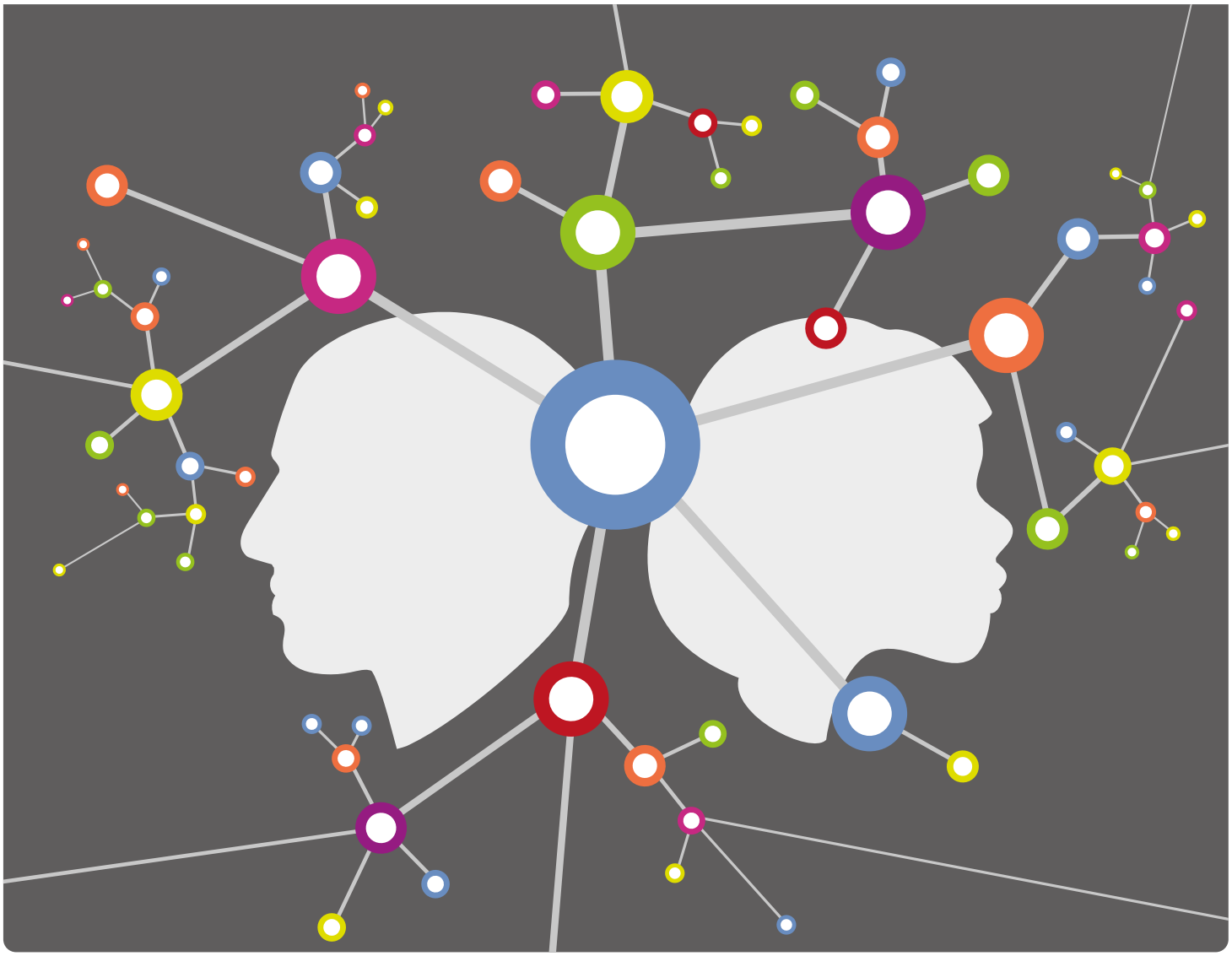
Knowledge Societies Policy Library



United Nations
Educational, Scientific and
Cultural Organization

IFAP
Information for All
Programme

UNITED NATIONS
UNIVERSITY

UNU-EGOV
Operating Unit on Policy-Driven
Electronic Governance

STATUS: Version 1.0

DATE: 27 May 2016

PARTNERS

- United Nations Educational, Scientific and Cultural Organization
  Information for All Programme (UNESCO/IFAP)
- United Nations University
  Operating Unit on Policy-Driven Electronic Governance (UNU-EGOV)

CONTRIBUTORS

- Rehema BAGUMA
- João Álvaro CARVALHO
- Guillermina CLEDOU
- Elsa ESTEVEZ
- Susana FINQUELIEVICH
- Tomasz JANOWSKI
- Nuno Vasco LOPES
- Jeremy MILLARD

COORDINATION

- Tomasz JANOWSKI, Head, UNU-EGOV, janowski@unu.edu
- Paul HECTOR, Programme Specialist, UNESCO, p.hector@unesco.org

Foreword I

UNESCO, recognizing the transformative role played by information and knowledge across all spheres of human endeavor, has been promoting its vision of inclusive Knowledge Societies. Facilitated by information and communication technologies (ICTs), we see information and the sharing of knowledge, catalyzing changes across societal, economic and political landscapes. In this context, universal access to information and knowledge becomes crucial for social cohesion, sustainable economic development, intercultural dialogue and peace. Accordingly, UNESCO through its intergovernmental Information for All Programme (IFAP) and its Knowledge Societies Division, has continued to draw attention to the importance of the concept of knowledge societies and the need for related competencies and policies in today's globalized and connected world.

Since 2001, IFAP has been playing a leading role in the international policy landscape. IFAP provides a platform for international policy dialogue, cooperation and the development of guidelines for action in the area of access to information and knowledge. Through its capacity-building efforts and mobilization of resources, the IFAP network has been supporting Member States to develop and implement national policy and strategy frameworks in its six priority areas of information accessibility, information for development, information ethics, information literacy, information preservation and multilingualism in cyberspace. Following the adoption of the 2030 sustainable development goals, it was therefore only natural that IFAP would seek to develop linkages between UNESCO's concept of knowledge societies and the most current, internationally agreed human development framework. The policy environment in which we operate is an evolving one, so dynamic processes for ongoing policy-crafting that can leverage global lessons and experiences in a timely manner are essential. The newly published Knowledge Societies Policy Handbook and its associated online platform of tools, policy resources and a diverse community of practice represent our latest response to the emerging challenges and opportunities.

This effort would not have been possible without the collective and ongoing support of numerous institutional and individual partners whose contributions have been acknowledge identified in this publication. We are particularly grateful to our partner the United Nations University's Special Operating Unit for Policy-Driven Electronic Governance (UNU-EGOV), for leading the fruitful research collaboration which has undergirded this effort. We are also thankful for the generous support provided by the Special Presidential Uruguayan Agency for Electronic Governance, Information and Knowledge Society (AGESIC) for co-organizing the international Expert Group Meeting in Montevideo and hosting ICEGOV2016 which served to validate this policy resource. We look forward to strengthening these partnerships and building new ones as we continue to build inclusive knowledge societies for peace and sustainable development.

Getachew Engida
Deputy Director-General
UNESCO

Foreword II

The National Information Society Policy Template which IFAP launched in 2009 was an important contribution to policy-making efforts at the international, regional and national level. In particular, this tool has been instrumental in supporting the development of national capacities to design and manage policy processes in a number of East African and South Asian countries. This training was delivered through a series of Executive Trainings in Government Information Leadership conducted in partnership with the United Nations University's Special Operating Unit for Policy-Driven Electronic Governance (UNU-EGOV). These capacity-building exercises conducted through week-long regional trainings have also served to build networks for cooperation and experience sharing between participating countries and with IFAP's and UNU-EGOV's networks.

The 2030 Sustainable Development Agenda, with its attention to the 5Ps - People, Planet, Prosperity, Peace and Partnership – offers new possibilities for more holistic and contextualized approaches to development. The new approaches as well as the demands of a framework with 17 goals and 169 targets has also highlighted an urgent need for tools to support policy-makers in more effectively aligning their actions and efforts to this new global focus of action.

To respond to this pressing need, IFAP and UNU-EGOV have again joined forces and leveraged their networks to develop the Knowledge Societies Policy Handbook. The Handbook builds on existing knowledge and practices to provide policy-makers with an actionable conceptual framework for understanding and assessing the relationships between the SDGs and Knowledge Societies. By identifying gaps as well as strengths, the Handbook will enable countries to more effectively deploy resources and implement appropriate policy measures.

In line with the perspective that policy-crafting is a continuous, evolving and dynamic process, the Handbook is supported by an expandable online case library as well as an online global community of researchers and practitioners. Through their online interactions - sharing of experiences and research, collaborative problem solving and co-creation, mapping of emerging trends amongst others – this community of practice will provide enhancements to the methodologies, tools and resources that support the Handbook.

We are truly grateful to our longstanding partner UNU-EGOV, for their ongoing support, and to the Uruguayan Agency for Electronic Governance, Information and Knowledge Society (AGESIC) for their role in the validation of the Handbook. We have been touched by the various institutions and individuals who have expressed support for this initiative and are appreciative of the commitments expressed by various Member States, notably Brazil and Colombia to provide direct and in-kind support to this initiative. IFAP invites like-minded governments, institutions and individuals to support this global initiative.

Chafica Haddad

Deputy Permanent Delegate of Grenada to UNESCO and Chair of the Intergovernmental Council of the Information for All Programme

Acknowledgements

The current report belongs to the set of four instruments developed by the United Nations University Operating Unit on Policy-Driven Electronic Governance (UNU-EGOV) in collaboration with and co-funded by the UNESCO Information for All Programme (UNESCO/IFAP), to support the UNESCO Member States' policymaking efforts to guide and coordinate the development of nationally- or locally-appropriated Knowledge Societies.

The instruments comprise:

1. Knowledge Societies Policy Handbook, as set of conceptual and methodological frameworks, guidelines and know-how concerning the development of public policies for Knowledge Societies (UNESCO/IFAP and UNU-EGOV, 2016b);

2. Knowledge Societies Policy Library, a collection of relevant research literature, policies, indicators, case studies and other resources relevant to the development of public policies for Knowledge Societies (UNESCO/IFAP and UNU-EGOV, 2016c);

3. Knowledge Societies Policy Platform, an electronic platform that hosts the content of the Handbook and Library and facilitates the updates and additions to this content by community members through digital devices and channels (UNESCO/IFAP and UNU-EGOV, 2016d); and

4. Knowledge Societies Policy Community, a community of researchers, academics, policymakers, government officials and other stakeholders who, as part of their contribution to planning, developing, implementing and evaluating public policies for Knowledge Societies in the national or local context, are willing to use the Handbook, Library and Platform, and share the outcomes and experience for others to learn (UNESCO/IFAP and UNU-EGOV, 2016a).

The origin of the Knowledge Societies Policy Handbook and the accompanying Knowledge Societies Policy Library, Platform and Community dates back to the 2009 publication by UNESCO/IFAP of the National Information Society Policy Template (Template), and the organization of two editions of the Executive Training on Foundations of Government Information Leadership: 1) in Kampala, Uganda, in July 2013, co-organized by the UNESCO Regional Bureau for East Africa and the Center for Electronic Governance at the United Nations University International Institute for Software Technology (UNU-IIST-EGOV, the direct predecessor of UNU-EGOV), and 2) in Yangon, Myanmar in November 2013, co-organized by the UNESCO Regional Bureau for Asia and the Pacific and UNU-IIST-EGOV. Both trainings hosted the presentation of the Template and its application by the audience of policymakers and government officials to local circumstances, and a discussion between UNESCO and UNU-IIST-EGOV on the idea of updating and digitizing the template. The discussion continued through the session "Building Knowledge Societies in Countries in Transition – Lessons from the Mekong Region" co-organized by UNESCO and UNU-EGOV at the 8th International Conference on Theory and Practice of Electronic Governance in Guimarães, Portugal in October 2014 (ICEGOV2014).

Eventually, the discussion led to the elaboration of a project with the aim of developing the four instruments, and signing of an agreement between UNESCO and UNU-EGOV in September 2015 to enable its implementation. The initial version of the Handbook, Library and Platform, developed under this project, were presented, discussed and commented by the Expert Group Meeting (EGM) on "Knowledge Societies and the 2030 Sustainable Development Agenda" that took place in Montevideo, Uruguay on 29 February 2016, co-organized by UNESCO/IFAP, UNU-EGOV and the Uruguayan Agency for Electronic Governance and the Information Society (AGESIC). The EGM was attended by 36 experts from government, academia, NGOs and international organizations from 15 countries. The outcomes were presented during the UNESCO/IFAP invited session at the 9th International Conference on Theory and Practice of Electronic Governance in Montevideo, Uruguay on 1 March 2016 (ICEGOV2016), and during the Argentine Digital Transformation Forum in Buenos Aires, Argentina on 7 March 2016. Both sessions also called for expressions of interest for joining the Community. The current version of the Handbook was obtained by addressing the comments received during the three events.

We would like to thank UNESCO and particularly its IFAP programme for the opportunity to contribute to this important project, and for making available the necessary institutional support and project resources. We wish to particularly thank Mr. Getachew Engida, Deputy Director-General of UNESCO, Ms. Chafica Haddad, Chair of the IFAP Council and Deputy Permanent Delegate of Grenada, Mr. Indrajit Banerjee, Director of UNESCO's Knowledge Societies Division and Secretary of IFAP, Mr. Boyan Radoykov, Chief of Section, Universal Access and Preservation, and Mr. Guilherme Canela, UNESCO Adviser in Communication and Information for MERCOSUR for institutional support. We are also grateful to Mr. Jaco du Toit, Adviser for Communication and Information at the UNESCO Regional Office for Eastern Africa and Ms. Rosa Gonzalez, former Adviser for Communication and Information at the UNESCO Regional Office for Asia-Pacific, for openness and collaboration that led to the development of the current project. We also wish to express our sincere thanks Mr. John Bertot, Associate Provost and Professor at the University of Maryland, for insightful discussions and careful reviews of earlier versions of the Handbook and Library. We also wish to recognize Ms. Elsa Estevez, Senior Academic Programme Officer at UNU-EGOV, for her enthusiastic and tireless support to the project and to the joint development of collaboration between UNESCO/IFAP and UNU-EGOV over the years. Last but not least, we are most grateful to Morten Meyerhoff Nielsen, Researcher and PhD student at the Tallinn University of Technology, Ragnar Nurkse School of Innovation and Governance, and UNU-EGOV Academic Fellow; Kenneth Bagarukayo, Commissioner, Information Management, Ministry of ICT, Uganda and joint UNESCO-IFAP and UNU-EGOV Government Fellow; and Jun Cheng, Secretary General of the Professional Technical Committee, Beijing Information Resources Management Center, China and joint UNESCO-IFAP and UNU-EGOV Government Fellow; for useful comments and lessons learn from the adaptation of both documents.

We also wish to thank the members of the EGM in Montevideo for their participation and comments, namely: Jorge Abin (AGESIC, Uruguay), Johanna Ekua Awotwi (Centre on e-Governance, Ghana), Alexandre Barbosa (CETIC.br, Brazil), Sebastián Bellagamba (ISOC, Uruguay), John Carlo Bertot (University of Maryland, USA), Miguel Brechner (Ceibal Center, Uruguay), Guilherme Canela (UNESCO, Brazil), João Álvaro Carvalho (University of Minho, Portugal), Wojciech Cellary (Poznań University of Economics, Poland), José Clastornik (AGESIC, Uruguay), Armando De Giusti (University of La Plata, Argentina), Alejandra Erramuspe (AGESIC, Uruguay), Elsa Estevez (UNU-EGOV, Argentina), Susana Finquelievich (CONICET, Argentina), Pablo Garcia (ASIET, Uruguay), Chafica Haddad (UNESCO/IFAP, Lebanon), Paul Hector (UNESCO, St. Kitts & Nevis), Fernando Hernandez (URSEC, Uruguay), Jung Juan (ASIET, Uruguay), Maria Isabel Mejia Jaramillo (MINTIC, Colombia), Jeremy Millard (Brunel University, UK), Gianluca Misuraca (JRC-IPTS, Spain), Morten Meyerhoff Nielsen (Tallinn University of Technology, Denmark), Adegboyega Ojo (INSIGHT Centre for Data Analytics, Ireland), Carlos Palotti (Ministerio de Producción de la Nación, Argentina), Theresa Pardo (CTG, USA), Diana Parra (AGESIC, Uruguay), Peter Parycek (Donau-Universität Krems, Austria), Manuela Ribeiro (CETIC.br, Brazil), Ana Laura Rivoir (ObservaTIC, Uruguay), Andrés Sastre (ASIET, Uruguay), Maria Simon (UdelaR, Uruguay), António Tavares (University of Minho, Portugal), Louise Thomasen (coThomasen, Denmark), and Linda Veiga (University of Minho, Portugal). Among them, special thanks go to the chairs and moderators of the four discussion streams taking place at the EGM: John Carlo Bertot, João Álvaro Carvalho, Elsa Estevez, Susana Finquelievich, Paul Hector, Jeremy Millard and António Tavares.

The contribution to the development of the four instruments is as follows. Concerning the Handbook, Chapters 1 (Introduction) and 8 (Conclusions) were authored by Elsa Estevez; Chapters 2 (Background), 3 (Foundations) and 6 (Adaptation and Transfer) were authored by Susana Finquelievich; Chapters 4 (Conceptual Framework) and 5 (Process) were authored by Jeremy Millard; and Chapter 7 (Platform and Community) was authored by João Álvaro Carvalho. Concerning the Library, Chapter 1 (Glossary), 2 (Policies), 4 (Tools), 5 (Indicators) and 6 (Case Studies) were developed by Rehema Baguma, and Chapter 3 (Publications) was developed by Nuno Vasco Lopes. Concerning the Platform, software development was performed by Guillermina Cledou, with inputs from João Álvaro Carvalho, and content updates were performed by Rehema Baguma, Guillermina Cledou and Nuno Vasco Lopes. The Community was initiated by Elsa Estevez, Paul Hector and Tomasz Janowski. Visual design of the covers, design of the reports and design of the platform were conducted by Formato Verde. Content and technical support were provided by Mário Peixoto and José Luís Faria respectively. Finally, the coordination, as well as methodological and editorial functions, were performed by Tomasz Janowski.

Guimarães and Paris, May 2016

Tomasz Janowski, Head, UNU-EGOV
Paul Hector, Programme Specialist, UNESCO

Table of Contents

Foreword I	iv
Foreword II	v
Acknowledgements	vi
Table of Contents	viii
1 .Glossary	1
2. Policies	6
3. Publications	38
4. Tools	120
5. Indicators	144
6. Case Studies	154
6.1. Case Study 1 – Finland Knowledge Society Strategy 2007-2015	156
6.2. Case Study 2 – Estonia Research, Development and Innovation Strategy 2007-2013	159
6.3. Case Study 3 – Estonia Research, Development and Innovation Strategy 2014-2020	162
6.4. Case Study 4 – UK Information Economy Strategy 2003-2007	165
6.5. Case Study 5– Multimedia Super Corridor Malaysia 2004-2010	168
6.6. Case Study 6 – Egypt Information Society Vision 2004-2006	172
6.7. Case Study 7 – Rwanda ICT Strategic and Action Plan 2011– 2015	174
6.8. Case Study 8 – Rwanda ICT Master Plan 2015-2020	177
6.9. Case Study 9 – The Kenya National ICT Master Plan 2014-2018	180
6.10. Case Study 10 – UK Digital Skills Strategy 2014	183
6.11. Case Study 11 – Ireland Broadband Intervention Strategy 2012, 2015	186
6.12. Case Study 12 – Policy on ICT in Education Malaysia 2010	189
6.13. Case Study 13 – India Policy on ICT in School Education 2012	193
6.14. Case Study 14 – Mauritius e-Government Strategy 2013-2017	196
6.15. Case Study 15 – Egypt Government Cloud Strategy 2015	198
6.16. Case Study 16 – South Africa's Broadband Policy 2013	200
6.17. Case Study 17 – Uganda Rural Communication Development Fund Policy 2010-2015	203
References	207

1.

Glossary

Big Data

A broad term for data sets so large or complex that traditional data processing applications are inadequate. Challenges associated with big data include; analysis, capture, data curation, search, sharing, storage, transfer, visualization, querying and information privacy (Wikipedia, 2016a).

Communication Strategy

A document that expresses the goals and methods of an organization's outreach activities, including what an organization wishes to share with the public and whom the organization is trying to reach. Generally presented as an internal document, a communications strategy should serve as a guide for any media and public relations activities in which the organization is engaged (wikiHow, 2016).

Converging Technologies

Converging technology refers to taking two or more technological products that were previously used separately for different tasks, and merging them to make one, ultimate product.

Developing Country

A developing country, also called a less developed country or underdeveloped country, is a nation with an underdeveloped industrial base, and a low Human Development Index (HDI) relative to other countries (Wikipedia, 2016c).

Developed Country

A country that has a highly developed economy and advanced technological infrastructure relative to other less industrialized nations. Most commonly, the criteria for evaluating the degree of economic development are gross domestic product (GDP), gross national product (GNP), the per capita income, level of industrialization, amount of widespread infrastructure and general standard of living (Wikipedia, 2016b).

Digital Citizen

A digital citizen is a person who uses the Internet regularly and effectively. In qualifying as a digital citizen, a person generally must have extensive skills and knowledge in using the Internet through computers, mobile phones, and web-ready devices to interact with private and public organizations (Karen Mossberger, 2007).

Digital Divide

A term that refers to the gap between demographics and regions that have access to modern information and communications technology, and those that do not or have restricted access. This technology can include the telephone, television, personal computers and the Internet.

Digital Preservation

Digital preservation is a formal endeavor to ensure that digital information of continuing value remains accessible and usable.

E-Commerce

The online transaction of business, featuring linked computer systems of the vendor, host, and buyer. Electronic transactions involve the transfer of ownership or rights to use a good or service (Laudon, 2009).

E-Governance

The public sector's use of information and communication technologies (ICT) with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective (UNESCO, 2011a).

E-Learning

Learning facilitated and supported through the use of information and communications technology (ICT). It can cover a spectrum of activities from the use of technology to support learning as part of a 'blended' approach (a combination of traditional and e-learning approaches), to learning that is delivered entirely online. Whatever the technology, however, learning is the vital element (Media, 2016).

Green IT

A set of practical measures designed to ensure that Information Technology is developed, delivered and used in a way that is environmentally friendly, sustainable and energy efficient (IT, 2016).

ICT

Information and communications technology (ICT) is an umbrella term that encompasses many technologies and devices: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing, e-mails, streaming – digital distribution of multimedia through a network of computers, social media, e-learning platforms, and many others.

Incubation Centers
A business support process that accelerates the successful development of start-up and fledgling companies by providing entrepreneurs with an array of targeted resources and services. A business incubator's main goal is to produce successful firms that will leave the program financially viable and freestanding. Incubator graduates have the potential to create jobs, revitalize neighborhoods, commercialize new technologies, and strengthen local and national economies (National Business Incubation Association).

Information
Facts provided or learned about something or someone. Its common synonyms are details, particulars, facts, figures, statistics, data, etc.

Information Society
A society where the creation, distribution, use, integration and manipulation of information with the support of information and communication technologies is a significant economic, political, and cultural activity (Whatls.com, 2016).

Innovation
A new idea which, when implemented, leads to a more effective device or process. Innovation can be viewed as the application of better solutions that meet new requirements, unarticulated needs, or existing market needs.

Intellectual Property Rights
Creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce (WIPO, 2016).

Internet
The global system of interconnected computer networks that use the Internet protocol suite (TCP/IP) to link billions of devices worldwide. It is a network of networks that consists of millions of private, public, academic, business, and government networks of local to global scope, linked by a broad array of electronic, wireless, and optical networking technologies. The Internet carries an extensive range of information resources and services such as the inter-linked hypertext documents and applications of the World Wide Web (WWW), electronic mail, telephony, and peer-to-peer networks for file sharing (Wikipedia, 2016e).

ISPs
Short for Internet Service Provider, it refers to a company that provides Internet services, including personal and business access to the Internet.

Knowledge
A familiarity, awareness or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning (Wikipedia, 2016h).

Knowledge-Based Economy

An economy which is "directly based on the production, distribution and use of knowledge and information" (OECD 1996). The Asia-Pacific Economic Co-operation (APEC) Economic Committee extended this idea to state that in a knowledge based economy, 'the production, distribution and use of knowledge is the main driver of growth, wealth creation and employment across all industries' (APEC & Committee, 2000)as a consequence, have taken steps to ensure that APEC economies build and share expertise in the knowledge sector. In order to address this goal, the APEC Economic Committee initiated the \u2018Towards knowledge-based economies in APEC\u2019 project (KBE project)

Knowledge Society

A society based on the creation, dissemination and utilization of information and knowledge. It is a society with an economy in which knowledge is acquired, created, disseminated and applied to enhance economic and social development (GESCI, 2012).

Logical Framework

A project design methodology which helps to clarify objectives of any project, program, or system. It aids in the identification of the expected causal links—the "programme logic"—in the following results chain: inputs, processes, outputs (including coverage or "reach" across beneficiary groups), outcomes, and impact. It leads to the identification of performance indicators at each stage in this chain, as well as risks which might impede the attainment of the objectives. The LogFrame is also a vehicle for engaging partners in clarifying objectives and designing activities. During implementation of a project, programme or system, the logical framework (LogFrame) serves as a useful tool to review progress and take corrective action (UNESCO, 2011b).

Open Data

Data that anyone can access, use or share. When big companies or governments release non-personal data, it enables small businesses, citizens and researchers to develop resources which make crucial improvements to their communities (Institute, 2016)

Public Policies

The principled guide to action taken by the administrative executive branches of the state with regard to a class of issues in a manner consistent with law and institutional customs. Public Policies are the execution framework under which government and non-government organizations work to resolve or rectify the social, economic or political issues of a society, or to attain new goals (Wikipedia, 2016l).

Quality Assurance

The maintenance of a desired level of quality in a service or product, especially by means of attention to every stage of the process of delivery or production (Dictionaries, 2016).

Risk Assessment

Identification, assessment, and prioritization of risks (defined in ISO 31000 as the effect of uncertainty on objectives) followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities.

Stakeholders

Those who may be affected by or have an effect on an effort. They may also include people who have a strong interest in the effort for academic, philosophical, or political reasons, even though they and their families, friends, and associates are not directly affected by it.

Sustainable Development

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (IISD, 2016).

Telecentre

A public place where people can access computers, the Internet, and other digital technologies that enable them to gather information, create, learn, and communicate with others while they develop essential digital skills (Wikipedia). According to Harris et al., telecentres are community resources that offer access to information and communication technologies for inducing development among marginalized population with little hope of otherwise participating in benefits of the information revolution that the developing world is now enjoying.

Vision

According to Burt Nanus, a distinguished visionary leadership theorist, a vision is a realistic, credible, attractive future for an organization. A vision must be realistic, so that it is possible; it must be credible so that it is attainable and it must be attractive so that people will work with its leader to help meet this future objective or goal (Business Dictionary, 2016).

WSIS

The World Summit on the Information Society (WSIS) was a pair of United Nations-sponsored conferences about information, communication and, in broad terms, the information society that took place in 2003 in Geneva and in 2005 in Tunis. One of its chief aims was to bridge the so-called global digital divide separating rich countries from poor countries by spreading access to the Internet in the developing world (Wikipedia, 2016o).

2.

Policies

The Merriam Webster dictionary defines a policy as a deliberate system of principles to guide decisions and achieve rational outcomes. It is a statement of intent, and is implemented as a procedure or protocol. In this handbook, a Policy refers to a deliberate system of principles to guide decision making and achievement of rational outcomes in the development of Knowledge Societies. This appendix summarizes key policies that have/are guiding development of knowledge societies (http://www.merriam-webster.com/).

TITLE
A Renewing, Human-Centric and Competitive Finland: A National Knowledge Society Strategy 2007-2015

COUNTRY
Finland

ORGANIZATION
Information Society Programme, Prime Minister's Office

YEAR
2007-2015

SUMMARY
The 2007-2015 Finland National Knowledge Society Strategy was developed to support the transformation of Finland into an internationally attractive, human-centric and competitive knowledge and service society. Its vision was "Good Life in the Information Society". This was based on the understanding that developing knowledge, structures and business environments will make a good life possible for individuals and enterprises, even under conditions of increasing competition. The competitive factors of a transformed Finland were envisaged to be: an open society, a good and safe living environment, the opportunity to flexibly combine work, family and leisure time, as well as the continuous development of knowledge. The strategy covered guidelines and measures aimed at reforming the service sector, improving quality of life, and developing sustainable competitiveness in enterprises. These themes were approached from various angles namely; development of knowledge, application of existing and new information, creativity and innovation, structural and functional reforms, networking and the utilization and development of technology.

REFERENCE
(Finnish Prime Minister's Office, 2006)

URL
http://www.umic.pt/images/stories/publicacoes1/Strategia_englanti_181006final.pdf

TITLE
Knowledge-based Estonia: Estonian Research and Development and Innovation (RDI) Strategy 2007-2013

COUNTRY
Estonia

ORGANISATION
Ministry of Education and Research in cooperation with the Ministry of Economic Affairs and Communications and other Ministries.

YEAR
2007-2013

SUMMARY
The Knowledge-based Estonia: Estonian RD&I Strategy 2007–2013 focused on sustainable development of the society by means of research and development, and innovation. It contributed to achievement of the goals of Estonia's long-term development strategy "Sustainable Estonia 21" as well as the Lisbon Strategy (the strategy for growth and jobs). It was the follow-up to the Estonian RDI Strategy of 2002–2006 "Knowledge-based Estonia. The 2007-2013 RDI strategy was accompanied by an implementation plan, which included activities, responsible parties and finances necessary for implementing the strategy. It was succeeded by the Estonian RDI Strategy 2014-2020 "Knowledge-based Estonia".

REFERENCE
(Estonian Ministry of Education and Research, 2007)

URL
http://cs.ioc.ee/excs/policy/teadm-pohine-eesti2-en.pdf

TITLE
Estonian Research and Development and Innovation Strategy 2014-2020 “Knowledge-based Estonia”

COUNTRY
Estonia

ORGANISATION
Ministry of Education and Research in cooperation with the Ministry of Economic Affairs and Communications and other Ministries.

YEAR
2014-2020

SUMMARY
This is the third Estonian RDI strategy. It takes into account the previous period’s experiences, the lessons learned and the recommendations made by top experts, the obligations arising from the constitution and other legislation, as well as future trends. The 2014-2020 RDI strategy is closely linked to the Estonian Lifelong Learning Strategy 2014-2020, Estonian Entrepreneurship Growth Strategy 2014-2020 and other related strategies. Although Estonia has been successful in the implementation of its two previous RDI strategies, there are still many opportunities for further development. The achieved strengths must be preserved and the weaknesses reduced.

REFERENCE
(Estonian Ministry of Education and Research, 2014)

URL
https://www.hm.ee/sites/default/files/estonian_rdi_strategy_2014-2020.pdf

TITLE
Information Economy Strategy for UK

COUNTRY
UK

ORGANISATION
Ministry for Universities and Science and Ministry for Culture, Communications and Creative Industries.

YEAR
2003-2007

SUMMARY
This Strategy, developed in partnership by Government, industry and academia, sets out a road map to help the UK accelerate in the global race, focusing on its strengths. This is based on the realisation that: without long term action and planning to address skills shortages, organisations will struggle to recruit the right staff; without the right infrastructure, both physical and virtual, businesses will struggle to develop; without good cyber security, business and consumers will not have the confidence to use new technologies; without action to address market failures, the information economy could be stifled by unnecessary barriers to growth.

REFERENCE
(Department for Business, 2013)

URL
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/206944/13-901-information-economy-strategy.pdf

TITLE
The Information Economy Council- Digital Skills Strategy for UK 2014

COUNTRY
UK

ORGANISATION
Information Economy Council Skills Working Group

YEAR
2014

SUMMARY
The Information Economy Strategy of June 2013 highlighted the fact that a lack of sufficiently skilled people is one of the biggest barriers to UK leadership in the global information economy. To reap the economic and social benefits of the digital economy, the UK needs a strong flow of future talent, a skilled workforce and a digitally literate population. The strategy set out the need for people who can use applications and apply technology as well as people who can invent and develop the technology and applications of the future. Taking forward the skills actions in the Information Economy Strategy, this Digital Skills Strategy is focused on accelerating the growth of the digital economy by inspiring young people about technology, enabling talented people from all backgrounds to get into technology careers, and helping companies develop the technology skills they need for the future.

REFERENCE
(British Information Economy Council Skills Working Group, 2014)

URL
https://www.thetechpartnership.com/globalassets/pdfs/research-2014/informationeconomydigitalskillsstrategy_oct14.pdf

TITLE
Ireland's Broadband Intervention Strategy

COUNTRY
Ireland

ORGANISATION
Minister for Communications, Energy and Natural Resources

YEAR
2012 and updated in 2015

SUMMARY
The National Broad Band Project (NBP) is a Government policy initiative that aims to deliver high-speed broadband to every citizen and business in Ireland. This is being achieved through a combination of accelerated commercial investment by telecoms operators, and a proposed State intervention to provide high-speed broadband to those parts of the country where there is no certainty that the commercial sector will invest. This strategy articulates a series of detailed Government policy objectives in respect of the proposed State intervention. Specifically, it sets out the key elements of the intervention - what services are required and how they will be delivered by the successful bidder(s). The NBP further identifies the means by which the Government will deliver its commitment to provide high-speed broadband to all parts of Ireland. Its vision is high speed broad band for all which is informed by the fact that in Ireland the digital economy represents 5% of GDP and is anticipated to be 10% of GDP by 2020. It employs almost 100,000 people directly and indirectly. The objectives of the strategy include: deliver the intervention as quickly as possible to ensure a national high speed broadband network for Ireland; every home and business to have access to high speed broadband with a choice of service providers; ensure that the network can meet current and future demand; maximise re-use of existing infrastructure; incentivize additional commercial investment; and stimulate growth and retention in jobs while enabling e-farming, e-health, trading online, e-education, tourism, savings for consumers.

REFERENCE
(Ireland's Minister for Communications, 2015)

URL
http://www.dcenr.gov.ie/communications/Lists/Publications%20Documents/Updated%20Strategy%20December%202015.pdf

TITLE
Building Digital Bridges: Egypt's Vision of the Information Society

COUNTRY
Egypt

ORGANISATION
Ministry of Communication & Information Technology

YEAR
2004-2006

SUMMARY
The policy outlines Egypt's vision of building the Information Society and bridging the digital divide together with a closer look at the country's Egyptian Information Society Initiative (EISI), which has been structured around seven major tracks: e-readiness, e-learning, e-government, e-business, e-health, e-culture and ICT export initiative.

REFERENCE
(Egyptian Ministry of Information & Communication Technology, 2015)

URL
http://www.mcit.gov.eg/Upcont/Documents/BuildingBridges_all.pdf

TITLE
The Egyptian Government Cloud (EG-Cloud) Strategy

COUNTRY
Egypt

ORGANISATION
Ministry of Communication and Information Technology

YEAR
2005

SUMMARY
Cloud Computing has emerged as a step change in the economics and sustainability of Information and Communication Technologies (ICT). As an innovation, the model presents a shift away from computing as a purchased product, to computing as a delivered service. Users no longer need to seek and invest large funds of money for buying capital equipment. The model allows enterprises, especially SMEs, to access powerful resources that they cannot afford. The opportunities of using powerful computing resources on demand via the network are a potential driver for the growth of a nation's economy. Understanding both the promise and risks of this new paradigm, the Egyptian Ministry of Communications and Information Technology (MCIT) developed a thoughtful Egypt Government Cloud (EG-Cloud) strategy to support and promote the utilization of cloud computing in the government.

REFERENCE
(Egyptian Ministry of Communication & Information Technology, 2015)

URL
http://www.mcit.gov.eg/Publication/Publication_Summary/856

TITLE
National policy on ICT in School Education in India

COUNTRY
India

ORGANISATION
Department of School Education and Literacy, Ministry of Human Resource Development, Government of India

YEAR
2012

SUMMARY
The comprehensive choice of ICT for holistic development of education can be built only on a sound policy. The initiative of ICT Policy in the School Education is inspired by the tremendous potential of ICT for enhancing outreach and improving quality of education. This policy endeavors to provide guidelines to assist the States in optimizing the use of ICT in school education within a national policy framework.

REFERENCE
(Indian Ministry of Human Resource, 2012)

URL
http://mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/revised_policy%20document%20ofICT.pdf

TITLE
SMART Rwanda Master Plan 2015-2020: A prosperous and Knowledgeable Society through

COUNTRY
Rwanda

ORGANISATION
Rwanda Development Board

YEAR
2014

SUMMARY
In 2000, the government of Rwanda (GoR) established Vision 2020 as an economic blueprint to achieve a knowledge-based economy and become a middle-income country by 2020. Along with Vision 2020, the first of the Economic Development and Poverty Reduction Strategy 2007- 2012 (EDPRS I) and later EDPRS II 2013 -2018, further acknowledged ICT as a key driver for this economic growth. The national information and communication technology plans, NICI Plans I~III 2000 – 2015 were later initiated to guide the ICT4D programs and initiatives linked to the objectives and goals outlined in V2020 and EDPRS I & II. Despite the achievement of the NICI Plans, especially in building basic infrastructure and launching a highly successful healthcare system and increasing access to financial services, challenges still remained. SMART Rwanda Master plan was motivated by the SMART Africa Manifesto that was signed by African Union Heads of State and Government several months after the Transform Africa Summit in October 2013 in Kigali, Rwanda. It is the new national ICT strategy, replacing the ICT SSP. It underpins the current government transformation agenda. It has three enablers: ICT Capability & Capacity, Governance & Management, and Secured & Shared Infrastructure. In addition, it has seven pillars: SMART Agriculture, Finance, Business & Industry, Health, Education, Government, and Cities.

REFERENCE
(Rwandan Development Board, 2015)

URL
http://www.myict.gov.rw/fileadmin/Documents/Strategy/SMART_Rwanda_Master_Plan_v2.1.pdf

TITLE
National ICT Policy

COUNTRY
Nepal

ORGANISATION
Ministry of ICT Nepal

YEAR
2015

SUMMARY
This policy is premised around the realization that there is an urgent need to formulate strategic responses to account for technological trends shaping the ICT sector.

REFERENCE
(Ministry of Information and Communication, 2015)

URL
http://www.nta.gov.np/ne/component/joomdoc/ICT%20Policy.pdf/download

TITLE
National Broadband Policy, 2071

COUNTRY
Nepal

ORGANISATION
Ministry of ICT Nepal

SUMMARY
This policy was formulated in response to the felt need to create a conducive environment for stimulating growth of broadband infrastructure and services throughout the country. Its vision is to achieve affordable, secure, reliable and ubiquitous broadband for socio-economic transformation of Nepal while its mission is to develop a robust, secure, state-of-the-art broadband infrastructure coverage in the country with special focus on rural and remote areas for bridging digital divide. To leverage broadband services for achieving sustainable development outcomes.

REFERENCE
(Ministry of ICT Nepal, 2015)

URL
http://www.nta.gov.np/en/component/joomdoc/Broadband%20Policy-Draft.pdf/download

TITLE
The Ghana ICT for Accelerated Development

COUNTRY
Ghana

ORGANISATION
Chana Ministry of ICT

YEAR
2003

SUMMARY
The policy statement articulated a vision to transform Ghana into an information rich knowledge based Society and economy through the development, deployment and exploitation of ICT within the economy and society.

REFERENCE
(Ministry of ICT Ghana, 2003)

URL
http://www.nca.org.gh/downloads/Ghana_ICT4AD_Policy.pdf

TITLE
Botswana's National e-Government Strategy 2011-2016

COUNTRY
Botswana

ORGANISATION
Botswana E-government Board, 2010

YEAR
2010

SUMMARY
Botswana's National e-Government Strategy 2011-2016 outlines five major programmes and approximately twenty-five interrelated projects that will, collectively, move all appropriate government services online, significantly improve public sector service delivery, and accelerate the uptake and usage of ICTs across all segments of our society The policy had a note however, that a number of our more complex. e-Government initiatives will not be fully completed within the five year timeline of this Strategy, and will spill into subsequent years.

REFERENCE
(Botswana's National e-Government Working,2016)

URL
http://www.researchictafrica.net/countries/botswana/MAITLAMO_Botswana_National_ICT_Policy.pdf

TITLE
The Lithuanian Innovation Development Programme 2014–2020

COUNTRY
Lithuania

ORGANISATION
Government of Lithuania

YEAR
2014-2020

SUMMARY
The Lithuanian Innovation Development Programme 2014–2020 has been drafted with a view to mobilizing the state resources for the improvement of Lithuania's innovativeness and development of competitive economy based on high level knowledge, high technologies, qualified human resources and smart specialization.

REFERENCE
(Government of the Republic of the Lithuania, 2013)

URL
http://www.mita.lt/uploads/documents/lithuanian_innovation_programme.pdf

TITLE
Tertiary Education Policy In New Zealand

COUNTRY
New Zealand

ORGANISATION
Ministry of Education, 2002

YEAR
2002

SUMMARY
The strategy's goals are so broad that almost anything could be done. This presents an opportunity for New Zealand but also a challenge.

REFERENCE
(Ministry of Education, 2016)

URL
http://www.fulbright.org.nz/wp-content/uploads/2011/12/axford2002_mclaughlin.pdf

TITLE
Innovation for Scotland: A Strategic Framework For Innovation In Scotland

COUNTRY
Scotland

ORGANISATION
Ministry of Finance and Organizational Growth

YEAR
2009

SUMMARY
Innovation for Scotland outlines how the government and its agencies must work in close partnership with business to stimulate this innovation “demand”, match it to the already strong supply side, and ensure that support is aligned and geared to meeting it. The enterprise agencies play a crucial role in delivering that support. In Growing Innovation, Scottish Enterprise and Highlands and Islands Enterprise describe how they work with businesses to spread the message of the benefits of innovation and the practical support available to businesses to improve their bottom line profits. Other public agencies such as the Scottish Funding Council and Skills Development Scotland also play an essential role in turning strategic ambition into practical implementation.

REFERENCE
(The Scottish Government, 2016)

URL
http://www.gov.scot/Resource/Doc/277577/0083339.pdf

TITLE
The Swedish Innovation Strategy

COUNTRY
Sweden

ORGANISATION
Ministry of Enterprise

YEAR
2015

SUMMARY
The strategy presents long-term guidelines for how the work within many policy areas until 2020 can create better conditions for people in all parts of society to contribute to a more innovative Sweden through their knowledge, skills and creativity.

REFERENCE
(The Government of Sweden, 2016)

URL
http://www.government.se/contentassets/cbc9485d5a3446729632258581182 73b/the-swedish-innovation-strategy

TITLE
Digital Agenda Uruguay 2015

COUNTRY
Uruguay

ORGANISATION
Ministry of ICT , Uruguay

YEAR
2015

SUMMARY
Digital Agenda Uruguay, also called ADU by its initials in Spanish, is a dynamic roadmap that set out all these concepts and combines with the government policies and objectives related to development, in the context of the Information and Knowledge Society. Besides, ADU makes clear the unanimous commitment of all stakeholders, in order to provide the means to accomplish all outlined goals. Finally, while previous versions focused primarily on setting up the necessary infrastructure to achieve further goals, this third edition of ADU (2011-2015) emphasizes on offering direct and concrete benefits to the citizenry.

REFERENCE
(The Government of Uruguay, 2016)

URL
http://uruguaydigital.gub.uy/wps/wcm/connect/urudigital/2da1c746-5424-48b6-8e3e-c3076ea285d8/ADU+III+2011-2015+English.pdf?MOD=AJPERES

TITLE
E-Government Master Plan for the Republic of Honduras, 2015

COUNTRY
Honduras

ORGANISATION
Honduras National IT Industry Promotion Agency (NIPA)

YEAR
2015

SUMMARY
Honduran president Juan Olando Hern Ández, after his administration took office with four-year term in 2014, showed his strong will to transform towards digital government. The Honduran government created a dedicated organization for e–Government-Digital Government Unit, under the SCGG and integrated organization under SEPLAN which was in charge of e-Government with it. Furthermore, Digital Agenda 2014 –2018 was developed to establish a Master Plan in 2014 and initiated e-Government within his term in office.

REFERENCE
(National IT Industry Promotion Agency (NIPA), 2016)

URL
http://www.scgg.gob.hn/sites/default/files/Honduras_e-Government_MP_Final_Report_Feb%202015.pdf

TITLE
Accelerating Service Development Rwanda ICT Strategic and Action Plan (NICI III: 2011– 2015)

COUNTRY
Rwanda

ORGANISATION
Rwanda Development Board

YEAR
2015

SUMMARY
In 2000, the government of Rwanda (GoR) established Vision 2020 as an economic blueprint to achieve a knowledge-based economy and become a middle-income country by 2020. Along with Vision 2020, the first of the Economic Development and Poverty Reduction Strategy 2007 - 2012 (EDPRS I) and later EDPRS II 2013 -2018, further acknowledged ICT as a key driver for this economic growth. The national information and communication technology plans, NICI Plans I-II were later initiated to guide the ICT4D programs and initiatives linked to the objectives and goals outlined in V2020 and EDPRS I & II. NICI III aims to accelerate "services development" by running efficient government services and increasing private sector productivity and in turn Rwanda's competitiveness. It is focused on the development of services by leveraging ICT to improve service delivery to citizens, as Rwanda approaches the fourth and final phase of the NICI process that will propel Rwanda to achieve Vision 2020 goals.

REFERENCE
(NICI, 2016)

URL
https://www.enisa.europa.eu/activities/Resilience-and-CIIP/national-cyber-security-strategies-ncsss/RwandaNCSSNICI_III.pdf

TITLE
The Kenya National ICT Master Plan: Towards a Digital Kenya

COUNTRY
Kenya

ORGANISATION
Kenya ICT Authority

YEAR
2013

SUMMARY
The Kenya Vision 2030 is the national long-term development blueprint that aims to transform the country into a modern, globally competitive, Middle income country offering a high quality of life for all citizens by the year 2030. The purpose of this Master Plan is to review and update the Connected Kenya Master Plan launched in February 2013 with a view to extend stakeholders participation and take into account changes in the Jubilee digital Government. The ICT theme, which is one of the foundations for national transformation in the first medium term plan (MTP) (2008-2012) is “strengthening the foundation for a knowledge-based economy”.

REFERENCE
(Kenya Education Network (KENET), 2016)

URL
https://www.kenet.or.ke/sites/default/files/Final%20ICT%20Masterplan%20Apr%202014.pdf

TITLE
Multimedia Super Corridor (MSC) Malaysia: 2004-2010

COUNTRY
Malaysia

ORGANISATION
Multimedia Development Corporation (MDC)

YEAR
2004-2010

SUMMARY
MSC is a Government-designated zone in Malaysia designed to leapfrog Malaysia into the information and knowledge age. It aims to attract companies with temporary tax breaks and facilities such as high-speed Internet access and proximity to the Kuala Lumpur International Airport. It is a Special Economic Zone in Malaysia inaugurated by the 4th Malaysian Prime Minister Mahathir Mohamad to accelerate the objectives of Vision 2020 and to transform Malaysia into a modern state by the year 2020, with the adoption of a knowledge-based society framework. The MSC flagship applications were launched to boost the MSC Malaysia initiatives and to create a multimedia utopia (hub) for innovative producers and users of multimedia technology. Consortia comprising both the local and foreign companies (MNCs) collaborated with various government agencies, departments and ministries to enhance the socio-economic development of Malaysia in the new millennium (Information Age). The vision and mission of the MSC as expressed by the Prime Minister of Malaysia at the time (1981–2003) was: "MSC is paramount to leapfrog Malaysia into the 21st century and to achieve Malaysia's Vision 2020. The MSC was created to endeavor the best environment to harness the full potential of the multimedia without any artificial limits. MSC is a global test bed (hub), where the limits of the possible can be explored, and new ways of living, working, and playing in the new area of the Information Age." It covers an area of approximately 15 km (9.3 mi) × 50 km (31 mi) (that is, 750 km2 (290 sq km)) stretching from the Petronas Twin Towers to the Kuala Lumpur International Airport, and including the towns of Putrajaya and Cyberjaya. On 7 December 2006, Port Klang was added to the MSC. Dr Mahathir's visit to the United States of America in January 1997 to promote the MSC to companies there succeeded in attracting the interest of many large information technology companies. The Multimedia Development Corporation (MDeC, formerly MDC) was created to oversee development of the MSC. To qualify for MSC-status, applicants must meet the following criteria: be a provider or heavy user of multimedia products and services; employ a substantial number of knowledge workers; provide technology transfer and/or contribute towards the development of the MSC or support Malaysia's k-economy initiatives; establish a separate legal entity for the MSC qualifying multimedia business and activities; located in a MSC designated cybercities; comply with environmental guidelines. In the initial stage of MSC National Rollout under MSC Next Leap, MSC Cybercity status was awarded to Penang (in Bayan Lepas Free Industrial Zones and Vicinity) and Kulim Hi-Tech Park. However, a decision was later made to rollout the MSC Cybercity / Cybercentre status beyond the original designated area in order to spread the MSC benefits nation-wide.

REFERENCE
NITC Malaysia. (2016). Multimedia Super Corridor (MSC) Malaysia

URL
http://nurelimtiaz.uitm.edu.my/wordpressfolder-elimtiaz/wp-content/uploads/2012/08/MSC.pdf

TITLE
Policy on ICT in Education Malaysia

COUNTRY
Malaysia

ORGANISATION
Ministry of Education (MOE), Malaysia

YEAR
2010

SUMMARY
The overall aim of the policy is to guide the full realization of benefits and potential in education using ICT as a critical enabler. The broader scheme of 'ICT in Education' covered in the policy encompasses all previous ICT in education initiatives i.e. SchoolNet, Computer Lab, EduWebTV, Teaching of Mathematics and Science in English (PPSMI) and Access Centre and all future ICT initiatives under a common set of objectives instead of letting each ICT initiative continue to be implemented independently.

REFERENCE
(Frost & Sullivan, 2010)

URL
http://www.mscmalaysia.my/sites/default/files/pdf/publications_references/Policy%20on%20ICT%20in%20Education%20Malaysia%202010.pdf

TITLE
Malaysia Public Sector ICT Strategic Plan: Powering Public Sector Digital Transformation

COUNTRY
Malaysia

ORGANISATION
Malaysian Administrative Modernization and Management Planning Unit (MAMPU)

YEAR
2010

SUMMARY
The Malaysian Public Sector ICT Strategic Plan (2011- 2015) charts the strategic direction for the implementation of information and communications technology (ICT) in the Malaysian public sector for five years. The formulation of strategies in the plan is based on the assessment and analysis of findings of several studies conducted to ensure alignment with national aspirations, stakeholder requirements and global best practices. The Public Sector ICT strategic direction is designed to meet seven strategic objectives in line with the national transformation agenda. The objectives are to: streamline ICT architecture; consolidate ICT operations; intensify inter-agency collaboration; rationalise ICT governance structure; attract, develop and retain top talent in the public service; strengthen performance culture; and foster a knowledge-based environment.

REFERENCE
(Malaysian Administrative Modernization and Management Planning Unit (MAMPU), 2011)

URL
http://www.mampu.gov.my/documents/10228/41288/ISPplan2011.pdf/1a03119a-a8a8-40af-ac42-31c3fb7174b0

TITLE
South Africa Connect: Creating Opportunities Ensuring Inclusion: South Africa's Broadband Policy

COUNTRY
South Africa

ORGANISATION
Department of Communications Republic of South Africa

YEAR
2015

SUMMARY
The national broadband policy, gives expression to South Africa's vision for the country to develop a seamless information infrastructure by 2030 that will be universally accessible across the country at a cost and quality that meets the needs of citizens, business and the public sector and provides access to the creation and consumption of a wide range of converged applications and services required for effective economic and social participation. It reflects the Government of South Africa's commitment to creating an enabling environment for the rollout of broadband infrastructure and the creation of associated content, applications and services. It does this by indicating the intended structure of the industry and the institutional framework necessary for effective regulation of an open and fair competitive environment. Furthermore, it encourages public and private investment in the broadband network extension required to meet the social and economic needs of the country. The ecosystem of digital networks, services, applications, content and devices, will be firmly integrated into the economic and social fabric of the country. In order to meet the national objective of more affordable broadband access for all, South Africa Connect provides for both demand side and supply side policy interventions. To improve access to the Internet and stimulate demand for broadband connectivity further, the connection of educational institutions, municipalities and government and the deployment of free public WiFi networks at points of connection for citizens to access m-and e-government services and other public services will be prioritized.

REFERENCE
(Department of Communications of Republic of South of Africa, 2013)

URL
http://wiki.lib.sun.ac.za/images/c/c7/Doc-bb-policy.pdf

TITLE
Seychelles National ICT Policy (NICTP): Connected to the Community Connected to the World

COUNTRY
Seychelles

ORGANISATION
Ministry of National Development

YEAR
2007

SUMMARY
The NICTP articulates five areas of focus namely; ICT infrastructure, Legal and Regulatory Framework, Human Resource Development, ICT Industry and Government. Mindful of the cross-sectoral nature of ICT, all the five areas are integrated and interdependent. The publication of the NICTP lays the founding stone required for the development of a comprehensive National ICT Strategic Plan, which will be the roadmap to guide ICT development in Seychelles.

REFERENCE
(Government of Seychelles, 2007)

URL
www.ict.gov.sc/resources/policy.pdf

TITLE
Uganda Rural Communication Development Fund (RCDF) Policy 2010/2011-2014/2015

COUNTRY
Uganda

ORGANISATION
Uganda Communications Commission (UCC)

YEAR
2010

SUMMARY
The Uganda Communications Act of 1997 mandates Uganda Communications Commission (UCC) to establish and administer a Universal Service Fund- the Rural Communications Development Fund (RCDF). The main goal of RCDF is to enable essential interventions to ensure more equitable development of communications services by complementing the general national ICT policy and supporting the information requirements of other sectors of government that drive Uganda's development agenda.

The function of the fund is to effect communications interventions in areas that are underserved with the overall goal of ensuring that those underserved areas get access to communications services that are comparable to those in the served areas. To guide the communications interventions of RCDF, UCC therefore developed a rural communications development policy in the year 2001. That Policy among other things provided for specific objectives that would contribute to the overall goal of universal access to communications services. Implementation of the policy started in the year 2003. Its expiry of 2007 was rolled over to the year 2009. The targets that were set for the policy were all realised and in some cases exceeded. Building on the achievements of the 2001 policy and the changed communications environment, a new policy for the period 2010 to 2014 has been developed. The Policy aims at increasing the coverage of communications facilities and services to more underserved areas and people of Uganda and also to deliberately enhance the usage of ICT services in the country. This is the second phase of the Rural Communications Development Policy (RCDP 2010/11 – 2014/15), which while continuing to address the broad underlying issues of underserved areas, will particularly focus on three aspects that are key for the development of Uganda as an information society namely: expansion of coverage of the first Rural Communications Development Policy; provision of Broadband connectivity and support for content development.

REFERENCE
(Uganda Communications Commission, 2003)

URL
http://www.ucc.co.ug/files/downloads/UCC%20RCDF%20Policy%202010-11-2014-15.pdf

TITLE
National Electronic Government (e-Government) Policy Framework

COUNTRY
Uganda

ORGANISATION
Ministry of ICT

YEAR
2011

SUMMARY
The Government of Uganda (GOU) recognized the role of ICT in fostering economic development and is taking steps to adopt the emerging new technologies in order to modernize service delivery. It is also the belief of the GoU that ICT should be utilized to move into the era of electronic Government (e-Government) that is aimed at demystifying the role of Government, simplifying procedures, bringing transparency, accountability, and making credible timely information available to all citizens and at the same time providing all services in an efficient and cost-effective manner. This policy framework identifies the goal of e-Government and spells out its core pillars, critical success factors and a roadmap which was adopted to achieve it. The purpose of the policy was to efficiently use ICT in public administration in order to improve public service delivery and democratic processes, enhance the attainment of the Millennium Development Goals (MDGs) and other international obligations.

REFERENCE
(Ministry of Information and communication, 2010)

URL
http://www.nita.go.ug/sites/default/files/publications/Final%20Draft%20E-govt_framework_June%202010.pdf

TITLE
World Development Report - Digital Dividends

ORGANISATION
The World Bank

YEAR
2016

SUMMARY
The Digital Dividends report of The World Bank starts by making one overview on how the foundations of digital revolution can be strengthen to make the world more prosperous and inclusive. Then, the report identifies the barriers that are preventing the digital technologies to fulfill their transformative potential. Afterwards, the report analysis the sectoral, national and global policies for smart cities, energy and environment. The report concludes that the benefits of ICT will not be fully achieved unless countries continue to improve the business confidence, invest in knowledge societies and health assistance, and promote good governance practices. The countries where these principles were not followed, the digital technologies did not increase the productivity or reduced inequalities. Whereas the countries that complement the digital technologies with these principles reaped dividends in the form of fast growth, more jobs and better quality of life.

REFERENCE
(The World Bank, 2016)

URL
www.worldbank.org/en/publication/wdr2016

TITLE
e-Government Strategy 2013 – 2017 Empowering Citizens: Collaborating with Business; Networked Government

COUNTRY
Mauritius

ORGANISATION
Ministry of ICT

YEAR
2013-2017

SUMMARY
The e-Government Strategy came at the right time when Mauritius was getting ready to ride the wave of economic and social transformation that ushers in a Knowledge Society. This economic and social transformation as advocated by the Economic and Social Transformation Plan currently under preparation projects to push the country into a High Income Country bracket through the use of appropriate technology. Through optimal employment of ICT in the machinery of Government, it was expected that public service delivery would be enhanced reaping much warranted efficiency gains for Mauritius and enhancing the convenience of citizens as well as facilitating businesses.

REFERENCE
(Ministry of Information and Communication Technology, 2013)

URL
http://mtci.govmu.org/English/Documents/eGovStrategyfinalv201393.pdf

3.
Publications

TITLE
From “Finalization” to “Mode 2”: old wine in new bottles?

AUTHORS
Weingart, P.

YEAR
1997

VENUE
Social Science Information

SUMMARY
The paper discusses why the new forms of knowledge production, namely Mode 2 and Post-normal science suffer from lack of legitimation.

HIGHLIGHTS
The paper highlights that:

1. The new forms of knowledge production do not represent revolutionary changes on traditional science;
2. The tendency of the scientification of politics;
3. The politicization of science;
4. The “medicalization” of relationship between science and politics; and
5. There are obvious parallels between the theses of finalization of science, with 20 years, and the new production.

REFERENCE
(Weingart, 1997)

TITLE
Rural areas in the information society: diminishing distance or increasing learning capacity?

AUTHORS
Grimes, Seamus

YEAR
2000

VENUE
Journal of Rural Studies

SUMMARY
The paper addresses the prospects of rural areas within information society context and identifies the main obstacles for its development.

HIGHLIGHTS
The paper highlights that:

1. The rural areas should exploit the potential of new technologies;
2. The limited success of new technologies to date are due to a number of reasons such as bad spatial cover, cost and political reasons; and
3. A different approach is required to include the new technologies, which considers the new role of technologies in a strategic way and the human dimension.

REFERENCE
(Grimes, 2000)

TITLE
The Knowledge Society: a manifesto for knowledge and learning

AUTHORS
Lytras, Miltiadis D.; Sicilia, Miguel Angel

YEAR
2005

VENUE
International Journal of Knowledge and Learning

SUMMARY
The paper advocates that the knowledge concept needs to be re-conceptualized at light of sociology. It advances with a social realist approach to knowledge and explores its implications in knowledge society.

HIGHLIGHTS
The paper highlights that the social realist approach recognizes the social aspect of knowledge as intrinsic to its epistemological dimension, avoids both the historical givens of neo-conservative traditionalism and a reliance on such as experience of the learner in decisions about curriculum, maintains the curriculum autonomy from political or economic demands, assesses curriculum proposals in terms of balancing goals that are involved in knowledge production and gives a direction to produce standards and knowledge in curriculums.

REFERENCE
(Lytras & Sicilia, 2005)

TITLE
Knowledge, economy, technology and society: The politics of discourse

AUTHORS
Rooney, David

YEAR
2005

VENUE
Telematics and Informatics

SUMMARY
The paper describes a sociological theory of knowledge and discusses the dominant knowledge discourse demonstrating its troubling aspects for constructing a global knowledge policy. The objective of the paper is to promote the understanding of knowledge and its role in development.

HIGHLIGHTS
The paper highlights that:

1. The dominant knowledge discourse is technocratic and politically oriented towards the interests of business;
2. The dominant knowledge discourse limits the thought and action;
3. An emancipatory politics of knowledge is possible and needed;
4. The sociological theory of knowledge is significantly different to the dominant discourse that is more about business and technology rather than knowledge; and
5. A conceptual framework that explains the dynamics of knowledge can avoid the failures of technocracy discourse.

REFERENCE
(Rooney, 2005)

TITLE
“Doing IT for the Kids”: Re-examining Children, Computers and the “Information Society”

AUTHORS
Selwyn, N.

YEAR
2003

VENUE
Media, Culture & Society

SUMMARY
The paper explores the role of children in the information society for a better understanding of past, present and future aspects of society.

HIGHLIGHTS
The paper highlights that:

1. The term child computer has been used with commercial interests instead of being used to clarify the role of technologies in society;
2. Is missing at what extent the technologies are pushing us into a new kind of society; and
4. The debate should be centered in examining the changes introduced by children and technology on society.

REFERENCE
Selwyn, N. (2003)

TITLE
Digital divide in a developing country

AUTHORS
Mariscal, Judith

YEAR
2005

VENUE
Telecommunications Policy

SUMMARY
The paper shows that besides the deployment of telecommunications networks in Mexico the digital divide is increasing.

HIGHLIGHTS
The paper highlights that:

1. The policy trajectory are simply to foster economic growth and to increase the supply of telecommunucations services;
2. The lack of a universal access policy to IT in Mexico marginalizes certain communities;
3. To avoid digital divide the telecommunications should be subsidized because of its contribution to economic development;
4. Knowledge building is an important resource for economic development;
5. Social capital can be useful in the design of universal access policies; and
6. Low-income areas can benefit from the technical innovations.

REFERENCE
(Mariscal, 2005)

TITLE
The multiple dimensions of the digital divide: more than the technology “haves” and “have nots”

AUTHORS
Bertot, John Carlo

YEAR
2003

VENUE
Government Information Quarterly

SUMMARY
The paper shows that the digital divide goes beyond access to ICTs.

HIGHLIGHTS
The paper highlights that:

1. The digital divide includes access to icts, economic factors, the ability to access information and knowledge, and information literacy skills;
2. The need to conceptualise of the digital divide beyond access to icts;
3. The need to have a comprehensive policy framework to address the multiple dimensions of the digital divide; and
4. The need to address the digital divide though a multi-stakeholder approach.

REFERENCE
(Bertot, 2003)

TITLE
Constructing the information society: women, information technology, and design

AUTHORS
Fountain, Jane E.

YEAR
2000

VENUE
Technology in Society

SUMMARY
The paper explores the potential role of women in the design of an information-based society. This paper advocates that a stronger representation by women in technical roles can address human capital deficit and expand the range of technical products and services to benefit all society.

HIGHLIGHTS
The paper highlights that:

1. An increase in women participation in the design of information technology addresses the human capital deficit and promotes the construction of information-based society; and
2. The disparity in participation by gender in the production of information technologies should be viewed as a policy problem with significant impacts.

REFERENCE
(Fountain, 2000)

TITLE
The market oriented university and the changing role of knowledge

AUTHORS
Buchbinder, Howard

YEAR
1993

VENUE
Higher Education

SUMMARY
The paper discusses the conflict between universities and market in terms of autonomy and collegiality, ideology globalization and privatization. In addition, the paper explores the role of knowledge within universities and the change from social knowledge to market knowledge. The focus includes the social context of knowledge, science, research of knowledge, knowledge as property and transfer of knowledge.

HIGHLIGHTS
The paper highlights that:

1. The privatization of the social context where the market mechanisms are predominant;
2. Knowledge becomes a commodity;
3. It is private intellectual property;
4. A market oriented university alters the form of knowledge; and
5. The policy for universities should address the impact of globalization in an information society and avoid a market oriented strategy.

REFERENCE
(Buchbinder, 1993)

TITLE
A critique of Korean National Information Strategy: Case of national information infrastructures

AUTHORS
Shin, Dong-Hee

YEAR
2007

VENUE
Government Information Quarterly

SUMMARY
The paper studies the impact of the project IT839 launched with the objective of transforming Korea into an ubiquitous information society. In addition, the paper gives recommendations to the government for a contextualized IT strategy.

HIGHLIGHTS
The paper highlights that:

1. Construct a social and it infrastructure embedded with other structures;
2. Information infrastructure only occurs when people use it in their routine life; and
3 . Building an effective national information infrastructure is not an event. It is a continuous and interactive on-going process.

REFERENCE
(Shin, 2007)

TITLE
Government as the driving force toward the information society: National computer policy in Singapore

AUTHORS
Gurbaxani, Vijay; Kraemer, Kenneth L.; King, John Leslie; Jarman, Sheryl; Dedrick, Jason; Raman, K.S.; Yap, C.S.

YEAR
1990

VENUE
The Information Society

SUMMARY
The paper analysis the influence and role of the Singapore government in achieving the goal of turning the nation into an information society. The authors stress the high involvement and commitment of government in the computerization and informatization of Singapore.

HIGHLIGHTS
The paper highlights that:

1. The government may adopt influence or play regulation roles;
2. The government promotes the uses of technology at all levels of society using different forms such as funding, incentives and subsidies, information and consultation and partnerships projects;
3. The government uses the legal power for the diffusion of it directives, setting technical standards, formalizing procedures and protecting copyright; and
4. The government influences the supply/demand goals through regulation.

REFERENCE
(Gurbaxani et al., 1990)

TITLE
Information policy, information access, and democratic participation: The national and international implications of the Bush administration's information politics

AUTHORS
Jaeger, Paul T.

YEAR
2007

VENUE
The Information Society

SUMMARY
The paper covers an analysis of the information policy and access of the Bush administration and implications of the policies for global society and for research on information systems. Moreover, the paper raises the questions to at what extent information policies could be used for political purposes, what they call "information politics".

HIGHLIGHTS
The paper highlights that:

1. The influence of information policy in limiting the information access to individuals, social groups and government organizations;
2. The access to information is a pre-requisite of democratic societies;
3. The manipulation of information access for political gain;
4. Research on the interaction between information policy and information access and its impact should evolve;
5. The information policies also have impact on scholars studying this area;
6. In a world driven by information, research on this area is essential to understanding the information society at national and international levels; and
7. The analysis of impact of information policy is often limited to one nation, but a world where information crosses barriers there is a need to make examinations of policies at the holistic level.

REFERENCE
(Jaeger, 2007)

TITLE
Telehealth acquires meanings: information and communication technologies within health policy

AUTHORS
Klecun-Dabrowska, Ela; Cornford, Tony

YEAR
2000

VENUE
Information Systems Journal

SUMMARY
The paper discusses how a policy process could be used as a means to acquire information and communication technologies in health, and the implications it has for telehealth. This study is done resorting about the exploration of four UK health papers published during 1989 and 1998.

HIGHLIGHTS
The paper highlights that:

1. Before the acquisition, there should be a perfect understanding of the role and expectation for ICT in the health sector and telehealth in particular;
2. Its relation with the information society, for instance, centralized vs, decentralization, devolution of power vs. Control or standardized practices; and
3. To contemplate the consequences of the adoption of information and communication technologies and systems in society, it is important to know what these technologies and systems mean; and
4. Telehealth is a concept that has to acquire, develop and sustain meanings.

REFERENCE
(Klecun-Dabrowska & Cornford, 2000)

TITLE
Information and communication technologies for development: assessing the potential and the risks

AUTHORS
Mansell, Robin

YEAR
1999

VENUE
Telecommunications Policy

SUMMARY
The paper makes an analysis of the United Nations Commission on Science and Technology for Development (UNCSTD) Working Group on ICT and Development Report - Knowledge Societies: Information Technology for Sustainable Development.

HIGHLIGHTS
The paper highlights that:

1. Uncstd outlines that developing countries would be in a better position if they establish national or regional ICT strategies;
2. The national ICTstrategies often are publicized to attract external investment;
3. The political and economic priorities of key decision-makers often dictate the outcomes of ICT strategies; and
4. It is urgent to develop ICT strategies which bring marginalized people on board.

REFERENCE
(Mansell, 1999)

TITLE
An empirical analysis of fixed and mobile broadband diffusion

AUTHORS
Lee, Sangwon; Marcu, Mircea; Lee, Seonmi

YEAR
2011

VENUE
Information Economics and Policy

SUMMARY
The paper makes an analysis of fixed and mobile broadband diffusion in terms of loop unbundling, income, population density, education and price.

HIGHLIGHTS
The paper highlights that:

1. Local loop unbundling policy was successful in promoting fixed broadband diffusion in OECD countries;
2. Governments should choose policies that favor fast broadband diffusion;
3. Multiple standardization policy is associated with a high rate of broadband penetration;
4. Mobile service in many OECD countries is used as a complementary to fixed internet; and
5. Mobile internet has the potential to increase broadband penetration.

REFERENCE
(Lee, Marcu, & Lee, 2011)

TITLE
Trusted Computing – Special Aspects and Challenges

AUTHORS
Sadeghi, Ahmad-Reza

YEAR
2008

VENUE
SOFSEM 2008: Theory and Practice of Computer Science

SUMMARY
The paper outlines the importance of security in IT systems and presents some current research on the topic and challenges faced to implement security policies.

HIGHLIGHTS
The paper highlights that:

1. The trusted computing group (TCG), an alliance of it enterprises published a set of specifications for extending conventional computer architectures with security features;
2. The trusted computing (TC) technology is capable of enhancing the security of computers and ICT infrastructures, however this will not resolve all security problems in the information society;
3. TC brings new technical and economic challenges; and
4. The research on TC needs a deeper understanding of the complexity of it systems.

REFERENCE
(Sadeghi, 2008)

TITLE
Adoption of Internet services in the Acceding and Candidate Countries, lessons from the Internet banking case

AUTHORS
Centeno, Clara

YEAR
2004

VENUE
Telematics and Informatics

SUMMARY
The paper discusses the implications and potential of Internet Banking on the development of Information Society in fifteen European Union countries and in acceding and candidate countries.

HIGHLIGHTS
The paper highlights that:

1. Its important to have a deep understanding of the factors that influence the adoption of internet banking such as, the internet penetration, cost of internet access, security concerns, etc;
2. The importance of promoting and having an e-banking culture;
3. The internet banking sector itself needs to address the issues of lower institutional trust in banking actors, privacy concerns, and lower development and use of financial services; and
4. A set of policy actions to stimulate the use of internet and internet-based services should be adopted.

REFERENCE
(Centeno, 2004)

TITLE
Toward a framework for designing information society policies

AUTHORS
Melody, William H.

YEAR
1996

VENUE
Telecommunications Policy

SUMMARY
The paper proposes a systemic analytical framework to assess what the information infrastructure could provide and to help policy-makers designing information society policies for specific countries.

HIGHLIGHTS
The paper highlights that:

1. The framework provides a systemic view for identifying information infrastructure development priorities;
2. Most national governments claim for potential benefits of information technologies that cannot be supported and some have even been refuted;
3. The investments should not be led by suppliers because this results into unbalanced growth and division between rich and poor citizens; and
4. Countries only can benefit from information society if they met the specific need and priorities of their society.

REFERENCE
(Melody, 1996)

TITLE
A “Grand Challenge”: Measuring Information Societies

AUTHORS
Menou, Michel J.; Taylor, Richard D.

YEAR
2006

VENUE
The Information Society

SUMMARY
The paper analyses the limitations of the current information society metrics and advocates for the creation of a new academic field of study to cover this specific area.

HIGHLIGHTS
The paper highlights that:

1. There are serious limitations in metrics in eight critical areas: - definition of the universe to be measured, - definition of the objects and phenomena to include in the universe, - need to establish measurements based upon solid theories, - units of measurements, - data sources and collection, - methods of analysis and construction of indicators, - target audiences and - purpose and utilization of measurements; and
2. To ensure that the information revolution leads to more benefits than damages, its understanding should be grounded in solid scientific work.

REFERENCE
(Menou & Taylor, 2006)

TITLE
The Information Revolution, Security, and International Relations: (IR)relevant Theory?

AUTHORS
Eriksson, J.

YEAR
2006

VENUE
International Political Science Review/ Revue internationale de science politique

SUMMARY
The paper analyzes the impact the information society has on security and explores this challenge in the light of international relations theories: realism, liberalism and constructivism.

HIGHLIGHTS
The paper highlights that:

1. It is important to develop new theories that integrate liberalism, constructivism and realism for a better understanding of the impact of information society on security;
2. The existing literature on security issues in the information society is policy oriented without any contributions for international relations theories; and
3. The theory and practice on security in a digital age are so distant that they hardly can inform each other; and a more pragmatic approach is needed to close the gap between theory and practice on security in the information society.

REFERENCE
(Eriksson, 2006)

TITLE
Diffusion, substitution and competition dynamism inside the ICT market: The case of Japan

AUTHORS
Chen, Chaojung
Watanabe, Chihiro

YEAR
2006

VENUE
Technological Forecasting and Social Change

SUMMARY
The paper analyses the co-evolutionary effect of diffusion, substitution and competition dynamism inside Japan's ICT market. To proove that the recent advances in Japan's mobile services were due to this co-evolutionary dynamism four diffusion models were utilized in this work: Simple logistic model, Bi-logistic model, Logistic growth within a dynamic carrying capacity model and Choice-based substitution diffusion model.

HIGHLIGHTS
The paper highlights that:

1. A notable co-evolutionary dynamism between diffusion, substitution and competition is emerging inside japanese ICT market;
2. The main factors underlying this dynamism are the ICT innovations, enriched functions, reduced price and the competitiveness of the environment;
3. The japanese institutions are not elastic and make insufficient use of ICT; and
4. In terms of important policies for japanese ict market the paper stress that everyone should have an ubiquitous information receiver and the government should decide if to continue expanding the ICT infrastructure for fixed access or substitute the fixe lines by mobile access.

REFERENCE
(Chen & Watanabe, 2006)

TITLE
The European Union and the information society: Discourse, power and policy

AUTHORS
Goodwin, I.; Spittle, S.

YEAR
2002

VENUE
New Media & Society

SUMMARY
The paper makes a critical discourse analysis of the debate over the social, cultural and economic impact of information society within European Union (EU). The paper criticizes the language and policies used in EU concerning the information society, arguing that the nature of language should change and be used as a mode of social action within the policy debate.

HIGHLIGHTS
The paper highlights that:

1. Four major discourses were identified: threat/opportunity, technological determinism, market dominance and citizen vs consumer;
2. By utilizing critical discourse analysis, the paper shows that not only are the information policy outcomes neo-liberal, but also the discourses that do not allow alternatives to neo-liberalism;
3. The discourses favor the economic dimension at the expense of social and cultural dimensions;
4. The language used has consequences in information systems policy and in the type of information society EU wants to achieve;
5. The eu limits social and economic benefits of information society because it is based on a set of discourses that narrow its scope; and
6. Paradoxically, it is through the social and cultural benefits of information society that the policy changes are being justified inside EU, however at the same time, the political discourse precludes their realization.

REFERENCE
(Goodwin & Spittle, 2002)

TITLE

Benchmarking knowledge-based urban development performance: Results from the international comparison of Helsinki

AUTHORS

Yigitcanlar, Tan; Lönnqvist, Antti

YEAR

2013

VENUE

Cities

SUMMARY

The paper presents a framework for a knowledge-Based Urban Development (KBUD) composed by four main pillars economy, society, environment and governance. Using this framework, the Helsinki performance in the era of Knowledge was evaluated against eight cities: Boston, San Francisco, Birmingham, Manchester, Melbourne, Sydney, Toronto and Vancouver. The aim of this study was to know the KBUD status of Helsinki as well as develop a performance measurement and benchmarking process.

HIGHLIGHTS

The paper highlights that:

1. An analysis of how to carry out KBUD performance measurements was conducted;
2. The empirical measurement results are in line with previous results and new findings are presented;
3. The performance measurement process shows how such measurements can be made and what key phases should be included in the process i.E. Measurement methodology; and
4. Further experiments with benchmarking, and critical discussion about learning experiences, is need to develop more applicable models and tools in the future.

REFERENCE

(Yigitcanlar & Lönnqvist, 2013)

TITLE
Telecommunications policy and individuals with disabilities: Issues of accessibility and social inclusion in the policy and research agenda

AUTHORS
Jaeger, Paul T.

YEAR
2006

VENUE
Telecommunications Policy

SUMMARY
The paper discusses the importance of equal telecommunications access for people with disabilities and the related policy questions. Furthermore, the paper points out a research agenda for this area.

HIGHLIGHTS
The paper highlights that:

1. Ict accessibility is vital for the social inclusion of people with disabilities;
2. A better understanding of disability is needed, so telecommunication accessibility policy objectives and their social impact should be researched and analyzed;
3. Legislative process among nations need different policies;
4. Many ICT designers and developers lack understanding of accessibility and the needs of persons with disabilities;
5. To promote a better understanding and adoption of accessible ICT, telecommunications policies should be implemented; and
6. Persons with disabilities represent a significant portion of global population and the number is envisioned to increase in the coming years.

REFERENCE
(Jaeger, 2006)

TITLE
Measuring information society

AUTHORS
Ricci, Andrea

YEAR
2000

VENUE
Telematics and Informatics

SUMMARY
The paper explores how the concept of Information Society (IS) is being used in Europe, discusses alternative IS definitions and the need of an appropriate set of policies to re-launch IS in Europe. A major part of the paper is dedicated to the analysis of the data collected between 1995 and 1999 by the European commission to measure IS performance of European countries.

HIGHLIGHTS
The paper highlights that:

1. A multi-faceted media system exists in europe conflicting between them to acquire a larger share of the financial budget of europe;
2. Only minority of europeans are heavy users of information technologies;
3. There is a larger community of passive media users which is still disoriented by the media arena and seeking for the best solution to be involved; and
4. To foster the growth of the european is, policy makers must introduce priorities capable of enforcing the social cohesion such as increase the social dimension in is policy implementation, develop new ways of is awareness, develop a research agenda towards knowledge society and refine the policies and the public campaigns.

REFERENCE
(Ricci, 2000)

TITLE
Taxonomy of e-readiness assessment measures

AUTHORS
Hanafizadeh, Payam; Hanafizadeh, Mohammad Reza; Khodabakhshi, Mohsen

YEAR
2009

VENUE
International Journal of Information Management

SUMMARY
The paper makes a classification of e-readiness assessment measures for helping policy makers and scholars selecting the right measures for their objectives, avoiding repetitive research, identifying flaws in previous measures and learning with past experiences to construct their own measures. In addition, the paper presents a measure for e-readiness assessment. The authors advocate that the proposed measure can be used as a basis for an international standard for statistics on information society.

HIGHLIGHTS
The paper highlights that:

1. Most assessments are based on statistical studies or questionnaires, country cases, ad hoc interviews and summary evaluation of it readiness for economic growth;
2. Most studies provide little information how and why the indicators were selected;
3. The traditional measures over the past years are mainly focused on infrastructural access; and
4. Today the assessments have been extended to other dimensions than the infrastructure such as economic and social moving to technological aspects to user aspects.

REFERENCE
(Hanafizadeh, Hanafizadeh, & Khodabakhshi, 2009)

TITLE
Alternative Educational Futures for a Knowledge Society

AUTHORS
Young, Michael

YEAR
2010

VENUE
European Educational Research Journal

SUMMARY
The paper analysis the current trends in education policies: the introduction of national qualifications frameworks, the shift to learning outcomes, the move from subject-specific to generic curriculum criteria, towards the knowledge society. Based on this analysis the author proposes an alternative approach to educational policy based on social realist theory of knowledge. This alternative presupposes that there are social conditions under which knowledge is acquired more quickly.

HIGHLIGHTS
The paper highlights that:

1. A reliable model for a curriculum and a pedagogy has to embrace content, concepts and skills;
2. The curriculum should begin with the acquisition of specialized knowledge;
3. If a curriculum is to driven by content or skills and competences some educational objectives will be lost; and
4. How the educational principles will be applied in the future will have social and justice implications.

REFERENCE
(Young, 2010)

TITLE
Building professionalism in a knowledge society: examining discourses of knowledge in four professional associations

AUTHORS
Karseth, Berit; Nerland, Monika

YEAR
2007

VENUE
Journal of Education and Work

SUMMARY
The paper explores and analyses the policy documents from four professional associations in Norwegian. The policy documents revealed to have strong knowledge discourses as a means to position the associations distinctly towards their practitioners, working fields and public community. Furthermore, the analysis also revealed that associations in Norway employ different discourses of knowledge as a mean of promoting professionalism.

HIGHLIGHTS
The paper highlights that:

1. Develop knowledge and safeguarding the standards of professional work is challenge in today's society;
2. Today the efforts to promote the professionalism are mainly in the learning conditions and knowledge development;
3. The lifelong learning in today's society puts pressure on professionals;
5. The professional associations are seen as agents of knowledge;
6. Association have contradictory knowledge discourses, revealing the complexity of their role as knowledge agents; and
7. The ability of professional communities for navigating in knowledge society is critical for their survival.

REFERENCE
(Karseth & Nerland, 2007)

TITLE
A split and swaying approach to building information society: The case of Internet cafes in China

AUTHORS
Hong, Junhao; Huang, Li

YEAR
2005

VENUE
Telematics and Informatics

SUMMARY
The paper explores the role of Internet cafes in China in the development of information society in the country. In particular, their impact on the country's democratization and on dilemma of government between promoting informatization and resisting democratization.

HIGHLIGHTS
The paper highlights that:

1. The spread of internet cafes in china symbolized the arrival of the information age in the country;
2. The internet cafes helped to narrow down the information gap between urban areas and rural areas;
3. The china informatization campaign was closely related to the introduction of internet cafes in the country;
4. The internet users are passive to political communications in contrast their are active for online chatting, gaming and entertainment;
5. The internet cafes do not became a place for virtual democracy and freedom of speech; and
6. Chinese people just can use the internet under strict regulations, therefore enjoying limited freedom of expression.

REFERENCE
(Hong & Huang, 2005)

TITLE
Software Technologies in Knowledge Society

AUTHORS
AF Lytras, Miltiadis; Ordóñez de Pablos, Patricia

YEAR
2011

VENUE
Journal of Universal Computer Science (J.UCS) Special Issue

SUMMARY
This special issue on software technologies in knowledge society address the following topics:

1. How can modern software technologies support ubiquitous effective knowledge and learning management solutions;
2. Which are the main limitations of pilot systems and prototypes in the quest of solutions for large scale systems;
3. How can software engineers adopt and combine various software technologies targeting in personalized, context aware applications;
4. Which are the implications of social software to value adding key propositions;
5. Which are the key aspects of the knowledge society that are linked to advanced software technologies approaches;
6. How can ideas and abstractions about effective solutions be transformed to functional solutions; and
7. Which are the key requirements and which are the constitutional software technologies that provide the basic building blocks for software engineering targeting to knowledge society.

HIGHLIGHTS
The paper highlights that:

1. The knowledge is one of the most important values in society;
2. The technology should serve the knowledge society through information systems;
3. The information systems must bring together interdisciplinary perspectives and address the relationships between technology and society.

REFERENCE
(AF Lytras & Ordóñez de Pablos, 2011)

TITLE
White Paper: promoting Design for All and e-Accessibility in Europe

AUTHORS
Klironomos, Iosif

Antona, Margherita

Basdekis, Ioannis

Stephanidis, Constantine

YEAR
2006

VENUE
Universal Access in the Information Society

SUMMARY
The paper gives an overview of European developments in design for all and ICT accessibility. Domain such as policy and legislation, the role of the industry, standardization, monitoring and benchmarking and education and training are addressed. In addition, for an effective implementation of design for all, e-Inclusion and e-Accessibility objectives, a set of challenges are identified. Furthermore, a review of policies and R&D activities over the last 15 years in Europe in this area is presented.

HIGHLIGHTS
The paper highlights that:

1. It is important to enhance the international cooperation activities and created new ones on policies, benchmarking and education and training in design for all;
2. The awareness, dissemination and mainstreaming of design for all must increase;
3. The industry should be mobilized to provide and develop more accessible products and services;
4. Design for all should becomes part of regular education in all member states; and
5. It is now necessary to create a european market of accessible goods and services.

REFERENCE
(Klironomos, Antona, Basdekis, & Stephanidis, 2006)

TITLE
The “new” ICTs environment in Europe: closing or widening the gaps?

AUTHORS
Servaes, Jan; Heinderyckx, Francois

YEAR
2002

VENUE
Telematics and Informatics

SUMMARY
The paper analysis the theory, current practices and policy on information society in Europe. It identifies the major contradictions between European policy and the current practices. In addition, provides a set of recommendations for policy makers and researchers.

HIGHLIGHTS
The paper highlights that:

1. The information society in europe is not yet a reality but it is in formation;
2. Each country has its own political objectives and they are following different ways to achieve an infomration society;
3. The majority of the countries are planning information society extensively;
4. Information society vision are becaming the new narrative;
5. The internet may evolve and integrate all the media; and
6. A new social phenomenon called pleonastic exclusion is emerging because some users are being excluded of the new media due to their educational and financial status.

REFERENCE
(Servaes & Heinderyckx, 2002)

TITLE
The Public Library, Social Exclusion and the Information Society in the United Kingdom

AUTHORS
Martin Dutch; Dave Muddiman

YEAR
2001

VENUE
Libri

SUMMARY
The paper addresses the social exclusion and the information society in the United Kingdom (UK). In order to know the developments of United Kingdom in this area it explores the national and local information policy, community network, a public library policy in the country. In addition, it assesses the impact of UK public libraries on the social exclusion and poverty.

HIGHLIGHTS
The paper highlights that:

1. The public libraries should go beyond the access and use of technology towards the engagement with local communities and disadvantage users to be effectively open to all;
2. Despite the rhetorical commitment to social inclusion, the technological revolution of the public libraries is likely to be used by the same clientele as the present;
3. Uk public libraries excluded communities and social groups; and
4. Public libraries could play an important role in supporting ICT and information society inclusion.

REFERENCE
(Martin Dutch, 2001)

TITLE
EU Mainstreaming of the Information Society in Regional Development Policy

AUTHORS
Dabinett, Gordon

YEAR
2001

VENUE
Regional Studies

SUMMARY
The paper makes a critical analyses of European Union (EU) attempts to mainstreaming the information society in regional development policy of the European countries during the 1990s. The paper concludes with four narratives which most likely will be in the information society policy agenda. market regulation, the nature of technological change in the regional development; the information society paradigm; and the change nature of time and space.

HIGHLIGHTS
The paper highlights that:

1. The EU clearly used a top-down model of policy formulation to mainstreaming information society within regional development;
2. The evidences presented suggest that european commission influenced regional development; and
3. The nature of the information society has been avoided, the debate was only expressed through policy deliveries such as institutional relationships and programme design.

REFERENCE
(Dabinett, 2001)

TITLE
Sizing Up Information Societies: Toward a Better Metric for the Cultures of ICT Adoption

AUTHORS
Howard, Philip N.; Anderson, Ken; Busch, Laura; Nafus, Dawn

YEAR
2009

VENUE
The Information Society

SUMMARY
The paper presents a new formula to calculate a Technology Diffusion Index (TDI) that allows to compare the technology diffusion at regional, national or sub-nation levels. In addition, same examples are assessed using this index, and the results are used to explain the policy, industry and research implications.

HIGHLIGHTS
The paper highlights that:

1. The researches are having difficulties to size up information societies;
2. The TDI allows researchers to make comparisons, with multiple data sources even with uncompleted data on all countries;
3. The index allows to understand the causes and consequences of the digital divide;
4. Index sets out countries that are rapid technology adopters; and
5. The TDI allows to reconcile local and qualitative research with international and qualitative research on digital divide for comparative purposes.

REFERENCE
(Howard, Anderson, Busch, & Nafus, 2009)

TITLE
Beyond the digital divide: policy analysis for knowledge societies

AUTHORS
Sharma, Ravi S.; Samuel, Ekundayo M.; Ng, Elaine W.J.

YEAR
2009

VENUE
Journal of Knowledge Management

SUMMARY
The paper proposes a conceptual framework with 13 dimensions for knowledge policy-making. The conceptual framework allows to formulate knowledge policies and analyze knowledge development through qualitative focus group discussions.

HIGHLIGHTS
The paper highlights that:

1. Whereas quantitative indicators are commonly used for the purpose of benchmarking and tracking progress, they are limited in determining the causes and effects of using good practices;
2. The proposed framework provides a mean to promote discussions, debates and story-telling; and
3. Understanding the development of knowledge economy is more than a management of socio-economic indicators, firstly there is much work to be done to better understand the net strength and opportunity faced by society in order to formulate implementable policy recommendations.

REFERENCE
(Sharma, Samuel, & Ng, 2009)

TITLE
The Knowledge Society and Global Dynamics in Education Politics.

AUTHORS
Jakobi, Anja P.

YEAR
2006

VENUE
European Educational Research Journal

SUMMARY
The paper explores the effect that the knowledge society discourse has on educational policy making at international level. The example of lifelong learning is illustrated to show this evidence.

HIGHLIGHTS
The paper highlights that:

1. The knowledge society is both an enabler for national policy reforms as well as a major source for observable global dynamics in education politics;
2. The knowledge society has a direct impact on education;
3. The knowledge society aligns countries on a common type of society;
4. The education policies are spread globally, countries share their best practices and results;
5. International organizations are fundamental because they provide an arena where successful policies can be discussed and diffused; and
6. Countries move together in the ambition of achieving a knowledge society.

REFERENCE
(Jakobi, 2006)

TITLE

Models of Lifelong Learning and the "Knowledge Society": Education for Competitiveness and Social Cohesion

AUTHORS

Green, Andy; Preston, John; Janmaat, Jan Germen

YEAR

2006

VENUE

Education, Equality and Social Cohesion

SUMMARY

The paper identifies the different models of the knowledge economy/society in the European Union. In addition, it analysis how the different models combine the concerns of economic competitiveness and social cohesion.

HIGHLIGHTS

The paper highlights that:

1. Three models of the knowledge economy/society were identified;
2. The three identified correspond to different geographical/cultural regions; 2) only one of the three identified models combine the concerns of economic competitiveness and social cohesion;
3. The nordic model is very distinct from social market model of the core european countries; and
4. Core european model combines better economic competitiveness and social cohesion.

REFERENCE

(Green, Preston, & Janmaat, 2006)

TITLE
Indicators of the Emerging Information Society in Pakistan

AUTHORS
Shafique, F.; Mahmood, K.

YEAR
2008

VENUE
Information Development

SUMMARY
The paper explores the Pakistan efforts to become an information society. The paper recommends that the information society in Pakistan should be aligned with the overall strategic plan and culture of the country.

HIGHLIGHTS
The paper highlights that:

1. The social and cultural inclusion could be achieved by raising awareness of the benefits of it literacy and providing online services in local languages;
2. More rural telecentres should be launched for having services more accessible; and
3. The agriculture policy should be integrated into the information society infrastructure.

REFERENCE
(Shafique & Mahmood, 2008)

TITLE
Transforming India into a knowledge economy through information communication technologies—Current developments

AUTHORS
Tripathi, Manorama

YEAR
2006

VENUE
The International Information & Library Review

SUMMARY
The paper explores the India challenges to become a knowledge economy. For this purpose, it analyses the current development in ICT in India and their implications, the policies and the present status within the framework of India vision 2020; Digital opportunity Task Force of G8, World Summit on the Information Society (WSIS) Geneva 2003 and Tunis 2005.

HIGHLIGHTS
The paper highlights that:

1. Lack of education, moderate science and technology capabilities, bureaucracy, lack of accountability, non-availability of content in local languages and inadequate power supply are challenges that need to be tackled in India;
2. The transformation of the India into a knowledge society requires the participation of stakeholders in government, civil society, private sector and non-governmental organizations;
3. The government should provide the appropriate environment through policies, enabling regulatory framework, free market economy and political stability to attract external investment;
4. The private sector should enhance r&d through partnerships with academic organizations; and
5. The society by itself should help mobilize people into the transformation process of knowledge society.

REFERENCE
(Tripathi, 2006)

TITLE
Inventing e-regulation in the US, EU and East Asia: conflicting social visions of the Information Society

AUTHORS
Venturelli, Shalini

YEAR
2002

VENUE
Telematics and Informatics

SUMMARY
The paper analyses the information society policy in the US, the European Union (EU), and East Asia. The author advocates that each region adopted different public policy for Information society. However, despite the wide range and diversity of e-regulations, none of them collectively address the importance that creativity and innovation has in the information society.

HIGHLIGHTS
The paper highlights that:

1. Creativity and innovation are key elements in the information economy;
2. The nations should create the right environment (policy, legal, institutional, educational, infrastructure and access) to enter in the global information society;
3. The need to invest in creative human capital and not merely in the diffusion of gadgets and hardware; and
4. Nations need to transform their domestic policy to lead with the global information society.

REFERENCE
(Venturelli, 2002)

TITLE
Regulating Access in the Information Society: The Need for Rethinking Public and Universal Service

AUTHORS
Burgelman, J.C.

YEAR
2000

VENUE
New Media & Society

SUMMARY
The paper explores if the existing concepts (public service and universal service) in the communication policy in relation to information access can be effectively used as it were in the past. The author argues that the transformation towards information society is not only a matter of regulating the media, but also regulating the society as a whole, firms, economics, governments and the way people live.

HIGHLIGHTS
The paper highlights that:

1. The context in which the communication policy has to be applied changed radically;
2. The communication policy should be pushed to social media; and
3. The importance of rethinking and re-operationalizing the concepts of information access.

REFERENCE
(Burgelman, 2000)

TITLE
Theoretical Foundations of Defining the Participatory, Co-Operative, Sustainable Information Society

AUTHORS
Fuchs, Christian

YEAR
2010

VENUE
Information, Communication & Society

SUMMARY
The paper proposes a comparative topology of approaches on Participatory, Co-operative, Sustainable Information Society grounded in social theory. Based on distinction between reductionistic, holistic, dualistic, and dialectical worldviews four theoretical approaches on defining Sustainable Information Society (SIS) were identified.

HIGHLIGHTS
The paper highlights that:

1. The reductionistic approach see ecological/technological/economic changes as the unique driving forces of an IS;
2. The projectionistic approach see super-structures (political and/or cultural) as the main forces of an IS;
3. The dualistic approach define multiple goals and dimensions of an IS but do not consider if they are causally linked;
4. In the dialectical approach the co-operation is the main force of an IS; and
5. It is time for an alternative view of a less-capitalistic co-operative information society.

REFERENCE
(Fuchs, 2010)

TITLE
Science parks as knowledge organizations – the " ba " in action?

AUTHORS
Hansson, Finn

YEAR
2007

VENUE
European Journal of Innovation Management

SUMMARY
The paper explores why the science parks in Europe failed in becoming a central actor in knowledge economy. In addition, the paper introduces the "ba" organizing theory as a solution for knowledge production in science parks. Furthermore, it proposes a certification system and a quality assessment to speed up the science parks change to organizations able to serve the needs of the knowledge society.

HIGHLIGHTS
The paper highlights that:

1. The knowledge organization is a child of the knowledge society and the science parks a child of the late industrial society;
2. The science parks are focused on material products and not on the intangible knowledge;
3. If the science parks want to become part of knowledge society they have to integrate in other knowledge-creating organizations;
4. The science parks must become active partners in the creation of knowledge networks between organizations; and
5. Such innovation on the science parks should be done by the European Commission and the International Association of Science Parks

REFERENCE
(Hansson, 2007)

TITLE
Governing global information and communications policy: Emergent regime formation and the impact on Africa

AUTHORS
Cogburn, Derrick L.

YEAR
2003

VENUE
Telecommunications Policy

SUMMARY
The paper explores the national responses of African countries for providing governance for the Global Information Infrastructure and Information society. For this purpose, a study case approach is made to identify the best practices and to catch some lessons learned from other emerging economies.

HIGHLIGHTS
The paper highlights that:

1. Globalization is helping to fuel the development of an information society;
2. There is a high level of consensus around key norms, principles, and values for a global information infrastructure and information society regime;
3. The leading stakeholders in this regime are the multi-national corporations;
4. The leading policy-makers for this regime will be the world trade organization; and
5. Additional research on comparing the information policy formulation of South Africa with those of other developing countries is needed.

REFERENCE
(Cogburn, 2003)

TITLE
ICTs, knowledge work and employment: The challenges to Europe

AUTHORS
Soete, Luc

YEAR
2001

VENUE
International Labour Review

SUMMARY
The paper addresses the importance of ICTs for economic growth and employment. The author stresses that ICT brought structural deep transformations in the economic, social and organizational framework of society thanks to its dramatic reduction in costs, digital convergence between communication and computer systems and rapid growth of Internet. The Author argues that ICTs were the first in history to introduce global economic transformations.

HIGHLIGHTS
The paper highlights that:

1. The new ICTS will affect directly and indirectly employment;
2. Countries will compete for skilled labor;
3. The lack of labor mobility in europe is likely to be felt; and
4. The cost and availability of skilled labor will be crucial variables in the work market.

REFERENCE
(Soete, 2001)

TITLE
Are teachers teaching for a knowledge society?

AUTHORS
Sahlberg, Pasi; Boce, Elona

YEAR
2010

VENUE
Teachers and Teaching: theory and practice

SUMMARY
The paper analyses whether teaching in the first grade of upper secondary schools in Albania meets the needs required to have an open society and knowledge economy. Based on the observation of results, the authors found that teacher talk occupies 70% of lesson time and student-initiative talk less than 30 seconds within a 45-minute lesson. They suggest the development of education policies able to promote productive and interactive learning for students to acquire the knowledge and skills needed within a knowledge society.

HIGHLIGHTS
The paper highlights that:

1. Teacher talk dominates classrooms;
2. There are many aspects where education policies in Albania are silent;
3. Decision makers should devote more attention to teaching and learning in schools; and
3. The patterns of classroom interaction should change.

REFERENCE
(Sahlberg & Boce, 2010)

TITLE
The Precautionary Principle as a Framework for a Sustainable Information Society

AUTHORS
Som, Claudia; Hilty, Lorenz M.; Köhler, Andreas R.

YEAR
2009

VENUE
Journal of Business Ethics

SUMMARY
The paper presents arguments for extending the Precautionary Principle (PP) from the original environmental and health domains to the social domain. The main argument is the evident influence of ICT development has on information society issues. Therefore, the precaution is needed to control the influence of ICT in society in order to avoid irreversible developments.

HIGHLIGHTS
The paper highlights that:

1. PP and sustainability share common goal preserving social environment for future generations;
2. PP can be seen as a framework for policy makers to support them in achieving a sustainable development; and
3. PP should be used by ICT companies for them be able to make a sustainable strategic plan.

REFERENCE
(Som, Hilty, & Köhler, 2009)

TITLE
Digital Europe 2030: Designing scenarios for ICT in future governance and policy making

AUTHORS
Misuraca, Gianluca; Broster, David; Centeno, Clara

YEAR
2012

VENUE
Government Information Quarterly

SUMMARY
The paper proposes a research roadmap on information and communication technologies for governance and policy modelling. The research roadmap is built under the vision of collaborative and interdisciplinary research between academia, business, civil society and government and is intended to be a useful tool for supporting policy makers. The authors developed a set of scenarios to show how ICT tools could affect governance and policy making twenty years from now in order to identify what research needs to be done and which policies should be promoted.

HIGHLIGHTS
The paper highlights that:

1. The key policy challenges are proof of the usefulness of the ICT tools and applications, strengthen data privacy and security, support of risk analysis and the cost of ICT should be affordable for a widespread adoption;
2. The experimentally-driven research should emerge to address broad governance and policy-making challenges; and
3. Research on ICT for governance and policy modelling including multiple stakeholders and large-scale experimentation should be ongoing.

REFERENCE
(Misuraca, Broster, & Centeno, 2012)

TITLE
Knowledge clusters and knowledge hubs: designing epistemic landscapes for development

AUTHORS
Evers, Hans Dieter; Gerke, Solvay; Menkhoff, Thomas

YEAR
2010

VENUE
Journal of Knowledge Management

SUMMARY
The paper discusses the issues related with globalization and knowledge based production, shows an epistemic landscape map with the location of knowledge producing organizations and makes an evaluation of a knowledge for development strategy. The authors advocate for the importance of sharing tacit knowledge claiming that knowledge intensive industries take place independently of the development of information and communication technology.

HIGHLIGHTS
The paper highlights that:

1. The combination of knowledge mapping and the design of epistemic landscapes in a tool allows the visualization of the knowledge distribution;
2. The knowledge mapping is a planning tool helpful to measure the impact of knowledge in all sectors of society; and
3. The epistemic landscapes is a precondition for the implementation of a sustainable knowledge development.

REFERENCE
(Evers, Gerke, & Menkhoff, 2010)

TITLE
Digital divide and economic development: case study of sub Saharan Africa

AUTHORS
Mutula, Stephen M.

YEAR
2008

VENUE
The Electronic Library

SUMMARY
The paper addresses the issue of digital divide making an analytical and comparative study of global e-readiness, digital opportunity and information society indices. The paper tries to measure the extent of digital divide within and between countries in sub-Saharan Africa.

HIGHLIGHTS
The paper highlights that:

1. Other tools than e-readiness ranking should be used to measure the digital divide;
2. The preoccupation with digital divide of countries relies on the notion that better infostates stand better economic chances;
3. The efforts in bridging the digital gaps in Africa should take into consideration its peculiarities;
4. Impact assessments should be used to determine if outcomes are being achieved;
5. It is inconclusive whether the digital divide is narrowing or widening in developing countries; and
6. The concern in addressing the digital divide in Africa should shift from access to the quality of service.

REFERENCE
(Mutula, 2008)

TITLE
EU Data Protection Policy

AUTHORS
Bergkamp, Lucas

YEAR
2002

VENUE
Computer Law & Security Review

SUMMARY
The paper examines the adverse effects of the EU data protection policy. The author argues that data protection restricts consumer choice and freedom and results in outdated and lower quality products and services at higher prices. The author suggests alternative and more balanced approaches to data privacy in EU. In addition, the paper discusses the use of information in the information-driven, Internet-based economy, the key features of the current and proposed privacy laws, the misunderstanding and false assumptions underlying the data protection programs and the paradoxical and unintended adverse consequences of privacy law.

HIGHLIGHTS
The paper highlights that:

1. The eu data protection policy seems to be misconceived and misfocused;
2. The foundations of EU data privacy regime should be revised; and
3. Imaginary ills of data violation must be addressed by communication and education.

REFERENCE
(Bergkamp, 2002)

TITLE
Information Society as a Global Policy Agenda: What Does It Tell Us About the Age of Globalization?

AUTHORS
Drori, G. S.

YEAR
2007

VENUE
International Journal of Comparative Sociology

SUMMARY
The paper addresses the question of why information society is listed among one of the most urgent global social problems. The authors advocate that the evident answer to that question is the newness of the technology itself because it brings new human capacity and so the social problem of uneven access to digital technology naturally emerges.

HIGHLIGHTS
The paper highlights that:

1. The global scope of society (globality) have come to propel the digital divide into the list of global social problems;
2. Globalization and ICT have and share common five dimensions: economic transactions, political relations, globality, networks, and world norms; and
3. The globalization theories should be more focused on cultural and institutional dimensions of globalization and not only on economic and political transactions dimensions.

REFERENCE
(Drori, 2007)

TITLE
Digital Denmark: from information society to network society

AUTHORS
Falch, Morten; Henten, Anders

YEAR
2000

VENUE
Telecommunications Policy

SUMMARY
The paper analyses and evaluates the Danish performance in implementing the policy reports on Information Society (1994) and on Digital Denmark - Conversion to the Network Society (1999), as well as, their implications on development of society.

HIGHLIGHTS
The paper highlights that:

1. The Denmark is in the forefront of information network society developments;
2. The international competition among countries increased in the last 20-30 years;
3. The Denmark policy reports strive to put denmark in a pioneer position in learning, e-commerce, access to public information, means of social communications, and it-lighthouses areas; and
4. Learning and education are very important for the development of information network society.

REFERENCE
(Falch & Henten, 2000)

TITLE
The Lifeworld of Youth in the Information Society

AUTHORS
Morimoto, S. A.; Friedland, L. A.

YEAR
2010

VENUE
Youth & Society

SUMMARY
The paper analyses how media use is changing the way of life of young people, including language, socialization, national, ethnic and mass culture. The authors argue that young peoples' lives are so saturated by media use that their world is mediated through this channel. And this new social structure and forms of interaction will reinforce an environment of risks and individualization for young people today.

HIGHLIGHTS
The paper highlights that:

1. The life of young people cannot be separated from media use in all its forms;
2. Media use is a central point for young people's socialization and interaction;
3. There is real gains in the media use for young people but also risks;
4. The networked individualism when well-balanced could bring autonomy in culture, social choice and economic opportunities;
5. Digital media can promote polarization; and
6. Policies to increase civic and media participation of society are needed.

REFERENCE
(Morimoto & Friedland, 2010)

TITLE
Social Media for Digital and Social Inclusion: Challenges for Information Society 2.0 Research & Policies

AUTHORS
Verdegem, Pieter

YEAR
2011

VENUE
TripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society

SUMMARY
The paper discusses how research and policies could help in the development of an inclusive and sustainable information society. The central point of discussion for the author is the disruptive potential of social media and the new challenges that rise regarding digital and social inclusion.

HIGHLIGHTS
The paper highlights that:

1. The first wave of information society policies were dominated by techno enthusiastic visions and now days policy visions are concentrated in the knowledge economy performance;
3. The dominance of economic dimension in information society policy is at the expense of social and cultural aspects;
4. Social media could work as catalyzer and bridge the gap between digital and social inclusion;
5. The evolution of digital age should be critically investigated; and
6. Researchers should advice and inspire policy makers in the establishment of and information society for all citizens.

REFERENCE
(Verdegem, 2011)

TITLE
Information Economy and Changing Occupational Structure in Singapore

AUTHORS
C. Y. Kuo; Linda Low, Eddie

YEAR
2011

VENUE
The Information Society

SUMMARY
The paper analyses Singapore population census data since 1921 and makes an assessment of the government role in promoting the industrial restructuring and occupational changes. The authors advocate that one more wave of growth of information producers and information distributers is forthcoming in the next couple of decades.

HIGHLIGHTS
The paper highlights that:

1. The competition from regional countries will quicken the pace towards an information and knowledge economy;
2. Singapore government has adopted an adaptive culture able to quickly respond to environmental changes; and
3. It is expected that after singapore attains a developed country status it will graduate into a full global information society.

REFERENCE
(Kuo & Low, 2011)

TITLE
Pleonastic exclusion in the European Information Society

AUTHORS
Sarikakis, Katharine; Terzis, George

YEAR
2000

VENUE
Telematics and Informatics

SUMMARY
The paper studies the negative effect of the EU Information Society (IS) policies in Greece. It stresses that a big knowledge gap between groups with different socio-economic status is emerging within the Greek population, where citizens are excluded from new media due to their educational and financial status. The authors call this phenomenon “pleonastic exclusion” because due to the high number of media channels the users need to be continuously in an information selection and exclusion process.

HIGHLIGHTS
The paper highlights that:

1. The inequality in information and knowledge acquisition creates further disproportionality in society;
2. The globalization of the economy overlaps the national policies; and
3. The european union policies for harmonization remain unfocused on the consequences a dual society would have on the future of individuals.

REFERENCE
(Sarikakis & Terzis, 2000)

TITLE
Statistics and Politics in a “Knowledge Society”

AUTHORS
Giovannini, Enrico

YEAR
2007

VENUE
Social Indicators Research

SUMMARY
The paper analyses the role of statistics in the development of a knowledge society by examining the nexus between information, expectations and economic theory and between information and political sciences. In addition, the paper also discusses several approaches to measure societal progress. Furthermore, it also discusses what citizens know about societal progress using theoretical and empirical models and the OECD project to measure societal progress is presented.

HIGHLIGHTS
The paper highlights that:

1. A democratic society needs a common knowledge base for economic, social and environmental characteristics to be possible make a comparison of these characteristics between countries;
2. It is important to keep in mind when we measure indicators we are under the Heisemberg’s principle, which states that “if you observe a system, you are modifying it”;
3. A navy use of indicators may also bring wrongly overconfidence on the precision of indicators;
4. The statistics given by NGOS are increasingly being recognized as credible;
5. The success of OECD project to measure progress in society confirms its importance; and
6. The statisticians should enter at the center of how to measure the progress of societies.

REFERENCE
(Giovannini, 2007)

TITLE
The (Un)Happiness of Knowledge and the Knowledge of (Un)Happiness: Happiness Research and Policies for Knowledge based Economies 1

AUTHORS
Engelbrecht, Hans Jürgen

YEAR
2007

VENUE
Prometheus

SUMMARY
The paper explores the knowledge and happiness policy discourses and their main interfaces. The author suggests that there is some evidence that the current state of knowledge policy is unsatisfactory but it is going in the right direction of including insights from happiness research. The author advocates that if the happiness is the ultimate state of the economic activity, a closer relationship between knowledge and happiness policies should exist.

HIGHLIGHTS
The paper highlights that:

1. People's beliefs and values should be taken into account in the design of knowledge policies;
2. The diversity of knowledge and societies should go well beyond the economic mainstream and social indicators; and
3. The indices to ranking Knowledge Societies seem to be for the psychological need of analysts and policy makers to rank countries.

REFERENCE
(Engelbrecht, 2007)

TITLE
Knowledge management prerequisites for building an information society in healthcare.

AUTHORS
Kisilowska, Malgorzata

YEAR
2006

VENUE
International journal of medical informatics

SUMMARY
The paper makes a review of the definition of information in Polish and of the current health information sources in order to emphasize the lack of understanding of the information received.
The author advocates that researches, classifiers and indexers shall mobilize and coordinate efforts to build a translator covering the most popular health concepts, to make the information searchable and easy to understand for patients.

HIGHLIGHTS
The paper highlights that:

1. The translator should include common phrases used by the patients and translate them into professional terminology;
2. The tool should have intelligent searching, identify the qualifications of user, adapt to user and a simple way to find information; and
3. So far mostly medical websites in Poland were developed for professionals but not for public.

REFERENCE
(Kisilowska, 2006)

TITLE
Creative Destruction? From the Welfare State to the Global Information Society

AUTHORS
Calabrese, Andrew

YEAR
1997

VENUE
Javnost - The Public

SUMMARY
The paper explores the reasons used to dismantle the welfare state, giving particular attention to its implication on state as cultural patron and guarantor of the rights to access the communications means. It also examines that the dominant discourse of information society relies on some reasons used to dismantle the welfare state. The author advocates that contrary to the general opinion the development of the global information society is not towards a free market, but rather it is at the enforcement of the rights of property of international media and telecommunication companies.

HIGHLIGHTS
The paper highlights that:

1. The intellectual and political attacks to welfare states are one half of the problem of what joseph schumpeter calls “creative destruction” and the other half is the global idea of build a global information society;
2. One response to this problem could be a new global constitutionalism aimed at the establishment of global social and cultural policies;
3. Global information society is ruled by an unaccountable number of private cartels; and
4. The stability of the emerging global market system is uncertain, thereby discussions about democratic control of modern means of communication will become a central point in the coming years.

REFERENCE
(Calabrese, 1997)

TITLE
National information infrastructure policy: a theoretical and normative approach

AUTHORS
Schaefer Richard J.

YEAR
1995

VENUE
Internet Research

SUMMARY
The paper critically examines the technology and democratic discourse for developing the information infrastructures in US during the Clinton mandate. The author advocates that the rush to privatize the US national information infrastructure will undermine the system potential to improve democratic participation on public decision making because it places financial barriers on use for citizens with less resources.

HIGHLIGHTS
The paper highlights that:

1. Information infrastructure management and technical decision making should be done under deep a democratic scrutiny and analysis;
2. The information infrastructure will have influence in the democratic activities; and
3. The implications of the information and telecommunication policies in the democratic system demand more public interest.

REFERENCE
(Schaefer Richard J., 1995)

TITLE
Gender (In)equalities in the Knowledge Society

AUTHORS
Mósesdóttir, Lilja

YEAR
2011

VENUE
Gender, Work & Organization

SUMMARY
The paper addresses the gender issues in EU and tries to find answers to the question why gender equality policies for knowledge society in Europe is not being implemented. The author advocates that in spite of efforts for such outcome in European policies, the market forces involved in transition to knowledge society show a strong opposition to gender inequalities.

HIGHLIGHTS
The paper highlights that:

1. Women's educational attainment and employment have increased in Europe as well as their participation in paid work;
2. There is not an improvement in the gender skill pay and care gap;
3. The progress should be towards the equal evaluation of work; and
4. The EU gender strategy has to be reframed to be able to challenge the market forces and power relations that underlie gender inequalities.

REFERENCE
(Mósesdóttir, 2011)

TITLE
Governing the Knowledge Society: Studying Lisbon as Epistemic Setting

AUTHORS
Pfister, Thom

YEAR

2009

SUMMARY
The paper explores the role of knowledge in governance context of the Lisbon strategy and the knowledge construction in European Union (EU). In particular, the learning as a key element for knowledge and the policy making in the context of Lisbon. The author advocates that the process of knowledge production remained at the level of political institutions and it was not grounded in practice, a wider knowledge conceptual discourse is needed.

HIGHLIGHTS
The paper highlights that:

1. It is important to complement the government discourse on knowledge with an empirical programme in order to emphasize practices on the ground; and
2. More studies of this kind are necessary to decide whether and how EU laws are transforming or whether the union is turning into a polyarchy.

REFERENCE
(Pfister, 2009)

TITLE
Making Botswana an information society: current developments

AUTHORS
Mutula, Stephen M.

YEAR
2004

VENUE
The Electronic Library

SUMMARY
The paper describes the Botswana initiatives to become an information society. The paper presents the Botswana vision 2016 that defines the actions to be taken for nation reaches the information society status and the developments in the ICT sector in country.

HIGHLIGHTS
The paper highlights that:

1. Botswana has one of the best Africa telecommunication system;
2. Botswana is ranked first in Africa in providing free market economy;
3. Botswana has a number of challenges such as, lack of liberalization of fixed line telephone sector, lack of universal access to ict, slow skills development, inadequate electromagnetic spectrum utilization, lack of an information society policy;
4. The Botswana's Vision2016 is not aligned with developments in ict; and
5. Free media and universal access to information is critical for good governance.

REFERENCE
(Mutula, 2004)

TITLE
Information Policies in Spain

AUTHORS
Cornella, Alfons

YEAR
1998

VENUE
Government Information Quarterly

SUMMARY
The paper discusses the Spanish information policy in terms of information contents, actions to stimulate information exchange and information management in governance. The author stresses that inspite the Spanish legislation being fairly up-to-date, the country has problems with the ease of access to information, Furthermore, it is also stressed that in Spain there is no public debate on how to turn the country into an information society.

HIGHLIGHTS
The paper highlights that:

1. There is a mismatch between the country's economic development model traditionally followed by Spain, and its information development;
2. There is a need for better information about the current situation of information market to design aware and appropriate information policies;
3. The economic growth alone does not guarantee the growth of information use; and
4. There is a need to shift the focus on information society from technology to content.

REFERENCE
(Cornella, 1998)

TITLE
Europe and the Global Information Society: The history of a troubled relationship

AUTHORS
Garnham, Nicholas

YEAR
1997

VENUE
Telematics and Informatics

SUMMARY
The paper discusses the European Union policy in the information and telecommunication technology sector. The paper aims at outlining its history in order to insight the interest and power games behind the policy initiatives and understand the policies and its presumable outcomes.

HIGHLIGHTS
The paper highlights that:

1. The policies have produced little concrete value;
2. The policies to not solve the problems to which they were addressed; and
3. The EU money involved is not enough in comparison with national programmes.

REFERENCE
(Garnham, 1997)

TITLE
Information highways and media policies in the European Union

AUTHORS
Schoof, Hans; Watson Brown, Adam

YEAR
1995

VENUE
Telecommunications Policy

SUMMARY
The paper discusses the European policy on communications media. For this purpose, it starts by giving an overview on policy framework for the policy society, and then discusses aspects that should be addressed in the construction of an information society such as , the removal of unnecessary regulatory barriers, universal and public service, line of business restrictions and pluralism of media.

HIGHLIGHTS
The paper highlights that:

1. Although the european objective of communication media policies were for internal market, they have been implemented quite differently in telecommunications sector;
2. The information society will be built on the convergence of media therefore a policy framework should encompass the different media; and
3. The policy framework should not be limited only to economic dimension, but should include the social and cultural dimensions; and
4. The right to universal access and production of content should be examined to see if they are being committed.

REFERENCE
(Schoof & Watson Brown, 1995)

TITLE
Knowledge on the Move

AUTHORS
Mamlook, Rustom; Aljumah, Abdullah; Farooqui, N.K.

YEAR
2011

VENUE
Journal of Applied Sciences

SUMMARY
The paper proposes a framework for propagating knowledge by means of a mobile phone. The framework is composed of two components, one is an audio to text converter and the other is the voice browser which answers to questions.

HIGHLIGHTS
The paper highlights that:

1. The use of mobile technology for knowledge propagation is demanding; and
2. The knowledge propagations has two problems, one it needs to deal with multiple languages and second the audio interaction with user instead of text.

REFERENCE
(Mamlook, Aljumah, & Farooqui, 2011)

TITLE
The South African 'Information Society', 1994–2008: Problems with Policy, Legislation, Rhetoric and Implementation

AUTHORS
Singh, Sachil

YEAR
2010

VENUE
Journal of Southern African Studies

SUMMARY
The paper discusses and analysis the South Africa ICT policies. It explores the contradictions and shortcomings in government legislation and policies for ICT. The author concludes that South African government failed on its goals to attain an information society.

HIGHLIGHTS
The paper highlights that:

1. The goals and tools framework shows that the vision of ict policy was based so strongly on dealing with apartheid;
2. Competing actions, decisions and projects by various government departments exposed the uncoordinated tools in striving for what was seemingly the same goal;
3. The research exposed the relationship between contradictions and fragmentations of political rhetoric and the inconsistencies in legislation and policy formulations; and
4. There is a lack of common ground at government level in the conceptualization of the digital divide.

REFERENCE
(Singh, 2010)

TITLE
Handbook of Research on Overcoming Digital Divides

AUTHORS
Selwyn, Neil; Facer, Keri

YEAR
2010

VENUE
Journal of Southern African Studies

SUMMARY
The paper addresses the problem of digital exclusion considering it as a serious and significant threat to the successful implementation of information society in developing and developed countries. The authors stress the capacity of technology in shaping people's engagement with ICT. In addition, a hierarchical framework for digital exclusion based on the use of ICT is proposed.

HIGHLIGHTS
The paper highlights that:

1. Policy makers, ICT industry and other information society stakeholders face a big challenge in addressing the needs and interests of people; and
2. Digital exclusion demands a set of policies that go beyond increasing ICT access and support.

REFERENCE
Selwyn, N., & Facer, K. (2010)

TITLE
Save the Children: The Protection of Minors in the Information Society and the Audiovisual Media Services Directive

AUTHORS
Füg, Oliver C.

YEAR
2008

VENUE
Journal of Consumer Policy

SUMMARY
The paper describes the European Union regulatory regime for the protection of underage against inadequate programmes harmful to their development as human beings. In addition, the paper also proposes legislation for audiovisual media as well as on-demand services based on the policies drafted by the institutions involved in the ongoing reform process.

HIGHLIGHTS
The paper highlights that:

1. One of the challenges will be to identify relevant indicators to decide if the content is harmful or not and who will be responsible for doing that;
2. It will be crucial to ensure a new definition of television as any other audiovisual media service;
3. To keep the audiovisual environment a safe place for minor national policies in conjunction with parental effort should be put in place; and
4. The eu Audiovisual Media Services (AVMS) directive has very narrow scope for the public protection of minors from harmful audiovisual contents.

REFERENCE
(Füg, 2008)

TITLE
The “Renaissance of the University” in the European knowledge society: An exploration of principled and governmental approaches

AUTHORS
Simons, Maarten

YEAR
2007

VENUE
Studies in Philosophy and Education

SUMMARY
The paper analyses the current discourses about the new public role of universities in the context of the European knowledge society. The paper aims at shifting the discussion to the socio-historical aspects of the universities.

HIGHLIGHTS
The paper highlights that:

1. From the genealogical point of view two public roles were identified, one the academic as a critical intellectual and second the academic as a state official expert;
2. From the very beginning the universities were hybrid institutions with the two types of roles;
3. The current debates denote influence from both sides, academic as a critical intellectual and academic as a state official expert; and
4. The author expects new teaching and research activities outside universities that more easily resist to external influences.

REFERENCE
(Simons, 2007)

TITLE
NGOs and the “Information Society”: Grassroots Advocacy at the UN?A Cautionary Tale

AUTHORS
Franklin, M.I.

YEAR
2007

VENUE
Review of Policy Research

SUMMARY
The paper gives an overview of the UN World Summit on the Information Society (WSIS) aims and objectives, and on the implications of the participation of non-governmental organizations in consultations and decisions of the summit. The paper focusesattention on the hazards of involving NGOs and grassroots activism on ICT related strategies for action.

HIGHLIGHTS
The paper highlights that:

1. This multilateral institutions and social justice and ICT advocacy, in line with official institutions on the ground, raises new challenges for policy research;
2. Social justice and ICT activists have made their own WSIS in order to ensure certain ideals, and that ideals are not protected in declarations of principles but incorporated in discourse of ICT “global governance”; and
3. Activism and policy domains are being dominated by techno-economic dimensions.

REFERENCE
(Franklin, 2007)

TITLE
The European knowledge society and the diminishing state control of education: the case of Sweden

AUTHORS
Säfström, Carl Anders

YEAR
2005

VENUE
Journal of Education Policy

SUMMARY
The paper examines the nexus between education and state in Sweden at the light of knowledge society context. In particular, a Sweden policy document about life-long learning was analyzed in the view of the state as an authentic state, a state where the desire of good life for its citizens is a condition of democratic society.

HIGHLIGHTS
The paper highlights that:

1. The knowledge society discourse only explores the education from economical side;
2. The will of citizens is subordinated to the will of the state and its economic interests; and
3. This new educational language conveyed by the knowledge society does not give political tools for citizens be able to live and act autonomously.

REFERENCE
(Säfström, 2005)

TITLE
Stumbling along or grave new world? Towards Europe's information society

AUTHORS
Blackman, Colin

YEAR
2004

VENUE
Foresight

SUMMARY
The paper explores the development of information society in Europe and gives an overview of the current state of ICT sector towards the information society. In addition, the paper advances with two possible scenarios for the information society future in Europe. Furthermore, the impact of EU information society policies are also discussed.

HIGHLIGHTS
The paper highlights that:

1. ICTs affect almost every aspect of everyday activities;
2. Evidence suggest that we are in era of ubiquitous computing where the telecommunication cost are near zero and the devices work seamlessly across different networks; and
3. The author assumes two possible future scenarios, one called "stumbling along", where the employment in knowledge worker jobs for services industries and tan collar jobs will be growing, and a second scenario, called "grave new world", where there is a paradigm shift in innovation with the convergence between ubiquitous computing, ubiquitous communications and intelligent user interfaces.

REFERENCE
(Blackman, 2004)

TITLE
Digital Europe 1998: Policies, Technological development and implementation of the emerging information Society

AUTHORS
Kofler, Angelika

YEAR
1998

VENUE
Innovation: The European Journal of Social Science Research

SUMMARY
The paper gives an overview of European information society policies looking at their discourse and implications on the individual as well as on society as a whole. In addition, a comparison study between US, Europe and Japan in regard to their progress towards information society is made.

HIGHLIGHTS
The paper highlights that:

1. Besides the priority given to information society by policy makers there are still unsolved problems;
2. It is unclear the impact that information society will have on citizens and if it will match their needs; and
3. The creation of the European information society appears to be inevitable but there is a long way to go to policies match reality, find the right balance between technology and its impact on citizen and to enter smoothly and democratically in this new era.

REFERENCE
(Kofler, 1998)

TITLE
The Latin American path towards digitization

AUTHORS
Katz, Raul L.; Koutroumpis, Pantelis; Callorda, Fernando

YEAR
2013

VENUE
Info

SUMMARY
The paper proposes a methodology to calculate the digitization index based on the original work made by Booz & Company, a global management consulting firm. The proposed index is composed of six elements: ubiquity, affordability, reliability, speed, usability and skill. The authors argue that most indices measure progress towards information society focused on metrics such as infrastructures, Internet access and broadcasting adoption, therefore they only capture a portion of the ongoing transformation to the new era.

HIGHLIGHTS
The paper highlights that:

1. The proposed digitization index incorporates powerful measure, the usage process, which allow to have a more holistic dimension of impact;
2. According to this index the Latin America looks to be in a very fast pace to digitization;
3. The challenges faced by different countries are also of different nature;
4. Digitization appears to have a higher influence on economic growth; and
5. Policies for promoting digitization need to be combined with industrial policies in order to generate economic growth and job creation.

REFERENCE
(Katz, Koutroumpis, & Callorda, 2013)

TITLE
Democratization of Information in Malaysia: A Response to Globalization

AUTHORS
Rahim, Samsudin A; Pawanteh, Latiffah

YEAR
2011

VENUE
Asian Social Science

SUMMARY
The paper describes Malaysia's efforts in the universal access to information and presents the results of a survey conducted for collecting the opinion of young adults about the current transformations in the local media.

HIGHLIGHTS
The paper highlights that:

1. Malaysia has always taken precautious about opening herself to globalization;
2. There is a need to look into the context of each country before they enter in the globalization phenomena;
3. Globalization brought liberalization and deregulation of communication industry; and
4. The democratization of information should translate into knowledge and therefore fill the economic gaps in malaysian society.

REFERENCE
(Rahim & Pawanteh, 2011)

TITLE
Are Central and Eastern European Countries managing to develop the information Society?

AUTHORS
Gómez Barroso; José Luis; Feijoo Gonzalez; Claudio Antonio

YEAR
2010

VENUE
Transformations in Business and Economics

SUMMARY
The paper makes a review of Central and Eastern European Countries policies on information society, evaluates the implications of such policies using some indicators of the information society and, based on the results obtained from the evaluation, presents its critical analysis.

HIGHLIGHTS
The paper highlights that:

1. Most Central and Eastern European countries are not moving forward into an information society;
2. Spain, Greece and Portugal are always far behind Central European countries; and
3. Only the countries that joined the European Union in 2004 are having a gradual upward trend.

REFERENCE
(Gómez Barroso & Feijoo Gonzalez, 2010)

4.

Tools

According to the Merriam-Webster Dictionary of English, a tool is “something (as an instrument or apparatus) used in performing an operation or necessary in the practice of a vocation or profession”. In this handbook, a tool refers to a theory, framework, model, system, project, organization, community, software, platform, repository, portal, etc. that can be useful in developing, implementing, evaluating and sustaining public policies for Knowledge Societies.

NAME

IFAP - Information for All Programme, UNESCO

DESCRIPTION

The Information for All Programme seeks to: promote international reflection and debate on the ethical, legal and societal challenges of the information society; promote and widen access to information in the public domain through the organization, digitization and preservation of information; support training, continuing education and lifelong learning in the fields of communication, information and informatics; support the production of local content and foster the availability of indigenous knowledge through basic literacy and ICT literacy training; promote the use of international standards and best practices in communication, information and informatics in UNESCO's fields of competence; and promote information and knowledge networking at local, national, regional and international levels.

CATEGORY

Project

REFERENCE

(UNESCO, 2016)

URL

http://www.unesco.org/new/en/communication-and-information/intergovernmental-programmes/information-for-all-programme-ifap/

NAME
IFAP observatory

DESCRIPTION
IFAP Information society observatory; provides access to a range of up-to-date, policy papers and strategies, book reviews, trends and other resources in the IFAP priority areas. It is a freely accessible, quality resource for informing policy-makers, researchers and practitioners about policies, practices and trends in the information and Knowledge Societies; Each month around 50 new entries are added to the Observatory by the dedicated team of researchers at the Budapest University of Technology and Economics Information Society and Trend Research Institute (ITTK) who maintain and manage the site. The Observatory publishes a quarterly newsletter as well as an annual report on trends in the global information society. In 2011 there were almost 10,000 unique visits to the Observatory from all around the world

CATEGORY
Repository

USAGE
Contributions are posted (blog structure) by editor

REFERENCE
(IFAP Information Society Observatory Editor, 2011)

URL
http://ifap-is-observatory.ittk.hu/

NAME

Global e-Schools and Communities Initiative (GESCI)

DESCRIPTION

Established in 2003, GESCI was borne out of the work of the United Nations ICT Task Force which identified education as an area in critical need of development, and one where ICT has the potential to make positive impacts, GESCI provides services and products that create value for stakeholders in the field of ICT for Education and Development. The development and refinement of these services and products demands continuous research, assessment and evaluation of stakeholders' needs. It also requires GESCI to engage in ongoing assessment of its own operations

CATEGORY

Project

USAGE

Section (theme) on information society

REFERENCE

(GESCI, 2012)

URL

http://www.gesci.org/

NAME

European Economic and Social Committee

DESCRIPTION

Information technologies are on the rise everywhere, yet their potential for economic growth, employment, innovation and, above all, improving European citizens' quality of life, has still to be fully exploited. These issues are the basis for work in the Section for Transport, Energy, Infrastructure and Information Society (TEN) and the permanent study group on the Digital Agenda. In particular, this Committee monitors the digital gap and promotes equal access for all (30% of European households still lack Internet connections, according to recent Eurostat figures). It expresses civil society's concerns and aspirations regarding employment and qualifications in a sector where an estimated 900 000 new jobs could be created by 2015. E-accessibility and the protection of users – especially children and people with disabilities – are also at the heart of its concerns.

CATEGORY

Project

REFERENCE

(EESC, 2015)

URL

http://www.eesc.europa.eu/?i=portal.en.information-society

NAME

The Caribbean Development Portal

DESCRIPTION

The Caribbean Development Portal was developed by ECLAC to enhance the diffusion of knowledge about the current state of economic and social development in the Caribbean. As an aggregator of reports and statistics from national, regional, and global organizations, it aims to increase the visibility of these resources, and thereby provide a service for researchers seeking information to support development efforts in the region.

CATEGORY

Portal

USAGE

One topic within the portal; documents and resources

REFERENCE

(ECLAC, 1948)

URL

http://caribbean.eclac.org/t/information-society

NAME

EuroFound - European Foundation for the Improvement of Living and Working Conditions

DESCRIPTION

The tripartite EU agency providing knowledge to assist in the development of social and work-related policies; Eurofound's mission is to provide knowledge to assist in the development of social and work-related policies.

CATEGORY

Project

USAGE

Section within the European Observatory of Working Life

REFERENCE

(EurWork, 2007)

URL

http://www.eurofound.europa.eu/areas/industrialchange/knowledgesociety

NAME
European Future Internet Portal

DESCRIPTION
The public-private partnership on the Internet of the Future (FI-PPP) was launched by the European Commission on 3 May 2011; The portal has a Tab dedicated to IS.

CATEGORY
Provides posts on related issues (and others not so related)

USAGE
Portal

REFERENCE
(FI-PPP, 2008)

URL
http://www.future-internet.eu/information-society.html

NAME
Global Information Society Project

DESCRIPTION
A Research Collaboration between the Stilwell Center and the World Policy Institute; The Project seeks to examine the key issues that lie at the intersection of technologically enabled change and the existing information and communication practices in particular areas of national and international public policy, law and industry.

CATEGORY
Project

USAGE
The Project seeks to examine the key issues that lie at the intersection of technologically enabled change and the existing information and communication practices in particular areas of national and international public policy, law and industry

REFERENCE
(Stilwell Center and the World Policy Institute, 2015)

URL
http://global-info-society.org/

NAME
Portuguese agency for S&T - FCT

DESCRIPTION
Provides governmental information related to the IS

CATEGORY
Organization

USAGE
Links to national and European initiatives, activities, work groups, etc

REFERENCE
(FCT, 2012)

URL
https://www.fct.pt/dsi/

NAME

European Society Platform on Lifelong Learning

DESCRIPTION

It was created by Six NGOs (EfVET, EAEA, EVTA, CSR-Europe, Solidar and Euro-WEA) to maintain a consultation platform open to all interested civil society actors in the field of lifelong learning and the future objectives of education and training systems in Europe. One of its main objectives is to enable people to develop and to maintain key competencies throughout life.

CATEGORY

Platform

USAGE

The project evolved into The European Civil Society Platform on Lifelong Learning (EUCIS-LLL)

REFERENCE

(Adults, 2005)

URL

www.eucis-lll.eu

NAME

Unified Digital Platform for All Libraries in England project

DESCRIPTION

This is an initiative of the Society of Chief Librarians (SCL) in England to create a unified digital platform for all public libraries in England. The aim of the project is to improve how library customers can access, understand, and use the information and resources that libraries provide, including book catalogues, digital resources, IT training, events calendars, and library locations and opening hours. The web platform is hoped to help bring new users into public libraries, both virtually and physically, and enrich the library experience for existing customers.

CATEGORY

Project

REFERENCE

(Librarians, 2015)

URL

http://goscl.com/scl-working-to-create-unified-digital-platform-for-all-libraries/

NAME

The Knowledge Triangle - OECD Project

DESCRIPTION

The project is expected to examine factors that can enhance the capacity of education, research and innovation actors in the knowledge triangle to tackle jointly economic and social challenges while enhancing the responsiveness, adaptability and flexibility of local, national or international innovation eco-systems. It will draw on recent TIP work regarding the commercialisation of public research", open science, smart specialisation and public/private partnerships in STI. The project's expected outputs are: 1) Synthesis report on best practices to promote research, innovation and education policies in the context of the knowledge triangle; 2) Analytical reports on the various modules for the project, i.e. higher education; governance, place-based policies in support of the KT and evaluation and impact assessment for the KT.

CATEGORY

Project

REFERENCE

(The Innovation Policy Platform, 2013)

URL

https://www.innovationpolicyplatform.org/knowledge-triangle-oecd-project

NAME
Digital India

DESCRIPTION
Digital India is a programme to transform India into a digital empowered society and knowledge economy. It is an ambitious programme of Government of India projected for preparing India for the knowledge based transformation and delivering good governance to citizens by synchronized and co-ordinated engagement with both Central and State Government.

CATEGORY
Project

REFERENCE
(Department of Electronics and Information Technology, 2014)

URL
http://www.cmai.asia/digitalindia/

NAME
Open Knowledge

DESCRIPTION
Open Knowledge is a worldwide non-profit network of people passionate about openness, using advocacy, technology and training to unlock information and enable people to work with it to create and share knowledge.

CATEGORY
Organization

URL
https://okfn.org/

NAME

African Leadership in ICT for Knowledge Society Advancement

DESCRIPTION

The Global E-Schools and Communities Initiative (GESCI), an international non-governmental organization (NGO) founded by the United Nations' Information and Communications Technology (ICT) Taskforce. It provides leadership capacity building for the advancement of knowledge in society, as well as strategic advice to relevant ministries in developing countries on the effective use of ICT, education and science technology innovation (STI) for inclusive knowledge society development. In partnership with the African Union Commission (AUC) and others, GESCI has developed the African Leadership in ICT (ALICT) capacity building programme and is working to implement it across 16 Anglophone and Francophone countries in Africa. So far, almost 500 senior-level government officials have graduated from the course.

CATEGORY

Organization

REFERENCE

(Partnerships for Sustainable Development Goals, 2015)

URL

https://sustainabledevelopment.un.org/partnership/?p=9466

NAME
ECA Knowledge Briefs

DESCRIPTION
Europe and Central Asia (ECA) Knowledge Briefs disseminate knowledge, good practices and lessons learned that are generated and captured from both operational and analytical work in the ECA region to interested Bank staff, clients, partners and the general public.

CATEGORY
Repository

REFERENCE
(The World Bank, 2009)

URL
http://www.worldbank.org/en/region/eca/brief/knowledge-briefs

NAME

Modeling the penetration of the information society paradigm

DESCRIPTION

This paper presents a model for government support in the creation of an information society in accordance with the eEurope objectives.

CATEGORY

Model

REFERENCE

(Wimmer, 2004)

URL

http://link.springer.com/chapter/10.1007%2F978-3-540-24683-1_21

NAME

PRIOR-WK&E: Social software for policy making in the knowledge society

DESCRIPTION

This paper presents a social software application denominated as PRIOR-WK&E. It has been developed by the Zaragoza Multicriteria Decision Making Group (GDMZ) with the aim of responding to the challenges of policy making in the Knowledge Society. Three specific modules have been added to PRIOR, the collaborative tool used by the research group (GDMZ) for considering the multicriteria selection of a discrete set of alternatives. The first module (W), that deals with multiactor decision making through the Web, the second (K), that concerns the extraction and diffusion of knowledge related to the scientific resolution of the problem, and a third module (E) that evaluates the effectiveness of public administration's policy making.

CATEGORY

Software

REFERENCE

(Lytras et al., 2010)

URL

http://link.springer.com/chapter/10.1007%2F978-3-642-16318-0_16

NAME

Science parks as knowledge organizations - The “ba” in action?

DESCRIPTION

The paper proposes a system of certification and quality assessment that might speed up the change in science parks from organizations formed by the industrial society to organizations serving the needs of the knowledge society. The paper is an original contribution to the theory of science parks and innovation policy. It uses new organizational theory on knowledge management, illustrated by Nonaka’s concept of ‘ba’ (a shared space that serves as a foundation for knowledge creation), to present a new solution to overcome the traditional thinking on how to organize science parks.

CATEGORY

Theory

REFERENCE

(Hansson, 2007)

URL

http://www.emeraldinsight.com/doi/abs/10.1108/14601060710776752

NAME

Toward a framework for designing information society policies

DESCRIPTION

This paper provides a systemic analytical framework that can help in assessing the claims of what information infrastructures will provide, and in designing information society policies that reflect the needs and priorities of particular countries. It shows the fundamental importance of service applications in specific sectors, skill development at both producer and consumer levels, and structural reform in the applications sectors. A checklist for policy-planners is provided.

CATEGORY

Framework

REFERENCE

(Melody, 1996)

URL

http://www.sciencedirect.com/science/article/pii/0308596196000079

NAME

Women Resource Centres-A Creative Knowledge Environment of Quadruple Helix

DESCRIPTION

In this article, the model of Women Resource Centres (WRCs)-developed in Sweden and internationalized throughout Europe-serves as an example of how creativity in the organization of joint action networks can make new knowledge and innovation prosper. These centres were initiated in order to promote gender equality in regional development policy, enhancing women's realization of business ideas and innovations. The model of Women Resource Centres illustrates the need for further development of predominant models for promoting innovation. Suggested concepts such as Creative Knowledge Environments and Quadruple Helix have the potential to increase the diversity of actors and areas being acknowledged as important in the expanding knowledge economy, by including the civil society and creative industries.

CATEGORY

Project

REFERENCE

(Lindberg, Danilda, & Torstensson, 2011)

URL

http://link.springer.com/article/10.1007%2Fs13132-011-0053-8#page-2

NAME

Toward a framework for designing information society policies

DESCRIPTION

This paper provides a systemic analytical framework that can help in assessing the claims of what information infrastructures will provide, and in designing information society policies that reflect the needs and priorities of particular countries. It shows the fundamental importance of service applications in specific sectors, skill development at both producer and consumer levels, and structural reform in the applications sectors. A checklist for policy-planners is provided.

CATEGORY

Framework

REFERENCE

(Melody, 1996)

URL

http://www.sciencedirect.com/science/article/pii/0308596196000079

NAME

METER: Measurement and Evaluation Tool for E-Government Readiness

DESCRIPTION

METER, the Measurement and Evaluation Tool for E-Government Readiness, is a ready-to-use evaluative tool enabling a country to self-assess its level of e-government readiness. Based on a holistic and functional methodology for e-government readiness measurement, it comprises questions covering a range of issues in order to estimate and monitor what is the current state of factors affecting e-government development. Conceived to serve as an advisory tool, it helps to identify the key areas to work on, and how to prioritize them. By uncovering the level of e-government awareness, both at the central government and agency levels, as well as within the civil society, it leads to a full understanding of the changes that e-government development entails. The analysis of the existing environment is crucial in order to appraise how ready a country is to embark in the significant processes of change inevitably associated with an e-government transformation.

CATEGORY

Online Tool

REFERENCE

(Government, 2009)

URL

https://publicadministration.un.org/en/Capacity-Building/Tools/METER

5.

Indicators

Indicators are statistics used to measure current conditions as well as to forecast trends in a given area such as economy, education, health, etc. In this handbook, indicators refer to various measures used to track progress towards Knowledge Societies. The purpose of the indicators is to guide collection of data on the efforts of public and private actors in science and technology (S&T), and use of this data to measure and track a country's progress towards a knowledge society. Their aim is to help measure not only input- investment in Science & Technology but also output- what do we get in return for investment? Indicators are useful tools for both policy-making and public debate on a country's performance, for instance, compound indicators combine data on the creation and diffusion of knowledge, S&T performance and the 'productivity' of the economy, the education system and the information infrastructure.

TITLE

Knowledge Economy Index (KEI)

DESCRIPTION

The Knowledge Economy Index (KEI) is an aggregate index that represents the overall level of development of a country or region in the Knowledge Economy. It summarizes performance over the four Knowledge Economy (KE) pillars and is constructed as the simple average of the normalized values of the 12 knowledge indicators of the basic scorecard, a disaggregated representation of the Knowledge Economy Index. It is the most commonly cited index of Knowledge Assessment Methodology (KAM)'s several indices. While there are several ways to illustrate performance in the KEI, the Global Knowledge Economy Comparisons mode presents a simple way to visualize and compare countries and regions, in terms of their development towards a knowledge economy, by plotting them in a scatter plot based on their relative performance in the KEI for two points in time. The horizontal axis plots countries' and regions' performance in the KEI for the first point-base year, while the vertical axis plots countries' and regions' performance in the KEI for the most recent year. The diagonal line represents the locus of points where the KEI values in the earlier year and in the most recent year are equal. As such, countries and regions that appear above the diagonal line have made an improvement in the KEI since the base year, and countries that appear below diagonal line have experienced deterioration in terms of the KEI. The countries that appear in the KEI scatter plot can be loosely grouped into three broad categories in terms of their development towards the knowledge economy. Firstly, located near the top-right corner of the scatter plot, are a group of countries that are in the advanced stages of development in terms of the knowledge economy. These are mostly the economies of the OECD and the East Asian Newly Industrializing Economies (NIEs). Next, around the center of the scatter plot are a group of countries that are midway through the transition to the knowledge economy which typically includes the middle income countries from Europe and Central Asia, East Asia, Middle East and North Africa, and Latin America. Lastly, countries that have just embarked on the path to becoming a knowledge economy appear around the bottom-left portion of the scatter plot, and these typically include the low-income economies from Africa and South Asia. Apart from the basic scorecard, the KAM also provides the user with the flexibility to customize various combinations of variables to be included in benchmarking comparisons. The "Create Your Own Scorecard" mode allows the user to compare any two countries or regions for any of the 80 variables included in the KAM database. Very frequently, this mode is used to generate scorecards that focus solely on individual pillars or sectors of the knowledge economy.

MEASUREMENT

The KAM basic Score card includes 14 standard variables: two performance variables and 12 knowledge variables, with 3 variables representing each of the 4 pillars of the knowledge economy. While there may be more robust data describing a country's preparedness for a knowledge-based economy, the 12 selected variables are generally available for a larger time series and remain regularly updated for the vast majority of the countries that are assessed by the KAM. The comparisons for the 14 basic scorecard variables can be made for the year 1995 or for the most recent period, or for both in order to show the movement over time.

REFERENCE

(The World Bank, 2012)

URL

http://siteresources.worldbank.org/WBI/Resources/The_Knowledge_Economy-FINAL.pdf

http://siteresources.worldbank.org/KFDLP/Resources/KAM_Paper_WP.pdf

TITLE

Euro Stat indicators for the information society

DESCRIPTION

Euro Stat compiles recent statistical data on several different aspects of the information society in the European Union (EU) on an annual basis focusing on the availability of information and communication technologies (ICT) and their use by individuals and within households.

MEASUREMENT

Internet access; Internet usage; Using cloud computing for saving and sharing files; ordering good and services.

REFERENCE

(Eurostat, 2015)

URL

http://ec.europa.eu/eurostat/statistics-explained/index.php/Information_society_statistics_-_households_and_individuals

TITLE

OECD ICT Indicators

DESCRIPTION

OECD has 15 ICT indicators drawn from various publications and databases produced by the OECD's Directorate for Science, Technology and Innovation. They are updated annually or on a rolling basis, as data becomes available.

MEASUREMENT

The 15 indicators include:

- Access lines and access paths in total / per 100 inhabitants for OECD countries
- Mobile subscriptions in total / per 100 inhabitants for OECD countries
- Trends in telecommunication revenue, investment and access paths
- Broadband subscriptions per 100 inhabitants in OECD countries
- Percentage of fibre connections in total broadband
- Households with access to a home computer; Internet in selected OECD countries; broadband in selected OECD countries
- Broadband connectivity, percentage of enterprises in each employment size class; and percentage of all enterprises
- Employment of ICT specialists across the economy, as share of total employment
- Telecommunication services revenue in total for OECD; MobileTelecommunication services revenue in total for OECD countries; and Telecommunication infrastructure investment in total for OECD countries
- Value added of ICT sector and sub-sectors; Business R&D expenditures in the ICT sectors; and Employment in the ICT sector and sub-sectors
- Specialization in ICT-related patents, 2000-02 and 2010-12; and top 25 combinations between ICT and other technologies in patent applications, 2000-02 and 2010-12
- Trade in ICT goods : gross exports and value added
- Top 250 ICT firms, 2000 and 2011
- Labor productivity of the ICT sector and total economy, 2013; and Growth in total labor productivity growth accounted for by the ICT sector, 2001-13
- Contributions of ICT investment to GDP growth, 2000-09

REFERENCE

OECD

URL

http://www.oecd.org/internet/broadband/oecdkeyictindicators.htm

TITLE

OECD Indicators for the Information Society

DESCRIPTION

The OECD indicators for the Information Society are contained in the Guide to Measuring the Information Society which documents the statistical work of the WPIIS and related work being done in the OECD and elsewhere. It is hoped that the Guide will become a standard reference for statisticians and others working in this field. In particular, the Guide is expected to assist newly participating countries to start or further develop information society measurement programmes. The WPIIS works closely with the committee for Information, Computer and Communications Policy (ICCP) and its three other subsidiary bodies. The Working Party on Telecommunication and Information Services Policies (TISP), undertakes work in the area of telecommunication and Internet infrastructure and services. The Working Party on the Information Economy (WPIE) examines the economic and social implications of the development, diffusion and use of ICT, the Internet and electronic commerce. The Working Party on Information Security and Privacy (WPISP) promotes a global, coordinated approach to policy making in these areas to help build trust on line. The Guide is expected to be a 'living manual' in the sense that although it incorporates the current state of knowledge, it is open to receiving new components, as well as being subject to revision. It has been published on the World Wide Web to make it readily available and, in keeping with its rapidly changing subject matter, to enable timely updates.

MEASUREMENT

ICT products, ICT infrastructure, ICT supply, ICT demand by business, ICT demand by households and individuals

REFERENCE

(OECD Guide to Measuring the Information Society 2011, 2011)

URL

http://www.oecd.org/sti/sci-tech/36177203.pdf

TITLE

ICT Development Index

DESCRIPTION

The ICT Development Index (IDI) is a composite index that combines 11 indicators into one benchmark measure that can be used to monitor and compare developments in information and communication technology (ICT) between countries and over time. The IDI was developed by ITU in 2008 in response to requests from ITU Member States to develop an overall ICT index. It was first presented in the 2009 edition of the Measuring the Information Society Report (ITU, 2009), and has been published annually since then. The main objectives of the IDI are to measure: the level and evolution over time of ICT developments within countries and the experience of those countries relative to others; progress in ICT development in both developed and developing countries; the digital divide i.e. differences between countries in terms of their levels of ICT development; and the development potential of ICT and the extent to which countries can make use of them to enhance growth and development in the context of available capabilities and skills.

MEASUREMENT

The ICT development process, and a country's evolution towards becoming an information society, can be depicted using the three-stage model;

Stage 1: ICT readiness– reflecting the level of networked infrastructure and access to ICT;

Stage 2: ICT intensity– reflecting the level of use of ICT in the society; and

Stage 3: ICT impact– reflecting the results/outcomes of more efficient and effective ICT use.

The first two stages correspond to two major components of the IDI: ICT access and ICT use.

REFERENCE

(ITU, 2015)

URL

http://www.itu.int/en/ITU-D/Statistics/Documents/publications/misr2015/MISR2015-w5.pdf

TITLE

Nordic Information Society Statistics

DESCRIPTION

The description of the information society in the Nordic Information Society reports consists of three parts: ICT infrastructure; ICT sector in the economy; and The use of ICT and the digital divide – inequalities in the use of ICT.

The infrastructure for the information society consists of both a technological base and human resources. The technological prerequisites are, for example, telecommunication networks and related services. The human potential for ICT comprise the qualifications embodied in individuals. The data on the ICT sector describe the importance of ICT industries in manufacturing and services, production, employment, and as a source of turnover. To describe the importance of ICT products there are data on their production and on their role in foreign trade.

The use of ICT is measured in both enterprises and among individuals. New opportunities for commerce created by ICT applications are important topics in enterprises. As to individuals, besides basic statistics, such as the overall use of the computer and Internet, some evaluations are also presented from the perspective of the digital divide. As is known, the concept of the digital divide refers to inequalities in individuals' access to and use of ICT. Even though the Nordic Countries are among the most advanced ones in the adoption and use of ICT, differences in access to and use of ICT related to age, gender, education or place of residence are still important.

REFERENCE

(Nordic Council of Ministers, 2005)

URL

http://www.scb.se/statistik/TK/IT0101/2000I02/TKFT0301.pdf

TITLE

Index of Knowledge Societies (IKS)

DESCRIPTION

The IKS is a synthetic measure that aims at capturing a UN Member State's achievement as far as the conditions fundamental for the development of a Knowledge Society are concerned. Such conditions are grouped into three main dimensions: Assets, Advancement and Foresightedness, each of which is measured by a number of underlying indicators.

"Assets" are represented by: a large pool of young and educated people (as measured by expected schooling and proportion of people below age 15); and the development of the means through which information can flow (as measured by the diffusion of newspapers, the Internet, main phone lines and cellular phones).

"Advancement" is the degree to which a Member State nurtures and advances its human and informational resources, as measured by: public health expenditure, research and development expenditure, (low) military expenditure, pupil/teacher ratios in primary education, and a proxy of the "freedom from corruption" indicator.

"Foresightedness" is the degree to which a Member State grows and develops along its path to a Knowledge Society, while minimizing the impact of negative externalities on people and the natural environment, as measured by: low child mortality rates, equality in income distribution (GINI Index), protected areas as percentage of a country's surface, and CO2 emissions per capita.

MEASUREMENT

Assets; advancement; foresightedness

REFERENCE

(United Nations, 2005)

URL

https://publicadministration.un.org/publications/content/PDFs/E-Library%20Archives/2005%20Understanding%20Knowledge%20Societies.pdf

TITLE

Partnership on Measuring ICT for Development

DESCRIPTION

The partnership on measuring ICT for development was a initiative to improve the availability and quality of international comparable ICT statistics. This initiative produced useful tools to measure the information society such as, a list of ICT indicators and methodologies was defined, courses for capacity building and training and a collection of information society statistics through reports and databases. In summary, through out this partnership a core list of ICT indicators, a World Summit Information Society monitoring tool, awareness raising on ICT statistics and enhanced ICT statistics have been achieved.

MEASUREMENT

ICT for development; information societies

REFERENCE

(ITU, 2012)

URL

http://www.uis.unesco.org/Communication/Pages/partnership-for-measuring-ict-for-development.aspx

6.

Case Studies

Case studies are in-depth investigations of a single person, group, event or community (McLeod, 2008). Typically, data are gathered from a variety of sources and by using several different methods (e.g. observations & interviews). It is a particular instance of something used or analyzed in order to illustrate a thesis or principle. In this handbook, a case study is used to refer to a detailed analysis of policy interventions that have contributed to the promotion or development of a knowledge society in a particular region, country, local division like a district or province within a country, or a sector such as education. The selection process considered national or sectoral policies for either developed or developing countries from 2000 and above. But the choice of specific countries to cover in each category was based on the availability of relevant information online. Based on this criteria, a total of seventeen cases were selected covering four (4) national policies for developed countries; five (5) national policies for developing countries; two (2) sectoral policies for developed countries, and five (6) sectoral policies for developing countries.

The four national policies for developed countries include:

- The Finland Knowledge Society Strategy 2007-2015 sub section (Section 6.1)
- Estonia Research development and Innovation Strategy 2007-2013 sub section (Section 6.2)
- Estonia Research, Development and Innovation Strategy 2014-2020 sub section (Section 6.3)
- The UK Information Economy Strategy 2003-2007 sub section (Section 6.4)

The five national policies for developing countries include:

- Multimedia Super Corridor Malaysia 2004-2010 sub section (Section 6.5)
- Egypt Information Society Vision 2004-2006 sub section (Section 6.6)
- Rwanda ICT Strategic and Action Plan 2011-2015 sub section (Section 6.7)
- Rwanda ICT Master Plan 2015-2020 sub section sub section (Section 6.8)
- Kenya National ICT Master Plan 2014-2018 sub section (Section 6.9)

The two sectoral policies for developed countries include:

- UK Digital Skills Strategy 2014 sub section (Section 6.10)
- Ireland Broad band Intervention Strategy 2012-2015 sub section (Section 6.11)

The six sectoral policies for developing countries include:

- Policy on ICT in Education Malaysia 2010 sub section (Section 6.12)
- India Policy on ICT in School Education 2012 sub section (Section 6.13)
- Mauritius E-government Strategy 2013-2017 sub section (Section 6.14)
- Egypt Government Cloud Strategy 2015 sub section (Section 6.15)
- South Africa Broad Band Policy 2013 sub section (Section 6.16)
- Uganda Rural Communication Development Fund Policy 2010-2015 sub section (Section 6.17)

6.1. Case Study 1

Finland Knowledge Society Strategy 2007-2015

General

TITLE
A renewing, human-centric and competitive Finland: A National Knowledge Society Strategy 2007-2015

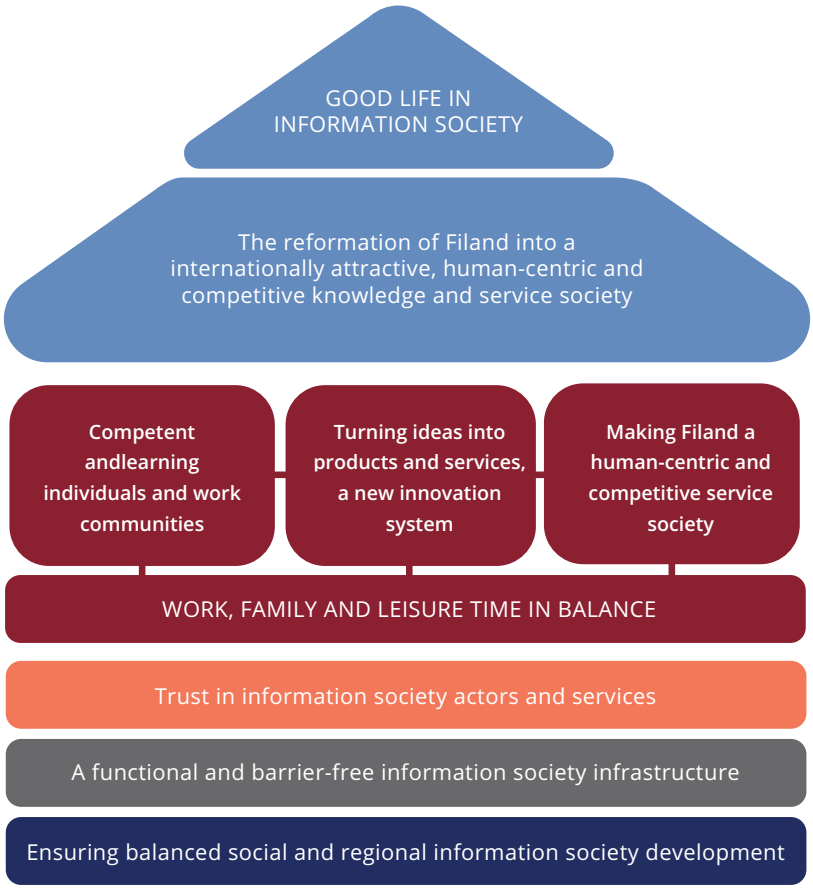
DATES
2007-2015

LOCATION
Finland

CATEGORY
Policy

OWNER
Information Society Programme, Prime Minister's Office

VISUAL



REFERENCES
(Finnish Prime Minister's Office, 2006)

URL
http://www.umic.pt/images/stories/publicacoes1/Strategia_englanti_181006final.pdf

Context

DEVELOPMENT CONTEXT
Finland is a Northern European nation bordering Sweden, Norway and Russia. Its capital is Helsinki and has a population of 5.5 million people, with the majority living in the southern regions. It was a relatively late comer to industrialisation, remaining a largely an agrarian country until the 1950s when it rapidly developed an advanced economy while building an extensive Nordic-style welfare state. This resulted into widespread prosperity and one of the highest per capita incomes in the world. It is now a top performer in numerous metrics of national performance, including education, economic competitiveness, civil liberties, quality of life, and human development. In 2015, it was ranked first in the World Human Capital and the Press Freedom Index (Wikipedia, 2016k).

INFOCOM CONTEXT
13.9 fixed-telephone subscriptions per 100 inhabitants; 171.7 Mobile-cellular subscriptions per 100 inhabitants; 30.9 fixed (wired)-broadband subscriptions per 100 inhabitants; 132.5 mobile-broadband subscriptions per 100 inhabitants; 88.9% households have a computer; 89.2% households have Internet access at home; and 91.5 individuals use Internet.

POLICY CONTEXT
Two previous national information society strategies have been published: Finland - towards an information society, A National Outline (Finance, 1995a) and Quality of Life, Knowledge and Competitiveness, by the Finnish National Fund for Research and Development (Finance, 1995b).

Policy

SUMMARY
The 2007-2015 Finland National Knowledge Society Strategy was developed to support transformation of Finland into an internationally attractive, human-centric and competitive knowledge and service society. Its vision was '***Good Life in the Information Society***'. This was based on the understanding that developing knowledge, structures and business environments will make a good life possible for individuals and enterprises, even under conditions of increasing competition. The competitive factors of a transformed Finland were envisaged to be; an open society, a good and safe living environment, the opportunity to flexibly combine work, family and leisure time, as well as the continuous development of knowledge. The strategy covered guidelines and measures aimed at reforming the service sector, improving quality of life, and developing sustainable competitiveness in enterprises. These themes were approached from various angles namely; development of knowledge, application of existing and new information, creativity and innovation, structural and functional reforms, networking and the utilisation and development of technology.

OBJECTIVES
Making Finland a human-centric and competitive service society; turning ideas into products and services, a reformed innovation system; Competent and learning individuals and work communities; an interoperable information society infrastructure;

DRIVERS

Ethos and morale of work; good, free-of-charge education system; trust in electronic services and societal actors; citizens' readiness and desire to utilize electronic services; positive attitude towards ICT; technology expertise; good foundation for the national innovation system; open and safe society.

Coverage

GOVERNANCE

Initiation of a policy programme for reforming public sector service structures; Influencing internationally, especially at the EU level, and close cooperation with Asian countries and neighboring regions

SOCIETY

Reforming the rules for working life and developing leadership and supervisory work

EDUCATION

Ensuring lifelong learning; reforming the innovation system

ECONOMY

Promotion of digitalization of business in SMEs

INFOCOM

Increasing connection speeds for information networks and ensuring the interoperability of the information society infrastructure

KNOWLEDGE

Further development of the copyright system

Implementation

STAKEHOLDERS

The strategy was developed and implemented through a joint effort of political actors, public sector organizations, business and industry, financing bodies, associations and citizens.

6.2. Case Study 2

Estonia Research, Development and Innovation Strategy 2007-2013

General

TITLE
Knowledge-based Estonia: Estonian Research and Development and Innovation (RDI) Strategy 2007-2013

DATES
2007-2013

LOCATION
Estonia

CATEGORY
policy

OWNER
Minister of Education and Research in cooperation with the Ministry of Economic Affairs and Communications and other Ministries.

REFERENCES
(Research, 2007)

URL
http://cs.ioc.ee/excs/policy/teadm-pohine-eesti2-en.pdf

Context

DEVELOPMENT CONTEXT
Estonia is a small European country located on the north eastern edge of the European Union, bordering Finland, Russia and Latvia. It is a democratic parliamentary republic divided into fifteen counties, with its capital and largest city being Tallinn. It has a population of 1.3 million, one of the least-populous member states of the European Union and has a GDP of $29.8 billion. It is a developed country with an advanced, high-income economy and high living standards. It performs favourably in measurements of economic freedom, civil liberties, education, and press freedom (third in the world in 2012). Estonia is often described as one of the most wired countries in Europe.

INFOCOM CONTEXT
33.1 fixed-telephone subscriptions per 100 inhabitants; 159.7 mobile-cellular subscriptions per 100 inhabitants; 26.5 fixed (wired)-broadband subscriptions per 100 inhabitants; 77.4 mobile-broadband subscriptions per 100 inhabitants; 80% households with a computer; 80.3% households with Internet access at home; 80% individuals using the Internet.

POLICY CONTEXT
It was the follower of the Estonian RDI Strategy of 2002–2006 “Knowledge-based Estonia and was succeeded by the Estonian RDI Strategy of 2014–2020 “Knowledge-based Estonia

Policy

SUMMARY

Knowledge-based Estonia: Estonian RD&I Strategy 2007–2013 was focused on sustainable development of the society by means of research and development, and innovation. It contributed to achievement of the goals of Estonia's long-term development strategy "Sustainable Estonia 21" as well as the Lisbon Strategy (the strategy for growth and jobs). It was the follow-up of Estonian RDI Strategy of 2002–2006 "Knowledge-based Estonia and was accompaniedby an implementation plan, which included activities, responsible parties and finances necessary for implementing the strategy. It was succeeded by the Estonian RDI Strategy 2014-2020 "Knowledge-based Estonia".

OBJECTIVES

The strategy had three main objectives: competitive quality and increased intensity of research and development; innovative enterprises creating new value in the global economy and innovation friendly society aimed at long-term development.

INPUTS

Raised the total expenditure on research and development to 1.9% of GDP by 2010 and 3% of GDP by 2014; 3051 Doctoral students studied at Estonian universities in academic year 2011/2012, with 1819 of them studying at state commissioned study places

OUTPUTS

Increase in doctoral graduates from 205 in 2003 to 250 n 2011; increase in the number of foreign students at Estonian universities; increase in research output; increase in competitive research grants from international and regional bodies such as EU.

DRIVERS

Among leading countries with high investments in ICT; a large number of people with higher education; remarkable innovativeness of Estonian small and medium size enterprises.

Coverage

GOVERNANCE

Policy-making aimed at long-term development of Estonia

EDUCATION

Development of human capital; organizing the public sector RD&I more efficiently; increasing enterprises' innovation capacity

KNOWLEDGE

Transfer of knowledge and technology

Implementation

STAKEHOLDERS

Ministry of Economic Affairs and Communications, Ministry of Education and Research, University of Tartu, Estonian Rectors' Conference, Enterprise Estonia, Tallinn University of Technology, Bank of Estonia, Ministry of Finance, and Estonian Academy of Sciences.

OUTCOMES

R&D investments increased from 1.63% of GDP in 2010 to 2.41% of GDP in 2011 mainly due to double growth of the private sector R&D intensity in 2011, which exceeded the EU average; the number of full-time researchers increased by almost 1850 researchers (69.2%) during 2000-2011 reaching 4511.7; competitiveness of Estonian research internationally continued to grow (411 Estonian partners participated in the 7th Framework Programme with the total financing of 65.3 million euros from the European Commission); increase in research popularization activities (more than 300 science-popularizing events took place); several research administrative changes were launched in 2012 with the establishment of the Estonian Research Council on 1st March 2012; "E-science information" programme was created and financed from the structural funds, whose aim was to continuously ensure the access of Estonian research institutions to electronic research information databases; the share of the private sector R&D expenditures in GDP grew from 0.22% in 2002 to 1.52% in 2011.

LESSONS LEARNT

The strategy rightly put an emphasis on the need to increase R&D spending substantially; in the coming years, the main pre-occupation of Estonian RDI policy should be to raise the innovation capacity of enterprises in a broad sense (including, but spanning beyond R&D) and also to address a number of important societal problems; more emphasis is needed on raising the innovation capacities of SMEs by means like a voucher system to trigger innovation in a broad sense, including non-technological innovation; the role of the science and education system for the supply of skilled labour needs to be strengthened; Public-Private Partnership (PPP) research institutes should be set up for a better link between research and business sector; innovation capacities of firms should be raised through policy actions such as voucher systems to cluster oriented policies, tax incentives, training, personnel etc.) to strengthen the 'demand side' of R&D; enhance national as well as international cooperation of Estonian R&D institutions and enterprises to improve connectivity of RD&I system internally as well as externally; create opportunities to increase competences of the national human capital base, as well as bringing in additional competences from abroad.

6.3. Case Study 3

Estonia Research, Development and Innovation Strategy 2014-2020

General

TITLE
Estonian Research and Development and Innovation Strategy 2014-2020 “Knowledge-based Estonia”

DATES
2014-2020

LOCATION
Estonia

CATEGORY
Policy

OWNER
Ministry of Education and Research in cooperation with the Ministry of Economic Affairs and Communications and other Ministries.

REFERENCES
(Estonian Ministry of Education and Research, 2014.)

URL
https://www.hm.ee/sites/default/files/estonian_rdi_strategy_2014-2020.pdf

Context

DEVELOPMENT CONTEXT
Estonia is a small European country located on the north eastern edge of the European Union, bordering Finland, Russia and Latvia. It is a democratic parliamentary republic divided into fifteen counties, with its capital and largest city being Tallinn. It has a population of 1.3 million, one of the least-populous member states of the European Union and has a GDP of $29.8 billion. It is a developed country with an advanced, high-income economy and high living standards. It performs favourably in measurements of economic freedom, civil liberties, education, and press freedom (third in the world in 2012). Estonia is often described as one of the most wired countries in Europe.

INFOCOM CONTEXT
33.1 fixed-telephone subscriptions per 100 inhabitants; 159.7 mobile-cellular subscriptions per 100 inhabitants; 26.5 fixed (wired)-broadband subscriptions per 100 inhabitants; 77.4 mobile-broadband subscriptions per 100 inhabitants; 80% households with a computer; 80.3% households with Internet access at home; 80% individuals using the Internet (ITU, 2016).

CONTEXT
It takes into account the experiences, the lessons learned and the recommendations made from implementation of previous RDI strategies (2002-2006 and 2007-2013), the obligations arising from the constitution and other legislation, as well as future trends

Policy

SUMMARY
This is the third Estonian RDI strategy. It takes into account the previous period's experiences, the lessons learned and the recommendations made by top experts, the obligations arising from the constitution and other legislation, as well as future trends. The 2014-2020 RDI strategy is closely linked to the Estonian Lifelong Learning Strategy 2014-2020, Estonian Entrepreneurship Growth Strategy 2014-2020 and other related strategies. Although Estonia has been successful in the implementation of its two previous RDI strategies, there are still many opportunities for further development. The achieved strengths must be preserved and the weaknesses reduced.

OBJECTIVES
The overall aim is to create favourable conditions for an increase in productivity and in the standard of living, for good-quality education and culture, and for the longevity and development of Estonia. It has four main objectives for Estonia: to make research in Estonia high level and diverse; to make research and development (RD) function in the interests of the Estonian society and economy; to use RD to make the structure of the economy more knowledge-intensive; to make Estonia active and visible in international RDI cooperation.

OUTPUTS
Improve the welfare of the population, increase work capacity; adjust to demographic processes; achieve balanced migration; develop the living environment and opportunities for development in a regionally balanced manner; find solutions to problems caused by increasing social demand and a global scarcity of resources; find development opportunities for society and ensure energy and food security.

Coverage

SOCIETY
Closely linked to the Estonian Lifelong Learning Strategy 2014-2020

EDUCATION
Closely linked to the Estonian Lifelong Learning Strategy 2014-2020

ECONOMY
Closely linked to the Estonian Entrepreneurship Growth Strategy 2014-2020; new sources of growth for entrepreneurship in the conditions of unemployment and the rising cost of labour, to make the economy more knowledge-intensive

Implementation

STAKEHOLDERS

Research and Development Council (RDC), the RDI strategy committee, the research policy committee, the innovation policy committee and representatives from the Research and Innovation Policy Monitoring Programme (TIPS), research institutions, entrepreneurs and state authorities.

6.4. Case Study 4

UK Information Economy Strategy 2003-2007

General

TITLE
Information Economy Strategy for UK

DATES
2003-2007

LOCATION
UK

CATEGORY
Policy

OWNER
Ministry for Universities and Science and Ministry for Culture, Communications and Creative Industries.

REFERENCES
(Department for Business, 2013)

URL
https://www.gov.uk

Context

DEVELOPMENT CONTEXT
United Kingdom (UK) is a sovereign state in Europe. Lying off the north western coast of the European mainland, it includes the island of Great Britain, the north-eastern part of the island of Ireland and many smaller islands. The United Kingdom is a developed country and has the world's fifth-largest economy. It was the world's first industrialised country and the world's foremost power during the 19th and early 20th centuries. It is categorised as very high in the Human Development Index currently ranking 14th in the world.

INFOCOM CONTEXT
52.9 fixed-telephone subscriptions per 100 inhabitants; 123.8 mobile-cellular subscriptions per 100 inhabitants; 35.7 fixed (wired)-broadband subscriptions per 100 Inhabitants; 87.2 mobile-broadband subscriptions per 100 inhabitants; 88.2% households have a computer; 88.4% households have Internet access at home; 89.9% individuals use the Internet (ITU, 2016).

Policy

SUMMARY

This Strategy developed in partnership by Government, industry and academia, sets out a road map to help the UK accelerate in the global race, focusing on its strengths. This is based on the realisation that without long term action and planning to address skills shortages, organisations will struggle to recruit the right staff. Without the right infrastructure, both physical and virtual, businesses will struggle to develop. Without good cyber security, business and consumers will not have the confidence to use new technologies. Without action to address market failures, the information economy could be stifled by unnecessary barriers to growth.

OBJECTIVES

A strong, innovative, information economy sector exporting UK excellence to the world; UK businesses and organizations, especially SMEs confidently using technology, able to trade online, seizing technological opportunities and increasing revenues in domestic and international markets; and citizens with the capability and confidence to make the most of the digital age and benefiting from excellent digital services.

INPUTS

Investment in research; fostering collaboration between business and academia; and enabling the successful commercialization of ideas; promotion of open global markets; creation of new Information Economy Council made up of representatives from Government, business and academia to set the agenda for future activity, monitor progress against the actions set out in the Strategy, assess the impact of Government interventions on the sector and report progress; invitation of every citizen to participate and contribute to the Information Economy Strategy through http://www.intellectuk.org/information-economy; development of a data capability strategy in October 2015; making available data from the public register of charities in March 2014; provision of the Postcode Address File (PAF) free to independent micro businesses for one year and independent small charitable organizations; development of a new computing curriculum; collaboration between Cyber Growth Partnership and information economy council.

DRIVERS

Implementation of innovative policies to make the UK the best place in the world to start a technology business namely; Investment of over £650 million broadband development, allocation of £220 million into development of high performance computing and einfrastructure to take advantage of the data revolution, new entrepreneurs' visa and abolishing stamp duty on shares traded on growth markets such as AIM.

Coverage

GOVERNANCE

Promoting the Sector; transforming the Delivery of Government Services

SOCIETY

Getting People Online

EDUCATION

Promoting innovation in the sector; supporting Academia and Research; improving Skills across the Workforce

ECONOMY

Clusters; access to finance; market opportunities; developing the online economy; helping SMEs online; opportunities for consumers; smart cities

INFOCOM
Infrastructure; privacy and security; interoperability and standards

KNOWLEDGE
Driving growth through data science

Implementation

STAKEHOLDERS
Government, business, academia, all citizens through consultative sessions and an online platform

6.5. Case Study 5
Multimedia Super Corridor Malaysia 2004-2010

General

DATES
2004-2010

LOCATION
Malaysia

CATEGORY
Policy

OWNER
Multimedia Development Corporation (MDC)

REFERENCES
(NITC Malaysia, 2016)

URL
http://nurelimtiaz.uitm.edu.my/wordpressfolder-elimtiaz/wp-content/uploads/2012/08/MSC.pdf

Context

DEVELOPMENT CONTEXT
Malaysia is a federal constitutional monarchy located in Southeast Asia. It consists of thirteen states and three federal territories and has a total landmass of 329,847 square kilometres (127,350 sq km) separated by the South China Sea into two similarly sized regions, Peninsular Malaysia and East Malaysia (Malaysian Borneo). Peninsular Malaysia shares a land and maritime border with Thailand and maritime borders with Singapore, Vietnam, and Indonesia. East Malaysia shares land and maritime borders with Brunei and Indonesia and a maritime border with the Philippines and Vietnam. The capital city is Kuala Lumpur, while Putrajaya is the seat of the federal government. By 2016, with a population of over 30 million, Malaysia became the 44nd most populous country in the world. Since its independence, Malaysia has had one of the best economic records in Asia, with its GDP growing at an average of 6.5% per annum for almost 50 years. The economy has traditionally been fuelled by its natural resources, but is expanding in the sectors of science, tourism, commerce and medical tourism. Today, Malaysia has a newly industrialized market economy, ranked third largest in Southeast Asia and 29th largest in the world (Wikipedia, 2016i).

INFOCOM CONTEXT
15.3 fixed-telephone subscriptions per 100 inhabitants; 144.7 mobile-cellular subscriptions per 100 inhabitants; 8.2 fixed (wired)-broadband subscriptions per 100 Inhabitants; 12.5 mobile-broadband subscriptions per 100 inhabitants; 65.1% households with a computer; 64.7% households with Internet access at home; 67% individuals use the Internet (ITU, 2014).

POLICY CONTEXT

MSC Malaysia is Malaysia's national ICT initiative designed to attract world-class technology companies while grooming the local ICT industry. The Multimedia Super Corridor (MSC) is Malaysia's most exciting initiative for the global information and communication technology (ICT) industry. Conceptualized in 1996, the MSC has since grown into a thriving dynamic ICT hub, hosting more than 900 multinationals, foreign-owned and home-grown Malaysian companies focused on multimedia and communications products, solutions, services and; research and development.

Fully supported by the Malaysian Government, MSC Malaysia has led the nation's transformation towards a Knowledge Economy over the past decade and a half. Its implementation is divided into three phases from 1996-2020: In Phase 1(1996-2003), the MSC was successfully created and every milestone set for it were surpassed; in Phase 2 (2004-2010), a web of similar corridors were established in Malaysia, and a global framework of cyberlaws passed. Furthermore, at least four of five intelligent cities were linked to other global cities worldwide. In Phase 3 (2010-2020), Malaysia will evolve into one Multimedia Super Corridor. An International Cybercourt of Justice will be established in the MSC and 12 intelligent cities will be linked to the global information highway.

Policy

SUMMARY

MSC is a Government-designated zone in Malaysia designed to leapfrog Malaysia into the information and knowledge age. It aims to attract companies with temporary tax breaks and facilities such as high-speed Internet access and proximity to the Kuala Lumpur International Airport. It is a Special Economic Zone in Malaysia inaugurated by the 4th Malaysian Prime Minister Mahathir Mohamad on 12 February 1996. It was established to accelerate the objectives of Vision 2020 and to transform Malaysia into a modern state by the year 2020, with the adoption of a knowledge-based society framework. The MSC flagship applications were launched to boost the MSC Malaysia initiatives and to create a multimedia utopia (hub) for innovative producers and users of multimedia technology. Consortia comprising both the local and foreign companies (MNCs) collaborated with various government agencies, departments and ministries to enhance the socio-economic development of Malaysia in the new millennium (Information Age). The vision and mission of the MSC as expressed by the Prime Minister of Malaysia at the time (1981–2003) was: "MSC is paramount to leapfrog Malaysia into the 21st century and to achieve Malaysia's Vision 2020. The MSC was created to endeavor the best environment to harness the full potential of the multimedia without any artificial limits. MSC is a global test bed (hub), where the limits of the possible can be explored, and new ways of living, working, and playing in the new area of the Information Age." It covers an area of approximately 15 km (9.3 mi) × 50 km (31 mi) (that is, 750 km2 (290 sq km)) stretching from the Petronas Twin Towers to the Kuala Lumpur International Airport, and including the towns of Putrajaya and Cyberjaya. On 7 December 2006, Port Klang was added to the MSC.

Dr Mahathir's visit to the United States of America in January 1997 to promote the MSC to companies there succeeded in attracting the interest of many large information technology companies. The Multimedia Development Corporation (MDeC, formerly MDC) was created to oversee development of the MSC.

To qualify for MSC-status, applicants must meet the following criteria: be a provider or heavy user of multimedia products and services; Employ a substantial number of knowledge workers; provide technology transfer and/or contribute towards the development of the MSC or support Malaysia's k-economy initiatives; establish a separate legal entity for the MSC qualifying multimedia business and activities; located in a MSC designated cybercities; comply with environmental guidelines.

In the initial stage of MSC National Rollout under MSC Next Leap, MSC Cybercity status was awarded to Penang (in Bayan Lepas Free Industrial Zones and vicinity) and Kulim Hi-Tech Park . However, a decision was later made to rollout the MSC Cybercity / Cybercentre status beyond the original designated area in order to spread the MSC benefits nation-wide.

OBJECTIVES

To accelerate the objectives of Vision 2020 (to transform Malaysia into knowledge based society), a path was defined through seven innovative Flagship Applications engineered to jump start the MSC initiative and create a multimedia utopia for innovative producers and users of multimedia technology namely; e-Government; multipurpose Card; smart Schools; telehealth; R&D Clusters; E-Business; technopreneur development

OUTPUTS

Though Malaysian law had provided for strict government controls on print media since 1984, a founding principle of MSC Malaysia was that government censorship of the Internet would not be permitted. Therefore journalist Steven Gan and colleague Premesh Chandran decided to start an online news resource that would be free of the controls faced by print media in November 1999 i.e. Malaysiakini, an online, independent news source. This later became one of Malaysia's most popular websites and was awarded a Free Media Pioneer award from the International Press Institute in 2001. Its founder, Gan was also awarded one of the 2000 CPJ International Press Freedom Awards for his work with the site.

DRIVERS

Comprehensive package for investors; strong socio-economic fundamentals; firm commitment from the Malaysian Government ; accelerated human resource training and development; competitive costs of doing business; ready access to the Asia-Pacific markets; widespread usage of Eng; superlative quality of life.

Coverage

GOVERNANCE

e-Government, technopreneur development

SOCIETY

Telehealth

EDUCATION

Smart School

ECONOMY

E-Business; technopreneur development

KNOWLEDGE

Digital Learning Resources;

Implementation

STAKEHOLDERS

Malaysia Administrative Modernization and Management

Planning Unit (MAMPU); Economic Planning Unit (EPU); Prime Minister's Department; Ministry of Science, Technology and Information (MOSTI); Ministry of Finance (MOF); Malaysian Communications and Multimedia Commission (MCMC), Academia

LESSONS LEARNT

The organizations of government entities involved in driving MSC Malaysia need to be reorganized to ensure the roles and responsibilities are clearly defined with minimal duplications and overlaps; MSC Malaysia, as the national ICT strategy, should be driven by a central agency which can coordinate and align with other national economic development strategies.

6.6. Case Study 6

Egypt Information Society Vision 2004-2006

General

TITLE
Building Digital Bridges: Egypt's Vision of the Information Society

DATES
2004-2006

LOCATION
Egypt

CATEGORY
Policy

OWNER
Ministry of Communication & Information Technology

REFERENCES
(Egyptian Ministry of Information & Communication Technology, 2015)

URL
http://www.mcit.gov.eg/Upcont/Documents/BuildingBridges_all.pdf

Context

DEVELOPMENT CONTEXT
Egypt is a transcontinental country spanning the northeast corner of Africa and southwest corner of Asia, via a land bridge formed by the Sinai Peninsula. It is bordered by the Gaza Strip and Israel to the northeast, the Gulf of Aqaba to the east, the Red Sea to the east and south, Sudan to the south and Libya to the west. Considered a cradle of civilization, ancient Egypt experienced some of the earliest developments of writing, agriculture, urbanization, organized religion and central government. Iconic monuments such as the Giza Necropolis and its Great Sphinx, as well as the ruins of Memphis, Thebes, Karnak, and the Valley of the Kings, reflect this legacy and remain a significant focus of archaeological study and popular interest worldwide. With over 90 million inhabitants, Egypt is the most populous country in North Africa and the Arab World, the third-most populous in Africa (after Nigeria and Ethiopia), and the fifteenth-most populous in the world. The great majority of its people live near the banks of the Nile River, where the only arable land is found. The large regions of the Sahara desert, which constitute most of Egypt's territory, are sparsely inhabited (Wikipedia).

INFOCOM CONTEXT
8.3 fixed-telephone subscriptions per 100 inhabitants; 21.5 mobile-cellular subscriptions per 100 inhabitants; 3.3 fixed (wired)-broadband subscriptions per 100 Inhabitants; 31.1 mobile-broadband subscriptions per 100 inhabitants; 43.1% households with a computer; 34.5% households with Internet access at home; 49.6% individuals use the Internet (ITU).

POLICY CONTEXT
This policy was preceded by the National Communication and Information Technology Plan which expanded the telecommunications infrastructure, established hundreds of information technology hubs, expanded the pool of IT skilled labor and created national information systems and databases.

Policy

SUMMARY
The policy outlines Egypt's vision of building the Information Society and bridging the digital divide together with a closer look at the country's Egyptian Information Society Initiative (EISI), which has been structured around seven major tracks: e-readiness, e-learning, e-government, e-business, e-health, e-culture and ICT export initiative.

OBJECTIVES
The Egyptian Information Society initiative is structured around seven major related tracks each designed to help bridge the digital divide and facilitate Egypt's evolution into an Information Society namely; E-readiness-equal access for all, E-learning-nurturing human capital, E-government, E-business-a new way of doing business, E-health-increasing health services availability, E-culture: promoting Egyptian culture, ICT Export initiative: industry development.

DRIVERS
Formation of a new Ministry of Communication and Information Technology in 1999 to facilitate Egypt's transition into the global information society.

Coverage

GOVERNANCE
E-government

SOCIETY
E-readiness; E-health, E-culture

EDUCATION
E-learning

ECONOMY
E-business, ICT export

INFOCOM
ICT export

KNOWLEDGE
ICT export

Implementation

STAKEHOLDERS
All Government Ministries, Departments and Agencies, private sector, civil society and Academia

6.7. Case Study 7

Rwanda ICT Strategic and Action Plan 2011– 2015

General

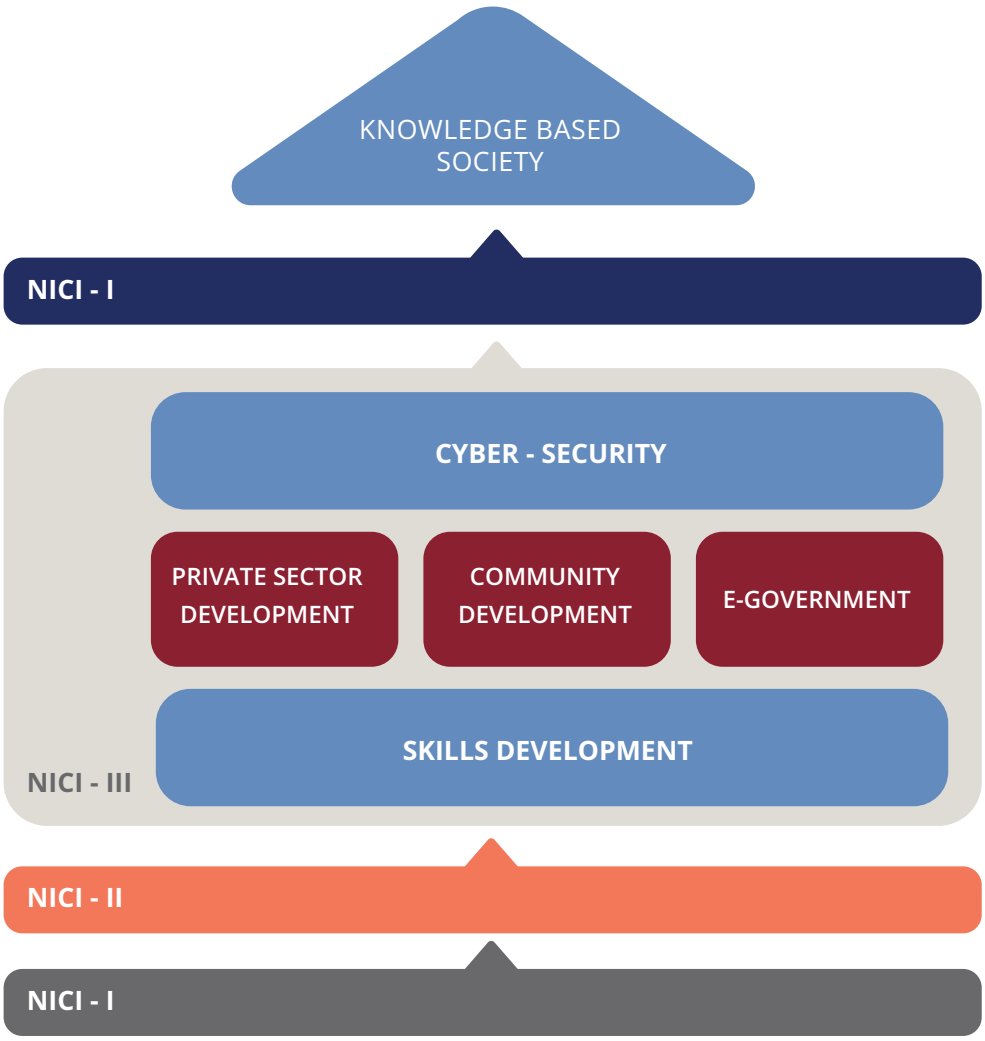
DATES
2011-2015

LOCATION
Rwanda

CATEGORY
Strategic and Action plan

OWNER
Rwanda Development Board

VISUAL



REFERENCES
(Rwandan Development Board, 2015)

URL
https://www.enisa.europa.eu/activities/Resilience-and-CIIP/national-cyber-security-strategies-ncsss/RwandaNCSSNICI_III.pdf

Context

DEVELOPMENT CONTEXT

Rwanda is located in central and east Africa, and is one of the smallest countries on the African mainland. It is bordered by Uganda, Tanzania, Burundi and the Democratic Republic of the Congo. Its geography is dominated by mountains in the west and savanna to the east, with numerous lakes throughout the country. The population is young and predominantly rural, with a density among the highest in Africa. Rwanda's economy suffered heavily during the 1994 Rwandan Genocide, but has since strengthened. The economy is based mostly on subsistence agriculture. Coffee and tea are the major cash crops for export. Tourism is a fast-growing sector and is now the country's leading foreign exchange earner. Rwanda is one of only two countries in the world in which mountain gorillas can be visited. The other is Uganda.

INFOCOM CONTEXT

0.4 fixed-telephone subscriptions per 100 inhabitants; 56.8 mobile-cellular subscriptions per 100 inhabitants; 0 fixed (wired)-broadband subscriptions per 100 Inhabitants; 58 mobile-broadband subscriptions per 100 inhabitants; 2.9% households with a computer; 2.9% households with Internet access at home; 8.7% individuals use the Internet (ITU, 2014).

POLICY CONTEXT

The NICI process, which coincides with Vision 2020, begun with the first of four five-year rolling plans, NICI I (NICI-2005 Plan) that focused on creating the necessary enabling environment that would enable the establishment and growth of Rwanda's ICT sector. Emphasis was placed on establishing the appropriate institutional, legal and regulatory framework, liberalization of the telecoms market, and reduction of entry barriers to the telecom market as well as an effective implementation and coordination mechanism. The second plan, NICI II (NICI-2010 Plan), focused on providing world-class communications infrastructure that will serve as the backbone for current and future communications requirements. Lessons learned during NICI II implementation were widely considered in the development of NIC III. NICI III was succeeded by NICI IV (NICI-2020 Plan).

Policy

SUMMARY

In 2000, the government of Rwanda (GoR) established Vision 2020 as an economic blueprint to achieve a knowledge-based economy and become a middle-income country by 2020. Along with Vision 2020, the first of the Economic Development and Poverty Reduction Strategy 2007 - 2012 (EDPRS I) and later EDPRS II 2013 -2018, further acknowledged ICT as a key driver for this economic growth. The national information and communication technology plans, NICI Plans I~II were later initiated to guide the ICT4D programs and initiatives linked to the objectives and goals outlined in V2020 and EDPRS I & II. NICI III aims to accelerate "services development" by running efficient government services and increasing private sector productivity and in turn Rwanda's competitiveness. It will focus on the development of services by leveraging ICT to improve service delivery to

citizens, as Rwanda approaches the fourth and final phase of the NICI process that will propel Rwanda to achieve Vision 2020 goals.

OBJECTIVES

The overall aim of NICI III is to accelerate service development through ICT thereby facilitating sustainable economic competitiveness and ICT contribution to GDP. The specific objectives are; To develop a high quality skills and knowledge base leveraging ICT; to develop a vibrant, competitive, and innovative ICT/ICT enabled private sector; to empower and transform communities through improved access to information and services; to improve government operational efficiency and service delivery; to secure Rwanda's cyberspace and information assets

DRIVERS

A conducive institutional, legal and regulatory framework for ICT development put in place under NICI I; increased nationwide coverage of telecommunications networks, versatile and high capacity national optic fiber backbone network, national data center, and centralized monitoring and operations center put in place under NICI II.

Coverage

GOVERNANCE

Improve government operational efficiency and service delivery

SOCIETY

Empower and transform communities through improved access to information and services

EDUCATION

Develop a high quality skills and knowledge base leveraging ICT

ECONOMY

Develop a vibrant, competitive, and innovative ICT / ICT enabled private sector

INFOCOM

Secure Rwanda's cyberspace and information assets

Implementation

STAKEHOLDERS

National ICT Steering Committee, chaired by MINICT

CHALLENGES

Educating and sensitizing the public and key stakeholders on the need to embark on an ICT-led development agenda; Resource mobilization; availability of experts; support and coordination of implementation plan.

LESSONS LEARNT

There is need for high-level political championship of the process if it is to succeed; Resource mobilization to implement the policy and the plan is crucial if a high proportion of the initiatives and projects identified are to succeed; Stakeholder participation in the policy and plan development process is crucial for ensuring buy-in and acceptance of the need to pursue an ICT4D development agenda; a clear vision, mission, and strategy and well-scheduled, step-by-step approach with specific milestones and expected outputs are crucial.

6.8. Case Study 8

Rwanda ICT Master Plan 2015-2020

General

TITLE
SMART Rwanda Master Plan 2015 ~ 2020: A prosperous and knowledgeable society through SMART ICT

DATES
2015-2020

LOCATION
Rwanda

CATEGORY
Master plan

OWNER
Rwanda Development Board

REFERENCES
(Rwandan Development Board, 2015)

URL
http://mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/revised_policy%20document%20ofICT.pdf

Context

DEVELOPMENT CONTEXT
Rwanda is located in central and east Africa, and is one of the smallest countries on the African mainland. It is bordered by Uganda, Tanzania, Burundi and the Democratic Republic of the Congo. Its geography is dominated by mountains in the west and savanna to the east, with numerous lakes throughout the country. The population is young and predominantly rural, with a density among the highest in Africa. Rwanda's economy suffered heavily during the 1994 Rwandan Genocide, but has since strengthened. The economy is based mostly on subsistence agriculture. Coffee and tea are the major cash crops for export. Tourism is a fast-growing sector and is now the country's leading foreign exchange earner. Rwanda is one of only two countries in which mountain gorillas can be visited, the other being Uganda.

INFOCOM CONTEXT
0.4 fixed-telephone subscriptions per 100 inhabitants; 56.8 mobile-cellular subscriptions per 100 inhabitants; 0 fixed (wired)-broadband subscriptions per 100 Inhabitants; 58 mobile-broadband subscriptions per 100 inhabitants; 2.9% households with a computer; 2.9% households with Internet access at home; 8.7% individuals use the Internet (ITU, 2014).

POLICY CONTEXT

The SRMP derived its key initiatives through analysis and assessment from four perspectives: aligning national development vision and strategies, reflecting the achievements of previous ICT policies namely: Rwanda ICT Strategic and Action Plan (NICI I~III) and ICT Sector Strategic Plan (SSP), assessment of Rwanda's internal and external environment challenges, and the current execution and management performance. It followed Rwanda ICT Strategic and Action Plan III which expanded the telecommunications infrastructure, established hundreds of information technology hubs, expanded the pool of IT skilled labor force and created national information systems and databases.

Policy

SUMMARY

In 2000, the government of Rwanda (GoR) established Vision 2020 as an economic blueprint to achieve a knowledge-based economy and become a middle-income country by 2020. Along with Vision 2020, the first of the Economic Development and Poverty Reduction Strategy 2007 - 2012 (EDPRS I) and later EDPRS II 2013 -2018, further acknowledged ICT as a key driver for this economic growth. The national information and communication technology plans, NICI Plans I~III 2000 – 2015 were later initiated to guide the ICT4D programs and initiatives linked to the objectives and goals outlined in V2020 and EDPRS I & II. Despite the achievement of the NICI Plans, especially in building basic infrastructure and launching a highly successful healthcare system and increasing access to financial services, challenges still remained. SMART Rwanda Master plan was motivated by the SMART Africa Manifesto that was signed by African Union Heads of State and Government several months after the Transform Africa Summit in October 2013 in Kigali, Rwanda. It is the new national ICT strategy, replacing the ICT SSP. It underpins the current government transformation agenda. It has three enablers: ICT Capability & Capacity, Governance & Management, and Secured & Shared Infrastructure. In addition, it has seven pillars; SMART Agriculture, Finance, Business & Industry, Health, Education, Government, and Cities.

OBJECTIVES

Expand and improve quality of public services through adoption of greater standardization and simplification; focus on innovation, interoperability and open standards to facilitate information sharing, collaboration and accessibility to deliver greater value for money; invest in workforce to increase innovation, ability, capacity and professionalism; utilize effective portfolio, program and project management techniques to maximize the impact of ICT-enabled change; and benchmark ICT investment, costs, and performance annually.

Coverage

GOVERNANCE

Policy orientation for successful implementation of SRMP (Broad Band, Cyber Security, Private Sector Development, eWaste, Open Data)

EDUCATION

ICT Skills & Capacity Building

ENVIRONMENT

eWaste

INFOCOM

Common Infrastructure (Integrated Public Network & Communications, the Government Cloud (G-Cloud), Data center rationalization, Desktop services); Common Standards (Architecture and standards, Open Source, Open Standards, Reuse); information security and assurance.

Implementation

STAKEHOLDERS

All Government Ministries, Department and Agencies, private sector & academia

6.9. Case Study 9

The Kenya National ICT Master Plan 2014-2018

General

DATES
2014-2018

LOCATION
Kenya

CATEGORY
Master plan

OWNER
Kenya ICT Authority

REFERENCES
(Kenya Education Network (KENET), 2016)

URL
https://www.kenet.or.ke/sites/default/files/Final%20ICT%20Masterplan%20Apr%202014.pdf

Context

DEVELOPMENT CONTEXT
Kenya, is a country in Africa and a founding member of the East African Community (EAC). Its capital and largest city is Nairobi. It is bordered by Tanzania to the south, Uganda to the west, South Sudan to the north-west, Ethiopia to the north, Somalia to the north-east, and the Indian Ocean to east. In 2014, It had a population of approximately 45 million people. The capital, Nairobi, is a regional commercial hub. The economy of Kenya is the largest by GDP in East and Central Africa. Agriculture is a major employer; the country traditionally exports tea and coffee and has more recently begun to export fresh flowers to Europe. The service industry is also a major economic driver and it is a member of the East African Community trading bloc (Wikipedia, 2016g).

INFOCOM CONTEXT
0.5 fixed-telephone subscriptions per 100 inhabitants; 70.6 mobile-cellular subscriptions per 100 inhabitants; 0.1 fixed (wired)-broadband subscriptions per 100 Inhabitants; 3 mobile-broadband subscriptions per 100 inhabitants; 10.8% households with a computer; 14.2% households with Internet access at home; 39% individuals use the Internet (ITU, 2014).

POLICY CONTEXT

The master plan is aligned to the Kenya national constitution, Vision 2030, Jubilee Manifesto; and the new laws enacted in between November 2012 to January 2013 such as Science, Technology and Innovation Act 2013, TIVET Act 2013 and Universities Act 2012. This is in recognition of the fact that ICT has a critical role in driving the economic, social and political development of Kenya as espoused in Vision 2030; and it is a roadmap to a knowledge economy and society that will lead to real socio-economic growth.

Policy

SUMMARY

The Kenya Vision 2030 is the national long-term development blueprint that aims to transform the country into a modern, globally competitive, Middle income country offering a high quality of life for all citizens by the year 2030. The purpose of this Master Plan is to review and update the Connected Kenya Master Plan launched in February 2013 with a view to extend stakeholders participation and take into account changes in the Jubilee digital Government. The ICT theme, which is one of the foundations for national transformation in the first medium term plan (MTP) (2008-2012) is “strengthening the foundation for a knowledge-based economy”.

OBJECTIVES

Support provision of reliable, secure and affordable connectivity across the country to all citizens; facilitate efficient and effective government services; enhance data access and protection stewardship of public data and information; offer consistent, integrated, e-Government citizen centric services; to use ICT automated processes in the product and service delivery value chains across various economic sectors; work with the relevant State Departments to promote ICT innovations and their commercialization; grow the number of ITES companies and the range of services provided; grow and monitor the local ICT industry; strength en the leadership and ICT human capacity of ICTA; increase digital literacy of citizens; develop ICT ready workforce; develop a critical mass of local high-end ICT skills.

DRIVERS

High demand for high-end ICT professionals, currently the most connected country in East Africa with connection to four submarine cables; TEAMS, EASY, SEACOM and LION and NFOBI that cuts across the country and reaches more than half the 47 County Governments; wide coverage and use of the mobile phone network

Coverage

GOVERNANCE

e-Government information and services

EDUCATION

ICT human capital and workforce development

ECONOMY

ICT as a Driver of Industrial development

INFOCOM

Integrated ICT infrastructure backbone required to enable cost effective delivery of ICT products and services; integrated information infrastructure for improving the quality of e-Government services and enabling the country to transition to a knowledge-based society

Implementation

STAKEHOLDERS

Ministry of ICT Kenya; Kenya Education Network, oversight committee chaired by the President; Inter ministerial steering Committee; Ministries, Counties, Departments and Agencies

6.10. Case Study 10

UK Digital Skills Strategy 2014

General

TITLE
The Information Economy Council Digital Skills Strategy for UK 2014

DATES
2014

LOCATION
UK

CATEGORY
Policy

OWNER
Information Economy Council Skills Working Group

REFERENCES
(British Information Economy Council Skills Working Group, 2014)

URL
https://www.thetechpartnership.com/globalassets/pdfs/research-2014/informationeconomydigitalskillsstrategy_oct14.pdf

Context

DEVELOPMENT CONTEXT
United Kingdom (UK) is a sovereign state in Europe. Lying off the northwestern coast of the European mainland, it includes the island of Great Britain, the north-eastern part of the island of Ireland and many smaller islands. The United Kingdom is a developed country and has the world's fifth-largest economy. UK was the world's first industrialised country and the world's foremost power during the 19th and early 20th centuries. It is categorised as very high in the Human Development Index currently ranking 14th in the world.

INFOCOM CONTEXT
52.9 fixed-telephone subscriptions per 100 inhabitants; 123.8 mobile-cellular subscriptions per 100 inhabitants; 35.7 fixed (wired)-broadband subscriptions per 100 Inhabitants; 87.2 mobile-broadband subscriptions per 100 inhabitants; 88.2% households have a computer; 88.4% households have Internet access at home; 89.9% individuals use the Internet (ITU, 2014).

POLICY CONTEXT
It is an implementation of the "improving skills" action of the Information Economy Strategy - June 2013.

Policy

SUMMARY

The Information Economy Strategy of June 2013 highlighted the fact that a lack of sufficiently skilled people is one of the biggest barriers to UK leadership in the global information economy. To reap the economic and social benefits of the digital economy, the UK needs a strong flow of future talent, a skilled workforce and a digitally literate population. The strategy set out the need for people who can use applications and apply technology as well as people who can invent and develop the technology and applications of the future. Taking forward the skills actions in the Information Economy Strategy, this Digital Skills Strategy is focused on accelerating the growth of the digital economy by inspiring young people about technology, enabling talented people from all backgrounds to get into technology careers, and helping companies develop the technology skills they need for the future.

OBJECTIVES

The overall objective of the digital skills strategy is accelerating the growth of the digital economy by inspiring young people about technology, enabling talented people from all backgrounds to get into technology careers, and helping companies develop the technology skills they need for the future. The strategy addresses three strategic objectives: Developing a world class pipeline of new talent for technology careers – with a particular focus on attracting more girls and women; accelerating the intake of new recruits into the technology workforce – with a particular focus on apprentices and graduates and develop strategically important new skills – with a particular focus on cyber security, big data and the Internet of Things.

INPUTS

increasing the intake of apprentices through standardization; promotion of high quality training and government funding; creation of new skills through establishing Tech Skills Hubs that help businesses to collaborate for growth, and encouraging greater investment in skills by supporting employers with a Tech Skills Training Fund; awareness and advocacy events e.g. inspiring young people into programming through the Hour of Code; Tech employers influenced school learning materials e.g. www.BehindTheScreen.com; work experience opportunities, career advice and contact with role models; Computer Clubs for Girls, etc.

Coverage

EDUCATION

Inspiring young people about technology; enabling talented people from all backgrounds to get into technology careers; helping companies develop the technology skills they need for the future

Implementation

STAKEHOLDERS

Employers across the sector (Industrial Partnership for the Digital Economy)

LESSONS LEARNT

Investment in extending basic digital skills to all of the UK population by 2020 in collaboration with businesses and charitable sector is needed; digital advances are making retraining and lifelong learning more important than ever; progression onto apprenticeships should be recognised as a good outcome for school students; dedicated time

for Continual Professional Development (CPD) is essential for computing teachers and should be recognised as a core component of being a professional computing teacher; there should be a digital component to education and training opportunities for young people up to the age of 19 hence Government should treat computing as a fourth 'core science'.

6.11. Case Study 11

Ireland Broadband Intervention Strategy 2012, 2015

General

TITLE
Ireland's Broadband Intervention Strategy

DATES
2012 and updated in 2015

LOCATION
Ireland

CATEGORY
Policy

OWNER
Minister for Communications, Energy and Natural Resources

REFERENCES
(Ireland's Minister for Communications, 2015)

URL
http://www.dcenr.gov.ie

Context

DEVELOPMENT CONTEXT
Ireland is an island in the North Atlantic. It is separated from Great Britain to its east by the North Channel, the Irish Sea and St George's Channel. Ireland is the second-largest island of the British Isles, the third largest in Europe, and the twentieth largest on Earth. Politically, Ireland is divided between the Republic of Ireland (officially named Ireland), which covers five-sixths of the island, and Northern Ireland, which is part of the United Kingdom, and located in the northeast of the island. In 2011, the population of Ireland was about 6.4 million, ranking it the second-most populous island in Europe after Great Britain. Just under 4.6 million live in the Republic of Ireland and just over 1.8 million live in Northern Ireland. In Ireland, the digital economy represents 5% of GDP, is anticipated to increase to 10% of GDP by 2020 and it employs almost 100,000 people directly and indirectly (Wikipedia, 2016f).

INFOCOM CONTEXT
44 fixed-telephone subscriptions per 100 inhabitants; 102.8 mobile-cellular subscriptions per 100 inhabitants; 24.2 fixed (wired)-broadband subscriptions per 100 Inhabitants; 67.2 mobile-broadband subscriptions per 100 inhabitants, 83.6%; households with a computer; 82.4% households with Internet access at home; 78.2% individuals use the Internet (ITU, 2014).

Policy

SUMMARY

The National Broad Band Project (NBP) is a Government policy initiative, which aims to deliver high-speed broadband to every citizen and business in Ireland. This is being achieved through a combination of accelerated commercial investment by telecoms operators, and a proposed State intervention to provide high-speed broadband to those parts of the country where there is no certainty that the commercial sector will invest. This strategy sets out a series of detailed dx in respect of the proposed State intervention. Specifically it sets out the key elements of the intervention - what services are required and how they will be delivered by the successful bidder(s). The NBP sets out the means by which the Government will deliver its commitment to provide high-speed broadband to all parts of Ireland. Its vision is high speed broad band for all which is informed by the fact that in Ireland the digital economy represents 5% of GDP and is anticipated to be some 10% of GDP by 2020, and employs almost 100,000 people directly and indirectly.

OBJECTIVES

Deliver the intervention as quickly as possible to ensure a national high speed broadband network for Ireland; every home and business to have access to high speed broadband with a choice of service providers; ensure that the network can meet current and future demand; maximise re-use of existing infrastructure; incentivize additional commercial investment; stimulate growth and retention in jobs while enabling e-farming, e-health, trading online, e-education, tourism, savings for consumers, etc.

OUTPUTS

Commercial sector responded strongly in urban and semi-urban areas, offering competitive high speed services to consumers over multiple technology platforms, and are now investing approximately €2bn in Ireland e.g. Eircom is rolling out a €400m investment in a Next Generation Access Fibre Network that offers speeds of up to 100Mbps. Service is already available to over 800,000 addresses, with planned coverage to reach 1.4m addresses by 2016; Mobile operators have launched 4G high speed mobile broadband services following ComReg's multiband spectrum auction. There has also been continued investment by all operators in enhancing and broadening 3G services and network improvements, the broadcaster Sky has entered the broadband market, increasing choice for consumers.

Coverage

GOVERNANCE

Set of technical standards that must be met by the winning bidder(s) in the procurement process; ensuring that the network is future proofed to meet growing bandwidth demand

SOCIETY

Ensuring that network is as close as possible to each premise to ensure availability of a high-speed connection once the end user makes an order for retail services; requiring the winning bidder(s) to provide an affordable retail package of services to some users not able to obtain the minimum retail service they require.

ECONOMY

Availability of a range of high quality wholesale services to allow retail competition to develop; meeting specific needs of business as well as scalability in terms of future anticipated growth in demand for bandwidth; funding the building of a wholesale, open access network to promote competition at retail level

INFOCOM

Network that is future proofed to meet growing bandwidth demand

Implementation

STAKEHOLDERS

Industry, citizens and European Commission Guidelines

6.12. Case Study 12

Policy on ICT in Education Malaysia 2010

General

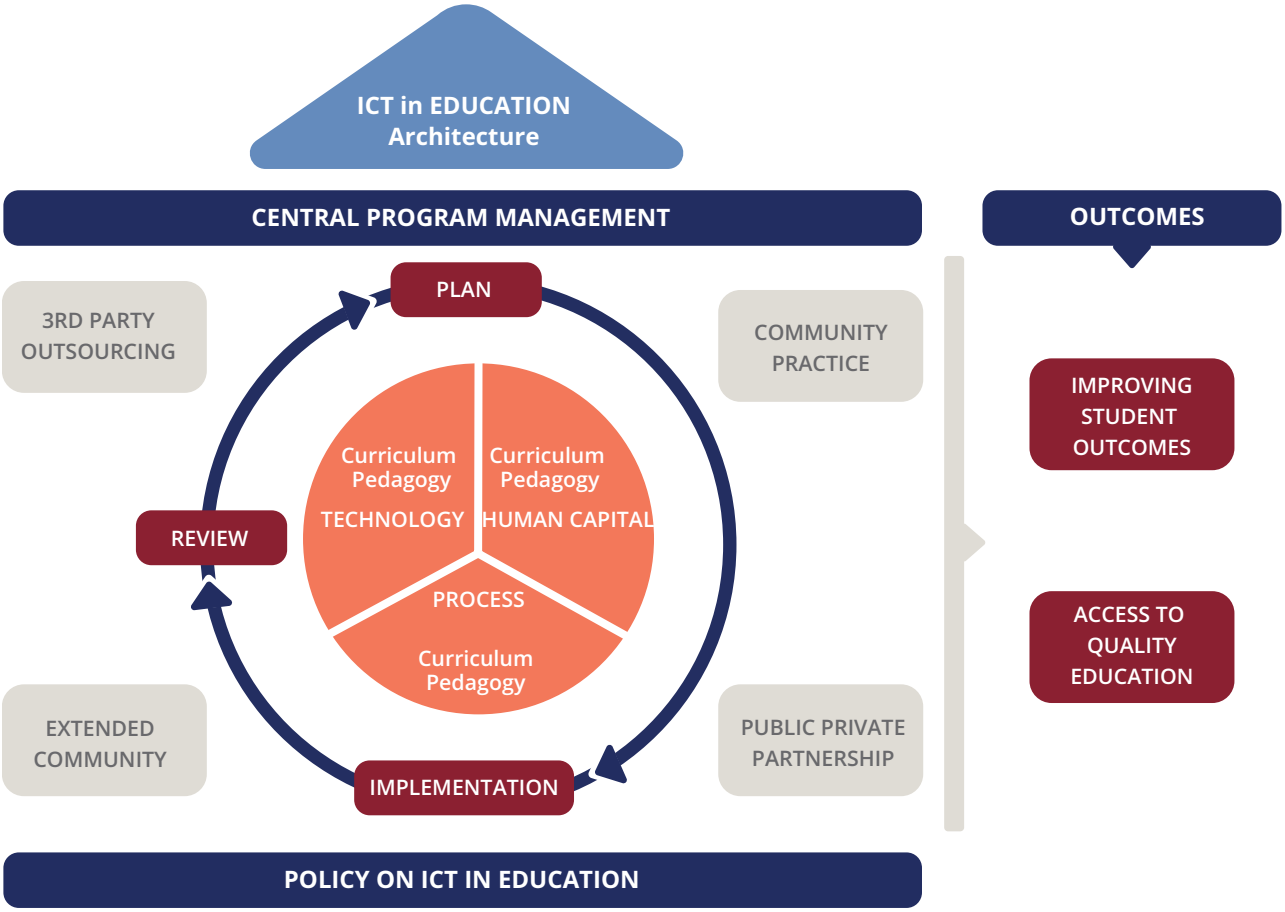
DATES
2010

LOCATION
Malaysia

CATEGORY
Policy

OWNER
Ministry of Education (MOE), Malaysia

VISUAL



REFERENCES

(Frost & Sullivan, 2010)

URL

http://www.mscmalaysia.my/sites/default/files/pdf/publications_references/Policy%20on%20ICT%20in%20Education%20Malaysia%202010.pdf

Context

DEVELOPMENT CONTEXT

Malaysia is a federal constitutional monarchy located in Southeast Asia. It consists of thirteen states and three federal territories and has a total landmass of 329,847 square kilometres (127,350 square km) separated by the South China Sea into two similarly sized regions, Peninsular Malaysia and East Malaysia (Malaysian Borneo). Peninsular Malaysia shares a land and maritime border with Thailand and maritime borders with Singapore, Vietnam, and Indonesia. East Malaysia shares land and maritime borders with Brunei and Indonesia and a maritime border with the Philippines and Vietnam. The capital city is Kuala Lumpur, while Putrajaya is the seat of the federal government. By 2016, with a population of over 30 million, Malaysia became the 44nd most populous country in the world. Since its independence, Malaysia has had one of the best economic records in Asia, with its GDP growing at an average of 6.5% per annum for almost 50 years. The economy has traditionally been fuelled by its natural resources, but is expanding in the sectors of science, tourism, commerce and medical tourism. Today, Malaysia has a newly industrialized market economy, ranked third largest in Southeast Asia and 29th largest in the world (Wikipedia, 2016j).

INFOCOM CONTEXT

15.3 fixed-telephone subscriptions per 100 inhabitants; 144.7 mobile-cellular subscriptions per 100 inhabitants; 8.2 fixed (wired)-broadband subscriptions per 100 Inhabitants; 12.5 mobile-broadband subscriptions per 100 inhabitants; 65.1% households with a computer; 64.7% households with Internet access at home; 67% individuals use the Internet (ITU, 2014).

POLICY CONTEXT

Since the Smart School initiative was launched in July 1997 as one of the seven (7) flagships of the Malaysia Super Corridor (MSC) Malaysia, there has been much accomplishment in integrating ICT in education, and this began with piloting the 88 Smart Schools which were given the 'role' to act as the nucleus for the reference of Smart School concepts, materials, skills and technologies developed by the MOE. In April 2006, the National IT Council endorsed MOE's proposal that Multimedia Development Co-operation (MDeC) undertakes a systematic transformation of the '88 Smart Schools' into model schools. This included promoting best practices in technology-enabled teaching, learning and school management. Entering the last wave of the Smart School Flagship Application Roadmap i.e. Wave 4- 'Consolidate and Stabilize' phase, Malaysia gradually moved away from the Smart School initiative to a larger and more pervasive 'ICT in Education' concept.

There were several impetuses to the development of a policy on ICT in education in Malaysia; at the 30th FCC meeting on 6th April 2010 co-chaired by the Chief Secretary to the Government and Chief Executive Officer (CEO) of MDeC, the Committee agreed to look at strengthening the policy on ICT in education to align all ICT projects and further emphasize on the role of ICT towards maximizing the impact on student outcomes; the Deputy Prime Minister's office requested the Secretary General of MOE on 16 April 2010 to consider the development of National ICT in Education Policy in collaboration with MDeC.

The policy is also mapped to the Broader National development policies that are guiding Malaysia towards becoming a developed nation and high income economy by 20120 such as Government Transformation Programme (GTP) Economic transformation programme (ETP) under the New Economic Model (NEM), 10th Malaysia Plan 2011-2015, etc,

Policy

SUMMARY
The overall aim of the policy is to guide the full realization of benefits and potential in education using ICT as a critical enabler. The broader scheme of 'ICT in Education' covered in the policy encompasses all previous ICT in education initiatives i.e. SchoolNet, Computer Lab, EduWebTV, Teaching of Mathematics and Science in English (PPSMI) and Access Centre and all future ICT initiatives under a common set of objectives instead of letting each ICT initiative continue to be implemented independently.

OBJECTIVES
To align all the current and future ICT initiatives under a common goal for integrating 'ICT in Education'; to standardize and enhance the implementation of ICT initiatives in Education by encompassing all important aspects of implementation and post-implementation into a regulatory framework; to generate greater commitment and acceptance by all stakeholders including the policy implementers and the ***rakyat.***

INPUTS
The Multimedia Super Corridor (MSC) launched in August 1996 facilitated successful implementation of ICT in education policy

DRIVERS
Successful implementation of the predecessor policy i.e. Smart Schools Initiative.

Coverage

SOCIETY
ICT for Special education;

EDUCATION
Capacity building and professional development

ECONOMY
Public private partnership

INFOCOM
ICT infrastructure; Education Management and administration Systems; ICT for special groups;

KNOWLEDGE
Digital Learning Resources

Implementation

STAKEHOLDERS
Malaysia Administrative Modernization and Management

Planning Unit (MAMPU); Economic Planning Unit (EPU); Prime Minister's Department; Ministry of Science, Technology and Information (MOSTI); Ministry of Finance (MOF); Malaysian Communications and Multimedia Commission (MCMC), Academia

LESSONS LEARNT

A well-planned and responsive education system provides an appropriate enabling environment for the successful implementation of ICT in education policy and programme; to make ICT an integral part of the education master plan to and ensure programme support, ICT in education policy should share the same vision as other educational policies or initiatives; an ICT in education policy that is driven by a vision which can be translated into action targeted at realistic and manageable goals contributes to successful programme implementation; adequate physical and technological infrastructures are necessary conditions for effective ICT integration; a well-developed ICT infrastructure in the economic sector facilitates successful implementation of ICT in education policy; ICT in education policy is one of several key economic strategies to ensure sustained economic development of any country.

6.13. Case Study 13

India Policy on ICT in School Education 2012

General

TITLE
National Policy on ICT in School Education in India

DATES
2012

LOCATION
India

CATEGORY
Policy

OWNER
Department of School Education and Literacy, Ministry of Human Resource Development, Government of India

REFERENCES
(Indian Ministry of Human Resource, 2012)

URL
http://mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/revised_policy%20document%20ofICT.pdf

Context

DEVELOPMENT CONTEXT
India is located in South Asia. It is the seventh-largest country by area, the second-most populous country with over 1.2 billion people, and the most populous democracy in the world. Bounded by the Indian Ocean on the south, the Arabian Sea on the south-west, and the Bay of Bengal on the south-east, it shares land borders with Pakistan to the west; China, Nepal, and Bhutan to the north-east; and Myanmar (Burma) and Bangladesh to the east. Following market-based economic reforms in 1991, India became one of the fastest-growing major economies and is considered a newly industrialized country. The Indian economy is the world's seventh-largest by nominal GDP and third-largest by purchasing power parity. However, it continues to face the challenges of widespread poverty, corruption, malnutrition and inadequate public health.

INFOCOM CONTEXT
2.3 fixed-telephone subscriptions per 100 inhabitants; 70.8 mobile-cellular subscriptions per 100 inhabitants; 1.2 fixed (wired)-broadband subscriptions per 100 Inhabitants; 3.2 mobile-broadband subscriptions per 100 inhabitants; 11.9% households with a computer; 13% households with Internet access at home; 15.1% individuals use the Internet (ITU, 2014).

POLICY CONTEXT

This policy is a result of the National Policy on Education 1986, as modified in 1992 which stressed the need to employ educational technology to improve the quality of education. The policy statement led to two major centrally sponsored schemes, namely; Educational Technology (ET) and Computer Literacy and Studies in Schools (CLASS) paving the way for a more comprehensive centrally sponsored scheme – Information and Communication Technology @ Schools in 2004. Educational technology also featured prominently in the upgradation of science education scheme, the National Curriculum Framework (NCF) 2005, Government of India's flagship programme on education, Sarva Shiksha Abhiyan (SSA) and the norm of schooling recommended by the Central Advisory Board of Education (CABE), in its report on Universal Secondary Education, in 2005.

Policy

SUMMARY

The comprehensive choice of ICT for holistic development of education can be built only on a sound policy. The initiative of ICT Policy in School Education is inspired by the tremendous potential of ICT for enhancing outreach and improving quality of education. This policy endeavors to provide guidelines to assist the States in optimizing the use of ICT in school education within a national policy framework.

OBJECTIVES

Create: an environment to develop a community knowledgeable about ICT, an ICT literate community which can deploy, utilize, benefit from ICT and contribute to nation building, an environment of collaboration, cooperation and sharing, conducive to the creation of a demand for optimal utilization of and optimum returns on the potentials of ICT in education; promote: universal, equitable, open and free access to a state of the art ICT and ICT enabled tools and resources to all students and teachers, development of local and localized quality content and to enable students and teachers to partner in the development and critical use of shared digital resources, development of professional networks of teachers, resource persons and schools to catalyze and support resource sharing, upgradation, and continuing education of teachers' guidance, counselling and academic support to students; and resource sharing, management and networking of school managers and administrators, resulting in improved efficiencies in the schooling process, research, evaluation and experimentation in ICT tools and ICT enabled practices in order to inform, guide and utilize the potentials of ICT in school education, a critical understanding of ICT, its benefits, dangers and limitations; motivate and enable wider participation of all sections of society in strengthening the school education process through appropriate utilization of ICT.

Coverage

EDUCATION

Implementation of a programme of ICT literacy across all secondary schools; a model Curriculum for ICT in Education at national and state level; engagement of a dedicated teacher with appropriate qualification; transformation of teachers in a school into advanced users of ICT integrating ICT skills into their professional development; ICT enabled teaching – learning processes; elective courses at the higher secondary level; ICT for Skill Development (vocational and job oriented areas of general education); ICT for Children with Special Needs; ICT for School Management; capacity building of in service, pre-service, school heads and State / District Education Department Personnel.

INFOCOM
ICT Infrastructure (core and enabling)

KNOWLEDGE
Digital content and resources

Implementation

STAKEHOLDERS
Ministry of HRD; Ministry of Communications and Information Technology; Ministry of Information and Broadcasting, Department of Space; Department of Science & Technology; Ministry of Power; Ministry of New and Renewable Energy; Ministry of Labour and Ministry of Rural Development; National Council of Educational Research and Training; the Central Institute of Educational Technology; the National Institute of Open Schooling; the State Councils of Educational Research and Training; the State Institutes of Educational Technology.

6.14. Case Study 14

Mauritius e-Government Strategy 2013-2017

General

DATES
2013-2017

LOCATION
Republic of Mauritius

CATEGORY
Policy

OWNER
Ministry of ICT

REFERENCES
(Ministry of Information and Communication Technology, 2013)

URL
http://mtci.govmu.org/English/Documents/eGovStrategyfinalv201393.pdf

Context

DEVELOPMENT CONTEXT
Mauritius is an island nation in the Indian Ocean about 2,000 kilometers (1,200 miles) off the southeast coast of the African continent. The country includes the island of Mauritius, Rodrigues (560 kilometers (350 mi) east), and the outer islands (Agaléga, St. Brandon and two disputed territories). Mauritius became an important base on the trade routes from Europe to the East before the opening of the Suez Canal and was involved in the long power struggle between the French and the British. The French won the Battle of Grand Port, their only naval victory over the British during these wars, but they could not prevent the British from landing at Cap Malheureux three months later. The people of Mauritius are multiethnic, multi-religious, multicultural and multilingual. The island's government is closely modelled on the Westminster parliamentary system, and Mauritius is highly ranked for democracy and for economic and political freedom. Along with the other Mascarene Islands, Mauritius is known for its varied flora and fauna, with many species endemic to the island. The island is widely known as the only known home of the dodo, which, along with several other avian species, was made extinct by human activities relatively shortly after the island's settlement. They have a population of approximately 13m people (Wikipedia, 2016j).

INFOCOM CONTEXT
29.2 fixed-telephone subscriptions per 100 inhabitants; 123.2 mobile-cellular subscriptions per 100 inhabitants; 12.5 fixed (wired)-broadband subscriptions per 100 Inhabitants; 28.8 mobile-broadband subscriptions per 100 inhabitants; 48.5% households with a computer; 44.5% households with Internet access at home; 39% individuals use the Internet (ITU).

POLICY CONTEXT
The National ICT Strategic Plan (NICTSP) 2011 –2014: Towards i-Mauritius called for a paradigm shift in e-Government Strategy that advocates placing citizens at the centre of public service delivery. This strategy

provides guidance on a more effective, secured and efficient delivery of Government services to citizens and businesses.

Policy

SUMMARY

The e-Government Strategy came at the right time when Mauritius was getting ready to ride the wave of economic and social transformation that ushers in a Knowledge Society. This economic and social transformation as advocated by the Economic and Social Transformation Plan currently under preparation projects to push the country into a High Income Country bracket through the use of appropriate technology. Through optimal employment of ICT in the machinery of Government, it was expected that public service delivery would be enhanced reaping much warranted efficiency gains for Mauritius and enhancing the convenience of citizens as well as facilitating businesses.

OBJECTIVES

The prime objective of the e-Government strategy is to formulate policies which would aim at improving effectiveness and efficiency of Ministries and Departments, with emphasis on improving productivity, quality and service delivery.

Coverage

GOVERNANCE

Legal and Regulatory; Business Continuity Management; Standardisation

EDUCATION

Training and HR

ENVIRONMENT

Green ICT and Paperless Government

INFOCOM

Open Source; Government Cloud

KNOWLEDGE

Data Sharing

Implementation

STAKEHOLDERS

All Government Ministries, Departments and Agencies, the private sector, civil society, academia, citizens and the business community.

6.15. Case Study 15

Egypt Government Cloud Strategy 2015

General

TITLE
The Egyptian Government Cloud (EG-Cloud)

DATES
2015

LOCATION
Egypt

CATEGORY
Policy

OWNER
Ministry of Communication and Information Technology

REFERENCES
(Egyptian Ministry of Communication & Information Technology, 2015)

URL
http://www.mcit.gov.eg/Publication/Publication_Summary/856

Context

DEVELOPMENT CONTEXT
Egypt is a transcontinental country spanning the northeast corner of Africa and southwest corner of Asia, via a land bridge formed by the Sinai Peninsula. It is bordered by the Gaza Strip and Israel to the northeast, the Gulf of Aqaba to the east, the Red Sea to the east and south, Sudan to the south and Libya to the west. Considered a cradle of civilization, ancient Egypt experienced some of the earliest developments of writing, agriculture, urbanization, organized religion and central government. Iconic monuments such as the Giza Necropolis and its Great Sphinx, as well as the ruins of Memphis, Thebes, Karnak, and the Valley of the Kings, reflect this legacy and remain a significant focus of archaeological study and popular interest worldwide. With over 90 million inhabitants, Egypt is the most populous country in North Africa and the Arab World, the third-most populous in Africa (after Nigeria and Ethiopia), and the fifteenth-most populous in the world. The great majority of its people live near the banks of the Nile River, where the only arable land is found. The large regions of the Sahara desert, which constitute most of Egypt's territory, are sparsely inhabited (Wikipedia, 2016d).

INFOCOM CONTEXT
8.3 fixed-telephone subscriptions per 100 inhabitants; 21.5 mobile-cellular subscriptions per 100 inhabitants; 3.3 fixed (wired)-broadband subscriptions per 100 Inhabitants; 31.1 mobile-broadband subscriptions per

100 inhabitants; 43.1% households with a computer; 34.5% households with Internet access at home; 49.6% individuals use the Internet (ITU, 2014).

POLICY CONTEXT

This strategy was implementing one of the strategic objectives of the 2004-2006 Building Digital Bridges: Egypt's Vision of the Information Society.

Policy

SUMMARY

Cloud Computing has emerged as a step change in the economics and sustainability of Information and Communication Technologies (ICT). It is globally considered as one of the utmost innovative models for developing and utilizing computing resources. The model presents a shift away from computing as a purchased product, to computing as a delivered service. Users no longer need to seek and invest large funds for buying capital equipment. The model allows enterprises, especially SMEs, to access powerful resources that they cannot afford. The opportunities of using powerful computing resources on demand via the network are a potential driver for the growth of a nation's economy. Understanding both the promise and risks of this new paradigm, the Egyptian Ministry of Communications and Information Technology (MCIT) has decided to develop a thoughtful Egypt Government Cloud (EG-Cloud) strategy to support and promote the utilization of cloud computing in the government.

OBJECTIVES

Developing the eco system, developing the governance model, and rolling out the EG-Cloud.

INPUTS

Leadership commitment; Governance Framework; Developing Policies and Standards, Developing Human Capacity

Coverage

INFOCOM

Developing an Architecture Framework and a trusted environment; Data Centers Consolidation; Define Service Portfolio; Developing and implementing the service catalogue.

Implementation

STAKEHOLDERS

Government, private sector, academia, NGOs

CHALLENGES

Three main challenges were anticipated: Connectivity Efficiency; Culture Reluctance and Shortage of qualified resources

6.16. Case Study 16

South Africa's Broadband Policy 2013

General

DATES
2013

LOCATION
South Africa

CATEGORY
Policy

OWNER
Department of Communications Republic of South Africa

REFERENCES
(Department of Communications of Republic of South of Africa, 2013)

URL
http://wiki.lib.sun.ac.za/images/c/c7/Doc-bb-policy.pdf

Context

DEVELOPMENT CONTEXT
South Africa is the southernmost country in Africa. It is bounded on the south by 2,798 kilometers of coastline of southern Africa stretching along the South Atlantic and Indian Oceans, on the north by the neighboring countries of Namibia, Botswana and Zimbabwe, and on the east by Mozambique and Swaziland, and surrounding the kingdom of Lesotho. South Africa is the 25th-largest country in the world by land area, and with close to 53 million people, is the world's 24th-most populous nation. South Africa is ranked as an upper-middle income economy by the World Bank, and is considered to be a newly industrialized country. Its economy is the second-largest in Africa, and the 34th-largest in the world. In terms of purchasing power parity, South Africa has the seventh-highest per capita income in Africa. However, poverty and inequality remain widespread, with about a quarter of the population unemployed and living on less than US$1.25 a day. Nevertheless, South Africa has been identified as a middle power in international affairs, and maintains significant regional influence (Wikipedia, 2016m).

INFOCOM CONTEXT
9.2 fixed-telephone subscriptions per 100 inhabitants; 147.5 mobile-cellular subscriptions per 100 inhabitants; 3.1 fixed (wired)-broadband subscriptions per 100 Inhabitants; 25.2 mobile-broadband subscriptions per 100 inhabitants; 25.8% households with a computer; 39.4% households with Internet access at home; 48.9% individuals use the Internet (ITU, 2014).

POLICY CONTEXT

The South African National Development Plan emphasizes that widespread broadband communication system underpins a dynamic and connected vibrant of information society and a knowledge economy that is more inclusive, equitable and prosperous.

Policy

SUMMARY

The national broadband policy, gives expression to South Africa as vision for the country to develop a seamless information infrastructure by 2030 that will be universally accessible across the country at a cost and quality that meets the needs of citizens, business and the public sector and provides access to the creation and consumption of a wide range of converged applications and services required for effective economic and social participation. It reflects the Government of South Africa's commitment to creating an enabling environment for the rollout of broadband infrastructure and the creation of associated content, applications and services. It does this by indicating the intended structure of the industry and the institutional framework necessary for effective regulation of an open and fair competitive environment. Furthermore, it encourages public and private investment in the broadband network extension required to meet the social and economic needs of the country. The ecosystem of digital networks, services, applications, content and devices, will be firmly integrated into the economic and social fabric of the country. In order to meet the national objective of more affordable broadband access for all, South Africa Connect provides for both demand side and supply side policy interventions. To improve access to the Internet and stimulate demand for broadband connectivity further, the connection of educational institutions, municipalities and government and the deployment of free public WiFi networks at points of connection for citizens to access m-and e-government services and other public services was prioritized.

OBJECTIVES

Affordable, ubiquitous broadband to meet the diverse needs of public and private users, formal and informal sector business, and consumers and citizens; policy and regulator conditions that enable public and private sector players to invest in and in other ways contribute to reaching South Africa's broadband ambition exist; efficient public sector delivery, including e-government services underpinned by the aggregation of broadband needs demand to drive economies of scale and which ensure that all public institutions at the national, provincial and municipal level have broadband connectivity and this is extended to the communities they serve; public and private enterprise, formal and informal, are able to fully exploit the efficiencies offered by ubiquitous broadband and its potential for innovation; a strong national skills base is developed for the country to be a proficient and globally competitive knowledge economy; a vibrant creative and software industry producing content and applications relevant to meet the needs of the diverse users in the country flourishes; and citizens and consumers have the literacy and skills to access services and content, including public information and public services.

DRIVERS

Successful implementation of the predecessor policy i.e. Smart Schools Initative

Coverage

GOVERNANCE

E-services & applications

SOCIETY

Open Access

EDUCATION
Human development, skills; Research, innovation & industry development

ECONOMY
Innovation and entrepreneurship

INFOCOM
Infrastructure

KNOWLEDGE
Content and Applications

Implementation

STAKEHOLDERS
All Government Ministries, Departments and Agencies (MDAs), private sector, academia

6.17. Case Study 17

Uganda Rural Communication Development Fund Policy 2010-2015

General

DATES
2010/2011-2014/2015

LOCATION
Uganda

CATEGORY
Policy

OWNER
Uganda Communication Commission (UCC)

REFERENCES
(Uganda Communications Commission, 2003)

URL
http://www.ucc.co.ug/files/downloads/UCC%20RCDF%20Policy%202010-11-2014-15.pdf

Context

DEVELOPMENT CONTEXT
Uganda is a landlocked country in East Africa. It is bordered to the east by Kenya, to the north by South Sudan, to the west by the Democratic Republic of the Congo, to the southwest by Rwanda, and to the south by Tanzania. Uganda is the world's second most populous landlocked country after Ethiopia. The southern part of the country includes a substantial portion of Lake Victoria, shared with Kenya and Tanzania, situating the country in the African Great Lakes region. Uganda also lies within the Nile basin, and has a varied but generally a modified equatorial climate. Uganda takes its name from the Buganda kingdom, which encompasses a large portion of the south of the country, including the capital Kampala. It has a population of approximately 38 million people. Its landscape encompasses the snow-capped Rwenzori Mountains and immense Lake Victoria. Its abundant wildlife includes endangered gorillas and chimpanzees as well as rare birds. Remote Bwindi Impenetrable National Park is a famous mountain gorilla sanctuary, while Murchison Falls National Park in the northwest is known for its 43m-tall waterfall and wildlife such as hippos (Wikipedia, 2016n).

INFOCOM CONTEXT
0.6 fixed-telephone subscriptions per 100 inhabitants; 44.1 mobile-cellular subscriptions per 100 inhabitants; 0.1 fixed (wired)-broadband subscriptions per 100 Inhabitants; 7.4 mobile-broadband subscriptions per 100 inhabitants; 4.9% households with a computer; 5.2% households with Internet access at home; 16.2% individuals use the Internet (ITU, 2014).

POLICY CONTEXT
The first implementation of the RCDF policy covered the period July 2003 to June 2008 and was implemented successfully. Its objectives were; to provide access to basic communication services within a reasonable

distance to all the people in Uganda; to ensure effective utilization of the RCDF to leverage investment in rural communication development; and to promote ICT usage in Uganda.

The process for development its successor policy for 2010/2011-2017/2018 included referencing to many relevant policy documents, both local and international, best practices from other countries and consultation with a wide range of stakeholders.

Policy

SUMMARY

The Uganda Communications Act of 1997 mandates Uganda Communications Commission (UCC) to establish and administer a Universal Service Fund- the Rural Communications Development Fund (RCDF). The main goal of RCDF is to enable essential interventions to ensure more equitable development of communications services by complementing the general national ICT policy and supporting the information requirements of other sectors of government that drive Uganda's development agenda.

The function of the fund is to effect communications interventions in areas that are underserved with the overall goal of ensuring that those underserved areas get access to communications services that are comparable to those in the served areas. To guide the communications interventions of RCDF, UCC therefore developed a rural communications development policy in the year 2001. That Policy among other things provided for specific objectives that would contribute to the overall goal of universal access to communications services. Implementation of the policy started in the year 2003. Its expiry of 2007 was rolled over to the year 2009. The targets that were set for the policy were all realised and in some cases exceeded. Building on the achievements of the 2001 policy and the changed communications environment, a new policy for the period 2010 to 2014 was developed with the aim of increasing the coverage of communications facilities and services to more underserved areas and people of Uganda and also to deliberately enhance the usage of ICT services in the country. This was the second phase of the Rural Communications Development Policy (RCDP 2010/11 – 2014/15), which while continuing to address the broad underlying issues of underserved areas, particularly focused on three aspects that are key for the development of Uganda as an information society namely: expansion of coverage of the first Rural Communications Development Policy; provision of Broadband connectivity and support for content development.

OBJECTIVES

Increase coverage and broaden basic ICT services; provision of Broadband connectivity; development of local and relevant content; increase ICT awareness & national ICT literacy; maximize resource mobilization & optimize utilization; enhance projects' effectiveness and sustainability; improve information management in governance and the delivery of social services; support local innovations in use of ICT for rural development; catalyze modernization & wider coverage of postal services; address consumer interests and CSO concerns; address social exclusion gaps.

Coverage

SOCIETY

Broaden coverage of RCDF intervention in order to expound the gains of the RCDF policy 2003 - 2008 as well as reduce the percentage of Ugandans that are underserved and thus attain the WSIS target for access to basic information and communications services

NFOCOM
Provision of Broadband connectivity

KNOWLEDGE
Support for content development

Implementation

STAKEHOLDERS
Ministry of ICT; National Information Technology Authority; ICT Committee of parliament; other government Ministries, Departments and Agencies

References

Adults, E. A. for the E. of. (2005). European Society Platform on Lifelong Learning. Retrieved from http://www.eaea.org/en/projects/eaea-coordinated-projects/completed-projects/eucis-lll.html

AF Lytras, M., & Ordóñez de Pablos, P. (2011). Software Technologies in Knowledge Society J.UCS Special Issue. Retrieved from http://digibuo.uniovi.es/dspace/handle/10651/23937

APEC, & Committee, E. (2000). Towards knowledge-based economies in APEC. Retrieved from http://www.voced.edu.au/content/ngv%3A15963

Bergkamp, L. (2002). EU Data Protection Policy. *Computer Law & Security Review*, ***18***(1), 31–47. http://doi.org/10.1016/S0267-3649(02)00106-1

Bertot, J. C. (2003). The multiple dimensions of the digital divide: more than the technology "haves" and "have nots." Government Information Quarterly, 20(2), 185–191. doi:10.1016/S0740-624X(03)00036-4

Blackman, C. (2004). Stumbling along or grave new world? Towards Europe's information society. *Foresight*, ***6***(5), 261–270. http://doi.org/10.1108/14636680410562963

Botswana's National e-Government Working. (2016). Botswana's National e-Government Strategy 2011-2016. Retrieved from http://workspace.unpan.org/sites/internet/documents/unpan048687.pdf

British Information Economy Council Skills Working Group. The Information Economy Council Digital Skills Strategy (2014). Retrieved from https://www.thetechpartnership.com/globalassets/pdfs/research-2014/informationeconomydigitalskillsstrategy_oct14.pdf

Buchbinder, H. (1993). The market oriented university and the changing role of knowledge. *Higher Education*, ***26***(3), 331–347. Retrieved from http://link.springer.com/10.1007/BF01383490

Burgelman, J.-C. (2000). Regulating Access in the Information Society: The Need for Rethinking Public and Universal Service. *New Media & Society*, ***2***(1), 51–66. http://doi.org/10.1177/14614440022225706

Business Dictionary. (2016). Vision Statement. Retrieved March 28, 2016, from http://www.businessdictionary.com/definition/vision-statement.html

Calabrese, A. (1997). Creative Destruction? From the Welfare State to the Global Information Society. *Javnost - The Public*, ***4***(4). Retrieved from http://javnost-thepublic.org/article/1997/4/1/

Centeno, C. (2004). Adoption of Internet services in the Acceding and Candidate Countries, lessons from the Internet banking case. *Telematics and Informatics*, ***21***(4), 293–315. http://doi.org/10.1016/j.tele.2004.02.001

Chen, C., & Watanabe, C. (2006). Diffusion, substitution and competition dynamism inside the ICT market: The case of Japan. *Technological Forecasting and Social Change*, ***73***(6), 731–759. http://doi.org/10.1016/j.techfore.2005.07.008

Cogburn, D. L. (2003). Governing global information and communications policy: Emergent regime formation and the impact on Africa. *Telecommunications Policy*, ***27***(1-2), 135–153. http://doi.org/10.1016/S0308-5961(02)00088-5

Cornella, A. (1998). Information policies in Spain. *Government Information Quarterly*, ***15***(2), 197–220. http://doi.org/10.1016/S0740-624X(98)90043-0

Dabinett, G. (2001). EU Mainstreaming of the Information Society in Regional Development Policy. *Regional Studies*, ***35***(2), 168–173. http://doi.org/10.1080/00343400120033151

Department for Business, I. and S. (2013). Information Economy Strategy, (June), 57. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/206944/13-901-information-economystrategy.pdf

Department of Communications of Republic of South of Africa. (2013). South Africa Connect: Creating Opportunities, ensuring Inclusion South Africa's Broadband Policy. Retrieved June 9, 2016, from http://www.gov.za/sites/www.gov.za/files/37119_gon953.pdf

Department of Electronics and Information Technology. (2014). Dgital India. Retrieved from http://www.cmai.asia/digitalindia/

Dictionaries, O. (2016). Quality Assurance. Retrieved March 28, 2016, from http://www.oxforddictionaries.com/definition/english/quality-assurance

Drori, G. S. (2007). Information Society as a Global Policy Agenda: What Does It Tell Us About the Age of Globalization? *International Journal of Comparative Sociology*, ***48***(4), 297–316. http://doi.org/10.1177/0020715207079532

ECLAC. (1948). The Caribbean Development Portal; From the United Nations Economic Commission for Latin America and the Caribbean (ECLAC). Retrieved from http://caribbean.eclac.org/t/information-society

EESC. (2015). European Economic and Social Committee. Retrieved from http://www.eesc.europa.eu/?i=portal.en.information-society

Egyptian Ministry of Communication & Information Technology. The Egyptian Government Cloud (EG-Cloud) Strategy (2015). Retrieved from http://www.mcit.gov.eg/Publication/Publication_Summary/856

Egyptian Ministry of Information & Communication Technology. (2015). Building Digital Bridges: Egypt's Vision of the Information Society. Retrieved from http://www.mcit.gov.eg/Upcont/Documents/BuildingBridges_all.pdf

Engelbrecht, H. (2007). The (Un)Happiness of Knowledge and the Knowledge of (Un)Happiness: Happiness Research and Policies for Knowledge based Economies 1. *Prometheus*, ***25***(3), 243–266. http://doi.org/10.1080/08109020701531379

Eriksson, J. (2006). The Information Revolution, Security, and International Relations: (IR)relevant Theory? *International Political Science Review/ Revue Internationale de Science Politique*, ***27***(3), 221–244. http://doi.org/10.1177/0192512106064462

Estonian Ministry of Education and Research. Estonian Research and Development and Innovation Strategy 2014-2020 "Knowledge-based Estonia." Retrieved from https://www.hm.ee/sites/default/files/estonian_rdi_strategy_2014-2020.pdf

Estonian Ministry of Education and Research. (2007). Knowledge-based Estonia: Estonian Research and Development and Innovation (RDI) Strategy 2007-2013. Retrieved from http://cs.ioc.ee/excs/policy/teadm-pohine-eesti2-en.pdf

Eurostat. (2015). Information society statistics - households and individuals. Retrieved from http://ec.europa.eu/eurostat/statistics-explained/index.php/Information_society_statistics_-

EurWork. (2007). EuroFound - European Foundation for the Improvement of Living and Working Conditions. Retrieved from http://www.eurofound.europa.eu/areas/industrialchange/knowledgesociety

Evers, H., Gerke, S., & Menkhoff, T. (2010). Knowledge clusters and knowledge hubs: designing epistemic landscapes for development. *Journal of Knowledge Management*, 14(5), 678–689. http://doi.org/10.1108/13673271011074836

Falch, M., & Henten, A. (2000). Digital Denmark: from information society to network society. *Telecommunications Policy*, *24*(5), 377–394. http://doi.org/10.1016/S0308-5961(00)00028-8

FCT. (2012). Portuguese agency for S&T - FCT. Retrieved from https://www.fct.pt/dsi/

Finance, F. M. of. (1995a). Finland - towards an information society, A National Outline. Retrieved March 29, 2016, from http://www.sitra.fi/julkaisut/tietoyhteiskunta/sitra211.pdf

Finance, F. M. of. (1995b). Finland - towards an information society, A National Outline.

Finnish Prime Minister's Office. (2006). *A renewing, human-centric and competitive Finland: The national knowledge society strategy 2007–2015. Government Policy Programmes: Information Society.*

FI-PPP. (2008). European Future Internet Portal. Retrieved from http://www.future-internet.eu

Fountain, J. E. (2000). Constructing the information society: women, information technology, and design. *Technology in Society, 22*(1), 45–62. http://doi.org/10.1016/S0160-791X(99)00036-6

Franklin, M. I. (2007). NGOs and the "Information Society": Grassroots Advocacy at the UN?A Cautionary Tale. *Review of Policy Research, 24*(4), 309–330. http://doi.org/10.1111/j.1541-1338.2007.00285.x

Frost & Sullivan. (2010). Policy on ICT in Education Malaysia.

Fuchs, C. (2010). THEORETICAL FOUNDATIONS OF DEFINING THE PARTICIPATORY, CO-OPERATIVE, SUSTAINABLE INFORMATION SOCIETY. Information, Communication & Society, 13(1), 23–47. http://doi.org/10.1080/13691180902801585

Füg, O. C. (2008). Save the Children: The Protection of Minors in the Information Society and the Audiovisual Media Services Directive. *Journal of Consumer Policy, 31*(1), 45–61. http://doi.org/10.1007/s10603-007-9059-9

Garnham, N. (1997). Europe and the Global Information Society: The history of a troubled relationship. *Telematics and Informatics, 14*(4), 323–327. http://doi.org/10.1016/S0736-5853(97)00010-5

GESCI. (2012). Global e-Schools and Communities Initiative (GESCI). Retrieved from http://www.gesci.org/

Giovannini, E. (2007). Statistics and Politics in a "Knowledge Society." *Social Indicators Research, 86*(2), 177–200. http://doi.org/10.1007/s11205-007-9137-z

Gómez Barroso, J. L., & Feijoo Gonzalez, C. A. (2010, January 1). Are Central and Eastern European Countries managing to develop the information Society? *Transformations in Business and Economics*. E.T.S.I. Telecomunicación (UPM). Retrieved from http://oa.upm.es/8819/1/INVE_MEM_2010_87332.pdf

Goodwin, I., & Spittle, S. (2002). The European Union and the information society: Discourse, power and policy. *New Media & Society, 4*(2), 225–249. http://doi.org/10.1177/146144480200400206

Government, C. for T. in. (2009). METER: Measurement and Evaluation Tool for E-Government Readiness. Retrieved from https://publicadministration.un.org/en/Capacity-Building/Tools/METER

Government of the Republic of the Lithuania. (2013). The Lithuanian Innovation Development Programme 2014–2020 Lithuania. Retrieved from http://www.mita.lt/uploads/documents/lithuanian_innovation_programme.pdf

Government of Seychelles. (2007). National ITC Policy for Seychelles. Retrieved from http://www.ict.gov.sc/resources/policy.pdf

Green, A., Preston, J., & Janmaat, J. G. (2006). Models of Lifelong Learning and the "Knowledge Society": Education for Competitiveness and Social Cohesion, 141–174. http://doi.org/10.1007/978-0-230-20745-5_7

Grimes, S. (2000). Rural areas in the information society: diminishing distance or increasing learning capacity? *Journal of Rural Studies, 16*(1), 13–21. http://doi.org/10.1016/S0743-0167(99)00027-3

Gurbaxani, V., Kraemer, K. L., King, J. L., Jarman, S., Dedrick, J., Raman, K. S., & Yap, C. S. (1990). Government as the driving force toward the information society: National computer policy in Singapore. *The Information Society, 7*(2), 155–185. Retrieved from http://www.tandfonline.com/doi/abs/10.1080/01972243.1990.9960092

Hanafizadeh, P., Hanafizadeh, M. R., & Khodabakhshi, M. (2009). Taxonomy of e-readiness assessment measures. *International Journal of Information Management, 29*(3), 189–195. http://doi.org/10.1016/j.ijinfomgt.2008.06.002

Hansson, F. (2007). Science parks as knowledge organizations – the " ba " in action? *European Journal of Innovation Management, 10*(3), 348–366. Retrieved from http://www.emeraldinsight.com/doi/full/10.1108/14601060710776752

Hong, J., & Huang, L. (2005). A split and swaying approach to building information society: The case of Internet cafes in China. *Telematics and Informatics, 22*(4), 377–393. http://doi.org/10.1016/j.tele.2004.11.005

Howard, P. N., Anderson, K., Busch, L., & Nafus, D. (2009). Sizing Up Information Societies: Toward a Better Metric for the Cultures of ICT Adoption. ***The Information Society***, ***25***(3), 208–219. Retrieved from http://www.tandfonline.com/doi/abs/10.1080/01972240902848948

IFAP Information Society Observatory Editor. (2011). IFAP Information Society Observatory. Retrieved from http://ifap-is-observatory.ittk.hu/

IISD. (2016). Sustainable Development. Retrieved March 28, 2016, from http://www.iisd.org/topic/sustainable-development

Indian Ministry of Human Resource. National Policy on Information and Communication Technology (ICT) in School Education (2012). Retrieved from http://mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/revised_policy document ofICT.pdf

Information for All Programme (IFAP) United Nations Educational, Scientific and Cultural Organization. (2016). Retrieved January 14, 2016, from http://www.unesco.org/new/en/communication-and-information/intergovernmental-programmes/information-for-all-programme-ifap/

Institute, O. data. (2016). What is Open Data. Retrieved March 28, 2016, from http://theodi.org/what-is-open-data

Ireland's Minister for Communications, E. and N. R. Ireland's Broadband Intervention Strategy. Retrieved from http://www.dcenr.gov.ie/communications/Lists/Publications Documents/Updated Strategy December 2015.pdf

IT, A. G. (2016). What is Green IT? Retrieved March 28, 2016, from http://www.aboutgreenit.co.uk/what-is-green-it/

ITU. (2012). Partnership On Measuring ICT For Development. Geneva. ICT Country Profile. Retrieved from https://www.itu.int/net4/itu-d/icteye/CountryProfile.aspx

ITU. (2014). Connect 2020 Agenda. Retrieved from http://www.itu.int/en/connect2020/Pages/default.aspx

ITU. (2015). ICT Development Index. Retrieved from http://www.itu.int/net4/ITU-D/idi/2015/

ITU. (2016). ICT Country Profile. Retrieved from https://www.itu.int/net4/itu-d/icteye/CountryProfile.aspx

Jaeger, P. T. (2006). Telecommunications policy and individuals with disabilities: Issues of accessibility and social inclusion in the policy and research agenda. *Telecommunications Policy, 30*(2), 112–124. http://doi.org/10.1016/j.telpol.2005.10.001

Jaeger, P. T. (2007). Information policy, information access, and democratic participation: The national and international implications of the Bush administration's information politics. *Government Information Quarterly*, ***24***(4), 840–859. http://doi.org/10.1016/j.giq.2007.01.004

Jakobi, A. P. (2006). The Knowledge Society and Global Dynamics in Education Politics. *European Educational Research Journal, 6*(1), 39–51. Retrieved from http://eric.ed.gov/?id=EJ795057

Karen Mossberger, C. J. T. and R. S. M. (2007). ***Digital Citizenship:*** *The Internet, Society, and Participation.* (M. P. EBooks, Ed.). Retrieved from https://mitpress.mit.edu/books/digital-citizenship

Karseth, B., & Nerland, M. (2007). Building professionalism in a knowledge society: examining discourses of knowledge in four professional associations†. *Journal of Education and Work, 20*(4), 335–355. http://doi.org/10.1080/13639080701650172

Katz, R. L., Koutroumpis, P., & Callorda, F. (2013). The Latin American path towards digitization. *Info, 15*(3), 6–24. http://doi.org/10.1108/14636691311327098

Kenya Education Network (KENET). (2016). The Kenya National ICT Master Plan 2013/14. Retrieved from https://www.kenet.or.ke/

Kisilowska, M. (2006). Knowledge management prerequisites for building an information society in healthcare. *International Journal of Medical Informatics, 75*(3-4), 322–9. http://doi.org/10.1016/j.ijmedinf.2005.08.004

Klecun-Dabrowska, E., & Cornford, T. (2000, January 1). Telehealth acquires meanings: information and communication technologies within health policy. *Information Systems Journal.* Blackwell Publishing. Retrieved from http://eprints.lse.ac.uk/7366/

Klironomos, I., Antona, M., Basdekis, I., & Stephanidis, C. (2006). White Paper: promoting Design for All and e-Accessibility in Europe. *Universal Access in the Information Society, 5*(1), 105–119. http://doi.org/10.1007/s10209-006-0021-4

Kofler, A. (1998). Digital Europe 1998: Policies, Technological development and implementation of the emerging information Society. *Innovation: The European Journal of Social Science Research, 11*(1), 53–71. http://doi.org/10.1080/13511610.1998.9968551

Kuo, C. Y., & Low, L. (2011). Information Economy and Changing Occupational Structure in Singapore. *The Information Society, 17*(4), 281–293. http://doi.org/10.1080/019722401753330878

Laudon, K. C. (2009). *E-Commerce 2009, 5th Edition*. (Pearson, Ed.).

Lee, S., Marcu, M., & Lee, S. (2011). An empirical analysis of fixed and mobile broadband diffusion. *Information Economics and Policy, 23*(3-4), 227–233. http://doi.org/10.1016/j.infoecopol.2011.05.001

Librarians, T. S. of C. (2015). Unified Digital Platform for All Libraries in England project. Retrieved from http://goscl.com/scl-working-to-create-unified-digital-platform-for-all-libraries/

Lindberg, M., Danilda, I., & Torstensson, B.-M. (2011). Women Resource Centres—A Creative Knowledge Environment of Quadruple Helix. *Journal of the Knowledge Economy, 3*(1), 36–52. Retrieved from http://link.springer.com/10.1007/s13132-011-0053-8

Lytras, M. D., Ordonez De Pablos, P., Ziderman, A., Roulstone, A., Maurer, H., & Imber, J. B. (Eds.). (2010). *Knowledge Management, Information Systems, E-Learning, and Sustainability Research* (Vol. 111). Berlin, Heidelberg: Springer Berlin Heidelberg. Retrieved from http://link.springer.com/10.1007/978-3-642-16318-0

Lytras, M. D., & Sicilia, M. A. (2005). The Knowledge Society: a manifesto for knowledge and learning. *International Journal of Knowledge and Learning.* Retrieved from http://www.inderscienceonline.com/doi/abs/10.1504/IJKL.2005.006259

Malaysian Administrative Modernization and Management Planning Unit (MAMPU). (2011). THE MALAYSIAN STRATEGIC PLAN: Powering Public Sector Digital Transformation. Retrieved June 9, 2016, from http://www.mampu.gov.my/documents/10228/41288/ISPplan2011.pdf/1a03119a-a8a8-40af-ac42-31c3fb7174b0

Mamlook, R., Aljumah, A., & Farooqui, N. K. (2011). Knowledge on the Move. *Journal of Applied Sciences, 11*(16), 3062–3069. http://doi.org/10.3923/jas.2011.3062.3069

Mansell, R. (1999). Information and communication technologies for development: assessing the potential and the risks. *Telecommunications Policy, 23(*1), 35–50. http://doi.org/10.1016/S0308-5961(98)00074-3

Mariscal, J. (2005). Digital divide in a developing country. *Telecommunications Policy, 29*(5-6), 409–428. Retrieved from http://www.sciencedirect.com/science/article/pii/S0308596105000352

Martin Dutch, D. M. (2001). The Public Library, Social Exclusion and the Information Society in the United Kingdom. *Libri.* Retrieved from http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.178.5939

McLeod, S. (2008). Case Study Method. Retrieved from http://www.simplypsychology.org/case-study.html

Media, J. D. (2016). Introduction to e-Learning. Retrieved from http://www.jiscdigitalmedia.ac.uk/guide/introduction-to-elearning

Melody, W. H. (1996). Toward a framework for designing information society policies. *Telecommunications Policy*, ***20***(4), 243–259. http://doi.org/10.1016/0308-5961(96)00007-9

Menou, M. J., & Taylor, R. D. (2006). A "Grand Challenge": Measuring Information Societies. *The Information Society, 22*(5), 261–267. http://doi.org/10.1080/01972240600903904

Ministry of Education. (2016). Tertiary Education Strategy 2014 - 2019. Retrieved from http://www.education.govt.nz/further-education/policies-and-strategies/tertiary-education-strategy/

Ministry of ICT Nepal. (2015). National Broadband Policy, 2071. Retrieved from http://www.nta.gov.np/ne/component/joomdoc/Broadband Policy-Draft.pdf/download

Ministry of ICT Ghana. (2003). The Ghana ICT for Accelerated Development. Retrieved from http://www.nca.org.gh/downloads/Ghana_ICT4AD_Policy.pdf

Ministry of Information and Communication. (2015). Nepal National Information and Communication Technology Policy.

Ministry of Information and communication. (2010). Uganda National Electronic Government (e-Government) Framework. Retrieved from http://library.health.go.ug/publications/leadership-and-governance-governance/policy-documents/national-electronic-government-e

Ministry of Information and Communication Technology. (2013). Republic of Mauritius e-Government Strategy 2013 – 2017. Retrieved June 9, 2016, from

Misuraca, G., Broster, D., & Centeno, C. (2012). Digital Europe 2030: Designing scenarios for ICT in future governance and policy making. *Government Information Quarterly, 29*, S121–S131. http://doi.org/10.1016/j.giq.2011.08.006

Morimoto, S. A., & Friedland, L. A. (2010). The Lifeworld of Youth in the Information Society. *Youth & Society, 43*(2), 549–567. http://doi.org/10.1177/0044118X10383655

Mósesdóttir, L. (2011). Gender (In)equalities in the Knowledge Society. *Gender, Work & Organization, 18*(1), 30–47. http://doi.org/10.1111/j.1468-0432.2010.00533.x

Mutula, S. M. (2004). Making Botswana an information society: current developments. ***The Electronic Library***, ***22***(2), 144–153. http://doi.org/10.1108/02640470410533407

Mutula, S. M. (2008). Digital divide and economic development: case study of sub Saharan Africa. *The Electronic Library, 26*(4), 468–489. http://doi.org/10.1108/02640470810893738

National IT Industry Promotion Agency (NIPA). (2016). e-Government Master Plan for the Republic of Honduras. Retrieved June 9, 2016, from http://www.scgg.gob.hn/sites/default/files/Honduras_e-Government_MP_Final_Report_Feb 2015.pdf

NICI. (2016). National ICT Strategy and Plan NICI - 2015. Retrieved from https://www.enisa.europa.eu/topics/national-cyber-security-strategies/ncss-map/RwandaNCSSNICI_III.pdf

NITC Malaysia. (2016). Multimedia Super Corridor (MSC) Malaysia. Retrieved from http://nitc.kkmm.gov.my/index.php/key-ict-initiatives/multimedia-super-corridor-msc-malaysia

Nordic Council of Ministers. (2005). Nordic Information Society Statistics 2005. Retrieved June 9, 2016, from http://www.scb.se/statistik/_publikationer/IT0101_2005A01_BR_TKFT0501.pdf

OECD Guide to Measuring the Information Society 2011. (2011). OECD Publishing. doi:10.1787/9789264113541-en

Partnerships for Sustainable Development Goals. (2015). African Leadership in ICT for Knowledge Society Advancement. Retrieved from https://sustainabledevelopment.un.org/partnership/?p=9466

Pfister, T. (2009). Governing the Knowledge Society: Studying Lisbon as Epistemic Setting. Retrieved from http://papers.ssrn.com/abstract=1553798

Rahim, S. A., & Pawanteh, L. (2011). Democratization of Information in Malaysia: A Response to Globalization. *Asian Social Science, 7*(2), 3. http://doi.org/10.5539/ass.v7n2p3

Research, E. M. of E. and. (2007). *Knowledge-based Estonia: Estonian Research and Development and Innovation (RDI) Strategy 2007-2013*. Retrieved from http://cs.ioc.ee/excs/policy/teadm-pohine-eesti2-en.pdf

Ricci, A. (2000). Measuring information society. *Telematics and Informatics, 17*(1-2), 141–167. http://doi.org/10.1016/S0736-5853(00)00002-2

Rooney, D. (2005). Knowledge, economy, technology and society: The politics of discourse. *Telematics and Informatics, 22*(4), 405–422. http://doi.org/10.1016/j.tele.2004.11.007

Rwandan Development Board. (2015). *SMART Rwanda Master Plan 2015 ~ 2020 Title*. Retrieved from http://www.myict.gov.rw/fileadmin/Documents/Strategy/SMART_Rwanda_Master_Plan_v2.1.pdf

Sadeghi, A.-R. (2008). ***SOFSEM 2008:*** *Theory and Practice of Computer Science.* (V. Geffert, J. Karhumäki, A. Bertoni, B. Preneel, P. Návrat, & M. Bieliková, Eds.) (Vol. 4910). Berlin, Heidelberg: Springer Berlin Heidelberg. http://doi.org/10.1007/978-3-540-77566-9

Säfström, C. A. (2005). The European knowledge society and the diminishing state control of education: the case of Sweden. *Journal of Education Policy, 20*(5), 583–593. http://doi.org/10.1080/02680930500222386

Sahlberg, P., & Boce, E. (2010). Are teachers teaching for a knowledge society? *Teachers and Teaching: Theory and Practice*. Retrieved from http://www.tandfonline.com/doi/abs/10.1080/13540600903475611

Sarikakis, K., & Terzis, G. (2000). Pleonastic exclusion in the European Information Society. *Telematics and Informatics*, ***17***(1-2), 105–128. http://doi.org/10.1016/S0736-5853(99)00029-5

Schaefer Richard J. (1995). National information infrastructure policy: a theoretical and normative approach. *Internet Research, 5*(2), 4–13. http://doi.org/10.1108/10662249510094740

Schoof, H., & Watson Brown, A. (1995). Information highways and media policies in the European Union. *Telecommunications Policy, 19*(4), 325–338. http://doi.org/10.1016/0308-5961(95)00006-R

Selwyn, N. (2003). `Doing IT for the Kids': Re-examining Children, Computers and the `Information Society'. *Media, Culture & Society, 25*(3), 351–378. http://doi.org/10.1177/0163443703025003004

Selwyn, N., & Facer, K. (2010). *Handbook of Research on Overcoming Digital Divides.* (E. Ferro, Y. K. Dwivedi, J. R. Gil-Garcia, & M. D. Williams, Eds.). IGI Global. http://doi.org/10.4018/978-1-60566-699-0

Servaes, J., & Heinderyckx, F. (2002). The `new' ICTs environment in Europe: closing or widening the gaps? *Telematics and Informatics, 19*(2), 91–115. http://doi.org/10.1016/S0736-5853(01)00008-9

Shafique, F., & Mahmood, K. (2008). Indicators of the Emerging Information Society in Pakistan. *Information Development, 24*(1), 66–78. http://doi.org/10.1177/0266666907087698

Sharma, R. S., Samuel, E. M., & Ng, E. W. J. (2009). Beyond the digital divide: policy analysis for knowledge societies. *Journal of Knowledge Management, 13*(5), 373–386. http://doi.org/10.1108/1367327091098817

Shin, D.-H. (2007). A critique of Korean National Information Strategy: Case of national information infrastructures. *Government Information Quarterly, 24*(3), 624–645. http://doi.org/10.1016/j.giq.2006.06.011

Simons, M. (2007). The "Renaissance of the University" in the European knowledge society: An exploration of principled and governmental approaches. *Studies in Philosophy and Education, 26*(5), 433–447. http://doi.org/10.1007/s11217-007-9054-2

Singh, S. (2010). The South African "Information Society", 1994–2008: Problems with Policy, Legislation, Rhetoric and Implementation. *Journal of Southern African Studies, 36*(1), 209–227. http://doi.org/10.1080/03057071003607444

Soete, L. (2001). ICTs, knowledge work and employment: The challenges to Europe. *International Labour Review*, ***140***(2), 143–163. http://doi.org/10.1111/j.1564-913X.2001.tb00218.x

Som, C., Hilty, L. M., & Köhler, A. R. (2009). The Precautionary Principle as a Framework for a Sustainable Information Society. *Journal of Business Ethics, 85*(S3), 493–505. http://doi.org/10.1007/s10551-009-0214-x

Stilwell Center and the World Policy Institute. (2015). Global Information Society Project. Retrieved from http://global-info-society.org/

The Government of Sweden. (2016). The Swedish Innovation Strategy. Retrieved June 9, 2016, from http://www.government.se/information-material/2012/10/the-swedish-innovation-strategy/

The Government of Uruguay. (2016). The Digital Agenda for Uruguay. Retrieved from http://uruguaydigital.gub.uy/home/digital-policy/the+digital+agenda+for+uruguay

The Scottish Government. (2016). A STRATEGIC FRAMEWORK FOR INNOVATION IN SCOTLAND. Retrieved from http://www.gov.scot/Resource/Doc/277577/0083339.pdf

The Innovation Policy Platform. (2013). The Knowledge Triangle - OECD Project. Retrieved from https://www.innovationpolicyplatform.org/knowledge-triangle-oecd-project

The World Bank. (2009). ECA Knowledge Briefs. Retrieved from http://www.worldbank.org/en/region/eca/brief/knowledge-briefs

The World Bank. (2012). Knowledge Economy Index (KEI) 2012 Rankings. Retrieved June 9, 2016, from https://siteresources.worldbank.org/INTUNIKAM/Resources/2012.pdf

The World Bank. (2016). World Development Report 2016: Digital Dividends. Retrieved from http://www.worldbank.org/en/publication/wdr2016

Tripathi, M. (2006). Transforming India into a knowledge economy through information communication technologies—Current developments. The International Information & Library Review, 38(3), 139–146. http://doi.org/10.1016/j.iilr.2006.06.007

Uganda Communications Commission. (2003). Rural Communications Development Fund - RCDF. Retrieved June 9, 2016, from http://www.ucc.co.ug/data/smenu/71/Rural-Communications-Development-Fund---RCDF.html

UNESCO. (2011a). E-Governance. Retrieved from http://portal.unesco.org/ci/en/ev.php-URL_ID=3038&URL_DO=DO_TOPIC&URL_SECTION=201.html

UNESCO. (2011b). Logical Framework and Policy Matrix as Planning Tools. Retrieved March 28, 2016, from http://www2.unescobkk.org/elib/UNESCO-MI-Course-Material/Session-11/Paper 11. Logframe and Policy Matrix.pdf

UNESCO/IFAP and UNU-EGOV. (2016a). Knowledge Societies Policy Community. Retrieved from www.unksoc.org

UNESCO/IFAP and UNU-EGOV. (2016b). ***Knowledge Societies Policy Handbook***.

UNESCO/IFAP and UNU-EGOV. (2016c). ***Knowledge Societies Policy Library***.

UNESCO/IFAP and UNU-EGOV. (2016d). Knowledge Societies Policy Platform. Retrieved from www.unksoc.org

United Nations. (2005). Understanding Knowledge Societies. Retrieved June 9, 2016, from https://publicadministration.un.org/publications/content/PDFs/E-Library Archives/2005 Understanding Knowledge Societies.pdf

Venturelli, S. (2002). Inventing e-regulation in the US, EU and East Asia: conflicting social visions of the Information Society. Telematics and Informatics, 19(2), 69–90. http://doi.org/10.1016/S0736-5853(01)00007-7

Verdegem, P. (2011, January 13). Social Media for Digital and Social Inclusion: Challenges for Information Society 2.0 Research & Policies. *tripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society.* Retrieved from http://www.triple-c.at/index.php/tripleC/article/view/225

Weingart, P. (1997). From "Finalization" to "Mode 2": old wine in new bottles? *Social Science Information, 36*(4), 591–613. http://doi.org/10.1177/053901897036004002

Whatls.com. (2016). Information Society. Retrieved March 28, 2016, from http://whatis.techtarget.com/definition/Information-Society

wikiHow. (2016). How to Write a Communications Strategy. Retrieved March 28, 2016, from http://www.wikihow.com/Write-a-Communications-Strategy

Wikipedia. (2016a). Big Data. Retrieved March 28, 2016, from https://en.wikipedia.org/wiki/Big_data

Wikipedia. (2016b). Developed Country. Retrieved March 28, 2016, from https://en.wikipedia.org/wiki/Developed_country

Wikipedia. (2016c). Developing country. Retrieved from https://en.wikipedia.org/wiki/Developing_country

Wikipedia. (2016d). Egypt. Retrieved from https://en.wikipedia.org/wiki/Egypt

Wikipedia. (2016e). Internet. Retrieved March 28, 2016, from https://en.wikipedia.org/wiki/Internet

Wikipedia. (2016f). Ireland. Retrieved March 28, 2016, from https://en.wikipedia.org/wiki/Ireland

Wikipedia. (2016g). Kenya.

Wikipedia. (2016h). Knowledge. Retrieved March 28, 2016, from https://en.wikipedia.org/wiki/Knowledge

Wikipedia. (2016i). Malaysia. Retrieved March 28, 2016, from https://en.wikipedia.org/wiki/Malaysia

Wikipedia. (2016j). Mauritius. Retrieved March 28, 2016, from https://en.wikipedia.org/wiki/Mauritius

Wikipedia. (2016k). Press Freedom Index.

Wikipedia. (2016l). Public Policy. Retrieved March 28, 2016, from https://en.wikipedia.org/wiki/Public_policy

Wikipedia. (2016m). South Africa. Retrieved March 28, 2016, from https://en.wikipedia.org/wiki/South_Africa

Wikipedia. (2016n). Uganda. Retrieved March 28, 2016, from https://pt.wikipedia.org/wiki/Uganda

Wikipedia. (2016o). World Summit on the Information Society. Retrieved March 28, 2016, from https://en.wikipedia.org/wiki/World_Summit_on_the_Information_Society

Wimmer, M. A. (Ed.). (2004). *Knowledge Management in Electronic Government* (Vol. 3035). Berlin, Heidelberg: Springer Berlin Heidelberg. http://doi.org/10.1007/b97726

WIPO. (2016). What is Intellectual Property? Retrieved March 28, 2016, from http://www.wipo.int/about-ip/en/

Yigitcanlar, T., & Lönnqvist, A. (2013). Benchmarking knowledge-based urban development performance: Results from the international comparison of Helsinki. *Cities, 31,* 357–369. http://doi.org/10.1016/j.cities.2012.11.005

Young, M. (2010). Alternative Educational Futures for a Knowledge Society. *European Educational Research Journal, 9*(1), 1. http://doi.org/10.2304/eerj.2010.9.1.1