

Accessibility in Information and Communication Technology

United Nations Expert Group Meeting on Building Inclusive Society and Development through Promoting ICT Accessibility: Emerging Issues and Trends

Tokyo, Japan, 19-21 April 2012

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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

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Works in ITU

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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)



Programme 1

Information and Communication Infrastructure
and Technology Development

Programme 2

Cybersecurity, ICT Applications and IP-based
Network-related Issues

Programme 3

Enabling Environment

Programme 4

Capacity Building and Digital Inclusion

Programme 5

Least Developed Countries, Countries in Special Need,
Emergency Telecommunications and Climate Change Adaptation

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



CONNECT A SCHOOL, CONNECT A COMMUNITY

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Toolkit of Best Practices and Policy Advice

Training Materials, Applications, Tools

[The Concept](#) | [How the Toolkit is Organized](#) | [How the Training Materials are Organized](#)

[Blog](#)

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.

[read more](#)



- Bringing broadband to the world's poorest communities
- The ICT Ministry publishes the Manual of Operation and the format of proposals for "Vive Digital Regional"
- New Broadband Commission report focuses on bringing high-speed connectivity to world's poorest communities

Events

- ICT-Competency Framework for teachers workshop 2010-12-03 16:01
- Global Symposium for Regulators, Dakar, Senegal 2010-11-10 09:47
- Connect a School, Connect a Community Ministerial Roundtable 2010-05-25 14:30

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

e-Accessibility Policy Toolkit for Persons with Disabilities

A Joint ITU/G3ict Toolkit for Policy Makers Implementing the Convention on the Rights of Persons with Disabilities

[Home](#) [Toolkit Contents](#) [Technology Areas](#) [Policy Guides](#) [Assessment Framework](#)



Search the Toolkit:

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Guides by Policy Area

- [Telecom/broadcasting](#)
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- [Labor/social affairs](#)
- [Interior/homeland](#)
- [Health](#)
- [Transportation](#)
- [e-Government services](#)
- [Local government](#)
- [International cooperation](#)
- [Public procurement](#)

Tools for Policy Makers

- [Why a Toolkit?](#)
- [Introduction to e-accessibility](#)
- [Examples of accessible ICTs](#)
- [Who benefits?](#)
- [ICT in the Convention](#)
- [Assessment Framework](#)
- [Full text of the Convention](#)
- [Tips on conducting accessible meetings](#)



UN Secretary-General
Ban Ki-moon on e-
Accessibility

Partners

[UN Enable](#)
[UN-GAID](#)
[ITU-T \(Standardization\)](#)
[ITU-D \(Development\)](#)
[G3ict](#)

Toolkit Contents

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[Guides by policy area](#)
[Annexes](#)

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Search case studies by:

- ✉ [Type of disability](#)
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Other G3ict resources

NEW! [e-Accessibility Policy Handbook](#)
[Country profiles](#)
[White Papers, publications](#)
[News and Events](#)
[ICT accessibility company profiles](#)



e-Accessibility Initiatives

- [ITU Accessibility \(JCA-AHF\)](#)
- [Web Accessibility Initiative W3C](#)
- [Global Partnership for Disability and Development](#)
- [Dynamic Coalition on Accessibility and Disability](#)
- [CRPD Progress Report on ICT Accessibility](#)

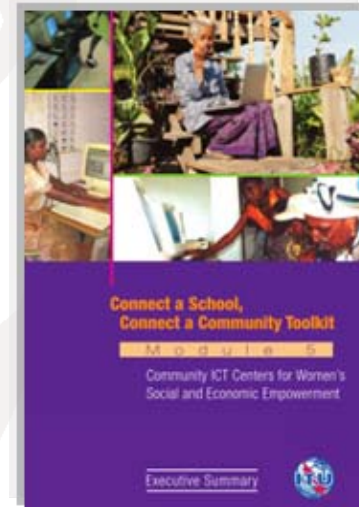
Women and Girls



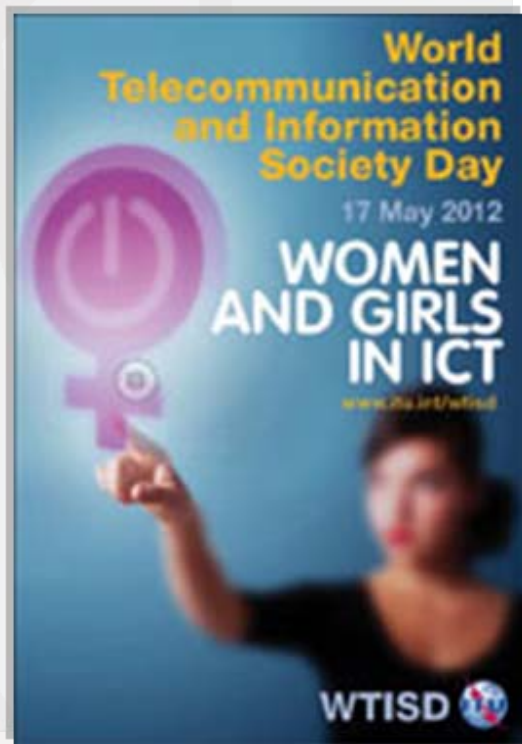
- ITU-telecentre.org Foundation
Telecentre Women: Digital
Literacy Campaign
- Girls in ICT Day and WITNET
- Connect a School Toolkit
Module Community ICT
centres for the social and
economic development of
women



**Digital Literacy
Campaign**

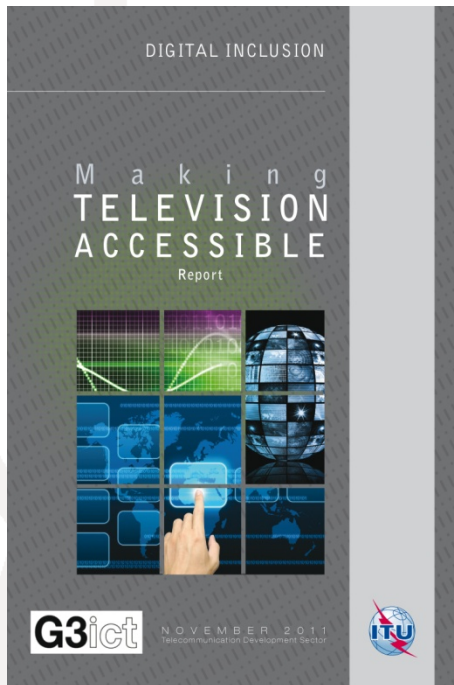


World Telecommunication and Information Society Day 2012



- 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>

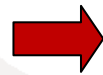
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Considerations

Typical Approach

Problems

- Blind
- Deaf
- Handicapped



ICTs



Outcomes

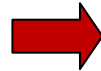
- Text-To-Speech
- DAISY Books
- Captioning
- TRS
- Assistive Technologies

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

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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)



NATIONAL INFORMATION
TECHNOLOGY PARK



❖ Supporters

- DBCDE, Australian Government
- AMD Corp.



Australian Government

Department of Broadband,
Communications and the Digital Economy

❖ 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



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Thank

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ITU : <http://www.itu.int>

ITU Asia Pacific : <http://www.itu.int/ITU-D/asp/CMS/index.asp>

