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United Nations Educational, Scientific and Cultural Organization

# CONSULTATIVE MEETING ON MAINSTREAMING INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTs) FOR PERSONS WITH DISABILITIES TO ACCESS INFORMATION AND KNOWLEDGE

**22 - 23 February 2010**
**UNESCO Headquarters Paris, France**

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# LIST OF ABBREVIATIONS

**CBO**    Community-based organizations

**CRPD**    United Nations Convention on the Rights of Persons with Disabilities

**G3ict**    Global Initiative for Inclusive Information and Communication Technologies

**GDP**    Gross domestic product

**ICT**    Information and communication technology

**IFAP**    Intergovernmental Programme of UNESCO Information for All Programme

**IPCD**    International Programme for the Development of Communication

**IT**    Information technology

**IT&T**    Information technology and telecommunication

**ITU**    International Telecommunication Union

**MDG**    Millennium Development Goal

**NISP**    National Information Society Policies

**NGO**    Non-governmental organization

**OECD**    Organisation for Economic Development and Co-operation

**UN**    United Nations

**WIPO**    World Intellectual Property Organization

**WSIS**    World Summit on the Information Society

# ABSTRACT

UNESCO, in cooperation with the Global Initiative for Inclusive Information and Communication Technologies (G3ict), conducted a consultative expert meeting to discuss how UNESCO could assist its Member States in facilitating social inclusion of persons with disabilities through information and communication technologies (ICTs).

This report provides an overview of the background and rationale for this meeting, and a description of the process for and content of this meeting, as well as the outcomes of this meeting and their implications for action by UNESCO.

# I. INTRODUCTION AND OVERVIEW OF THE CONSULTATIVE EXPERT MEETING

Eighty-nine countries have ratified the United Nations Convention on the Rights of Persons with Disabilities (CRPD), committing them to ensuring that persons with disabilities enjoy all human rights on an equal basis. A number of the general principles included in the CRPD are directly linked to UNESCO's mandate[1].

In order to facilitate the implementation process of the CRPD, UNESCO, in cooperation with the Global Initiative for Inclusive Information and Communication Technologies (G3ict), organized a consultative meeting on 22-23 February 2010 at UNESCO Headquarters in Paris. The major aim of the meeting was to discuss how UNESCO could assist its Member States to meet this international commitment in facilitating social inclusion of persons with disabilities through information and communication technologies (ICTs) (Appendix A: Meeting agenda). The meeting was attended by representatives of the disabled community, IT&T industry, research and educational institutions, non-governmental organizations working in the subject area and United Nations family organizations (Appendix B: List of participants).

For the first plenary session on 22 February, three topics were used to provide an overview and background for the participants:

1.     Access to information and knowledge for persons with disabilities through ICTs.

2.     Focus on the CRPD, key mandates and next steps towards implementation by state parties.

3.     ICT accessibility and assistive technologies provisions of the CRPD and the importance of mainstreaming ICT accessibility.

Following the overview and background remarks for participants, three sessions objectives were used to help define the content and the direction for the meeting:

1.     Developing inclusive policies for persons with disabilities to access information and knowledge.

2.     Developing an enabling environment for persons with disabilities to access information and knowledge through ICTs.

3.     Challenges and opportunities for persons with disabilities to use information and communication technologies

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1     Six general principles of the CRPD are directly linked to UNESCO's mandate:
      Article 9: Accessibility
      Article 21: Freedom of expression and opinion, and access to information
      Article 24: Education
      Article 27: Work and employment
      Article 29: Participation in cultural and political life, recreation, leisure and sport
      Article 32: International cooperation

Participants were asked to address some of the most promising areas of enhanced accessibility and assistive technology, mainstream applications available today, potential impact by application sector and barriers to adoption.

Later on the same day, three working group-brainstorming sessions were held. Each working group was designed to be moderated and covered by a rapporteur. The working group sessions topics were:

**1.** Identifying areas of ICTs with greatest potential and how to support them from a policy standpoint.

**2.** How to best engage Member States in implementing inclusive policies and programmes promoting greater access to knowledge and information for persons with disabilities.

**3.** Mainstreaming access to information and knowledge through ICTs for persons with disabilities within existing UNESCO programmes and activities internally and with Member States.

Rapporteurs from each working group provided a report to all the meeting's participants and the first day's meeting ended with a brief description of the next day's agenda.

The evening working group selected four topics to reorganize all of the concrete proposals for action (i.e., made on day one of the consultative meeting) that would serve as the basis for short-term planning and elaboration by working groups on 23 February:

**1.** The first group topic was determined to be "Making UNESCO ICT Accessible", so that people can take leadership in the UN system and with Member States with the background and experience of having done it at UNESCO.

**2.** The second topic was determined to be that "Supporting Member States in making Education ICT Accessible" is a logical and important priority for UNESCO.

**3.** The third topic was determined to be the whole area of the "Information and Knowledge Access Ecosystem" which includes web accessibility, broadcasting, and publishing and language accessibility tools, where UNESCO can play a very important role internationally.

**4.** The fourth topic was determined to be "Mobilizing Resources and International Cooperation" to gather the means to implement those programmes.

The following pages provide a synthesis of the two-day consultative meeting. A presentation of the discussion by the participants on recommendations for action by UNESCO is also provided.

# II. UNESCO'S WORK ON INCLUSIVE KNOWLEDGE SOCIETIES

At the World Summit on the Information Society (WSIS), Geneva, 2003, heads of state and government, ministers, heads of delegations, representatives from international organizations, the private sector and civil society provided political support to the WSIS Declaration of Principles and Plan of Action.[2] In the WSIS Declaration of Principles, as part of the common vision for the Information Society, it was declared that:

"In building the Information Society, we shall pay particular attention to the special needs of marginalized and vulnerable groups of society, including migrants, internally displaced persons and refugees, unemployed and underprivileged people, minorities and nomadic people. We shall also recognize the special needs of older persons and persons with disabilities."[3]

Furthermore, one of the key principles declared at the WSIS in 2003 dealt with capacity building. It was stated that:

"The use of ICTs in all stages of education, training and human resource development should be promoted, taking into account the special needs of persons with disabilities and disadvantaged and vulnerable groups."[4]

At WSIS Tunis phase in 2005, UNESCO convened a meeting on "ICT and Persons with Disabilities"[5]. The meeting looked at policies that promote accessibility and inclusion in the digital world, especially in developing countries and, given the participatory and inclusive goals of knowledge societies, at how access to cyberspace for people with disabilities can be enhanced.[6]

Thanks to advances in information and communication technologies (ICTs), there is a greater flow of information. Increasingly, knowledge is becoming a key factor in economic growth, in social development, in political empowerment and in cultural enrichment. The phenomenon is one of inclusive knowledge societies rather than an information society. Regrettably, while it had been expected that more people would have access to information and knowledge as a result of advances in ICTs since WSIS 2005, for some disadvantaged groups of the world population the digital divide persists.

UNESCO is an organization with a unique mandate in the areas of education, natural sciences, social and human sciences, culture, communication and information. UNESCO has consistently advanced the notion of building knowledge societies. In recognition of the continuing marginalization of major segments of civil society, particularly people with disabilities, UNESCO undertook a very significant change and initiative.

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2       http://www.itu.int/wsis/geneva/index.html
3       WSIS Declaration of Principles (A. 13). http://www.itu.int/wsis/docs/geneva/official/dop.html
4       WSIS Declaration of Principles (B.4. 30). http://www.itu.int/wsis/docs/geneva/official/dop.html
5       http://portal.unesco.org/ci/en/ev.php-URL_ID=20478&URL_DO=DO_TOPIC&URL_SECTION=201.html
6       http://portal.unesco.org/ci/en/ev.php-URL_ID=18746&URL_DO=DO_TOPIC&URL_SECTION=201.html

In the development of the 2008-2013 UNESCO Medium-Term Strategy,[7] five programme-driven overarching objectives were established for the Organization, defining areas where UNESCO has a unique profile and comparative advantage in the multilateral field:

1.  Attaining quality education for all and lifelong learning.

2.  Mobilizing scientific knowledge and policy for sustainable development.

3.  Addressing emerging social and ethical challenges.

4.  Fostering cultural diversity, intercultural dialogue and a culture of peace.

5.  Building inclusive knowledge societies through information and communication.

UNESCO's Communication and Information Sector exercises lead responsibility for achieving the fifth overarching objective.

With reference to UNESCO's Programme and Budget for 2010-2011 (35 C/5),[8] Major Programme I - Education contains Main Line of Action 2: Building effective education systems from early childhood care and education to higher education, and furthering lifelong learning which addresses issues related to inclusive education.

Major Programme V - Communication and Information contains Main Line of Action 3: Fostering universal access to information and knowledge and the development of infostructures. An important component of this main line of action will be to enhance information accessibility for the disadvantaged, including persons with disabilities, local communities, indigenous people and minority groups, and to use ICTs to empower youth, especially in conflict and post-conflict areas.

UNESCO is actively promoting the concept of inclusive knowledge societies. Indeed, it is difficult to build inclusive knowledge societies – as envisioned by the WSIS if all sectors within UNESCO, all UN agencies, governments and civil society do not include persons with disabilities. Similarly, the Millennium Development Goals (MDGs) cannot be achieved if UN agencies', governments' and civil society's policies and programmes do not include persons with disabilities.[9]

About 10 per cent of the world's population have some form of disability.[10] Persons with disabilities tend to be acutely vulnerable to exclusion. People with disabilities are disproportionately poor and poor people are disproportionately disabled. Furthermore, there are an estimated 150 million children in the world with disabilities, about four-fifths of them in developing countries, millions more live with disabled parents or relatives.[11] Over 80 per cent of those people live in isolated rural areas in developing countries.[12] 75 million children of primary school age who are out of school,

7   http://unesdoc.unesco.org/images/0014/001499/149999e.pdf
8   http://unesdoc.unesco.org/images/0018/001870/187028e.pdf
9   http://www.un.org/disabilities/default.asp?id=1469; http://www.un.org/News/Press/docs/2009/ga10905.doc.htm
10  http://www.un.org/disabilities/convention/unsystem.shtml
11  EFA Global Monitoring Report 2010. Reaching the Marginalized. Paris/Oxford, UNESCO, Oxford University Press, 2010.
    http://www.unesco.org/en/efareport/reports/2010-marginalization
12  http://www.fao.org/newsroom/EN/news/2006/1000453/index.html; "Facts on Disability in the World of Work" (International Labour Organization, Geneva, Nov 2007).

one third are children with disabilities,[13], and fewer than 2 per cent of children with disabilities in developing countries are in school.[14] No society can ignore such a massive number of people and leave them on their own.

In addition to these circumstances, people with disabilities also feel that they have very little to say in plans and programmes that are supposedly provided for their welfare, for the improvement of their conditions. Any vision of empowering people with disabilities must include the provision of access to information and knowledge, because that is the best way to empower people, to enable them actively participate in all spheres of social life.

In order bring persons with disabilities into inclusive knowledge societies, there are certain conditions that must be met, namely, the adapting of national policies and strategies. Capacity must be built so that people can undertake the activities that foster inclusion. This includes infrastructure development, because if there is no ICT connectivity there is no access to content. In addition, even if there is ICT connectivity, there is also a need to develop capacity for generating local content in the language that people can understand. ICTs must be developed from the very beginning to be inclusive; otherwise, the cost of modifying the ICTs is going to be enormously prohibitive. Investments into research and development around ICT standards of services must be made available, otherwise it is not possible to guarantee and enable access to all.

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13      "Children with Disabilities" UNESCO webpage: http://www.unesco.org/en/inclusive-education/children-with-disabilities
14      http://www.un.org/disabilities/convention/unsystem.shtml

# III. THE UNITED NATIONS CONVENTION ON THE RIGHTS OF PERSONS WITH DISABILITIES (CRPD)

The commitment of the international community to promote the rights of persons with disabilities is rooted in the goals of the United Nations. It is a realization of the UN Charter's vision of a just and peaceful world, better standards of life and larger freedoms. This decision to elaborate the CRPD did not take place overnight. During the 1970s, a substantial evolution changed the thinking about disabilities issues, moving from a medical to a human rights model. This evolution manifested itself in a number of UN initiatives that embraced the growing international concept of human rights for persons with disabilities and the equalization of opportunities for them.

In the 1980s, further progress was made by the UN through the adoption of the World Programme of Action concerning Disabled persons in 1982. The international community redefined disability as a part of the international development and human rights agenda. To advance international efforts after this important momentum, the Standard Rules on Equalization of Opportunities for Persons with Disabilities was adopted as a major outcome of the United Nations Decade of Disabled Persons in 1993. The international policy framework for disability rights has been further advanced by a series of UN development conferences and their respective five-year reviews, the Millennium Development Goals (MDGs) and other relevant goals, and international commitments, and the efforts of their implementation.

Within this framework, the UN General Assembly Ad Hoc Committee on a Comprehensive and Integral International Convention on the Protection and Promotion of the Rights and Dignity of Persons with Disabilities was created in 2001. The Ad Hoc Committee finalized its work in its eighth session in August 2006, which completed the CRPD text for adoption by the General Assembly on 13 December 2006.

The preamble of the CRPD is quite vigorous in its depiction of accessibility in general as a fundamental right of persons with disabilities. It specifically covers information and communication together with education, health, environment, etc. enabling persons with disabilities to fully enjoy all human rights and fundamental freedoms. This language is written in the preamble in subparagraph (v), making accessibility is a cornerstone of the CRPD. As such, it is one of the most important dispositions that will affect the lives of persons with disabilities around the world.

Why is the topic of information and communication so high on the agenda of the CRPD?

Today in the knowledge economy and knowledge society, no one anywhere in the world can actually be excluded from ICT and digital interfaces. There are 1.9 billion people with access to a personal computer at home,[15] 1.7 billion mobile Internet users,[16] 4.9 billion people with access to a television at home[17] and over 4.6 billion mobile subscriptions.[18]

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15    http://www.itu.int/ITU-D/ict/papers/2009/Press%20briefing_Telecom09.pdf
16    http://www.itu.int/ITU-D/ict/newslog/Mobile+Internet+Users+To+Top+17+Billion+By+2013.aspx
17    http://www.itu.int/ITU-D/ict/papers/2009/Press%20briefing_Telecom09.pdf
18    http://www.itu.int/newsroom/press_releases/2009/39.html

This is increasing day by day in very large proportions. That means that in any corner of the world today, even in the most remote rural village in a very poor country, there are digital interfaces changing the lives of people, making them more productive and giving them access to a new information society.[19] It is not a rich country paradigm, it is a universal paradigm.

Article 9 of the CRPD defines accessibility in a very strict fashion. It elevates access to ICTs to a par with access to the physical environment and to transportation. Therefore, in essence, it is as legally binding a website to be accessible as it is for a public building to have a ramp. It means that a webmaster has the same obligation to make a website accessible as an architect to put a ramp at the appropriate physical access to a building. This has immense consequences because many ICT interfaces are inaccessible today.

Once accessibility is defined as always including ICT accessibility, each time the CRPD says access, accessibility or reasonable accommodation, it implies accessible ICTs or accessible interfaces for users. How many times do words such as access, accessible, accessibility or reasonable accommodation appear in the text of the CRPD? Through its own analysis, G3ict identified seventeen instances when you find the word access or accessible or accessibility and seven times you find the words reasonable accommodation in the text of the CRPD. So in effect, almost half of the Articles that are non-procedurals of the CRPD have some form of ICT obligation – ICT accessibility obligation.

There are a number of application areas. Some of them are Articles of the CRPD – such as e-government, media and Internet, education, employment, political rights, emergency services, cultural life and leisure, private sector services, personal mobility and rehabilitation – all those sectors of application have mandates for accessibility or reasonable accommodation or for promoting assistive technologies in different cases.

The CRPD is also focused on inter-connected policies. That means that at policy and practice level, particularly referring to ICTs, there are many different policy spheres. One of the major issues is on how relevant policies could be unified and addressed in a coherent way across number of disciplines and fields as well as at different levels such as international, national, regional, and local.

The CRPD also mentions that the State must ensure that private entities that offer facilities and services to the public take into account the accessibility of those services. That also includes ICT accessibility. That means that States have to ensure that any digital interface or any services are accessible.

In addition to those mandates on accessibility, there are some very specific and extremely interesting dispositions of the CRPD for States such as:

1.     There is a mandate in the CRPD to promote research and development for assistive technologies.

2.     There are guidelines to actually adopt accessibility at an early stage of product development for ICT products design.

3.     Reasonable accommodation is defined and mandated.

19      http://www.wipo.int/edocs/mdocs/copyright/en/sccr_19/sccr_19_14.pdf

4. There is an obligation in the CRPD for States to set accessibility standards.

5. In the chapter on cultural life, there is the recommendation that Member States accommodate their intellectual property rights do not constitute a barrier to persons with disabilities.

6. Not only must ICT and new media be accessible, but States are also called upon to promote the use of ICTs, the Internet and new media among persons with disabilities for their own benefit.

In Article 32 on international cooperation, the CRPD specifically states that States must endeavour to cooperate, not only with regional organizations and civil society, but also with relevant international organizations. In fact, international cooperation is promoted within the CRPD for four reasons to:

1. Ensure that existing international development programmes are inclusive of persons with disabilities. That means that any form of economic and social development programmes in place today in the world has to include ICT accessibility.

2. Facilitate and support capacity building, including through the exchange and sharing of information, experiences, training programmes and best practices.

3. Facilitate cooperation in research and access to scientific and technical knowledge.

4. Encourage international cooperation for the provision of technical and economic assistance, including facilitating access to and sharing of accessible assistive technologies and through the transfer of technologies.

Who engages in the type of international cooperation articulated in Article 32 of the CRPD? No one can do it better than UNESCO, the International Telecommunication Union (ITU), the World Intellectual Property Organization (WIPO) or other international organizations. And how could UNESCO effectively go about promoting and supporting its Member States in their work regarding Articles 9, 21, 24, 27, 29 and 32 of the CRPD, as well as all relevant CRPD provisions that involve ICT and accessibility?

The consultative meeting's working groups covered the following four topical areas and developed relevant ideas and recommendations for action by UNESCO:

1. Making UNESCO ICT accessible.

2. Supporting Member States in making education ICT accessible.

3. Mobilizing resources and international cooperation.

4. Creating an information and knowledge access ecosystem (web, television, broadcasting, publishing, language and accessibility tools).

# IV.RECOMMENDATIONS FOR ACTION BY UNESCO

Based on the plenary sessions and working groups on 22 February, and the discussions and planning efforts from the four working groups on 23 February, the following recommendations for action are offered for review and consideration. These recommendations are designed so that UNESCO can build upon, and extend, the work it has already has undertaken to build inclusive information and knowledge societies on behalf of all peoples.

## Recommendations for making UNESCO ICT accessible

Group 1 addressed the task of creating a best practice within UNESCO for the overall accessibility of persons with disabilities. The goal is to achieve overall compliance with the CRPD and especially the sections related to accessibility. Group 1 members decided that it was necessary to break this overall goal into several steps. For example, for overall accessibility, they put a period of about 10 years to achieve the overall compliance to the CRPD. To achieve this goal, the Group proposed a two-track process. The first track would be the short-term; this involves work that could be started tomorrow. This short-term work would actually start from UNESCO's Information and Communication Sector so that this Sector could create a model for the rest of the UNESCO network or the system to follow and to begin working on accessibility. The second track would be for medium-term and long-term goals to achieve overall compliance with the CRPD.

Group 1 addressed various aspects of accessibility for persons with disabilities and identified different segments of UNESCO operations for consideration, including:

■ Online presence as one of the major segments involving website accessibility (for example, the UNESCO website, the CI webworld, the World Digital Library, the World Heritage sites and online meetings).

■ Face-to-face meetings for all participants.

■ Recruitment, training and retaining of the employees.

■ Internal systems that UNESCO is following regarding the information flow.

■ How can UNESCO ensure accessibility not just within the UNESCO Offices, but also with its partners?

■ Physical or built environment, which while going slightly beyond ICTs, is a very important part of the overall accessibility policy.

■ Procurement policy.

Group 1 offered suggestions within a two-track conceptual framework. For its work in the short-term, the Group proposes a four-part activity:

- ■ Part 1 is that UNESCO would conduct an audit of the existing information system, identify the gap areas and then suggest solutions.

- ■ Part 2 is coming up with the accessibility guidelines with processes and documents, which would be used as checklists for the guidelines.

- ■ Part 3 would be to engage in pilot implementation. For example, conduct a pilot implementation in a UNESCO event. This would include setting up the documents systems, how the documents are to be made accessible and how information flows will be rendered accessible for event participants.

- ■ Part 4 would be to conduct training for key personnel at UNESCO so that they are able to adopt and follow the accessibility guidelines from Part 2 in their workflow.

For its work in the long-term, the Group suggests that UNESCO identify a focal point within the Organization for all the disability accessibility related work. The Group also suggests that UNESCO constitute a task force to advise or monitor the overall implementation of short-term goal actions, as well as for follow-up work to those actions.

### Recommendations for mainstreaming ICT in inclusive education

Group 2 proposes five lines of action for UNESCO's consideration depending on specific priorities, namely:

- ■ Pilot projects to develop guidelines.

- ■ Sharing best practices: multimodal communication and exhibitions involving students and teachers.

- ■ Building on work already done by existing teams and networks of experts, thereby avoiding duplication.

- ■ Define and monitor indicators for Article 24 in terms of ICTs.

- ■ Teacher training, including profiling, ICT competences and inclusive education skills, as well as building on and linking with already existing international work.

For Line 1 action (Pilot projects to develop guidelines), the Group proposes choosing different scenarios and a mix from among a range of curricula, teachers, learners, parents and community representatives, non-governmental organizations (NGOs), community-based organizations (CBOs), technologies, social and cultural contexts, vision and regulations. Furthermore, the action for Line 1 suggests choosing a few meaningful scenarios to test the pilot projects in one or more least developed countries, one or more developing countries (small islands), one or more developed countries and one or more ICT-advanced countries, taking into account global coverage. Within each country chosen, it is also suggested that the pilot projects include a focus on lower-level education, vocational education and higher-level education. Additional suggestions for each pilot project involve building upon local synergies and partnerships; choosing leadership, experts and partnership networks; and, respecting cultural and linguistic diversities. The final suggestion for Line

1 action is to share the findings from evaluation of the pilot projects with different stakeholders at all community levels.

For Line 2 action (Sharing best practices), the Group proposes using a multimodal communication strategy to affect the work. Such a strategy could include using meetings, specialized publications, special web sites and a multimodal presentation of cases to achieve the objective. In addition, this line of action could involve exhibitions of educators' experiences, as well as exhibitions of students' creations.

For Line 3 action (Building teams/network of experts), the Group proposes the development of an international team of experts led by UNESCO – responsible for the different lines of work necessary to implement the various ICT and accessibility provisions of the CRPD. This approach could also be replicated at the Member State or country level. These teams could be composed, for example, of experts on inclusive education, cultural and social experts, people who represent a range of interdisciplinary competencies and a representative sample of community stakeholders.

For Line 4 action (Define and monitor indicators for Article 24 in terms of ICTs), the Group proposes that the definition of indicators take into consideration:

■　　Augmentative and alternative modes of communication through ICTs.

■　　Communication for the individual.

■　　Disability awareness.

In addition, the Group suggests and index for this line of action including a practical explanation of what it means, which are the responsibilities for Member States and which are the responsibilities for all the stakeholders. Finally, the Group suggests that the index be clearly defined, including any related instruments to be used to monitor pertinent CRPD provision implementation.

For Line 5 action (Teacher training), the Group proposes that UNESCO engage in a range of activities including:

■　　Defining a profile of teacher competencies.

■　　Identifying best practices.

■　　Identifying resources that can be used for teacher training such as (i) financial, (ii) digital, including open educational resources, free and open source software (FOSS) and open access educational resources, and (iii) human resources as training providers.

■　　Exploring different training approaches.

■　　Identifying IT hardware requirements for ICTs inclusive education at educational institutions.

■　　Ensuring that ICT competencies plus inclusive education competencies are embedded in initial teacher education training.

■    Providing relevant mentoring for younger teachers.

The Group suggests that partners be recruited for this work at the international, regional and national levels, and from the government sector, NGOs, the private and public sectors, and any other key stakeholder groups. Finally, the Group suggests that UNESCO establish priorities and timelines for this line of action work.

## Recommendations for mobilizing resources and international cooperation: persuasive arguments for shifts in policy practices

Group 3 recognized the importance of identifying persuasive arguments for shifts in policy practices and identified a number of upcoming venues and opportunities where UNESCO could get involved either on an international basis or internally. The Group provided suggestions or recommendations for how to take advantage of such opportunities. One cross-cutting recommendation is that it is important to get strong involvement of organizations of persons with disabilities in programmes in order to get the best possible input and to have credible action lines and projects for funding in keeping with the concept of "nothing about us without us" which is very important in the international community.

■    The first opportunity and venue is the General Assembly on the MDGs in September 2010. One suggestion was to mobilize the countries that have already ratified the CRPD to ensure that disabilities are included in the MDGs, which they are not at present. The strategy proposed is to identify a small group of countries that could support such an initiative and get others to join.

■    The second opportunity could be world conferences on IT that are organized every year.

■    The third opportunity and venue could be UNESCO which has its Executive Board sessions twice a year. The suggestion is to approach UNESCO's Executive Board about the importance of raising disability issues and accessibility issues in all its sectors.

■    A fourth opportunity could involve colleagues in other international organizations who could be approached about tracking funding on disability issues.

■    A fifth opportunity could involve publishing accessibility index rankings.

■    A sixth opportunity and venue is UNESCO's General Conference in 2011. The suggestion is that a resolution could be presented there to incorporate disability in all programmes.

■    A seventh opportunity would be UNESCO's Intergovernmental Council for the Information for All Programme.

■    An eighth opportunity is to mainstream the issue of persons with disabilities in UNESCO's programmes.

Group 3 discussed possible leverage points and identification of potential partners.

■ One of the suggestions is not to think strictly about disability issues, but also think a little more horizontally and be visible where other decisions are being put on the table. This included a dialogue about copyright issues, net neutrality and how these issues can have an impact on accessibility.

■ A second suggestion involves linking the whole issue of accessibility to prosperity and development, and looking at issues about how promoting accessibility can increase gross domestic product (GDP). Certainly, other countries and organizations are looking at the economic impact of social inclusion, and including working with the private sector and convincing them how this can be an issue that they can actually profit from through the sale of assistive technology.

■ A third suggestion includes one of UNESCO's strategic goals and thinking strategically. There are funds available that are focusing on gender issues and young girls, and so perhaps there is a way to link the issue of disability with gender and certainly linking disability with Africa, which is also a priority focus for UNESCO's work.

■ A fourth suggestion is for UNESCO to work with the UN Inter-Agency Support Group about the CRPD.

■ A fifth suggestion is to use "crowd sourcing", which is how to encourage volunteers to do your work. As an example, there were issues where there was a need to modify curriculum to make it accessible.

Group 3 also engaged in dialogue regarding the issue of funding.

■ One observation was that some countries are willing contribute with funding concerning the activities linked to human rights, and ICT accessibility and the CRPD is a human rights issue.

■ A second observation relates to funds that may not directly address disability issues, but may address related issues (e.g., IT). Some countries have disability funds, and those funds are not being used and could be tapped into.

■ In addition, there is a range of national ICT funds set up for different purposes. These are areas to look to for additional funding for funds-in-trust projects. One caveat from the Group is to be cognizant of the need to coordinate mechanisms between these different funds.

Group 3 also identified potential projects.

■ One suggestion is to support capacity building for policy-makers and disabled persons organizations on accessible ICTs.

■ A second suggestion is to invest in experts and, although experts are often expensive, perhaps these could be found in universities, perhaps in some kind of summer university programme.

- A third suggestion is to train teachers and possibly develop a package for education systems.

- A fourth suggestion is to provide text-to-speech in all languages. Given UNESCO's focus on cultural diversity, that would definitely be an appropriate line of action.

- A fifth suggestion relates to the need for video description and captioning for UNESCO's own videos that they could produce.

- A sixth suggestion is to create a think tank on advanced technology for education that would help forecast strategic ICT development.

## Recommendations for creating an information and knowledge access ecosystem

Group 4 used the planning opportunity to identify two action lines regarding accessibility of the ecosystem. The long-term action line that Group 4 focused on involves the UNESCO brand and incorporates many of the "touch points" of the information and knowledge access ecosystem. The World Wide Web, television, broadcasting, publishing, languages, etc. are touch points in the system in which people and humans interact with information and services. The short-term action line that Group 4 focused on involves what UNESCO has in place and what is working related to (ICT) accessibility.

The first action line involves the UNESCO logo when it is attached to projects, initiatives, events, Member States, etc. In recognition of this fact, Group 4 asked: Is there a way in which the UNESCO logo can be leveraged to broaden the implementation of, and audience for, accessibility? Therefore, Group 4 started from the point of bringing those issues that are related to accessibility to a larger audience to promote societal change.

To promote societal change, Group 4 proposed starting from the UNESCO World Heritage sites, which are well known worldwide. A part of the country's World Heritage site content includes key content areas that are for the whole population. All sites content could be bound to the ICT accessible best practices that are related to each country's World Heritage sites. In addition, there are ICTs related to the sites, such the web, television, radio, mobile phone and kiosk.

One sector in a country is e-government, which could be used to promote e-voting or e-democracy initiatives (citizen participation) in an accessible way. Another sector is e-learning, which could be used to promote knowledge and awareness about accessibility issues among a country's teachers and students. Other sectors that could be affected include entertainment, culture and leisure, public buildings, museums, public transportation, and emergency and disaster preparedness initiatives. All these sectors in a country could be incorporated within a framework of accessibility and could be considered or evaluated through the lens of an e-Heritage Accessibility Index.

UNESCO leaders, promoting accessibility through the ICT of the heritage sites, could promote this initiative with a worldwide campaign. Therefore, in essence, this recommendation represents leveraging one of the very well known faces of UNESCO and adds value to what is being done which will benefit people with disabilities throughout the world.

The second action line recommendation is to promote and strengthen the work that UNESCO is already doing well in the area of accessibility. The International Programme for the Development of Communication (IPDC) provides support for media projects in developing countries. The IPDC could leverage more accessible and effective media projects that empower people with disabilities to gain equitable access to knowledge and express themselves through free and pluralistic media.

The Information for All Programme (IFAP) is another example of UNESCO's work dedicated to promoting universal access to information and knowledge for development for all people. UNESCO's National Information Society Policy: A Template provides an excellent structure for helping Member States create and implement National Information Society Policies (NISP), which incorporates CRPD/ICT provisions.

The consultative expert meeting was concluded with the expectation expressed by the participants that the proposed recommendations will be taken into consideration by UNESCO in its programme and budget.

# APPENDIX A:  MEETING AGENDA

| 22 February 2010 (Monday) | | |
|---|---|---|
| 09.00 – 09.45 | **Introduction by UNESCO and G3ict** | |
| | Access to information and knowledge for persons with disabilities through ICTs | Mr Abdul Waheed Khan Assistant Director-General for Communication and Information, UNESCO |
| | UN Convention on the Rights of Persons with Disabilities: key mandates and next steps towards implementation by state parties | H.E. Luis Gallegos Ambassador of Ecuador to the United States Chairman of G3ict First Chair CRPD UN Preparatory Committee |
| | ICT accessibility and assistive technologies provisions of the Convention, importance of mainstreaming ICT accessibility | Mr Axel Leblois Executive Director, G3ict |
| | Objectives of the consultative meeting | |
| 09.45 – 10.30 | **Developing inclusive policies for persons with disabilities to access information and knowledge** Moderator: Mr Paul Timmers, Head of Unit ICT for Inclusion, European Commission, Directorate-General Information Society and Media | |
| | ■ Areas of government and policy tools involved ■ Guidelines for the development of inclusive policy ■ Role of multiple stakeholders ■ Resources required to succeed | |
| | Discussion | |
| 10.30 – 10.45 | Break | |
| 10.45 – 11.30 | **Developing an enabling environment for persons with disabilities to access information and knowledge through ICTs** Moderator: Ms Andrea J. Saks, International Telecommunications Specialist for the Deaf Convener ITU JCA-AHF (Joint Coordinating Activity on Accessibility and Human Factors), Coordinator IGF DCAD (Dynamic Coalition on Accessibility and Disability) | |
| | ■ Disability demographic perspective ■ ICT demographic perspective ■ Enabling environment (including leveraging education systems, development of curricula, training of teachers and learners, flexible learning, legislation, resources, standards, training of key professionals such as IT engineers, media) ■ ICT training of disabled persons – schools, colleges, universities, rehabilitation services, vocational and professional training ■ Measuring impacts | |
| | Discussion | |

| | |
|---|---|
| 11.30 – 12.30 | **Challenges and opportunities of information and communication technologies** |
| | Moderator: Mr Lei Wei, Chief Information Officer, World Intellectual Property Organization (WIPO) |
| | Most promising areas of enhanced accessibility and assistive technology |
| | Mainstream applications available today |
| | Potential impact by application sector |
| | ■    Barriers to adoption: |
| | ■    Limited accessibility standards |
| | ■    Risks and opportunities of likely further ICT innovations |
| | ■    Web evolution |
| | ■    IP issues |
| | ■    Languages |
| | ■    Training and capacity building |
| | ■    Economics |
| | Discussion |
| 12.30 – 14.00 | Break |
| 14.15 – 14.45 | **Summary of morning findings** |
| 14.45 – 17.00 | ■    Working group brainstorming break-outs: |
| | ■    Each working group to be prepared by the chair-person and covered by the rapporteur |
| | ■    Preferably prepared ahead of time via email and conference calls with papers and references |
| | **Identifying areas of ICTs with greatest potential and how to support them from a policy standpoint** |
| | Moderator: Mr Dipendra Manocha, Director, Regional Resource Centre Rapporteur: Mr Bernhard Heinser, Chief Financial and Development Officer, DAISY Consortium, c/o Swiss Library for the Blind and Visually Impaired |
| | **How to best engage Member States in implementing inclusive policies and programmes promoting greater access to knowledge and information for persons with disabilities** |
| | Moderator: Mr Martin Gould, Consulting Disability, Policy Advisor<br>Rapporteur: Mr Alexandre Gorelik, Director, United Nations Information Centre |
| | **Mainstreaming access to information and knowledge through ICTs for persons with disabilities within existing UNESCO programmes and activities internally and with Member States** |
| | Moderator: Mr Abdul Waheed Khan, Assistant Director-General for Communication and Information, UNESCO<br>Rapporteur: Mr Claudio Giugliemma, President, Dominic Foundation |
| 15.45 – 16.00 | Break |
| 17.00 – 18.00 | **Working group reports:**<br>- 15 minutes per working group<br>- Presentation and discussion of next day agenda |

| 23 February 2010 (Tuesday) | | |
|---|---|---|
| 9.00 – 9.45 | **Summary of previous day** | |
| | ■ Key learning points | |
| | ■ Group discussion (rapporteurs provide reports) | |
| | ■ Establishing priorities: survey among participants ranking strategic objectives, programmatic opportunities in support of Member States and areas of cooperation with civil society and industry | |
| 09.45 – 13.00 | **Working groups brainstorming break-outs on strategic planning**<br>**3 working groups with specific assignments:** | |
| | **Group 1:**<br>**Making UNESCO ICT accessible** | Moderator:<br>Mr James Thurston, Senior Strategist –<br>Global Policy and Standards,<br>Microsoft Trustworthy Computing Group,<br>Microsoft Corporation |
| | | Rapporteur:<br>Mr Dipendra Manocha, Director,<br>Regional Resource Centre |
| | **Group 2:**<br>**Supporting Member States in making education ICT accessible** | Moderator:<br>Ms Licia Sbattella, G3ict Steering Committee Member, Politecnico di Milano, Dean's Delegate for Disability, Professor of «ICT for Disability» and «Natural Language Processing»,<br>Scientific Director of Esagramma<br>Music and new technologies for cognitive and mental disabilities |
| | | Rapporteur:<br>Mariana Patru, Education Sector, Division of Higher Education, Section for Teacher Education, UNESCO |
| | **Group 3:**<br>**Mobilizing resources and international cooperation** | Moderator:<br>Ms Jutta Treviranus, Director, Adaptive Technology Research Centre and the Inclusive Design Institute |
| | | Rapporteur:<br>Ms Susan Schorr, Head, a.i. Special Initiatives Division, International Telecommunication Union (ITU) |
| | **Group 4:**<br>**Information and knowledge access ecosystem** | Moderator:<br>Mr Shadi Abou-Zahra, Activity leader,<br>World Wide Web Consortium (W3C)<br>Web Accessibility Initiative (WAI) |
| | | Rapporteur:<br>Mr Nicola Palmarini, Manager IBM Corporation, EMEA Human Centric Solutions Center |
| 10.30 – 10.45 | Break | |
| 12.30 – 14.00 | Break | |
| 14.00 – 15.00 | **Wrap up** | |
| | ■ Summaries of working groups (rapporteurs provide reports) | |
| | ■ Conclusions and next steps | |

# APPENDIX B: LIST OF PARTICIPANTS

**Mr Shadi Abou-Zahra**
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Web Accessibility Initiative (WAI)
(France)

**Mr Rune Bang**
Norwegian Association of the Blind and Partially Sighted,
World Blind Union (WBU)
(Norway)

**Ms Elena Bulin-Sokolova**
Director
Institute for Information Technologies and Educational
Equipment
(Russian Federation)

**H.E. Luis Gallegos**
Ambassador of Ecuador to the United States
Former Chair of the Preparatory Committee of the CRPD
Chairman of the Global Initiative for Inclusive Information
and Communications Technologies (G3ict)
An Advocacy Initiative of the United Nations Global
Alliance for ICT and Development
(Ecuador)

**Mr Claudio Giugliemma**
Founder and President
Dominic Foundation
(Switzerland)

**Mr Alexandre Gorelik**
Executive Director
United Nations Information Centre in Moscow (UNIC)
(Russian Federation)

**Mr Martin Gould**
Consulting Disability
Disability Policy Advisor (United States)

**Mr Rabiul Hasan**
Director
Centre for Services and Information on Disability
(Bangladesh)

**Mr Bernhard Heinser**
Chief Financial and Development Officer
DAISY Consortium
Swiss Library for the Blind and Visually Impaired
(Switzerland)

**Mr Arnt Holte**
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Norwegian Association of the Blind and Partially Sighted,
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**Mr Joon-Ho Hyun**
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**Mr Abdul Waheed Khan**
Assistant Director-General for Communication and
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**Mr Axel Leblois**
Executive Director
Global Initiative for Inclusive Information and
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An Advocacy Initiative of the United Nations Global
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**Ms Christine Leblois**
Treasurer
W2i, The Wireless Internet Institute

**Ms Elly Macha**
Executive Director
African Union of the Blind (AfUB)
(Kenya)

**Mr Ismael Madrigal-Monarrez**
Permanent Delegation of Mexico to UNESCO (Mexico)

**Mr Dipendra Manocha**
Director
Regional Resource Centre
(India)

**Ms Sally Nduta Ng'ang'a**
African Union of the Blind (AfUB)
(Kenya)

**Mr Peter Osborne**
Member of Executive Committee and
the International Office of the Royal National Institute of
the Blind
(United Kingdom)

**Mr Nicola Palmarini**
Manager
IBM Corporation, EMEA Human Centric Solutions Center
(Italy)

**Ms Mariana Patru**
Programme Specialist
Division of Higher Education,
Section for Teacher Education, UNESCO

**Ms Ingrid Poni**
Counsellor : Communications
South African Embassy Paris
(South Africa)

**Ms Andrea J. Saks**
International Telecommunications Specialist for the Deaf
Convener ITU JCA-AHF (Joint Coordinating Activity on
Accessibility and Human Factors)
Coordinator IGF DCAD (Dynamic Coalition  on Accessibility
and Disability)

**Ms Licia Sbattella**
G3ict Steering Committee Member
Politecnico di Milano, Dean's Delegate
for Disability and Professor of "ICT for Disability"
and "Natural Language Processing"
Scientific Director of Esagramma
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**Ms Susan Schorr**
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**Mr James Thurston**
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**Mr Paul Timmers**
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**Ms Marcella Turner**
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**Ms Amanda Watkins**
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**Mr Lei Wei**
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World Intellectual Property Organization (WIPO)