		
Cook Islands	3	NA
Fiji	487	30
Kiribati	11	NA
Nauru	78	3
Papua New Guinea	2 496	160
Tonga	29	1
Vanuatu	181	NA

Source: *External Debt Statistics*, Paris, OECD, 1987.

Table 9.45 Trade balance and overall balance, including exceptional financing and liablities constituting foreign authorities' reserves, 1985. (In millions of dollars)

[e.g. Algeria reports having a trade balance of $4,568,000,000 (Column 2) and an overall balance of $1,179,000,000 (Column 3).]

Country	Trade Balance	Overall Balance
Africa		
Algeria	4 568	1 179
Benin	-133	NA
Botswana	237	252
Burkina Faso	-232	NA
Burundi	561	NA
Central African Republic	-27	NA
Chad	-20	NA
Comoros	-11	7
Congo	697	NA
Côte d'Ivoire	1 604	40
Egypt	-5 771	NA
Ethiopia	-411	NA
Gambia	-35	NA
Ghana	-40	-41
Guinea-Bissau	-52	-5
Kenya	-376	-109
Lesotho	-330	-11
Liberia	142	NA
Libyan Arab Jamahiriya	5 020	1 831
Madagascar	14	NA
Mali	-89	-16
Mauritania	-9	NA
Mauritius	-25	16
Morocco	-1 508	NA
Niger	-64	20
Nigeria	4 604	29
Rwanda	-59	NA
São Tomé and Principe	-14	1
Senegal	-415	NA
Seychelles	-74	NA
Sierra Leone	-19	5
Somalia	-259	-587
Sudan	-138	-5
Swaziland	-98	NA
Togo	-37	63
Tunisia	-891	-223
Zaire	1 007	NA
Zambia	298	160
Zimbabwe	200	NA
America, North		
Antigua and Barbuda	-99	NA
Bahamas	-639	13
Barbados	-286	NA
Belize	-30	3
Canada	13 685	-300

cont.

Table 9.45-cont.

Country	Trade Balance	Overall Balance
Costa Rica	-79	57
Dominica	-26	NA
Dominican Republic	-417	-59
El Salvador	-202	NA
Grenada	-44	8
Guatemala	-13	68
Haiti	-138	NA
Honduras	129	-18
Jamaica	-466	58
Mexico	9 095	-3 542
Netherlands Antilles	-3	NA
Nicaragua	-359	NA
Panama	-707	NA
Saint Lucia	-48	NA
Trinidad and Tobago	752	-392
United States	-143 000	5 326 000
America, South		
Argentina	5 296	1 059
Bolivia	174	-69
Brazil	13 427	1 650
Chile	853	NA
Colombia	-23	-381
Ecuador	1 241	NA
Guyana	5	4
Paraguay	-208	-201
Peru	-2 024	133
Suriname	15	-9
Uruguay	193	64
Venezuela	7 345	-1 029
Asia		
Bahrain	-16	200
Bangladesh	-332	-127
Burma	-135	NA
China	-14 197	-6 732
Cyprus	-763	-7
India	-4 213	NA
Indonesia	6 356	-1
Israel	-2 628	159
Japan	60	2 898
Jordan	-1 765	-63
Korea, Republic of	-60	-574
Kuwait	5 920	327
Malaysia	3 867	741
Maldives	-40	-1
Nepal	-312	-42
Oman	2 043	-14
Pakistan	-3 558	-236
Philippines	-55	-306
Saudi Arabia	8 171	-2 730
Singapore	-3 283	1 174

cont.

Table 9.45-cont.

Country	Trade Balance	Overall Balance
Sri Lanka	-713	-81
Syrian Arab Republic	-2 081	NA
Thailand	-1 469	83
Turkey	-3 178	-85
Yemen	-1 329	-60
Europe		
Austria	-4 296	4
Belgium	-281	-148
Denmark	-823	2 057
Finland	976	727
France	-4 974	3 138
Germany, Federal Republic of	31 000	767 000
Greece	-5 474	522
Hungary	613	945
Iceland	1	63
Ireland	257	NA
Italy	-7 616	-7 455
Malta	-271	-123
Netherlands	5 958	432
Norway	5 077	3 423
Portugal	1 577	796
Romania	1 877	-386
Spain	-4 315	-2 215
Sweden	2 577	1 485
Switzerland	-1 689	877
United Kingdom	-2 645	2 371
Oceania		
Australia	-1 317	-2 571
Fiji	-52	NA
New Zealand	-211	NA
Papua New Guinea	-54	NA
Samoa	-33	2
Solomon Islands	1	-31
Tonga	NA	-2
Vanuatu	-36	1

Source: *Balance of Payments Statistics*, Vol.37, Part 1, Washington, D.C., IMF, 1986.

Import and export of communication goods

The tables include communication goods according to the SITC (Standard International Trade Classification), revision 1.

SITC Code	
714	Automatic data processing equipment
724.1	Television receivers
724.2	Radio receivers
861.5	Cinematographic cameras, projectors, etc.
8630	Developed cinema film
891.1	Gramophones, tape recorders, etc.
891.2	Sound recordings, discs, tapes, etc.
892.1	Books, pamphlets, etc.
892.2	Newspapers and periodicals

Table 9.46 Total import of communication goods by region of origin, 1985. ($1,000)

[e.g. Algeria imported, during 1985, communication goods for $1,719,000 from Africa, for $30,368,000 from North America, for $22,784,000 from South America, for $47,469,000 from Asia and for $163,091,000 and $176,000 from Europe and Oceania and the Pacific respectively.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Algeria	1 719	30 368	22 784	47 469	163 091	176
Argentina	4	109 871	42 867	72 653	76 441	-
Australia	508	718 333	51 799	1 163 772	545 172	16 481
Austria	77	118 268	1 370	176 428	716 034	130
Bangladesh	1	8 015	107	19 597	8 605	20
Belgium	863	194 906	6 801	184 436	1 368 404	579
Belize	-	1 609	117	3 623	419	-
Canada	110	3 645 522	118 435	1 272 195	321 009	1 545
Chile	14	63 662	12 770	37 485	27 311	58
Côte d'Ivoire	364	2 859	140	15 098	36 495	6
Cyprus	1	5 047	186	29 116	33 855	96
Denmark	12	169 387	1 304	195 618	562 703	243
Dominican Republic	-	22 130	1 797	1 446	578	-
Egypt	267	17 741	1 234	96 150	94 085	45
Ethiopia	238	784	4	4 378	10 264	20
Faeroe Islands	-	573	5	1 978	8 328	1
Finland	7	125 728	1 428	191 532	407 783	209
France	15 256	1 330 883	17 781	1 324 191	2 467 575	920
French Guiana	-	284	205	2 546	12 747	2
Germany, Federal Republic of	5 411	1 326 806	16 922	2 884 289	3 241 287	2 180
Greece	43	13 858	644	53 769	174 933	27
Greenland	1	1 349	-	4 279	11 216	2
Guadeloupe	-	1 129	2 018	5 164	24 939	-
Hong Kong	1 600	272 359	9 015	1 840 396	208 438	16 143
Iceland	-	7 997	156	10 405	29 462	28
Ireland	63	187 385	413	77 450	277 667	395
Israel	98	226 562	1 465	25 547	199 188	174
Italy	9 242	548 087	31 838	643 548	2 344 447	545
Japan	118	1 356 444	121 122	287 814	229 270	1 824
Jordan	358	5 644	31	23 825	18 712	3
Korea, Republic of	8	350 491	16 501	630 781	132 792	781
Macau	-	3 114	308	15 766	3 658	2
Madagascar	4	1 746	409	1 121	8 506	10
Malta	6	1 791	-	1 856	12 557	19
Martinique	-	1 075	39	5 201	28 207	-
Morocco	124	2 159	862	18 537	78 059	19
Nepal	1	49	-	7 692	1 264	4
Netherlands	2 364	619 567	4 158	589 970	2 075 259	2 125
New Zealand	249	157 991	8 283	193 315	116 821	39 640
Norway	15	197 079	1 786	215 173	572 683	119
Oman	47	6 704	123	48 473	58 893	358
Pakistan	48	15 371	639	55 806	37 988	409
Panama, Former Canal Zone	-	21 950	3 943	4 295	5 932	1
Philippines	-	24 160	1 911	31 425	16 404	126
Portugal	31	34 093	6 768	54 591	137 470	9
Reunion	93	232	13	6 830	36 447	-
Seychelles	382	1 159	8	1 350	4 481	12

cont.

Table 9.46-cont.

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Singapore	33	291 192	12 943	1 122 554	148 469	9 708
Spain	189	235 257	16 575	512 560	682 988	471
Sweden	93	361 447	5 314	460 582	857 418	1 636
Switzerland	144	307 376	1 657	340 255	1 237 360	328
Thailand	-	45 461	8 224	246 353	39 417	1 019
Turkey	15	108 621	1 177	134 230	139 248	39
United Kingdom	28 864	1 933 266	34 907	2 460 471	3 401 160	30 347
United States	7 989	1 299 777	1626 009	22 552 547	2 322 197	13 300
Uruguay	23	4 724	8 257	5 627	9 616	2
Venezuela	1	324 774	70 628	126 057	74 297	1
Yugoslavia	65	68 070	46	19 652	153 810	40

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.47 Total export of communication goods by country of origin, 1985. ($1,000)

[e.g. Algeria exported during 1985 communication goods to Africa for $192,000, nothing to either South America, North America or Asia, for $76,000 to Europe and nothing to Oceania and the Pacific.]

Country	Africa	South America	North America	Asia	Europe	Oceania and the Pacific
Algeria	192	-	-	-	76	-
Argentina	1 375	5 289	28 106	42 752	36 139	13 896
Australia	4 104	8 432	225	16 748	16 465	38 858
Austria	6 457	19 961	1 882	17 955	590 643	2 163
Bangladesh	-	-	-	164	40	-
Belgium	41 969	74 240	41 726	114 043	1 146 587	6 793
Canada	15 074	1 106 840	104 870	187 885	115 137	28 303
Chile	-	410	6 920	31	181	-
Côte d'Ivoire	1 552	671	4	161	1 431	-
Cyprus	2 314	381	21	7 354	7 090	14
Denmark	12 899	68 672	2 410	31 313	480 769	8 088
Egypt	2 946	47	11	10 904	827	14
Finland	1 542	20 628	507	18 372	302 885	499
France	522 337	288 028	196 807	617 354	1 891 225	69 527
French Guiana	5	-	367	-	951	-
Germany, Federal Republic of	313 582	593 198	131 287	705 064	5 926 443	105 357
Greece	436	975	4	5 507	16 202	507
Greenland	-	10	-	-	455	-
Guadeloupe	-	36	353	-	178	7
Hong Kong	27 564	694 207	33 010	496 317	317 481	50 971
Iceland	-	45	-	-	62	-
Ireland	12 667	109 395	2 993	51 976	1 527 938	42 801
Israel	10 852	129 861	37 747	19 778	80 439	935
Italy	249 701	495 890	64 571	298 799	1 652 813	60 110
Japan	411 406	16 585 353	794 314	6 349 922	7 249 015	1 146 017
Jordan	16	23	-	836	10	-
Korea, Republic of	18 187	1 679 738	83 604	372 550	454 589	34 472
Macau	103	962	37	9 452	16 319	43
Madagascar	326	146	-	2	200	-
Malta	98	8	-	39	1 316	5
Martinique	1	20	1 976	-	291	-
Morocco	243	1	-	62	2 610	-
Nepal	-	3	-	82	3	1
Netherlands	66 492	256 097	40 150	204 552	1 653 007	24 027
New Zealand	192	3 910	80	1 782	4 522	16 568
Norway	8 483	24 828	1 212	29 296	180 390	1 164
Oman	29	2	-	1 830	460	-
Pakistan	97	117	-	1 942	932	3
Panama, Former Canal Zone	-	-	85	-	-	-
Philippines	-	8 877	133	892	1 564	824
Portugal	6 795	14 396	3 158	3 922	172 777	292
Reunion	629	-	24	-	343	-
Seychelles	63	262	-	56	278	-
Singapore	24 859	1 250 096	23 728	628 800	528 140	73 091
Spain	28 054	73 130	174 055	23 385	554 950	4 561
Sweden	56 787	147 540	176 955	367 541	1 223 105	78 957
Switzerland	43 926	99 520	26 094	108 169	449 326	5 694

cont.

Table 9.47-cont.

Country	Africa	South America	North America	Asia	Europe	Oceania and the Pacific
Thailand	31	1 600	-	6 914	579	136
Turkey	201	624	-	25 446	34 889	4
United Kingdom	353 266	692 195	104 260	707 659	2 870 470	261 327
United States	300 310	2 349 546	1 675 036	3 488 785	5 488 458	659 950
Uruguay	-	60	579	2	303	15
Yugoslavia	19 283	3 837	1 239	19 156	68 712	111

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.48 Import of books, pamphlets, etc. (SITC 892.1 Rev.1) by region of origin, 1985. ($1,000)

[e.g. Algeria during 1985 imported books from Africa for $1,427,000, from North America for $275,000, nothing from South America, for $5,951,000 from Asia, for $22,512,000 from Europe and nothing from Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Algeria	1 427	275	-	5 951	22 512	-
Argentina	-	1 376	858	172	2 681	-
Australia	94	89 643	223	43 470	105 464	3 534
Austria	2	2 369	7	718	94 697	3
Bangladesh	-	44	-	1 085	81	-
Belgium	9	4 029	14	1 348	120 308	5
Belize	-	184	21	19	112	-
Canada	24	376 728	35	5 830	72 821	433
Chile	-	1 399	1 972	261	8 923	-
Côte d'Ivoire	58	95	-	205	9 626	-
Cyprus	1	154	-	224	4 002	9
Denmark	2	24 085	19	533	27 080	7
Dominican Republic	-	619	232	43	227	-
Egypt	58	1 119	-	2 900	8 700	24
Faeroe islands	-	6	-	-	841	-
Finland	1	2 073	2	310	17 223	6
France	336	17 396	618	10 714	193 583	17
French Guiana	-	7	11	1	561	-
Germany, Federal Republic of	69	24 985	353	13 475	141 385	429
Greece	-	124	19	62	5 670	-
Greenland	-	13	-	1	850	-
Guadeloupe	-	73	23	59	5 234	-
Hong Kong	6	8 571	-	12 006	8 871	560
Iceland	-	330	-	69	2 044	-
Ireland	3	8 350	1	450	26 611	19
Israel	3	4 793	3	229	5 956	5
Italy	2	6 018	180	879	41 602	2
Japan	25	41 264	818	6 968	43 189	112
Jordan	157	706	-	3 207	1 377	1
Korea, Republic of	-	4 034	1	5 431	2 092	7
Macau	-	4	-	473	809	-
Madagascar	3	99	-	182	1 273	-
Malta	-	236	-	7	1 222	1
Martinique	-	70	3	24	5 561	-
Morocco	61	70	-	2 126	9 517	-
Nepal	-	3	-	1 823	8	-
Netherlands	184	24 632	103	4 096	115 295	44
New Zealand	237	16 520	16	7 941	26 386	12 651
Norway	1	4 591	24	817	32 018	2
Pakistan	-	987	4	1 325	2 872	46
Panama, Former Canal Zone	-	528	477	43	528	-
Philippines	-	3 023	2	740	547	52
Portugal	23	916	1 113	63	6 042	2
Reunion	62	26	-	19	5 534	-
Seychelles	3	6	-	8	214	1
Singapore	3	14 498	4	12 953	12 651	1 140
Spain	28	2 910	4 318	546	23 209	1
Sweden	5	7 162	142	1 311	60 842	7
Switzerland	11	6 064	34	1 470	144 691	42

cont.

Table 9.48-cont.

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Thailand	-	3 154	1	3 142	1 863	45
Turkey	4	600	-	42	2 947	-
United Kingdom	1 485	118 960	2 725	57 009	164 968	3 103
United States	727	90 183	17 415	178 918	313 184	3 939
Uruguay	-	118	9	2	31	-
Venezuela	1	9 942	23 663	208	35 494	-
Yugoslavia	-	142	-	1	814	-

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.49 Export of books, pamphlets, etc. (SITC 892.1 Rev. 1) by country of origin, 1985. ($1,000)

[e.g. Algeria during 1985 exported books for $192,000 to Africa and for $76,000 to Europe and nothing to the other regions.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Algeria	192	-	-	-	76	-
Argentina	-	1 974	12 005	56	1 662	8
Australia	336	2 406	23	1 447	2 213	12 777
Austria	106	1 421	29	370	41 438	19
Bangladesh	-	-	-	15	34	-
Belgium	2 825	17 204	1 454	1 756	117 075	622
Chile	-	220	2 415	-	76	-
Côte d'Ivoire	98	6	1	-	37	-
Cyprus	23	1	-	583	33	6
Denmark	1 206	5 306	172	2 439	57 724	503
Egypt	1 416	7	7	6 630	442	7
Finland	577	657	1	265	20 637	15
France	50 232	44 203	12 615	7 852	124 214	2 429
French Guiana	-	-	1	-	6	-
Germany, Federal Republic of	2 587	36 381	2 033	19 603	277 609	1 914
Greece	130	200	2	1 819	585	251
Greenland	-	-	-	-	22	-
Guadeloupe	-	2	19	-	9	-
Hong Kong	8 180	23 369	231	25 715	26 994	21 928
Iceland	-	45	-	-	62	-
Ireland	100	971	21	126	19 075	50
Israel	118	8 064	59	55	2 737	228
Italy	8 080	39 546	862	2 935	105 955	1 122
Japan	1 340	78 934	2 318	30 521	24 053	8 264
Jordan	15	23	-	831	10	-
Korea, Republic of	966	2 778	827	3 307	351	272
Macau	-	-	-	120	-	1
Madagascar	-	1	-	-	-	-
Malta	83	8	-	39	353	5
Martinique	-	-	178	-	19	-
Morocco	141	1	-	43	239	-
Nepal	-	3	-	81	3	1
Netherlands	7 939	14 515	1 793	5 163	118 197	1 575
New Zealand	26	1 462	3	143	599	4 354
Norway	71	336	5	125	4 155	7
Pakistan	28	18	-	447	247	-
Philippines	-	10	-	41	-	23
Portugal	2 569	730	1 035	86	5 411	43
Reunion	2	-	-	-	134	-
Seychelles	-	11	-	-	-	-
Singapore	3 041	7 317	347	29 262	8 492	16 399
Spain	7 333	24 440	139 523	1 752	61 847	335
Sweden	1 134	2 108	1 456	1 674	30 627	284
Switzerland	1 643	10 166	547	3 286	64 979	356
Thailand	29	52	-	215	9	5
Turkey	2	6	-	561	16 716	3
United Kingdom	69 799	165 328	15 061	95 463	169 891	96 781
United States	15 903	243 733	40 295	91 953	137 827	61 647
Uruguay	-	27	304	-	302	-
Yugoslavia	1 607	1 874	2	33	20 414	28

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.50 Import of newspapers and periodicals (SITC 892.2 Rev.1) by country of origin, 1985. ($1,000)

[e.g. Algeria imported, during 1985, newspapers and periodicals from Africa for $266,000 from North America for $43,000, nothing from South America, for $867,000 from Asia, for $15,758,000 from Europe and nothing from Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Algeria	266	43	-	867	15 758	-
Argentina	-	81	12	-	87	-
Australia	2	27 916	5	17 989	24 741	1 868
Austria	18	1 130	-	137	91 451	-
Bangladesh	-	6	-	60	10	-
Belgium	19	1 494	-	371	137 905	-
Belize	-	154	1	-	1	-
Canada	-	307 913	782	519	15 837	25
Chile	-	571	172	1	1 105	-
Côte d'Ivoire	111	5	-	37	6 890	-
Cyprus	-	52	-	6	1 034	-
Denmark	1	1 259	-	44	10 601	-
Dominican Republic	-	1 049	11	-	2	-
Egypt	68	57	-	7 014	2 228	17
Ethiopia	-	-	-	-	37	-
Faeroe Islands	-	-	-	-	29	-
Finland	-	916	-	7	7 281	6
France	10 183	10 585	2	493	159 732	7
French Guiana	-	7	131	-	492	-
Germany, Federal Republic of	68	9 325	1	1 140	74 527	31
Greece	-	27	-	5	865	-
Greenland	-	-	-	-	13	-
Guadeloupe	-	33	1 888	-	3 442	-
Hong Kong	-	1 503	-	3 014	1 139	62
Iceland	-	158	-	1	1 228	-
Ireland	-	62	-	-	24 576	-
Israel	-	689	-	-	1 803	1
Italy	58	3 191	12	54	36 540	-
Japan	-	23 432	5	2 072	18 729	122
Jordan	4	100	-	125	429	-
Korea, Republic of	-	2 534	-	4 804	371	-
Macau	-	-	-	44	1	-
Madagascar	-	1	-	-	482	-
Malta	1	-	-	-	1 958	1
Martinique	-	95	6	-	3 484	-
Morocco	57	-	-	301	5 513	-
Nepal	-	-	-	52	-	-
Netherlands	-	5 334	27	329	33 536	1
New Zealand	1	7 466	-	1 620	6 296	11 129
Norway	-	806	-	42	14 504	-
Oman	47	6	-	2 623	400	-
Pakistan	-	250	-	148	37	37
Panama, Former Canal Zone	-	3 032	770	53	200	1
Philippines	-	360	-	1 876	14	-
Portugal	-	475	4 852	3	5 433	1
Reunion	-	-	-	-	3 883	-
Seychelles	1	3	-	-	119	2
Singapore	1	2 934	1	9 736	2 496	302
Spain	-	1 256	14	49	20 268	-
Sweden	1	2 963	-	49	22 654	-

cont.

Table 9.50-cont.

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Switzerland	5	2 170	-	288	115 825	-
Thailand	-	724	-	668	165	5
Turkey	-	24	-	-	1 115	-
United Kingdom	58	17 772	3	2 751	35 747	172
United States	137	113 489	11 971	9 535	38 772	382
Venezuela	-	20 545	5 491	6	3 475	-
Yugoslavia	-	7	-	-	4 395	-

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.51 Export of newspapers and periodicals (SITC 892.2 Rev. 1) by country of origin, 1985. ($1,000)

[e.g. Argentina exported, during 1985, no newspapers and periodicals to Africa, for an amount of $186,000 to North America, for $2,009,000 to South America, nothing to Asia, for $33,000 to Europe and nothing to Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Argentina	-	186	2 009	-	33	-
Australia	148	147	-	421	97	9 989
Austria	-	6	1	20	22 664	1
Bangladesh	-	-	-	133	6	-
Belgium	741	1 260	4	4	61 059	2
Canada	26	161 610	85	49	287	8
Chile	-	18	4 355	1	1	-
Côte d'Ivoire	66	2	-	-	2	-
Cyprus	798	53	21	999	641	4
Denmark	15	31	1	2	12 389	316
Egypt	1 296	40	4	3 321	355	7
Finland	1	100	25	2	18 980	-
France	38 671	15 250	10 074	13 137	105 773	3 111
Germany, Federal Republic of	5 207	12 508	5 247	8 988	320 967	1 537
Greece	15	28	-	925	141	5
Guadeloupe	-	-	125	-	-	-
Hong Kong	12	1 569	29	18 216	328	952
Ireland	-	448	-	-	5 462	-
Israel	53	244	-	2	149	-
Italy	1 855	6 664	1 184	2 495	102 210	495
Japan	110	3 126	877	9 510	825	10 616
Jordan	1	-	-	4	-	-
Korea, Republic of	-	722	-	43	-	1
Madagascar	-	-	-	-	1	-
Malta	15	-	-	-	4	-
Martinique	-	8	1 438	-	-	-
Netherlands	1 542	3 678	144	2 039	64 237	232
New Zealand	-	415	-	1	2	1 780
Norway	-	-	-	11	242	-
Oman	-	-	-	55	-	-
Pakistan	-	12	-	811	41	-
Philippines	-	84	-	207	1	57
Portugal	278	4	939	1	108	-
Reunion	117	-	-	-	1	-
Singapore	18	283	-	5 229	213	269
Spain	228	2 678	9 120	121	11 727	31
Sweden	-	18	-	25	10 962	39
Switzerland	2 044	740	253	1 866	26 959	17
Thailand	-	56	-	722	38	2
Turkey	-	-	-	481	1 872	-
United Kingdom	7 957	9 790	678	8 918	42 091	35 557
United States	2 321	269 420	36 480	14 299	52 157	19 857
Uruguay	-	-	10	-	-	-
Yugoslavia	1	-	-	4	407	40

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.52 Import of radio receivers (SITC 724.2 Rev. 1) by region of origin, 1985. ($1,000)

[e.g. Algeria imported, during 1985, no radio receivers from Africa, North America or South America, but $1,904,000 from Asia, for $207,000 from Europe and nothing from Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Algeria	-	-	-	1 904	207	-
Argentina	-	97	36	127	19	-
Australia	-	423	-	139 118	3 051	7
Austria	-	71	-	15 822	10 082	-
Bangladesh	-	-	-	2 839	-	-
Belgium	1	229	-	25 983	43 879	-
Belize	-	88	1	59	-	-
Canada	-	147 829	60 276	200 430	893	5
Chile	-	164	764	9 164	275	-
Cyprus	-	27	-	4 220	335	2
Denmark	2	206	-	25 239	12 035	3
Dominican Republic	-	577	337	44	3	-
Ethiopia	73	15	2	941	209	1
Faeroe Islands	-	1	-	163	125	-
Finland	-	18	-	26 900	13 000	-
France	84	678	7	135 981	93 017	3
French Guiana	-	-	-	329	56	-
Germany, Federal Republic of	8	4 466	781	373 488	123 189	-
Greece	-	90	1	8 872	2 002	-
Greenland	-	1	-	646	393	-
Guadeloupe	-	2	1	708	415	-
Hong Kong	1	3 785	45	264 547	1 559	51
Iceland	-	1	-	1 081	176	-
Ireland	15	114	72	9 011	7 578	-
Israel	-	333	26	3 101	2 125	-
Italy	2	458	-	75 303	66 467	-
Japan	-	203	7	43 824	181	-
Jordan	3	57	-	315	27	-
Korea, Republic of	-	696	-	13 626	239	-
Macau	-	-	-	233	18	-
Madagascar	-	100	-	281	30	1
Malta	-	24	-	391	131	-
Martinique	-	9	-	984	326	-
Morocco	-	-	-	3 593	430	-
Nepal	-	3	-	3 076	2	-
Netherlands	17	129	1	58 441	69 224	2
New Zealand	3	338	-	7 421	29	66
Norway	-	61	1	25 136	11 078	-
Oman	-	20	-	11 919	593	-
Pakistan	-	7	-	7	142	-
Panama, Former Canal Zone	-	86	-	175	57	-
Philippines	-	47	-	315	-	-
Portugal	-	29	1	3 685	3 095	-
Reunion	-	-	-	1 219	845	-
Seychelles	-	-	-	144	1	-
Singapore	-	487	-	185 333	1 888	73
Spain	-	23	2 809	82 738	14 664	-
Sweden	-	287	-	80 230	17 625	1

cont.

Table 9.52-cont.

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Switzerland	-	70	2	75 613	104 958	-
Thailand	-	390	-	9 867	118	1
Turkey	6	1 280	-	1 502	4 780	-
United Kingdom	25	2 109	24 140	316 272	98 125	175
United States	1 572	60 057	582 210	2 772 857	23 251	1 139
Uruguay	-	1	53	236	-	-
Venezuela	-	10 004	2 576	29 212	385	-
Yugoslavia	1	4 940	-	1 202	3 222	-

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.53 Export of radio receivers (SITC 724.2 Rev. 1) by country of origin, 1985. ($1,000)

[e.g. Argentina exported, during 1985, no radio receivers to Africa but for $12,000 to North America, for $189,000 to South America and none to Asia, Europe or Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Argentina	-	12	189	-	-	-
Australia	10	47	-	18	1	146
Austria	3	5 163	6	58	91 143	-
Belgium	530	144	13	485	95 819	32
Chile	-	-	1	-	-	-
Cyprus	108	321	-	1 434	612	-
Denmark	71	3 062	17	514	12 435	328
Finland	6	1	-	22	409	-
France	3 332	158	1 504	670	88 381	73
Germany, Federal Republic of	4 356	12 441	582	11 058	198 959	1 535
Greece	16	-	-	4	4	-
Greenland	-	2	-	-	5	-
Guadeloupe	-	-	3	-	19	-
Hong Kong	7 283	227 050	22 229	37 439	119 609	11 177
Ireland	172	96	23	139	11 517	3
Israel	8	354	-	83	183	-
Italy	376	138	100	921	9 782	17
Japan	35 504	1 283 785	84 628	563 123	567 794	96 098
Korea, Republic of	1 811	283 981	16 041	47 127	141 296	6 851
Macau	93	949	27	4 065	16 256	42
Madagascar	-	-	-	-	21	-
Martinique	-	1	16	-	3	-
New Zealand	-	3	-	1	-	8
Norway	44	324	3	48	565	2
Oman	-	-	-	281	1	-
Pakistan	-	6	-	-	49	-
Philippines	-	1 070	-	378	462	29
Portugal	26	-	-	-	61 008	-
Reunion	8	-	-	-	2	-
Singapore	10 805	186 499	12 230	116 493	156 304	15 153
Spain	5 734	261	22	2	1 210	-
Sweden	9	38	-	106	6 531	-
Switzerland	417	1 061	30	1 381	11 184	13
Thailand	-	-	-	406	392	1
Turkey	-	-	-	18	-	-
United Kingdom	791	777	692	2 000	36 712	123
United States	364	65 631	24 003	4 713	5 838	617
Uruguay	-	-	27	-	-	-
Yugoslavia	-	-	-	2	23	-

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.54 Import of television receivers (SITC 724.1 Rev.1) by region of origin, 1985. ($1,000)

[e.g. Algeria imported, during 1985, no television receivers from Africa, for $14,000 from North America, none from South America, for $27,000 from Asia, for $6,194,000 from Europe and none from Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Algeria	-	14	-	27	6 194	-
Argentina	-	194	48	152	171	-
Australia	-	104	-	45 841	603	283
Austria	-	24	-	7 268	57 006	-
Bangladesh	-	-	-	8 412	1	-
Belgium	5	444	3	4 889	75 794	21
Belize	-	177	8	1 080	6	-
Canada	-	71 377	27 596	135 995	411	-
Chile	-	45	2 557	4 178	39	-
Côte d'Ivoire	-	8	-	881	160	-
Cyprus	-	3	-	3 228	4 004	-
Denmark	-	244	169	4 655	50 092	-
Dominican Republic	-	2 968	241	460	1	-
Egypt	100	21	1	3 818	1 307	-
Ethiopia	104	29	-	2 387	763	3
Faeroe Islands	-	13	-	68	253	-
Finland	-	197	-	4 610	24 828	-
France	1 637	1 511	6	49 011	145 888	-
French Guiana	-	-	-	215	678	-
Germany, Federal Republic of	1 378	1 923	-	97 795	211 746	-
Greece	-	63	-	969	7 268	-
Greenland	-	-	-	297	702	-
Guadeloupe	-	4	-	537	2 576	-
Hong Kong	129	3 576	-	243 451	15 688	243
Iceland	-	-	-	475	541	-
Ireland	4	121	-	3 830	25 347	-
Israel	-	143	-	1 208	8 515	-
Italy	28	513	41	28 426	332 419	1
Japan	-	1 130	34	6 196	893	19
Jordan	1	8	-	5 891	258	-
Korea, Republic of	-	724	2	4 645	191	1
Macau	-	56	-	496	153	-
Madagascar	-	6	-	72	2 200	-
Malta	-	1	-	9	3 222	1
Martinique	-	16	-	509	2 575	-
Morocco	6	-	-	20	33	-
Nepal	1	-	-	950	3	-
Netherlands	7	454	18	31 766	171 244	252
New Zealand	-	162	-	2 129	79	51
Norway	-	216	2	3 930	45 743	-
Oman	-	1	-	10 893	672	-
Pakistan	-	2	-	84	17	-
Panama, Former Canal Zone	-	1 378	-	1 448	32	-
Philippines	-	24	-	325	1	-
Portugal	-	8	-	4 945	12 965	-
Reunion	-	3	-	269	3 774	-
Seychelles	325	-	-	168	20	-
Singapore	-	208	2	133 434	7 711	34
Spain	-	397	-	10 184	9 026	1
Sweden	-	364	-	16 444	81 704	-

cont.

Table 9.54-cont.

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Thailand	-	110	-	3 601	704	1
Turkey	-	-	-	32	729	-
United Kingdom	63	6 446	25	88 046	178 401	135
United States	701	68 940	88 428	1 366 323	17 785	-
Uruguay	-	26	1 273	1 195	323	-
Venezuela	-	7 401	4 776	25 015	141	-
Yugoslavia	48	3 361	-	2 384	20 928	-

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.55 Export of television receivers (SITC 724.1 Rev. 1) by country of origin, 1985. ($1,000)

[e.g. Argentina exported, during 1985, no television receivers to Africa or North America, but for $1,000 to South America, for $10,000 to Asia, for $1,000 to Europe and none to Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Argentina	-	-	1	10	1	-
Australia	1	1	-	13	2	606
Austria	19	3	4	184	77 302	1
Belgium	1 607	9 554	32	4 337	186 873	696
Côte d'Ivoire	8	-	-	1	2	-
Cyprus	4	-	-	757	1 093	-
Denmark	34	846	2	630	37 582	295
Egypt	6	-	-	-	-	-
Finland	12	64	-	6 084	93 291	-
France	9 978	512	4 595	1 852	21 865	494
French Guiana	-	-	-	-	8	-
Germany, Federal Republic of	5 879	4 257	388	48 319	578 723	2 431
Greece	10	-	-	1	6	-
Greenland	-	-	-	-	4	-
Guadeloupe	-	-	1	-	4	-
Hong Kong	12	36 656	68	23 698	8 946	90
Ireland	59	176	-	68	1 680	10
Israel	3	-	-	-	-	-
Italy	2 469	1 874	1 449	2 877	118 745	286
Japan	94 406	692 495	75 583	1 646 937	230 029	63 086
Korea, Republic of	7 604	374 763	55 143	104 573	40 790	6 092
Macau	-	-	-	239	-	-
Madagascar	-	21	-	-	-	-
Malta	-	-	-	-	942	-
Martinique	-	-	18	-	5	-
Morocco	4	-	-	-	1 712	-
New Zealand	-	1	-	11	2	806
Norway	34	15	8	155	1 373	2
Oman	18	-	-	328	2	-
Philippines	-	46	133	-	-	-
Portugal	114	-	-	-	53 593	-
Reunion	17	-	-	-	1	-
Singapore	1 728	111 629	1 788	92 534	93 253	7 414
Spain	800	1 044	26	2011	17 680	-
Sweden	22	4 046	17	80	96 657	673
Thailand	-	-	-	815	8	-
Turkey	-	-	-	395	1 735	-
United Kingdom	3 854	2 851	293	4 952	147 062	1 123
United States	339	46 989	103 791	28 187	8 889	506
Uruguay	-	-	2	-	-	-
Yugoslavia	8 623	755	7	2 364	17 146	21

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.56 Import of gramophones, tape recorders, etc. (SITC 891.1 Rev. 1) by country of origin, 1985. ($1,000)

[e.g. Algeria imported, during 1985, no gramophones, etc. from Africa but for $205,000 from North America, none from South America, for $2,253,000 from Asia, for $2,164,000 from Europe, and none from Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Algeria	-	205	-	2 253	2 614	-
Argentina	-	1 131	991	7 869	329	-
Australia	-	7 644	21	206 885	7 873	91
Austria	-	276	42	27 634	44 561	-
Bangladesh	-	-	-	230	57	2
Belgium	8	3 383	9	38 777	105 239	3
Belize	-	90	-	190	1	-
Canada	-	42 056	27	358 402	9 764	26
Chile	-	180	306	3 607	227	-
Côte d'Ivoire	-	16	-	1 443	353	-
Cyprus	-	16	-	11 210	1 121	1
Denmark	-	1 652	3	47 314	23 230	3
Dominican Republic	-	1 374	120	143	34	-
Egypt	23	156	4	18 804	3 642	1
Ethiopia	23	47	-	360	634	-
Faeroe Islands	-	-	-	360	264	-
Finland	-	576	-	51 317	10 913	-
France	8	6 296	22	307 337	158 156	15
French Guiana	-	6	-	802	257	-
Germany, Federal Republic of	56	10 729	20	816 740	215 247	19
Greece	5	496	-	13 468	29 137	-
Greenland	-	7	-	1 299	743	-
Guadeloupe	-	22	-	1 246	737	-
Hong Kong	7	15 195	6	459 883	12 635	70
Iceland	-	255	-	2 323	397	-
Ireland	-	490	-	15 126	12 667	-
Israel	-	2 342	-	2 607	7 295	-
Italy	9	6 663	189	87 927	137 106	23
Japan	1	12 577	236	60 728	11 722	49
Jordan	-	418	-	5 229	1 401	2
Korea, Republic of	7	5 816	21	193 347	2 291	16
Macau	-	1	-	1 112	55	-
Madagascar	-	14	-	207	240	-
Malta	-	13	-	242	173	8
Martinique	-	16	-	1 525	425	-
Morocco	-	-	-	1 646	739	-
Nepal	-	9	-	373	68	-
Netherlands	49	2 175	29	163 442	169 378	129
New Zealand	2	2 006	-	32 319	1 382	178
Norway	-	479	1	45 571	12 173	-
Oman	-	24	-	10 186	277	-
Pakistan	-	104	-	909	669	1
Panama, Former Canal Zone	-	102	4	72	1	-
Philippines	-	49	-	1 487	2	-
Portugal	-	84	-	14 282	5 744	-
Reunion	-	-	-	3 060	580	-
Seychelles	1	1	-	292	54	1
Singapore	-	1 954	-	292 402	7 769	56
Spain	17	3 293	692	153 067	34 890	-
Sweden	-	2 776	1	89 961	19 979	1

cont.

Table 9.56-cont.

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Switzerland	4	3 019	1	90 976	44 174	2
Thailand	-	831	-	20 708	535	7
Turkey	3	2 983	-	57 586	4 110	-
United Kingdom	5 005	25 101	899	596 317	286 965	198
United States	569	5 734	74 497	6 180 456	118 276	529
Uruguay	-	137	107	334	46	-
Venezuela	-	13 336	3 060	13 315	1 184	-
Yugoslavia	9	445	-	2 441	6 474	-

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.57 Export of gramophones, tape recorders, etc. (SITC 891.1 Rev. 1) by country of origin, 1985. ($1,000)

[e.g. Argentina exported, during 1985, no gramophones etc., to Africa or North America but for $31,000 to South America, for $1,000 to Asia, for $55,000 to Europe and none to Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Argentina	-	-	31	1	55	-
Australia	7	351	-	104	216	504
Austria	889	6 637	393	4 888	166 496	875
Belgium	1 598	4 424	38	6 536	119 699	448
Canada	6 749	510 138	76 817	80 140	59 097	9 915
Chile	-	-	-	1	-	-
Côte d'Ivoire	11	9	1	1	42	-
Cyprus	21	1	-	1 891	3 380	3
Denmark	177	11 763	89	2 522	22 079	706
Finland	18	73	-	190	5 956	-
France	14 217	2 507	3 446	3 134	89 783	439
French Guiana	-	-	-	-	2	-
Germany, Federal Republic of	5 828	40 461	2 497	18 986	620 561	2 393
Greece	-	22	-	3	35	-
Greenland	-	3	-	-	19	-
Guadeloupe	-	-	-	-	18	-
Hong Kong	1 060	39 749	1 769	33 079	18 968	1 000
Ireland	83	953	21	274	4 490	20
Israel	12	-	-	16	46	25
Italy	1 078	751	103	524	12 567	57
Japan	66 459	5 381 681	162 904	1 277 194	2 092 111	237 461
Korea, Republic of	2 122	269 885	3 838	50 903	61 313	3 193
Macau	-	13	-	467	26	-
Madagascar	-	-	-	-	9	-
Martinique	-	-	25	-	-	-
Netherlands	556	9 975	351	4 292	119 589	1 562
New Zealand	5	3	-	1	-	40
Norway	819	1 078	63	934	3 991	120
Oman	11	-	-	449	-	-
Pakistan	-	14	-	51	172	-
Philippines	-	419	-	-	458	85
Portugal	69	-	-	3	4 883	-
Reunion	16	-	1	-	31	-
Seychelles	5	8	-	2	-	-
Singapore	1 767	51 989	732	105 313	27 749	931
Spain	237	189	160	338	974	-
Sweden	56	185	37	114	9 812	6
Switzerland	2 261	10 827	354	5 697	25 437	1 219
Thailand	-	258	-	13	-	2
Turkey	-	-	-	58	2 253	-
United Kingdom	14 169	25 460	3 639	32 004	210 003	4 115
United States	4 659	15 893	78 641	60 622	61 012	9 546
Uruguay	-	-	-	-	1	-
Yugoslavia	-	-	5	43	316	-

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.58 Import of sound recordings, discs, tapes, etc. (SITC 891.2 Rev. 1) by country of origin, 1985. ($1,000)

[e.g. Algeria imported, during 1985, no sound recordings from Africa, for $131,000 from North America, none from South America, for $122,000 from Asia, for $699,000 from Europe and none from Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Algeria	-	131	-	122	699	-
Argentina	-	9 606	406	789	1 287	-
Australia	64	55 573	15	56 002	32 827	1 566
Austria	-	5 066	3	14 780	66 839	1
Bangladesh	-	36	-	753	67	-
Belgium	17	14 121	9	11 138	113 309	430
Belize	-	97	1	146	16	-
Canada	-	32 153	119	1 882	11 980	27
Chile	-	4 004	186	2 532	1 432	-
Côte d'Ivoire	2	94	2	759	1 314	-
Cyprus	-	265	-	1 953	948	-
Denmark	-	8 578	13	7 786	51 796	3
Dominican Republic	-	266	117	17	28	-
Egypt	15	487	-	8 511	3 813	-
Ethiopia	3	35	-	36	109	-
Faeroe Islands	-	32	-	114	682	-
Finland	5	10 660	20	9 500	37 479	29
France	102	83 406	182	85 182	190 114	55
French Guiana	-	39	1	137	352	-
Germany, Federal Republic of	60	85 696	3 704	174 678	307 247	104
Greece	11	1 033	1	6 087	10 780	10
Greenland	-	32	-	335	2 083	-
Guadeloupe	-	146	10	179	1 359	-
Hong Kong	3	29 229	-	117 470	13 961	2 726
Iceland	-	482	-	376	2 235	-
Ireland	-	15 059	-	7 372	16 988	11
Israel	2	6 045	1	1 705	12 624	10
Italy	82	30 790	216	17 952	154 422	102
Japan	19	108 391	236	29 002	39 824	454
Jordan	141	279	-	2 245	1 439	-
Korea, Republic of	-	16 627	12	20 985	3 425	226
Macau	-	263	41	3 041	14	-
Madagascar	-	46	-	20	205	-
Malta	-	73	-	192	872	-
Martinique	-	110	3	185	1 314	-
Morocco	-	117	-	500	1 165	-
Nepal	-	-	-	116	2	-
Netherlands	319	33 219	85	35 054	173 335	168
New Zealand	2	4 964	8	6 546	4 747	2 164
Norway	10	10 657	2	5 413	45 567	3
Oman	-	36	-	5 236	445	2
Pakistan	-	81	-	4 484	327	1
Panama, Former Canal Zone	-	284	502	12	105	-
Philippines	-	752	-	954	20	3
Portugal	1	1 224	4	774	6 047	-
Reunion	20	1	-	344	2 399	-
Seychelles	13	5	1	127	122	-
Singapore	22	20 447	3	62 331	4 103	1 683
Spain	1	9 972	153	20 455	37 271	12
Sweden	9	25 475	17	19 219	66 934	48

cont.

Table 9.58-cont.

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Switzerland	15	15 104	42	18 915	111 141	15
Thailand	-	4 080	7	5 759	1 324	295
Turkey	-	1 106	-	4 076	3 953	-
United Kingdom	1 622	152 796	297	137 229	309 782	1 701
United States	2 159	30 990	38 137	1 018 865	219 370	1 838
Uruguay	-	631	77	242	143	-
Venezuela	-	12 499	559	1 957	1 391	-
Yugoslavia	-	2 856	-	867	7 179	2

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.59 Export of sound recordings, discs, tapes, etc.(SITC 891.2 Rev. 1) by country of origin, 1985. ($1,000)

[e.g. Argentina exported, during 1985, no sound recordings to Africa, for $72,000 to North America, for $84,000 to South America, for $25,000 to Asia, for $18,000 to Europe and nothing to Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Argentina	-	72	84	25	18	-
Australia	17	394	3	1 595	1 206	1 777
Austria	78	1 278	67	625	38 259	504
Belgium	1 305	1 702	212	1 657	66 825	1 538
Canada	-	3 298	10	3	3 271	6
Chile	-	25	66	-	98	-
Côte d'Ivoire	31	46	-	-	48	-
Cyprus	79	-	-	316	78	-
Denmark	783	3 121	28	4 617	42 970	63
Egypt	181	-	-	822	30	-
Finland	3	126	-	27	1 890	46
France	13 522	24 073	5 662	7 598	197 110	3 276
French Guiana	-	-	4	-	2	-
Germany, Federal Republic of	8 749	88 022	8 306	55 040	537 771	14 598
Greece	159	503	-	2 573	2 447	200
Greenland	-	-	-	-	67	-
Guadeloupe	-	2	6	-	8	-
Hong Kong	3 005	66 863	854	41 785	19 637	3 066
Ireland	499	14 884	1 768	2 511	140 712	570
Israel	38	977	2	20	425	2
Italy	2 971	6 074	361	1 718	74 516	1 442
Japan	15 574	808 495	27 624	275 166	491 649	45 878
Jordan	-	-	-	1	-	-
Korea, Republic of	3 895	120 606	5 841	67 655	31 545	8 316
Macau	-	-	-	1 465	-	-
Madagascar	16	28	-	-	56	-
Martinique	-	-	29	-	3	-
New Zealand	1	574	-	22	298	1 843
Norway	22	124	19	728	5 327	-
Oman	-	-	-	248	-	-
Pakistan	69	67	-	110	122	1
Panama, Former Canal Zone	-	-	85	-	-	-
Philippines	-	1 291	-	23	54	256
Portugal	112	478	1	5	2 311	-
Reunion	23	-	-	-	19	-
Seychelles	-	-	-	1	4	-
Singapore	2 797	11 118	1 265	57 856	1 734	695
Spain	1 365	2 805	1 994	102	7 650	5
Sweden	22	450	20	202	30 884	40
Switzerland	466	4 948	235	2 266	42 008	514
Thailand	2	219	-	195	10	5
Turkey	151	594	-	8 411	2 615	1
United Kingdom	8 550	72 598	978	33 610	275 962	10 048
United States	8 648	151 443	99 336	173 587	329 380	38 792
Uruguay	-	26	1	2	-	-
Yugoslavia	-	74	1	4	2 902	20

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.60 Import of cinematographic cameras, projectors, etc. (SITC 861.5 Rev. 1) by region of origin, 1985. ($1,000)

[e.g. Algeria imported, during 1985, no cinematographic equipment from Africa but for $2,411,000 from North America, nothing from South America, for $10,374,000 from Asia, for $12,394,000 from Europe and nothing from Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Algeria	-	2 411	-	10 374	12 394	-
Argentina	-	2 067	303	968	763	-
Australia	197	25 604	8	91 020	36 279	151
Austria	-	10 418	43	20 914	25 405	94
Bangladesh	1	63	-	1 879	1 247	2
Belgium	44	4 522	3	18 875	68 750	-
Belize	-	111	1	16	6	-
Canada	8	170 893	485	93 248	29 991	20
Chile	2	1 878	643	2 171	575	-
Côte d'Ivoire	4	92	-	6 950	873	-
Cyprus	-	43	-	1 406	503	-
Denmark	-	10 882	14	26 785	30 292	2
Dominican Republic	-	970	50	181	4	-
Egypt	-	709	227	2 780	8 335	-
Ethiopia	30	3	-	52	118	-
Faeroe Islands	-	8	-	184	323	-
Finland	-	7 318	2	17 719	16 359	-
France	100	105 982	17	190 890	184 707	26
French Guiana	-	79	-	443	472	-
Germany, Federal Republic of	89	135 613	180	319 800	144 311	220
Greece	-	419	6	4 263	7 123	-
Greenland	-	22	-	550	155	-
Guadeloupe	-	10	-	1 054	634	-
Hong Kong	-	11 284	4	133 461	38 989	976
Iceland	-	143	-	824	1 103	-
Ireland	12	3 106	-	5 181	13 963	6
Israel	-	6 972	-	3 281	8 355	8
Italy	26	15 117	3	98 112	132 963	9
Japan	-	83 658	42	6 054	20 050	57
Jordan	1	1 131	-	1 335	1 173	-
Korea, Republic of	-	33 384	2	39 850	2 406	27
Macau	-	21	-	1 218	324	2
Madagascar	-	62	-	107	267	-
Malta	-	67	-	117	599	-
Martinique	-	31	-	823	509	-
Morocco	-	158	1	1 920	2 589	11
Nepal	-	13	-	366	25	0
Netherlands	655	65 688	637	68 640	218 892	958
New Zealand	-	3 328	158	15 789	5 887	648
Norway	-	8 855	20	26 648	23 507	-
Oman	-	85	-	162	1 055	-
Pakistan	-	259	-	2 875	566	6
Panama, Former Canal Zone	-	59	-	10	1	-
Philippines	-	1 008	-	1 137	100	9
Portugal	-	1 021	1	8 313	5 029	-
Reunion	10	3	-	835	1 486	-
Seychelles	4	9	-	156	34	-
Singapore	7	4 972	42	34 485	9 747	142
Spain	3	15 431	8	44 295	36 955	9
Sweden	-	13 668	3	39 885	42 580	51

cont.

Table 9.60-cont.

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Switzerland	3	13 435	2	31 655	54 656	3
Thailand	-	853	8	4 580	1 232	37
Turkey	-	399	-	5 079	5 044	-
United Kingdom	766	66 407	542	180 726	264 437	526
United States	45	15 685	16 559	1 290 256	218 277	119
Uruguay	-	257	156	431	120	-
Venezuela	-	9 326	107	8 402	1 542	-
Yugoslavia	-	1 087	-	4 799	12 828	-

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.61 Export of cinematographic cameras, projectors, etc. (SITC 861.5 Rev. 1) by country of origin, 1985. ($1,000)

[e.g. Argentina exported, during 1985, no cinematographic equipment to Africa but for $63,000 to North America, for $223,000 to South America, nothing to Asia, for $6,000 to Europe and for $4,000 to Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Argentina	-	63	223	-	6	4
Australia	23	1 128	38	1 420	598	1 271
Austria	184	589	26	928	14 157	1
Bangladesh	-	-	-	16	-	-
Belgium	2 563	2 137	185	1 965	29 780	328
Côte d'Ivoire	99	-	-	-	109	-
Cyprus	5	-	-	56	19	-
Denmark	1 191	16 036	293	3 375	40 936	2 066
Finland	88	17	-	27	1 044	4
France	17 953	45 298	5 554	12 691	124 097	5 009
French Guiana	-	-	-	-	100	-
Greece	-	52	-	6	65	-
Greenland	-	-	-	-	4	-
Guadeloupe	-	7	21	-	14	-
Hong Kong	3	16 984	126	4 748	2 837	18
Ireland	84	6 995	60	377	12 114	256
Israel	10	2 611	3	76	20 947	3
Italy	6 082	14 282	2 459	10 983	56 197	1 988
Japan	36 258	1 507 056	29 031	397 404	1 024 193	101 625
Korea, Republic of	316	6 515	10	8 230	2 779	14
Macau	-	-	-	231	35	-
Madagascar	-	54	-	-	20	-
Martinique	-	6	11	-	11	-
Netherlands	10 142	165 838	7 133	19 237	360 242	15 371
New Zealand	-	-	-	-	-	51
Norway	90	93	15	38	2 817	-
Oman	-	-	-	21	-	-
Pakistan	-	-	-	11	-	-
Philippines	-	-	-	3	-	-
Portugal	143	10	1	4	5 998	-
Reunion	74	-	-	-	1	-
Seychelles	8	-	-	4	-	-
Singapore	170	553	23	23 887	485	434
Spain	79	228	443	53	1 462	27
Sweden	365	4 930	129	779	13 643	534
Switzerland	1 743	36 561	235	5 727	47 557	1 019
Thailand	-	-	-	275	45	28
Turkey	-	-	-	29	7	-
United Kingdom	16 161	30 017	1 074	23 978	248 765	6 200
United States	7 439	126 875	81 696	82 409	319 726	22 937
Uruguay	-	-	23	-	-	-
Yugoslavia	97	723	133	511	2 728	-

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.62 Import of developed cinema film (SITC 8630 Rev. 1) by region of origin, 1985. ($1,000)

[e.g. Algeria imported, during 1985, developed cinema film, for $26,000 from Africa, for $454,000 from North America, none from South America, for $13,000 from Asia, for $1,823,000 from Europe and none from Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Algeria	26	454	-	13	1 823	-
Argentina	-	411	51	-	57	-
Australia	2	2 999	-	153	1 289	28
Austria	6	123	-	10	1 658	-
Bangladesh	-	8	-	45	74	-
Belgium	26	434	2	141	2 594	-
Belize	-	4	6	-	1	-
Canada	-	4 206	-	472	1 250	5
Chile	-	282	43	3	109	3
Côte d'Ivoire	127	3	-	9	3 259	1
Cyprus	-	94	-	21	220	-
Denmark	1	894	-	15	1342	1
Dominican Republic	-	207	42	14	15	-
Egypt	3	620	-	17	25	1
Faeroe Islands	-	-	-	-	5	-
Finland	-	438	-	13	1 486	-
France	198	3 348	641	230	10 454	114
French Guiana	-	-	3	-	404	-
Germany, Federal Republic of	23	2 631	23	345	12 472	15
Greece	-	301	-	38	936	-
Greenland	-	-	-	-	1	-
Guadeloupe	-	1	1	-	121	-
Hong Kong	13	1 233	17	1 741	1 303	33
Iceland	-	39	-	-	45	-
Ireland	1	307	2	3	1 555	1
Israel	16	372	2	21	700	3
Italy	93	2 296	15	145	5 561	4
Japan	2	3 782	6	563	1 288	46
Jordan	49	219	5	240	490	-
Korea, Republic of	-	6 093	-	1 771	576	349
Macau	-	-	-	1	-	-
Madagascar	-	60	16	3	118	-
Malta	-	26	-	13	196	1
Martinique	-	-	3	-	425	-
Morocco	-	-	-	-	23	-
Nepal	-	-	-	32	-	-
Netherlands	12	468	6	15	2 145	-
New Zealand	-	1 199	2	12	377	127
Norway	2	182	-	31	1 033	-
Oman	-	50	-	162	7	-
Pakistan	-	84	-	54	97	-
Panama, Former Canal Zone	-	278	204	16	71	-
Philippines	-	164	-	76	133	2
Portugal	-	141	4	6	487	2
Reunion	1	-	-	-	222	-
Seychelles	-	53	-	2	-	-
Singapore	-	588	-	1 082	175	188
Spain	-	5 841	313	109	6 729	53
Sweden	-	645	3	22	1 750	7
Switzerland	1	394	8	34	4 438	4

cont.

Table 9.62-cont.

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Thailand	-	1 146	-	2 821	287	4
Turkey	-	30	-	-	3	-
United Kingdom	530	10 179	142	1 638	6 478	148
United States	61	2 110	904	1 632	9 493	208
Uruguay	-	46	27	-	13	-
Venezuela	-	5 076	222	9	623	1
Yugoslavia	-	923	6	65	485	-

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.63 Export of developed cinema film (SITC 8630 Rev. 1) by country of origin, 1985. ($1,000)

[e.g. Argentina exported, during 1985, no developed cinema film to Africa but for $85,000 to North America, for $285,000 to South America, for $3,000 to Asia, for $38,000 to Europe and none to Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Argentina	-	85	285	3	38	-
Australia	5	630	1	91	145	250
Austria	52	3	-	18	471	-
Belgium	271	61	8	18	749	14
Canada	10	3 885	18	48	158	4
Chile	-	1	1	-	-	-
Côte d'Ivoire	455	5	-	-	6	-
Cyprus	2	-	-	14	23	-
Denmark	4	184	5	11	975	1
Egypt	44	-	-	97	-	-
Finland	7	10	-	4	170	-
France	3 368	3 895	833	1 003	7 688	131
French Guiana	-	-	316	-	-	-
Germany, Federal Republic of	42	258	57	1 229	3 802	31
Greece	3	49	2	112	64	50
Greenland	-	-	-	-	1	-
Guadeloupe	-	-	5	-	9	-
Hong Kong	154	454	169	5 420	302	102
Ireland	-	26	-	-	1 451	-
Israel	1 349	4 786	20	121	4 858	11
Italy	591	6 521	973	1 056	9 005	160
Japan	14	517	44	2 465	799	25
Korea, Republic of	-	7 046	-	1 660	200	28
Madagascar	5	-	-	-	8	-
Martinique	-	-	5	-	2	-
Netherlands	3	45	19	15	756	6
New Zealand	-	3	-	4	6	7
Norway	1	2	1	7	66	-
Oman	-	-	-	54	-	-
Pakistan	-	-	-	134	257	2
Philippines	-	-	-	10	-	237
Portugal	1	-	-	-	-	-
Reunion	78	-	-	-	6	-
Seychelles	3	47	-	-	4	-
Singapore	18	138	1	218	10	22
Spain	3	619	167	37	1 197	4
Sweden	16	100	20	97	1 444	9
Switzerland	23	48	18	63	1 100	2
Thailand	-	5	-	20	5	2
Turkey	5	-	-	21	37	-
United Kingdom	2 161	14 080	879	4 545	26 965	1 303
United States	1 379	6 159	7 160	10 530	18 815	4 270
Yugoslavia	19	129	-	59	429	2

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.64 Import of automatic data processing equipment (SITC 714 Rev. 1) by region of origin, 1985. ($1,000)

[e.g. Algeria imported, during 1985, no data equipment from Africa, but for $11,340,000 from North America, for $22,783,000 from South America, for $7,074,000 from Asia, for $30,477,000 from Europe and for $43,000 from Oceania and the Pacific.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Algeria	-	11 340	22 783	7 074	30 477	43
Argentina	-	87 211	27 059	7 946	14 048	-
Australia	59	425 619	51 428	300 958	172 599	660
Austria	31	88 872	1 245	51 155	198 713	28
Bangladesh	-	282	107	608	791	-
Belgium	455	148 842	6 366	41 298	489 051	101
Belize	-	166	58	28	68	-
Canada	48	1 898 574	8 151	181 143	119 855	515
Chile	11	44 782	5 648	6 963	5 239	32
Côte d'Ivoire	-	1 909	135	1 107	4 805	-
Cyprus	-	3 876	150	1 807	3 424	1
Denmark	4	106 523	1 028	48 425	222 476	46
Dominican Republic	-	2 881	591	240	150	-
Egypt	-	7 961	122	3 248	13 599	-
Ethiopia	3	459	2	75	857	-
Faeroe Islands	-	390	5	310	2 330	-
Finland	-	93 644	1 244	50 087	154 354	166
France	204	1 015 678	15 541	406 389	1 050 400	303
French Guiana	-	100	55	288	2 940	2
Germany, Federal Republic of	429	900 112	8 679	717 652	1 550 989	959
Greece	25	9 648	607	5 916	40 231	6
Greenland	1	867	-	430	2 047	-
Guadeloupe	-	690	95	1 157	5 967	-
Hong Kong	1 409	119 653	8 907	219 093	54 426	5 947
Iceland	-	5 397	156	2 748	12 467	28
Ireland	19	125 739	330	23 686	86 396	135
Israel	52	145 812	1 392	9 957	115 684	58
Italy	356	369 147	20 618	236 327	1 085 298	219
Japan	4	818 204	119 305	32 660	72 269	652
Jordan	-	419	26	907	883	-
Korea, Republic of	-	122 597	16 414	150 185	24 461	143
Macau	-	2 242	267	2 176	333	-
Madagascar	-	201	393	177	1 304	8
Malta	-	1 055	-	694	1 848	-
Martinique	-	558	24	740	4 721	-
Morocco	-	1 324	860	1 378	16 579	-
Nepal	-	5	-	409	48	-
Netherlands	508	390 854	3 074	140 307	781 329	409
New Zealand	-	87 419	8 099	50 364	33 946	9 334
Norway	-	133 675	1 663	51 160	218 680	40
Oman	-	132	123	1 732	977	-
Pakistan	48	5 530	635	4 176	6 693	13
Panama, Former Canal Zone	-	10 595	1 836	410	777	-
Philippines	-	11 404	1 909	6 496	1 515	8
Portugal	7	27 648	774	11 906	52 475	4
Reunion	-	192	13	452	7 842	-
Seychelles	19	60	7	61	226	1
Singapore	-	168 272	12 777	126 105	51 681	4 829
Spain	38	162 615	7 905	148 457	391 793	11
Sweden	13	261 965	2 131	122 129	318 450	964

cont.

Table 9.64-cont.

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Switzerland	67	229 943	1 525	67 590	481 388	234
Thailand	-	21 409	8 126	30 156	12 403	491
Turkey	2	20 885	1 176	10 919	38 046	-
United Kingdom	9 480	1 219 612	3 354	752 009	1 616 265	3 774
United States	526	322 164	24 849	3 813 957	924 981	1 619
Uruguay	-	2 830	1 616	1 100	1 209	-
Venezuela	-	188 222	28 735	22 813	10 020	-
Yugoslavia	-	34 661	35	5 143	62 109	38

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Table 9.65 Export of automatic data processing equipment (SITC 714 Rev. 1) by country of origin, 1985. ($1,000)

[e.g. Argentina exported, during 1985, data equipment to Africa for $1,366,000, for $2,858,000 to North America, for $12,442,000 to South America, for $42,017,000 to Asia and for $34,286,000 and $13,884,000 to Europe and Oceania and the Pacific respectively.]

Country	Africa	North America	South America	Asia	Europe	Oceania and the Pacific
Argentina	1 366	2 858	12 442	42 017	34 286	13 884
Australia	759	1 977	29	6 124	3 144	5 673
Austria	850	2 030	117	3 761	59 681	222
Belgium	11973	20 474	376	13 985	241 546	980
Canada	119	10 515	540	484	1 780	1 575
Chile	-	143	68	19	6	-
Côte d'Ivoire	450	201	2	9	213	-
Cyprus	1 253	2	-	475	757	-
Denmark	2 898	11 554	875	4 696	68 177	556
Finland	326	12 264	148	2 203	66 017	315
France	85 752	76 621	39 987	83 418	797 402	26 647
French Guiana	-	-	18	-	40	-
Germany, Federal Republic of	70 901	322 891	22 201	111 447	23 414 76	36 059
Greece	63	25	-	22	157	1
Greenland	-	-	-	-	149	-
Guadeloupe	-	7	157	-	85	-
Hong Kong	1 691	77 957	824	31 888	58 019	5 855
Ireland	8 108	73 376	568	34 865	1 233 364	40 864
Israel	441	7 320	719	586	5 016	168
Italy	40 928	389 995	9 526	47 844	859 077	21 019
Japan	48 966	3 387 797	118 449	714 568	1 620 730	294 310
Korea, Republic of	362	278 712	938	6 881	129 061	6 074
Macau	-	-	-	1 909	-	-
Madagascar	292	12	-	2	7	-
Malta	-	-	-	-	17	-
Martinique	1	-	102	-	77	-
Morocco	3	-	-	-	12	-
Nepal	-	-	-	1	-	-
Netherlands	14 218	18 466	1 559	32 744	807 298	2 910
New Zealand	1	112	-	57	60	361
Norway	737	11 500	627	11 775	101 127	459
Oman	-	-	-	8	-	-
Pakistan	-	-	-	34	-	-
Portugal	665	13 141	1 021	173	26 460	237
Reunion	127	-	-	-	29	-
Seychelles	-	-	-	1	6	-
Singapore	427	585 092	6 796	90 909	214 829	24 095
Spain	7 672	31 593	5 043	16 508	406 352	3 706
Sweden	7 344	51 461	2 611	25 560	511 915	14 123
Switzerland	2 819	16 828	4 243	6 831	122 298	1 006
Thailand	-	111	-	2 364	21	6
Turkey	2	-	-	12	19	-
United Kingdom	61 445	232 609	6 829	139 312	1 327 065	54 060
United States	125 118	1 085 741	515 430	1 629 046	3 575 811	411 971
Uruguay	-	7	35	-	-	15
Yugoslavia	116	252	2	237	8 699	-

Source: Compiled by Unesco from COMTRADE (UN Statistical Office).

Index

Glossary of acronyms

AACC	All Africa Conference of Churches
AAPOR	American Association for Public Opinion Research
AAWORD	Association of African Women for Research and Development
ABC	Australian Broadcasting Corporation
ABU	Asia-Pacific Broadcasting Union
ACAN	Agencia Centroamericana de Noticias
ACCE	African Council on Communication Education
ACCT	Agence de Coopération Culturelle et Technique/Agency for Cultural and Technical Co-operation
ACEJ	Accrediting Council on Education in Journalism and Mass Communication
ACP	African, Caribbean and Pacific
ACTAC	Australian Children's Television Action Committee
ACTF	Australian Children's Television Foundation
ADAB	Australian Development Assistance Bureau
ADB	African Development Bank
ADB	Asian Development Bank
ADMAC	Austrian Documentation Centre for Media and Communication Research
ADN	Allgemeiner Deutscher Nachrichtendienst
AECT	Association for Educational Communications and Technology
AED	Academy for Educational Development
AEDE	Asociación de Editores de Diarios Españoles
AEJMC	Association for Education in Journalism and Mass Communication
AFCAC	African Civil Aviation Commission
AfDB	African Development Bank
AFI	Agence Femmes Information
AFP	Agence France Presse
AFRALTI	African Advanced Level Telecommunications Institute
AFTRS	Australian Film, Television and Radio School
AGFUND	Arab Gulf Programme for United Nations Development Organizations
AGICOA	Association de Gestion Internationale Collective des Oeuvres Audiovisuelles
AGRIS	International Information System for Agricultural Sciences Technology
AHCIET	Asociación Hispano-Americana de Centros de Investigación y Estudios de Telecomunicaciones
AI	Artificial Intelligence
AIBD	Asia-Pacific Institute for Broadcasting Development
AICS	Association Internationale du Cinéma Scientifique
AIDAB	Australian International Development Assistance Bureau
AIDEC	Association Interafricaine pour le Développement de la Communication/ Inter-African Association for the Development of Communication
AIDS	Acquired Immune Deficiency Syndrome
AIFJC	Association des Institutions Francophones de Formation au Journalisme et à la Communication/Association of Francophone Journalism and Communication Institutions
AIJ	Asian Institute of Journalism
AIM	Advanced Informatics in Medicine in Europe
AIR	Asociación Internacional de Radiodifusión
AITV	Agence Internationale d'Images
AIVAC	Association Internationale pour la Vidéo dans les Arts et la Culture/International Association for Video in the Arts and Culture
ALA	American Library Association
ALAIC	Asociación Latinoamericana de Investigadores de la Comunicación/Latin American Association of Communication Researchers
ALASEI	Agencia Latinoamericana de Servicios Especiales de Información
ALATU	Latin American Association for University Television
ALECSO	Arab League Educational, Cultural and Scientific Organization
ALER	Asociación Latinoamericana de Educación Radiofónica
AM	Amplitude Modulation
AMIC	Asian Mass Communication Research and Information Centre
ANC	African National Congress
ANIM	Mali National Agency of Information
AP	Associated Press
APA	Austria Presse Agentur
APDC	Asia Pacific Development Centre
APIA	Agencia Periodística de Información Alternativa
APOLLO	Article Procurement with On-line Local Ordering
APPTC	Asian Pacific Postal Training Centre

1. In the case of organizations that have acronyms both in English and another language, only the English is listed. Where an acronym exists in a language other than English, this is employed.

APPU	Asian-Pacific Postal Union
APT	Asia-Pacific Telecommunity
APTO	African Posts and Telecommunications Union/Union Africaine des Postes et Télécommunications
ARABSAT	Arab Satellite Communications Organization
ARCI	Associazione Ricreative Culturale Italiane
ARD	Arbeitsgemeinschaft der Öffentlich-rechtlichen Rundfunkanstalten der Bundesrepublik Deutschland
ARMENPRESS	Armenian News Agency
ASBU	Arab States Broadcasting Union
ASC	ABU Satellite Centre
ASC	American Satellite Company
ASCII	American Standard Code for Information Interchange
ASCO	Arab Satellite Communications Organization
AsDB	Asian Development Bank
ASEAN	Association of South-East Asian Nations
ASETA	Asociación de Empresas Telecomunicaciones Estatales Andinos/ Association of Telecommunications Enterprises of Members of the ANDEAN Pact
ASIFA	Association Internationale du Film d'Animation/International Association of Animated Films
ASIN	Acción de Sistemas de Información Nacional/Action for National Information Systems
ASIS	American Society for Information Science
ASLIB	Association for Information Management
AT&T	American Telephone and Telegraph
ATEM	Moldavian News Agency
ATOM	Australian Teachers of Media
ATU	Arab Telecommunications Union
AUSSAT	Australian Satellite Users Association
AWRAN	Asian Women's Research and Action Network
AWSA	Arab Women Solidarity Association
AZIERINFORM	Azerbaidzhan News Agency
BADEA	Banque Arabe pour le Développement Economique en Afrique/Arab Bank for Economic Development in Africa
BBC	British Broadcasting Corporation
BCNZ	Broadcasting Corporation of New Zealand
BEA	Broadcast Education Authority
BELTA	Byelorussian News Agency
BKSTS	British Kinematograph Sound and Television Society
BONAC	Broadcasting Organizations of the Non-aligned countries/Organismes de Radiodiffusion des Pays Non Alignés
BPI	British Phonographic Industry
BRD	Bundesrepublik Deutschland
BRT	Belgische Radio en Televisie
BSB	British Satellite Broadcasting
CACFIFL	Action Committee for Co-operation in Data Management, Information Flow and Electronics
CAD	Computer Assisted Design
CADEC	Christian Action for the Development of Communication, Barbados
CAEC	Conseil Africain d'Enseignement de la Communication
CAF	Communication Assistance Foundation
CAJ	Confederation of ASEAN Journalists
CAM	Computer Assisted Manufacture
CaMeCo	Catholic Media Council
CANA	Caribbean News Agency
CANTV	Compañía Anónima Nacional de Teléfonos Venezolanos
CAPJC	African Centre for Journalists and Communication Training
CAR	Centre Arabe de Recherche sur la Radio-Television
CARICOM	Caribbean Community
CARIMAC	Caribbean Institute of Mass Communication
CAS	Chemical Abstracts Service
CAST	College of Arts, Sciences and Technology, Jamaica
CAV	Constant Angular Velocity
CAW	Committee on Asian Women
CBA	Commonwealth Broadcasting Association
CBC	Canadian Broadcasting Corporation
CBS	Columbia Broadcasting System
CBU	Caribbean Broadcasting Union
CCCA	Consultative Committee on Collaborative Arrangements
CCD	Charge-Coupled Devices
CCFD	Comité Catholique contre la Faim et pour le Développement/Catholic Committee against Hunger and for Development
CCIR	Comité Consultatif International de Radiocommunications/International Radio Consultative Commitee
CCITT	Comité Consultatif International Télégraphique et Téléphonique/ International Telegraph and Telephone Consultative Committee
CD	Compact Disc
CD	Co-ordinated Development
CD-I	Compact Disc Interactive
CDMM	Steering Committee for Mass Media
CD-ROM	Compact Disc Read Only Memory
CD-ROM XA	Compact Disc Read Only Memory Extended Architecture
CDRP	Centre de Recherche et de Documentation Pédagogique
CDS/ISIS	Computerized Documentation System/ Integrated Set of Information Systems
CEBEMO	Katholieke Organisatie voor Medefinanciering van Ontwikkelingsprogramma's
CEC	Commission of the European Communities
CECOM	Central European Mass Communication Research Documentation Centre
CEDAL	Centro de Comunicación Educativa Audiovisual/Centre for Educational Audiovisual Communication
CEMEDIM	Centro de Estudios de los Medios de Difusión Masiva/Centre for the Study of Mass Media
CEN	Comité Européen de Normalisation/ European Committee for Standardization
CENDIT	Centre for Development of Instructional Technology
CENECA	Centro de Indagación y Expresión Cultural y Artística
CENELEC	Comité Européen de Normalisation Electrotechnique/European Committee for Electrotechnical Standardization
CEPALC	Centro Popular para América Latina de Comunicación
CEPRECOM	Centre d'Etudes des Problèmes de la Communication
CEPT	Conférence Européenne des Administrations des Postes et des Telecommunications/European Conference of Postal and Telecommunications Administrations
CERAV	Centre d'Enseignement et de Recherche Audiovisuel (Côte d'Ivoire)
CERLALC	Centro Regional para el Fomento del Libro en América Latina y el Caribe
CESTI	Centre d'Etudes des Sciences et Techniques de l'Information/Centre for the Study of Information Sciences and Techniques
CFERIC	Conseil Français des Etudes et Recherches sur l'Information et la Communication/French Council of Studies and Research on Information and Communication
CFJ	Center for Foreign Journalists
CFPJ	Centre de Formation et de Perfectionnement des Journalistes/ International Centre for the Training of Journalists
CFTC	Commonwealth Fund for Technical Co-operation
CIC	Centre d'Initiation au Cinema, aux Communications et aux Moyens Audiovisuels

CICAE	Confédération Internationale des Cinémas d'Art et d'Essai
CIDA	Canadian International Development Agency
CIERRO	Centre Interafricain d'Etudes en Radio Rurale de Ouagadougou/Inter-African Rural Radio Studies Centre
CIESPAL	Centro International de Estudios Superiores de Comunicación para América Latina/International Centre of Advanced Communication Studies for Latin America
CIFFAD	International Francophone Centre for Distance Education
CIJ	Centre International des Journalistes/ International Journalism Centre
CILECT	Centre International de Liaison des Ecoles de Cinéma et de Télévision/ International Liaison Centre for Film and Television Schools
CIRCOM	Coopérative Internationale de Recherche et d'Action en Matière de Communication
CIRTEF	Conseil International des Radios et Télévisions d'Expression Française/ International Council of French-speaking Radio and Television
CISAC	Confédération Internationale des Sociétés d'Auteurs et Compositeurs/ International Confederation of Societies of Authors and Composers
CISCS	Centre International Scolaire de Correspondance Sonore/International Educational Centre for Communication by Sound
CISCS	Centro Internazionale dello Spettacolo e della Communicazione Sociale/ International Centre for Entertainment and Social Communication
CITEL	Conférence Interaméricaine de Télécommuncations/Inter-American Telecommunications Conference
CLAT	Central Latinoamericana de Trabajadores/Latin American Central of Workers
CLEMI	Centre de Liaison de l'Enseignement et des Moyens d'Information
CLPI	Chinese Language Press Institute
CLV	Constant Linear Velocity
CMEA	Council for Mutual Economic Assistance
CNET	Centre National d'Etudes des Télécommunications/National Centre for Telecommunication Studies
CNN	Cable News Network
COMECON	Council for Economic Mutual Assistance
COMNET	International Network of Documentation Centres on Communication Research and Policies
COMPAC	Commonwealth Trans-Pacific Telephone Cable
CONDOR	ANDEAN Satellite Project
COST	European Co-operation in Science and Technology
CPJ	Committee to Protect Journalists
CPTC	Creative Production and Training Centre
CPU	Commonwealth Press Union
CREW	Centre for Research on European Women
CSUCA	Confederación Universitaria Centro-Americana/Central American University Confederation
CSZN	Ceskoslovensky Zvav Novinarov
CTO	Commonwealth Telecommunications Organization
CTU	Caribbean Telecommunications Union
CYT	Critical Young Televiewer
DAC	Development Assistance Committee
DANIDA	Danish International Development Agency
DAT	Digital Audio Tape
DBS	Direct Broadcast Satellites
DECU	Development and Educational Communication Unit
DELTA	Developing European Learning through Technological Advance
DETECON	Deutsche Telepost Consulting GmbH
DEVCOM	International Conference for Co-operation on Activities, Needs and Programmes for Communication Development
DGT	Direction Générale des Télécommunications
DISTRIPRESS	Association pour la Promotion de la Diffusion Internationale de la Presse/ Association for the Promotion of the International Circulation of the Press
DOM	Départements d'Outre-Mer
DPA	Deutsche Presse Agentur
DRIVE	Dedicated Road Infrastructure for Vehicle Safety in Europe
DSC	Digital Selective Calling
DSCS	Domestic Satellite Communication System
DTP	Desktop Publishing
DTS	Domestic Telecommunication Services
EBU	European Broadcasting Union/Union Européenne de Radiodiffusion
EC	European Communities
ECA	United Nations Economic Commission for Africa
ECE	United Nations Economic Commission for Europe
ECIL	Electronics Corporation of India Ltd
ECOSOC	United Nations Economic and Social Council
ECOWAS	Economic Community of West African States
ECPTO	Eastern Caribbean Popular Theatre Organization
ECT	Empresa de Correios e Telegrafos (Brazil)
EDI	Electronic Data Interchange
EDIFACT	Electronic Data Interchange for Administration, Commerce and Transport
EDT	Electronic Data Transfer
EEC	European Economic Community
EFE	Agencia EFE
EIB	European Investment Bank
EIM	European Institute for the Media
ELIA	Lithuanian News Agency
EMBRATEL	Empresa Brasileira de Telecomunicaçoes
EMS	Electronic Mail Service
ENG	Electronic News Gathering
ENTEL	Empresa Nacional de Telecomunicaciones (Argentina)
EPIRB	Emergency Position Indicating Radio Beacons
EPO	European Patent Office
ERIC	Educational Researches Information Centre
ESA	European Space Agency/Agence Spatiale Européenne
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
ESJ	Ecole Supérieure de Journalisme
ESPRIT	European Strategic Programme for Research into Information Technology
ESSTI	Ecole Supérieure des Sciences et Techniques de l'Information/Higher School of Sciences and Techniques of Information
ETA	Estonian News Agency
ETSI	European Telecommunications Standards Institute
EUREKA	European Research Co-operation Agency
EURONET	European On-Line Information Network
EUTELSAT	European Telecommunications Satellite Organization
EVE	European Videoconference Experiment
Eximbank	Export/Import Bank for the USA
FAJ	Federation of Arab Journalists
FANA	Federation of Arab News Agencies
FAO	Food and Agriculture Organization of the United Nations
FCC	Federal Communication Commission
FELAFACS	Federación Latinoamericana de Asociaciones de Facultades de Comunicación Social/Federation of Schools of Communication
FELAP	Federación Latinoamericana de Periodistas/Latin American Federation of Journalists

FELATRAP	Federación Latinoamericana de Trabajadores de Prensa/Latin American Federation of Press Workers
FEPACI	Fédération Panafricaine des Cinéastes
FES	Friedrich Ebert Stiftung
FIAD	Fédération Internationale des Associations de Distributeurs de Films/International Federation of Film Distributors' Associations
FIAP	Federación Iberoamericana de Asociaciones de Periodistas/ Ibero-American Federation of Journalists' Associations
FICC	Fédération Internationale des Cine-Clubs
FID	Fédération Internationale d'Information et de Documentation/International Federation for Information and Documentation
FIEJ	Fédération Internationale des Editeurs de Journaux/International Federation of Newspaper Publishers
FINNIDA	Finnish International Development Agency
FIPP	Fédération Internationale de la Presse Périodique/International Federation of the Periodical Press
FIPRESCI	Fédération Internationale de la Presse Cinématographique/International Federation of the Cinematographic Press
FISTAV	Fédération Internationale des Syndicats des Travailleurs de l'Audiovisuel/ International Federation of Trade Unions of Audiovisual Workers
FLS	Forward Looking Strategies
FM	Frequency Modulation
FRCN	Federal Radio Corporation of Nigeria
FRG	Federal Republic of Germany
FSS	Fixed Satellite Services
FTII	Film and Television Institute of India
FUNDESCO	Fundación para el Desarrollo de la Función Social de la Comunicación
FWU	Institut für Film und Bild in Wissenschaft
GATT	General Agreement on Tariffs and Trade
GDR	German Democratic Republic
GIJ	Ghana Institute of Journalism
GMDSS	Global Maritime Distress and Safety System
GNA	Gulf News Agency
GRECO-PUCES	Groupe de Recherche Coordonnée - Pratiques et Usages de la Communication dans son Environnement Social
GRUZINFORM	Georgian News Agency
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit/German Agency for Technical Co-operation
HDTV	High-Definition Television
HF	High Frequency
HIVOS	Stiching Humanistisch Instituut voor Ontwikkelingssamenwerking
IAA	International Advertizing Association
IAAB	Inter-American Association of Broadcasters
IAB	International Association of Broadcasting
IADP	INTELSAT Assistance and Development Program
IAEA	International Atomic Energy Agency
IAF	Inter-American Foundation
IAMCR	International Association for Mass Communication Research/Association Internationale des Etudes et Recherches sur l'Information
IAPA	Inter-American Press Association
IASA	International Association of Sound Archives
IAWRT	International Association for Women in Radio and Television
IBA	Independent Broadcasting Authority
IBBY	International Board on Books for Young People
IBF	International Booksellers Federation
IBM	International Business Machines
IBRD	International Bank for Reconstruction and Development
ICA	International Communication Association
ICA	International Council on Archives/Conseil International des Archives
ICAV	Initiation à la Communication Audiovisuelle
ICCO	Stichting Interkerkelijke Coördinatie Commissie Ontwikkelingsprojecten
ICDA	International Coalition for Development Action
ICDAGS	Information Documentation Centre for Arab Gulf States
ICEM	International Council for Educational Media/Conseil International des Moyens du Film d'Enseignement
ICFCYP	International Centre of Films for Children and Young People/Centre International du Film pour l'Enfance et la Jeunesse
ICPI	International Communication Projects Inc.
ICSTI	International Centre for Scientific and Technical Information
ICUP	International Catholic Union of the Press/Union Catholique Internationale de la Presse
IDA	International Development Association
IDATE	Institut pour le Développement de l'Audiovisuel et des Télécommunications en Europe
IDOC	International Documentation and Communication Centre
IDRC	International Development Research Centre
IEC	International Electrotechnical Commission
IETEL	Instituto Ecuatoriano de Telecomunicaciones (Ecuador)
IFA	International Federation of Actors
IFDC	Inter-African Film Distribution Consortium
IFFA	International Federation of Film Archives/Fédération Internationale des Archives du Film
IFFPA	International Federation of Film Producers Associations/Fédération Internationale des Associations de Producteurs de Films
IFFS	International Federation of Film Societies
IFJ	International Federation of Journalists/Fédération Internationale des Journalistes
IFLA	International Federation of Library Associations and Institutions
IFM	International Federation of Musicians/Fédération Internationale des Musiciens
IFP	Institut Français de Presse et des Sciences de l'Information
IFPC	Inter-African Film Production Consortium
IFPI	International Federation of Producers of Phonograms and Videograms
IFPIA	Independent Film Producers International Association/Fédération Internationale des Producteurs de Films Indépendants
IFRA	International Research Association for Newspaper Technology
IFRB	International Frequency Registration Board
IFTA	International Federation of Television Archives/Fédération Internationale des Archives de Télévision
IFTC	International Council for Film, Television and Audiovisual Communication/Conseil International du Cinéma, de la Télévision, et de la Communication Audiovisuelle
IGF	International Graphic Federation
IHO	International Hydrographic Organization
IIB	Institut International de Bibliographie
IIC	International Institute of Communication
IIJ	International Institute of Journalism
IIJB	Internationales Institut für Journalistik "Werner Lamberz" (Berlin)/International Institute of Journalism "Werner Lamberz" (Berlin)
IIMC	Indian Institute of Mass Communication
IIP	Intergovernmental Informatics Programme
IISI	International Institute for Research and Information

IISI	Istituto Internazionale por gli Studi e le Informazioni
ILCE	Instituto Latinoamericano de la Comunicación Educativo/Latin American Institute for Educational Communication
ILET	Instituto Latinoamericano de Estudios Transnacionales/Latin American Institute for Transnational Studies
ILO	International Labour Organisation
ILPES	Instituto Latinoamericano y del Caribe de Planificación Económica y Social/Latin American and Caribbean Institute for Economic and Social Planning
ILV	Interactive Laser Vision
IMD	International Institute for Media and Development
IMMI	International Mass Media Institute
IMMRC	International Mass Media Research Centre
IMO	International Maritime Organization
IMPACT	Information Market Policy Actions
INA	Institut National de l'Audiovisuel/National Institute for Audiovisual
INA	International Newsreel and News Film Association
INAFEC	Institut Africain d'Education Cinématographique
ININCO	Instituto de Investigaciones de la Comunicación/Institute for Communication Studies
INMARSAT	International Maritime Satellite Organization
INPA	International Newspaper Promotion Association
INPADOC	International Patent Documentation Centre
INS	Information Network System
INSAT	Indian National Satellite
INSEM	Inter-Institutional System of Electronic Mail
INSIS	Inter-Institutional Data System for the Integration of Services
INTELSAT	International Telecommunications Satellite Organization
INTERCOM	Sociedade Brasileira de Estudos Interdisciplinares de Comunicação/Brazilian Association of Interdisciplinary Studies of Communication
INTUG	International Telecommunications Users Group
IOC	International Olympic Committee
IOJ	International Organization of Journalists/Organisation Internationale des Journalistes
IPA	International Publishers Association
IPAL	Instituto de Planificación para América Latina
IPDC	International Programme for the Development of Communication
IPI	International Press Institute/Institut International de la Presse
IPRA	International Public Relations Association
IPS	Inter-Press Service
IPTAR	Institut Penyiaran Tun Abdul Razak
IPTC	International Press Telecommunications Council
IRA	International Reading Association
IRTO	International Radio and Television Organisation/Organisation Internationale de Radiodiffusion et Télévision
IRTU	International Radio and Television University/Université Radiophonique et Televisuelle Internationale
ISBO	Islamic States Broadcasting Organisation
ISCO	International Soil Conservation Organization
ISDN	Integrated Services Digital Network
ISERP	Istituto di Studi e Ricerche sulla Pubblicità
ISFA	International Scientific Film Association
ISI	Institute of Scientific Information
ISIS	Women's International Information and Communication Service
ISO	International Organisation for Standardization
ITI	International Training Institute
ITT	International Telephone Telegraph Corporation
ITU	International Telecommunication Union
ITV	Independent Television
IUAA	International Union of Advertisers' Associations
IURC	International Union for Research of Communication
IWG	International Writers' Guild
IWTC	International Women's Tribune Centre
IZI	Internationales Zentralinstitut für das Jugend und Bildungsfernsehen
JUNAC	Junta del Acuerdo de Cartegena
JVC	Japan Victor Company
KAZIAG	Kazakhstan News Agency
KBS	Korean Broadcasting System
KfW	Kreditanstalt für Wiederaufbau
KRITAG	Kirghiziyan News Agency
LAN	Local Area Network
LATINFORM	Latvian News Agency
LF	Low Frequency
MAC	Multiplex Analogue Components
MCA	Movement for Cultural Awareness
MEDARABTEL	Middle East and Mediterranean Telecommunication Network
MEDIA	Measures for Encouraging the Development of the Audiovisual Industry
MF	Medium Frequency
MHS	Message Handling Services
MMDS	Multi-channel Multi-point Distribution Systems
MNSTI	International System of Scientific and Technological Information
MSA	Media Studies Association
MTA	Message Transfer Agent
MUSE	Multiple Sub-Nyquist Sampling Encoding
NAFTI	National Film and Television Institute
NAM	New Artists Movement
NANBA	North American National Broadcasters' Association
NASA	National Aeronautics and Space Agency
NATO	North Atlantic Treaty Organization
NBDP	Narrow-Band Direct-Printing
NET	European Standards in Telecommunications
NFCB	National Federation of Community Broadcasters
NGO	Non-Governmental Organization
NHK	Nippon Hoso Kyokai/Japan Broadcasting Corporation
NMT	Nordic Mobile Telephone
NOAA	National Oceanic and Atmospheric Administration
NORDICOM	Nordic Documentation Centre for Mass Communication Research
NOS	Nederlandse Omroep Stichting
NOVIB	Nederlandse Organisatie voor Internationale Samenwerking
NRK	Norsk Rikskringkasting
NSK	Nippon Shinbun Kyokai/Japan Newspaper Publishers' and Editors' Association
NTF	Nigeria Trust Fund
NTIA	National Telecommunications and Information Administration
NTSC	National Television System Committee
NTSR	Nordic Telecommunications Satellite Council
NTT	Nippon Telephone and Telegraph Public Corporation
NZBC	New Zealand Broadcasting Corporation
OANA	Organization of Asia-Pacific News Agencies
OAS	Organization of American States
OAU	Organization of African Unity
OBOP	Osrodek Badania Opinii Publicznej/Centre for Public Opinion
OCIC	Organisation Catholique Internationale du Cinéma et de l'Audiovisuel/ International Catholic Organization for Cinema and Audiovisual
OCR	Optical Character Recognition
ODA	Official Development Assistance

ODA	Overseas Development Agency
OECD	Organisation for Economic Co-operation and Development/Organisation de Coopération et de Développement Economiques
OIC	Organisation of the Islamic Conference
OIT	IberoAmerican Organization of Television
OPEC	Organization of the Petroleum Exporting Countries
OUZIRG	Uzbekistan News Agency
OVIDE	Videotext of the European Parliament
PACBROAD	Pacific Broadcasting Development Project
PACJOURN	Pacific Journalism Training and Development of the Printed Media Project
PADIS	Pan African Documentation and Information System
PAFET	Proyecto Andino de Fabricación de Equipos de Telecomunicaciones
PANA	Pan African News Agency
PANAFTEL	Pan-African Telecommunications Network
PATU	Pan-African Telecommunications Union
PAWF	Pacific and Asian Women's Forum
PC	Personal Computer
PCM	Pulse Code Modulation
PDT	Programme for Development and Training
PEMCI	Programa de Estudios y Capacitación de la Mujer Campesina e Indigena
PFA	Press Foundation of Asia
PGI	Programme Général d'Information/ General Information Programme
PIBA	Pacific Islands Broadcasting Association
PINA	Pacific Islands News Association
PIP	Picture in Picture
PREDE	Regional Programme for Educational Development
PREST	Policy for Scientific Research Technology
PS	Personal System
PSTN	Postal Systems Telephony Network
PTC	Pacific Telecommunications Council
PTI	Press Trust of India
PTT	Post Telephone and Telegraph
RACE	Research in Advanced Communications for Europe
RADIOBRAS	Radio Brasil
RAI	Radio Audizioni Italiana
RASCOM	Regional African Satellite Communication System
RATAU	Ukrainian News Agency
RC	Radio Canada
RCN	Radio Cadena Nacional
RDS	Radio Data System
REI	Reseau Européen d'Informatique/ European Data Network
RES	Reuters Economic Service
RFI	Radio France Internationale
RFO	Radio France Outremer
RIDC	Ryerson International Development Center
RNA	Reuters North America
RTBF	Radio Télévision Belge de la Communauté Française
RTE	Radio Telefis Eireann
RTL	Radio Télévision Luxembourgeoise
RTP	Radio Televisão Portuguesa
RWS	Reuters World Service
SADCC	Southern African Development Co-ordination Conference
SAR	Search and Rescue
SAREC	Swedish Agency for Research Co-operation with Developing Countries
SATCC	Southern African Transport and Communications Commission
SATEL	Société Africaine des Techniques Electroniques
SAVE	Stichting Audiovisuele Vorming
SEANAD	Southern and East African News Agency Development
SEEPZ	Santacruz Electronic Exporting Processing Zone
SELA	Sistema Económico Latinoamericano
SES	Société Européenne des Satellites
SFB	Sender Freies Berlin
SHIHATA	Tanzanian News Agency
SIDA	Swedish International Development Authority
SIETCOM	Information System for the Evaluation of Communication Technologies
SITA	Société Internationale de Télécommunications Aéronautiques
SITE	Satellite Instructional Television Experiment
SLBC	Sri Lanka Broadcasting Corporation
SLR	Single Lens Reflex (Camera)
SMID	Association of Media Researchers in Denmark
SPC	South Pacific Commission
SPEC	South Pacific Bureau for Economic Co-operation
SPF	South Pacific Forum
SSB	Single Side Bands
STAR	Special Telecommunications Action for Regional Development
SW	Short Wave
SWAPO	South West Africa People's Organization
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TADJIKTA	Tadzikistan News Agency
TASS	Telegraphnoye Agentstvo Sovyetskovo Soyuza/Telegraph Agency of the Soviet Union
TCDC	Technical Co-operation among Developing Countries
TDC	Technology Development Council
TDF	Télédiffusion de France
TDF	Transborder Data Flow
TELEBRAS	Telecomunicaçoes Brasileiras
TELECOM	Empresa Nacional de Telecomunicaciones (Colombia)
TEMIC	Telecommunications Executive Management Institute of Canada
TICOM	Taller de Investigación en Comunicación Masiva/Centre for Studies in Mass Communication
TOM	Territoires d'Outre-Mer
TURKMENINFORM	Turkmenistan News Agency
TVE	Televisión Española
UA	User Agent
UAJ	Union of African Journalists/Union des Journalistes Africains
UAP	Universal Availability of Publications
UBCIM	Universal Bibliographic Control International MARC
UCLAP	Unión Católica Latinoamericana de la Prensa/Catholic Latin American Press Union
UDC	Union for Democratic Communication
UDC	Universal Decimal Classification
UDT	Universal Dataflow and Telecommunications Programme
UER	Centre Universitaire d'Enseignement du Journalisme
UFITA	Archiv für Urheber-, Film, Funk- und Theaterrecht
UFOLEIS	Union Française des Oeuvres Laïques d'Education par l'Image et par le Son
UG	University of Guyana
UIE	Union Internationale des Editeurs
UIJPLF	Union Internationale des Journalistes et de la Presse de Langue Française
UISC	Union Internationale des Sciences de la Communication/International Union of Communication Sciences
UK	United Kingdom
ULCRA	Unión Latinoamericana y Caribeña de Radiodifusión
UN	United Nations
UNDA	International Catholic Association for Radio, Television and Audiovisuals/ Association Catholique Internationale pour la Radio, la Télévision et l'Audiovisuelle
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Fund for Population Activities

UNICA	Union Internationale du Cinema Non-Professionnel/International Union of Non-Professional Cinema
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNISIST	Intergovernmental Programme for Co-operation in the Field of Scientific and Technological Information
UPI	United Press International
UPIMC	University of the Philippines Institute of Mass Communication
UPU	Universal Postal Union
URTNA	Union des Radiodiffusions et Télévisions Nationales d'Afrique/Union of National Radio and Television Organizations of Africa
USA	United States of America
USAID	United States Agency for International Development
USIA	United States Information Agency
USP	University of the South Pacific
USSR	Union of Soviet Socialist Republics
USTTI	United States Telecommunications Training Institute
VBI	Vertical Blanking Interval
VCR	Videocassette Recorder
VHF	Very High Frequency
VLS	Very Large Scale
VOA	Voice of America
VOK	Voice of Kenya
VSAT	Very Small Aperture Station
WACC	World Association for Christian Communication
WADB	West African Development Bank
WANAD	West African News Agency Development
WAPOR	World Association for Public Opinion Research
WDR	Westdeutscher Rundfunk
WFA	World Federation of Advertisers/ Fédération Mondiale des Annonceurs
WFS	Women's Feature Service
WFTVN	Women's Film, Television and Video Network
WHO	World Health Organization
WICCE	Women's International Cross-Cultural Exchange
WIDE	Women in Development Europe
WIF	Worldview International Foundation
WINAP	Women's Information Network for Asia and the Pacific
WINGS	Women's International News Gathering Service
WIPO	World Intellectual Property Organization/ Organisation Mondiale de la Propriété Intellectuelle
WORM	Write Once Read Many
WPFC	World Press Freedom Committee
WPI	World Press Institute
WSET	Writers and Scholars Educational Trust