

Keynote Address

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Workshop on Accessibility to ICTs

ITU, *i-CREATe*, START Centre

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Her Royal Highness, Princess Royal, Salote Pilolevu Tuita, Kingdom of Tonga,
Distinguished participants,
Ladies and Gentlemen,

On behalf of the International Telecommunication Union (ITU) and its Regional Office for Asia and the Pacific *inter alia*, first of all, I would like to thank the Governments of China and Shanghai in particular as well as the co-organizers – *i-CREATe* and START Centre - for the kind support and cooperation to convene together this important ***Workshop on Accessibility to ICTs*** today here in Shanghai, a remarkable and historic city.

Nowadays, telecommunications/ICT has become a significant enabler for overall socio-economic development in all countries around the world as well as for other sectors to achieve their targets of Millennium Development Goals (MDGs). Moreover, one's ability to use mainstream ICT applications and devices directly affects whether one can be fully integrated into daily life today from commerce, education, health, employment, culture, leisure, and civic to social activities. For instance, everyday, we come across e-commerce, e-education, and e-health to *Google*, *Twitter* and *Facebook*. Indeed, ICT services like television, radio, cell phones, computers, IPTV, internet, web-sites/casts and multiple automated digital interfaces became part of our daily life by billions of persons to communicate and access critical information in their jobs, at schools and at homes across the time and space. It is indeed very exciting to experience our ways of life in the past and our dreams in the future well demonstrated through ICT services and applications by the Chinese National Pavilion and ICT Pavilion respectively at Shanghai Expo 2010 now.

However, the pervasive usage of ICT in all aspects of society around the world may create a significant risk of exclusion, if ICT is not accessible to persons with disabilities (PwDs). According to the World Health Organization (WHO), 10% of the world's populations – i.e., 650 millions - have some types of disabilities from physical, mental to sensorial disabilities, each of which requires special considerations when formulating and implementing ICT public policy.

In reality, the main challenges for the design and implementation of public policy for ICT accessibility is the non-availability of statistics, which reflects access or use of ICT by PwDs. Many countries have only generic statistics on their population with disability without distinguishing between each type of disability or multiple disabilities (e.g. blind and deaf persons). In addition, ICT accessibility has been practiced in a very limited extent. Existing ICT products and services were not designed with principles of accessibility in their designing phase so that it is difficult for PwDs to use them regardless of its affordability.

Thus, it is very much welcoming of such awareness and actions adopted by all the stakeholders at the World Summit on the Information Society (WSIS) held in Geneva (2003) and Tunis (2005) respectively with special attention to the needs of elder persons and PwDs: e.g.,

*“...when elaborating national cyber strategies, including educational, administrative and legislative measures, for using ICT in education and human resources development, in order that equipment and services offer easy and affordable access, under the principles of universal design and assistive technology to promote telework and **to increase employment opportunities for PwDs, for creation of content that is pertinent to PwDs and to create the required abilities for the use of ICT by PwDs...**”*

Having recognized the importance, the United Nations General Assembly has also adopted Resolution A/RES/61/106 on the [Convention on the Rights of Persons with Disabilities \(CRPD\)](#) which came into force on 3 May 2008. The CRPD requires State Parties: e.g.,

*“To enable PwDs to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to ensure to PwDs **access**, on an equal basis with others, to the physical environment, to transportation, to information and communications, including ICTs and systems..”*

The term of *Accessibility* is defined as “any and all dispositions of the Convention defining the rights of PwDs, in specific areas of activity”. Thus, “ICT Accessibility” means that *all ICT products and ICT-based applications and services in those areas must be accessible, as far reaching implication, for industry, governments, large private sector, ICT users and civil society.*

In accordance with the WSIS and the CRPD, ITU - as a leading UN Specialized Agency for ICT composed of not only 192 Member States but also 750 Sector Members including private industry, academia and research institutes - has been focusing on the “ICT Accessibility” in various functional mandates from radiocommunication technologies, international standards to development of ICT: e.g.

1. **Accessible design:** Accessibility has to be built in into products and services from the very beginning;
2. **Availability:** Accessible products and services must be on hand to users; and
3. **Affordability:** Access to products and services must be reasonable.

In order to deliver the mandates, ITU has been : e.g.,

1. promoting international telecommunications/ICT standards;
2. promoting the development of assistive products and services;
3. helping Members States meet their obligations;

4. establishing outreach programmes;
5. encouraging exchange of the best practices;
6. helping develop and promote policy guidelines; and,
7. creating greater awareness through conferences & publications.

For instance, the **Joint Coordination Activity on Accessibility and Human Factors (JCA-AHF)** established by ITU with partners in December 2007 have been inviting and providing all experts with a platform to work together to improve access to the ICT services and applications by PwDs. As results, ITU has developed two main tools: e.g.,

1. *'Telecommunications Accessibility Checklist'*: This aims to assist experts in developing technical standards to ensure that they are taking into account the needs of those, to whom accessibility to ICTs are restricted. The checklist is a tool, which helps to ensure that accessibility needs are taken into account at an early stage of the standards development process rather than retrofitted; and
2. ITU-T Recommendation F.790, as an international standard, *'Telecommunications accessibility guidelines for older persons and persons with disabilities'*: This gives guidance on understanding the topic of accessibility and the ways, in which accessibility may be incorporated in ICT products and services.

Moreover, wireless technologies and devices are likely to become an integral part of daily life, while these technologies will be the best placed to give accessibility to PwDs and avoid their exclusion from the information society. In this regard, ITU has also contributed to developing the wireless technologies through producing Radio Regulations, Recommendations (i.e., international voluntary standards), Reports and Questions relating to PwDs, which in return improve the accessibility and to reduce the overall digital disabilities divide: e.g.,

1. *DTTB Handbook "Digital terrestrial television broadcasting in the VHF/UHF bands."* It provides guidance to engineers on deploying digital terrestrial television broadcasting and covers aspects of captioning and closed captioning to broadcasters, of which techniques are extremely useful for people with hearing difficulties; and
2. ITU-R Recommendation M.1076, as an international standard, *"Wireless communication systems for persons with impaired hearing"*: It discusses about various ways for transferring speech signals to a listener's hearing device including infrared radiation, magnetic induction internal to current loops, VHF radio, and external induction field of a radiating antenna.

Although countries have ratified the CRPD, they are still facing challenges in implementing the Convention and applying its Recommendations in their legislative and policy frameworks. Therefore, ITU and G3ict (Global Initiative for Inclusive ICT) have further launched *"e-Accessibility Policy Toolkit for Persons with Disabilities"*, which is an online toolkit to serve not only as a global electronic repository of policies and strategies but also as a platform for sharing experiences on the best practices on ICT accessibility. Indeed, it is a very comprehensive tool taking collaborative inputs from a number of stakeholders including representatives from some governments, NGOs, standards development organizations, industry, academia and international development agencies for the common goal.

As for the specific development actions, ITU has made efforts to promote the *e-Accessibility Toolkit* and assist governments in applying the toolkit for their policy making for ICT accessibility

for PwDs through organizing a Forum together with the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) in Bangkok, Thailand, in 2009. The event has certainly attracted over 140 participants from 21 countries including various stakeholders in the Asia-Pacific region and beyond.

Her Royal Highness, Ladies and Gentlemen,

Please let me now share with you more about practical projects and implementations, which ITU has been working on in close collaboration with various partners. For instance, the project on *“Building capacity of harnessing ICTs for disempowered / marginalised communities in Sri Lanka”* has been targeted children and PwDs in Sri Lanka, as a case, with ICT facilities and accessibility through ICT centres at the selected schools and/or multi-purpose community telecentres in remote villages.

As part of the project, ITU has partnered with institutions and organizations including the National Electronic and Computer Technology Centre (NECTEC) from Thailand, the University of Colombo School of Computing, the University of Peradeniya, the Sri Lanka Council for the Blind, and the Telecommunications Regulatory Commission of Sri Lanka. These partnerships aim to build and enhance local capacity in development of a Text-To-Speech (TTS) in local language or Sinhalese.

A similar framework is also replicated for a joint-partnership project in Mongolia, whereby ITU in support from AMD and the Australian Government has partnered with NECTEC, and local institutions and organizations including the National IT Park, the School of Information Technology, National University of Mongolia, and the Information, Communications Technology and Post Authority (ICTPA), Mongolia, to develop a first-time ever *complete Text-To-Speech (TTS) in Mongolian language*.

It is important to note that the TTS is a fundamental for many other software application developments, which require speech synthesis as a core engine, for example, screen reader, audible e-book and online reading, call centre, automatic audio information systems, etc. Hence, not only a person with visual impairs but also everyone in general can benefit from the outcome of this project. In this regard, the project will transfer knowledge through a three-month hands-on training in Thailand to be co-organised by ITU and NECTEC, which will be followed by *“training-the-trainers” and “user training on screen reader” in Mongolia*.

Moreover, international standards for ICT accessibility, which ITU has been developing over the century, help manufacturers gain access to global markets and leverage economies of scale in their productions and distributions for affordable ICT devices and services. Users including PwDs are at the end expected to benefit from the affordable or lower costs of ICT devices and services. In line with this, ITU Regional Office for Asia and the Pacific has been contributing to a Committee set up in Thailand to define standards for telecommunications/ICT equipment such as public phone, fixed-line phone, and mobile phone for PwDs in Thailand, whilst welcoming other countries for the similar practices to set national standards as stepping towards international ones or *vice versa*.

It is also common in several countries that, within the framework of Universal Service Obligation known as USO, a certain percentage of levies apply to eligible telecommunications service licensees. The main purpose of USO is to provide telecommunications services particularly voice and/or data to people living in rural or remote or underserved areas as well as marginalized

groups of people including Persons with Disabilities. In other words, it aims at equal access to telecommunications services for all.

In Australia, for example, the National Regulatory Authority – ACMA – collects a levy on eligible telecommunications carriers based on the most recent annual eligible revenue assessment by the authority. The levy is aimed to fund operations of the country’s National Relay Service (NRS), which provides persons who are deaf or who have a hearing and/or speech impairment with access to a standard telephone service on terms and in circumstances that are comparable to the access other Australians have to a stand telephone service. The service is available 24 hours per day, seven days a week, and operates as a communication bridge for deaf, hearing-impaired and speech-impaired people in the community.

Likewise, it is very important to have the relevant policies, regulations or code of conducts for the PwDs by the government, regulator (e.g., OFTA, Hong Kong/China) or even private companies (e.g., HP) at national or even corporate levels to ensure the rights of PwDs and enable them to have access to the affordable ICT services and applications at their workplace as well as daily life.

In this regard, ITU has also played a role on assisting member countries in ensuring effective policy frameworks such as the USO for ICT accessibility for PwDs. For instance, ITU facilitated knowledge sharing and provided a platform for discussions among the national regulatory authorities of Thailand and Australia, whilst Thailand has accordingly made an effort on establishing the first Telecommunications Relay Service (TRS) in the country.

Last but not the least, recognizing the unprecedented population ageing in the 21st century with some 13% in the USA alone today followed by many other developed countries as well as PwDs with 10% of world’s population, ITU World Telecommunication Development Conference 2010 (WTDC-10) recently held in Hyderabad, India, has adopted Resolution 58 on *“Access to ICT by PwDs, including persons with age-related disabilities.”* To implement the Resolution, we are welcoming you all to develop together with us for creative initiatives and projects, which will be focused on the ICT accessibility and affordability for the PwDs in the years to come through raising the awareness and momentum from this Workshop. Thus, we do look forward to your active partnerships and innovative suggestions that you may have for strengthening and enhancing our efforts in this particular area of ICT accessibility and affordability for PwDs.

In conclusion, we do thank you again for your kind support and active participation at this ITU-led *Workshop on Accessibility to ICTs* today, while wishing this Workshop as well as the projects related PwDs every success with innovative and creative ideas so that we all realize and enjoy the inclusive and interdependent information society together with the persons with various disabilities including age-related ones, as the ICT Pavilion here in Shanghai Expo 2010 is well exhibiting our dreams in the future with ICT applications.

Appreciation for the kind attention.
