Accessibility in Information and Communication Technology


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ICT Accessibility
(Digital Inclusion)
Digital Inclusion

Promotion of ICT access and use for the **social and economic development** of:

- Indigenous peoples
- Persons with disabilities
- Women and girls
- Youth and children
Using ICTs to address key development issues

- **Literacy**
  - two-thirds of the world’s illiterate persons are women
  - 97% of persons with disabilities do not have basic reading and writing skills

- **Education**
  - 90% of children with disabilities do not attend school in some developing countries

- **Employment**
  - 90% of the world’s youth live in developing countries
  - youth are three times as likely to be unemployed than adults and underemployment for youth is rampant

- **Access to Health and financial services and land rights**

- **ICTs can be used to promote literacy, education and job skills training**
Persons with Disabilities & Ageing Population

- Accessible ICTs
- Assistive Technologies
- Universal Design (common theme)
Youth & Children
Women and Indigenous People

- Affordable access to ICT
- ICT literacy training
- Child online protection
- Vocational training
(2)

Works in ITU
ITU Structure & Functions

- Founded in 1865
- Leading UN Special Agency for ICTs
- HQs in Switzerland
- Three sectors (ITU-T, ITU-D, and ITU-R)
- 4 Regional Offices & 7 Area Offices
- 193 Member States, 545 Sector Members, 161 Associates, and 33 Academia

ITU-T
Efficient, right-time production of international telecommunication standards

ITU-D
Established to help spread equitable, sustainable and affordable access to ICT.

ITU-R
Managing the international radio-frequency spectrum and satellite orbit resources

ITU TELECOM
Brings together the top names from across the ICT industry & ministers and regulators for a major exhibition, a high-level forum & a host of other opportunities
ITU-T

• *Standard making body*
  • *Coordination among Standard Development Organizations*
  • *Research & study*

ITU-D

• *Policy and regulatory matters*
  • *Guidelines, toolkits, and training*
  • *Promotion & awareness raising, Project implementation*
ITU-T

- ITU-T Focus Group on Audiovisual Media Accessibility (FG AVA)
- Joint Coordination Activity on Accessibility and Human Factors (JCA-AHF)
- Dynamic Coalition on Accessibility and Disability (DCAD)
- ITU-T Study Group 16 work on Accessibility
ITU-D

- Raising Awareness among ITU Members on the Importance of Digital Inclusion
- Developing Knowledge Resources, e.g. online toolkits
- Use Knowledge Resources to
  - share best practices on policies, legislation and practices to promote Digital Inclusion online and in workshops/forums
  - Providing policy advice such as development of National School Connectivity Plans to Members
- Developing Training Materials our members can use to foster digital inclusion in community ICT centres
- Providing policy advice and implementing projects
## ITU Development Programs (2011-2014)

<table>
<thead>
<tr>
<th>Programme 1</th>
<th>Information and Communication Infrastructure and Technology Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programme 2</td>
<td>Cybersecurity, ICT Applications and IP-based Network-related Issues</td>
</tr>
<tr>
<td>Programme 3</td>
<td>Enabling Environment</td>
</tr>
<tr>
<td>Programme 4</td>
<td>Capacity Building and Digital Inclusion</td>
</tr>
<tr>
<td>Programme 5</td>
<td>Least Developed Countries, Countries in Special Need, Emergency Telecommunications and Climate Change Adaptation</td>
</tr>
</tbody>
</table>
Youth and Children and Indigenous Peoples

- Connect a School, Connect a Community initiative
- Youth programme at TELECOM
- Child online protection
- Online training for indigenous peoples
The Concept

Connecting all primary, secondary and post-secondary schools to ICTs by 2015 was one of the targets set by world leaders at the World Summit on the Information Society (WSIS). Connect a School, Connect a Community is a public-private partnership launched by ITU to promote broadband Internet connectivity for schools in developing countries around the world. Why focus on schools? Because connected schools can serve as community ICT centres for disadvantaged and vulnerable groups, including women and girls.

www.connectaschool.org
Persons with Disabilities

- Text-to-speech technology serves illiterate populations if available in local languages
- Captioning promotes social integration/cohesion
- Telecommunications Relay Service (TRS)
- Education and job training

Keyboard text-to-speech generating device
An arthritic hand trying to use a standard mouse
Women and Girls

- ITU-telecentre.org Foundation Telecentre Women: Digital Literacy Campaign

- Girls in ICT Day and WITNET

- Connect a School Toolkit Module Community ICT centres for the social and economic development of women
World Telecommunication and Information Society Day 2012

- WTISD 2012 Bangkok Celebration, 17 May 2012, Bangkok, Thailand (UNCC)

- Conjunction with the ITU Asia-Pacific Regional Development Forum (RDF) 2012, 16-18 May 2012, Bangkok, Thailand
Making TV Accessible Report

- Prepared by Peter Looms, Chairman of ITU-T Focus Group on Audiovisual Media Accessibility
- Looks at how TV can be made more accessible
- Timely given the transition from analogue to digital TV

http://www.itu.int/ITU-D/sis/PwDs/index.phtml
(3) Considerations
Typical Approach

**Problems**
- Blind
- Deaf
- Handicapped

**ICTs**

**Outcomes**
- Text-To-Speech
- DAISY Books
- Captioning
- TRS
- Assistive Technologies
Forward-looking Policies

**Problems**
- Poverty
- Lack of access to government services
- Unemployment
- Low education
- Disaster threats

**Means**
- ICTs

**Outcomes**
- Poverty reduction
- Access to services
- Job creation
- Educated
- Safer environment

Reversed Engineering
TTS in Mongolian Language
OBJECTIVES

- To build Mongolian HMM-based TTS engine for MS-Windows platform;
- To make Mongolian TTS compatible with screen readers for the Blind;
- To build human capacity particularly developers and researchers for future development of TTS applications
- To train users especially the Blind in Mongolia
- To promote the Digital Inclusion in Mongolia and especially to encourage Public-Private Partnership
PROJECT PARTNERS

❖ Implementation
  - International Telecommunication Union (ITU)
  - National Information Technology Park of Mongolia (NITP)
  - National University of Mongolia
  - National Electronic and Computer Technology Center of Thailand (NECTEC)

❖ Supporters
  - DBCDE, Australian Government
  - AMD Corp.

❖ User & Tester
  - Mongolian National Federation of the Blinds (MNFB)
TTS LAUNCH IN MONGOLIA

Training of Trainers on TTS Development
24-25 May 2011, Mongolia

Launch of TTS at ICT EXPO
27 May 2011, Mongolia
“Great power comes great responsibility”
“Great power comes great responsibility”

---- Spiderman
Thank you.