



## ITU REGIONAL WORKSHOP ON ICT ACCESSIBILITY FOR PERSONS WITH DISABILITIES FOR AFRICA REGION

*Lusaka, Zambia, 15-16 July 2008*



## WORKSHOP REPORT

### **Purpose of this Report**

This report is a summary of the issues presented and discussed during the two day workshop in Lusaka, Zambia as well as conclusions which emerged from the event for follow up and implementation by policy makers and other stakeholders as well as the participants for Africa region,

### **Opening Ceremony**

1. Ms Asenath Mpatwa, the head of Special Initiatives Unit ITU started by highlighting the key policy decisions that have been adopted internationally to address the issues of ICT accessibility for persons with disabilities. These include both phases of the WSIS process in 2003 and 2005, Resolution 56 (WTDC-06) on persons with disabilities and finally the UN Convention on the Rights of Persons with disabilities adopted by the UNGA in December 2006. She underscored the fact that the UN convention is a legally binding instrument unlike the WSIS and WTDC resolutions. She noted the importance and relevance of addressing ICT accessibility issues in our region in view of the current statistics which indicated that approximately 10% of working population have some kind of disability and that two thirds of the persons with disabilities live in developing countries, which translates to about 90 million people with disabilities living in Africa south of the Sahara. She went on to point out the challenges faced in the implementation of the above Resolutions including use of technologies and software relevant to persons in rural areas, affordability of these technologies including assistive technologies and the need to address these as a collective social responsibility and not as a normal business. She concluded by inviting participants to discuss this issue and identify priority actions and encourages use of universal design principle and standards in developing their network infrastructure which is not yet fully developed.

To this effect, countries in the region were encouraged to embark on the process of developing appropriate policies to address ICT accessibility issues for persons with disabilities as way to integrate and build an all inclusive information society.

2. Mr. Richard Mwanza, the Ag Chief Executive Officer of Communications Authority of Zambia challenged the participants not to stop at highlighting these issues but actually following up to ensure that they are implemented in their countries.

3. Honorable Mubika Mubika, the Deputy Minister of Communications and Transport Zambia and member of Parliament highlighted steps already taken by the Zambian Government in addressing issues of ICT accessibility for persons with disabilities by enacting the Disability Act of 1996 and established the Zambia Agency for PwDs to address their specific needs,

4. Ms Andrea Saks, Convener for the ITU-T Joint Coordination Activity who spoke on behalf of the Director of TSB, Mr. Malcolm Johnson emphasised the importance of addressing ICT accessibility for persons with disabilities as part of compliance with the UN convention on rights of persons with disabilities. She gave a back drop of the work she has been involved in from the 1960s when text telephony was incompatible to the needs of PwDs. This led to the invention of a modem as a sole initiative of deaf persons except for a donation of used teleprinters. She noted that a lot of work had been done by ITU in developing standards that ensured universal design to make ICT accessible to all including persons with disabilities. The challenge however is changing attitudes of manufacturers, who were reluctant to implement universal/inclusive design standards due to cost implications. This attitude is however slowly changing.

### **Election of the Bureau**

Prior to moving into the substantive business of the workshop, participants elected the following as members of the workshop Bureau;

Chairman-Zambia, Vice chairman English speaking-Malawi, Vice chairman French speaking-Togo, Rapporteur English speaking- Uganda, Rapporteur French speaking-Burundi.

### ***Session 1: Policies for Accessible ICTs***

1. Ms Asenath Mpatwa gave a synopsis of the discussions to take place during the two day workshop; with day one focusing on policy, technology and standards as well as country presentations and day two focusing on applications in the area of accessibility and disaster preparedness, universal design and tutorials on real time text and web accessibility.

She highlighted the creation of the 2 year old special initiatives unit within ITU-d whose main responsibility is to support ICT accessibility with focus on gender, youth, persons with disabilities, remote and underserved areas and marginalised communities. She noted that the unit started implementing activities in 2007, including two workshops held to create awareness among ITU member states and to share experiences on ICT accessibility issues for persons with disabilities with a view to enable them to implement policies in order to comply with the WSIS, WTDC and the UN Convention on the Rights of Persons with Disabilities. As part of these efforts, ITU-D and G3ict are collaborating to develop an online toolkit which will be used to train policy makers to equip them with skills to develop and implement relevant policies and laws to comply with the Convention., Other activities involved provision of equipment to 22 centres for persons with disabilities in Sri Lanka among others. The creation of this unit was preceded by the following key milestones for work in ICT and persons with disabilities as:

- ✓ taking prominence after the WSIS deliberations in Geneva 2003 and Tunis 2005, by addressing full inclusion of needs of PWDS in accessibility to ICT, addressing design and accessibility principles( universal design principle) , poverty eradication and use of ICTs for disaster management, early warning, and emergency communications
- ✓ The WTDC Doha 2006, through Resolution 56, which calls for ITU-D to develop Guidelines for mainstreaming ICT accessibility for persons with disabilities. and
- ✓ Finally the most important milestone was the adoption of the December 2006, UN Convention on Rights of Persons with Disabilities which is a legally binding Resolution. A total of 21 countries out of countries south of the Sahara have signed this convention and 7 have ratified the same. 129 countries have signed the Convention world wide.

She underscored the purpose of the workshop as among others to discuss the ongoing efforts to support member states in the areas of policy, review current technologies and advancements as well as identify priorities and share experiences and best practices.

2. Dr. Cynthia Waddell, Executive Director and Law policy and Technology consultant at the International Centre for Disability Resources on the Internet (ICDRI) as part of the overview to her paper; shared her personal experience how having been born with severe hearing loss and unable to speak until she was 5 years, was able to rise to the challenge and is now a public speaker working for persons with disabilities and having influenced major ICT policies for persons with disabilities including the public procurement standards for the US. Graphical presentations were made as examples of persons with disabilities and services that they can interact including real time captioning, assistive technologies, sign language interpretation, visual aids, reading of braille and text in accessible formats. For physical accessibility, issues such as accessible transportation services, accessible elevators and ICT equipment like computers should be considered.

Prerequisites for accessibility to ICTs by persons with disabilities were highlighted as accessible design in terms of products and services, availability in terms of connectivity and affordability in terms of price for access.

*Major policy issues were highlighted as:*

- disability rights as stipulated in the UN Convention on Rights of Persons with Disabilities, Articles 9, 21, 29-32, (rights related to universally designed goods and products, affordable costs, and need for statistics and information gathering); She noted that enacting of legislature addressing accessible design of goods and services was a challenge.
- Mainstreaming and stakeholder engagement which was not just a horizontal issue for policy makers or health practitioners but requires active participation of all practitioners and various stakeholders including persons with disabilities.
- Differences in universal service (USO) definitions and implementations , which encompassed issues of accessibility, affordability and availability  
Case studies of various regional blocks USO Initiatives (EU, USA,) were presented to highlight their differences.
- Ongoing work on accessible ICT technical design standards under ITU
- Case studies of procurement of tool kits in Denmark, Canada, US Ireland
- The need for benchmarking and research to address the lack of meta data
- Outreach , education and training for Accessibility to ICTs by PwDs;

A snap shot of the current ICT accessibility for PwDs challenges and initiatives in various regional blocks such as lack of fully developed infrastructure and absence of policies: for Africa region the challenges of unaffordable access, (31 countries in Africa are LDCs), and ICT for PwDs initiatives such as the South Africa National Accessibility portal project in 11 official languages; for Arab region, the lack of statistics on PwDs, initiatives in Asia Pacific region on standards setting , tsunami preparedness project and for Americas the strides made in training ; 50% of countries trained; In Europe the i2010 initiative that is monitored by the European Disability Forum.

On ICT best practice the ITU Total Conversation Standards, the Digital Accessible Information System and the US 508 accessible ICT procurement standards were highlighted as best practices in addressing issues of accessibility to ICTs by persons with disabilities.

The role of the private sector was underscored as seen by the collaborative efforts under the UN G3ict and the EU ICT policy support program which is a funding innovation for accessibility of digital TV.

### ***Session 2: Policies for Accessible ICTs continued***

1. A video presentation by Mr. Axel Leblois of G3ict on the UN Convention on Rights of Persons with Disabilities was given. He pointed out that this Convention was the 1<sup>st</sup> of its kind in the millennium and the fastest ever UN treaty negotiated. It underscored the commitment of states to address social and economic issues that impact on the subject of ICT accessibility for Persons with Disabilities. Standardisation was cited as a key to avoiding fragmentation that leads to low economies of scale and unaffordable prices of ICTs.

The convention seeks to address two key questions; how to ensure that barriers are not created as ICTs spread and how to achieve better use of technologies to address the needs of PwDs. Relevant Articles and main areas of applications such as e-government and assistive technologies, emergency response and personal mobility that the convention seeks to address were highlighted.

G3ict activities include awareness raising and good practices for regulators and policy makers, promotion of harmonisation and standardisation in collaboration with Standardisation Development Organisations, ICT development and government procurement agencies. The development of toolkit for policy makers and the for following up the implementation of the UN Convention on the Rights of Persons Disabilities as a benchmark for countries which ratified the Convention are some of the initiatives under implementation which address ICT issues for PwDs

2. Ms. Asenath Mpatwa gave an overview of the work on the online toolkit project for policy makers. The toolkit which covers 10 different subjects on ICT accessibility for PwDs seeks, among other things to provide resources for policy makers to assess existing gaps in area of ICT accessibility for PwDs, provide a set of actions to be taken at national level and act as a global repository and platform for sharing best practices. The tool kit will be available freely to all member states. Implementation of this project is in three phases of which the first two phases are fully funded. Work involves development of Guidelines (under Question 20-Study Group 1) and development of content for the toolkit (under G3ict, ITU-D and other partners). Training activities fall under phase three and ITU\_D is in the process of identifying potential funding partners. She underscored the fact that this was a multi stakeholder initiative involving a number of institutions.
3. On the role of African Non Governmental Organisations in promoting accessible ICTs in Africa; Mr. Simate Simate of the African communications decade gave an overview on issues pertaining to ICT accessibility and PwDs, major challenges such as digital divide between the developing and developed countries, absence of standards and regulations as well as ignorance of decision and policy makers on the subject;

He proposed the following for breaking the barrier to ICTs; strict adherence to standards and regulations; inclusive design/universal design (formulation of products accessible by all) assistive and adaptive technology for ICT products and services should be adopted to meet special needs of those who cannot access Universal design. He recommended as part of the way forward;

- ✓ Development of a continental strategy to be implemented in 5 countries for at least 3 years,
- ✓ Tunis Declaration on WSIS to be fully implemented and
- ✓ At the end of the workshop recommended followed up by a working group coordinated by the African Communications Decade.

### ***Session 3: Technologies for accessible ICT services and products***

1. Ms Andreas Saks as part of her presentation on role of accessibility standards in bridging the digital divide with persons with disabilities : product service and design considerations accessibility standards highlighted past and ongoing work within ITU-T as development of Accessibility Guidelines and a Check list as part of inclusive design at the initial stages of standards development, collaborations with Internet Governance Forum, and a lot of standards developed to address accessibility to multimedia systems and services( under Question 26/SG16) and human factors issues( under Question 3/SG2, Accessibility in IPTV as well as interoperability and mobility aspects. She underscored the creation of the Joint Coordination Activity (JCA) accessibility human factor to facilitate working together under different study groups. The European Union is to do a trial of Total Conversation in line with the ITU standard F.703 for emergency calls for all persons including persons with disabilities. She welcomed participants interested to join the JCA. ITU had developed a number of standards which she challenged the participants to get these implemented.
2. Mr. Hiroshi Kawamura, the President of Digital Accessible Information System(DAISY) presented “*the best way for persons with print disabilities to read and publish*” took the participants through the benefits of the DAISY particularly for persons with print disabilities (persons having difficulties reading printed text because of blindness, visual impairment and colour blindness) and highlighted available production tools with unrestricted number of licences (conversion and audio based) and play back tools, DAISY standards which are open and interoperable without loyalty and support creation of reading materials. He further noted a growing number of DAISY users and case studies where DAISY has trained trainers. For Africa, activities one jointly with the National Accessibility Forum South Africa Project were noted. To cap the presentation, a demo on AMOS and open source DAISY downloaded tool that enables persons with disabilities related to visuals, hearing impairments to access information in compatible formats was presented. He cited collaborative efforts with W3C, ITU, IFLA, WBU, disabilities community among others.
3. For its innovation, Mr. Hiroshi Kawamura was awarded the WTISD award laureate 2008 for the DAISY standard which addresses the needs of persons with print disabilities, speakers of indigenous languages and illiterate universal access.
4. Dr. Cynthia Waddell gave another presentation on Accessible ICTs; the paradigm shift. She noted the paradigm shift as a result of technological advancements that have led to the need for incorporation of inclusive design in mainstream technology, global trends that place demands on user interfaces and requirements and the integration of civil rights model with social rights.
5. She cited examples such as the shift in definition of disability as seen in Article 1 of the UN Convention on Rights of Persons with Disabilities, the focus on ability integration and compatibility of environment with the needs of Persons with Disabilities instead of medical inability only and the need for inclusive design models since this accessible design also benefits persons without disabilities (the elderly, illiterate, low connections to ICTs, etc).

She cautioned policy makers against losing sight of convergence of technologies that may result in accessibility being proprietary instead of open and applicable to all.

#### ***Session 4: Country strategies for supporting accessible ICTs***

Issues emerging out of the country presentations on PwDs and ICT accessibility included the following:

- a) Socio economic issues like poverty and low literacy levels have to be addressed
- b) Lack of statistics on persons with disabilities in most countries
- c) Lack of fully developed infrastructure and inaccessible infrastructure
- d) Lack of adequate policy and legislature on Persons with Disabilities and where they exist, they were not being implemented.
- e) Examples of Projects initiatives implemented in Mali and South Africa. The Meraka Institute in South Africa gave a presentation on the National Accessibility Portal done in conjunction with the Department of Communications and various research initiatives.
- f) The importance of ratifying and using the UN Convention on the Rights of Persons with Disabilities was underscored.

#### ***Session 5: Applications for promoting accessible ICTs***

1. A presentation on accessibility and disaster preparedness for persons with disabilities was given by Mr. Hiroshi Kawamura, the President of DAISY and included lessons learned from the Tsunami disaster on the need to preserve and promote indigenous knowledge as part of the disaster management specifically as a form of early warning system, the importance of collaborative evacuation and accessible format of information on early warning and disaster management.
2. He highlighted the Phuket Declaration which emphasises prevention through knowledge sharing, participation by all, local community initiatives and disability friendly infrastructure. The DAISY consortium also carried out a research for Bethel House on the needs of persons with psychiatric disabilities (simple and easy instructions with imagery and audio). As a result, a DAISY preparedness manual for this community was developed.
3. As part of the presentation on Universal Design considerations for accessible ICTs, Dr. Cynthia Waddell of the International Centre for Disability Resources On the Internet emphasised the role of Government by highlighting key articles in the UN Convention on Rights of Persons with Disabilities , like the articles on ICT obligations, statistics and data collection, international cooperation, assistive technologies , universal design and standards; She further gave an overview of some of the best practices worldwide on universal design and on procurement standards in the US, Canada and Ireland. The key success factor to universal design considerations for accessible ICTs was the support for engagement of persons with disabilities. A number of free on line publications on standards e.g., [www.tiresias.org/publications/disabilities\\_standardisation/index](http://www.tiresias.org/publications/disabilities_standardisation/index) are available.
4. Dr. Cynthia Waddell further through her presentation on “Web without barriers” emphasised the demand for user requirements, accessible design of products, services and environment where the user interface is flexible enough to accommodate the widest range of user needs and preferences. She however noted that a lot of the existing web designs had addressed usability and connectivity but not accessible design and accessibility. This point was emphasised through a demonstration of a screen reader for the blind which showed the

difference with accessible web design and content and typical web design and the benefits to the blind in terms of convenience, time taken to read content on a web page among others. Examples on accessible design include for mobility disabilities; support SIP and PAP interface. Device independence so that for example the use of a mouse is not required. Participants were referred to the W3C web content accessibility Guidelines for further information.

### ***Session 6: Tutorials***

Dr. Cynthia Waddell took the participants through a high level overview of real time web captioning, web accessibility checkers and a Demonstration of an accessible online conferencing tool.

- a) The difference between CART (communication access real time transitioning) and captioning was noted as captioning is associated with image whereas CART was not. Captioning is ideal for accessibility for deaf and hard of hearing, persons who have English as a 2<sup>nd</sup> language and for transcripts that can be used as reference material.
- b) The main process flow for captioning involves audio input using various onsite and remote interfaces, translation and text display output which can be CART or captioning.
- c) Web Accessibility checkers are used to know whether or not a website is accessible to persons with disabilities; the three web accessibility tools included, “Cynthia says”( checks web design compliance against a standard), WAVE( generates visual report using icons) and the W3C mark up validation service (this checks for compliance with programme language of code)
- d) The Accessible online conferencing tool enables PwDs to participate in an online conferencing; benefits of this tool include an increase in worker productivity, more participation, friendly and work in environment where assistive technologies are in place, reduce costs of meeting costs and attendee. This tool is compatible with screen readers, screen magnifiers and speech recognition programs. The basic requirements for implementation of this tool include a PC, sound card, high speed Internet connection and headset.

All these tools are available on line and participants were encouraged to explore the use of these tools.

### ***Session 7: ICT Accessibility for Equal Education and Employment Opportunities***

1. Professor Licia Sbatella of Politecnico di Milano in her presentation on ICT accessibility for Equal Education and Employment shared her experience of using the Academia world to address ICT accessibility for persons with disabilities as everyone in life wants to impact society and academia enables this through building capacity of persons with disabilities. In Italy, there has been allocation of specific University funds (as provided for in the legislature on primary and secondary education) and a number of projects implemented that have addressed the navigation of such students on campus in a personalised way, automation of user interfaces, that use iconic languages at accommodation premises, among others. As part of mainstreaming, the university also helps to establish contacts with potential employers of Persons with Disabilities and allows these students upon graduation to use assistive technologies in the working environment for at least a year.

The University also raises awareness with potential employers on needs of persons with disabilities in order to help them adapt their working environments to needs for PWDS.

2. A presentation on International Certification on ICT skills for persons with disabilities was given by Lynette Visagie, Quality Assurance Manager, ICDL , South Africa with emphasis on access for all including persons with disabilities. ICDL empowers persons with disabilities (physically challenged, hearing impairments, visually impaired and wheel bound individuals through training and testing for ICT skills. These tests are similar to those done by persons without disabilities. She underscored the fact that persons with disabilities were competent and the skills acquired enabled them to perform tasks at the same level of competence like persons without disabilities especially in the work place.

### *Session 8: Conclusion and Adoption of workshop report*

As a result of the preceding deliberations, a declaration named the “**Lusaka Declaration on Supporting Access to Information and Communication Technologies and Services for Persons with Disabilities**” was adopted by the participants as a way forward for addressing the issues of ICT accessibility for persons with disabilities in Africa region. The full text of the declaration is contained as Annex 1 to this report.

### **Rapporteurs**

- Mrs. Christine Mugimba,  
Manager- Research and Development  
Uganda Communications Commission
- Monsieur Ndagijimana Fulgence,  
Vice Président, de l’Union des Personnes Handicapées  
Burundi