



# Empowerment of Persons with Disabilities through ICT Accessibility

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# Presentation Outlines

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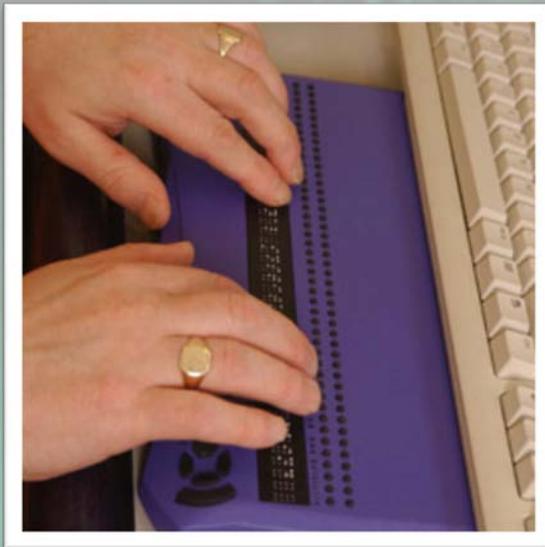
# Disability Statistics

- **About 10 per cent** of the world's population has a disability of one or the other form
- **Over 80 per cent** of persons with disabilities live in isolated rural areas in developing countries
- **62 million children** of primary school age cope with disability
- **186 million children** with disabilities have not completed their primary school education
- **Unemployed rate** amount in developing countries to **90 per cent** of persons with disabilities of working age and in developed countries to **70 per cent**

*Source: Empowering persons with disabilities through ICTs, UNESCO*

# What is ICT Accessibility?

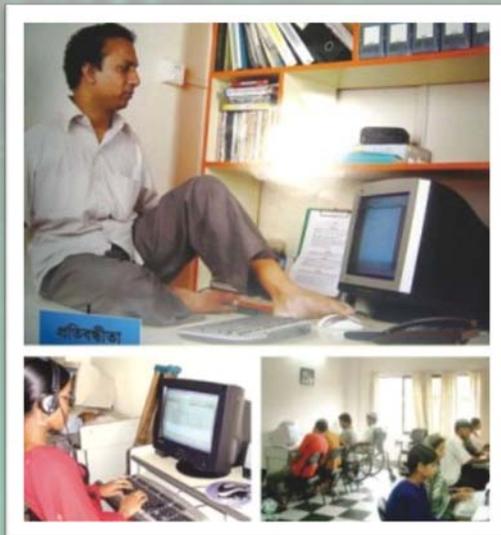
1. Ability to access" the functionality, and possible benefit, of some system or entity
2. Often used to focus on people with disabilities and their right of access to information/communication, often through use of assistive technology



# Why is ICT important?

“ICTs improve the quality of life of persons with disabilities by providing access to information and knowledge, new employment and socialization opportunities”

*Source: Empowering persons with disabilities through ICTs, UNESCO*



# Needs of ICT Accessibility

1. Education
2. Employment (e.g. Computer supported cooperative work, etc.)
3. Transportation and Communication (e.g. audio system in train stations, signaling, etc.)
4. Health Care (e.g. personal health record, etc.)
5. Entertainment and Recreation (e.g. tourism, multimedia, etc.)
6. Etc.



# How ICTs improve the quality of life of persons with disabilities

Provide opportunities for flexibility in:

- Learning (can be anywhere)
- Sharing information and for networking with disability advocates in other countries
- Facilitating employment and self-sufficiency



# ICT Accessibility Support Instrument (1)

## Tokyo Declaration and Action Plan for Asia-Pacific Renaissance through ICT in the 21<sup>st</sup> Century (Bridging the Digital Divide)

4. In the Asia-Pacific region, besides the gaps in use of ICT caused by differences in a person's income, age, gender or **physical disability**, there are also significant gaps between countries, between urban and rural areas, and between industrial sectors. It is necessary to adopt different measures to bridge each gap appropriately. In this regard, it is useful to exchange and share information on various relevant activities in the Asia-Pacific region, as well as to effectively co-ordinate initiatives in this field with the growing activities to tackle the digital divide that are being undertaken in other parts of the world.

# ICT Accessibility Support Instrument (2)

## Biwako Millennium Framework (BMF)

**Priority Area 6:** Access to information and communications, including information, communication and assistive technologies



# ICT Accessibility Support Instrument (3)

## **World Summit on Information Society (WSIS): Key Principles**

- Governments and all stakeholders in the promotion of ICTs for development
- Infrastructure: an essential foundation for an inclusive information society
- Access to information and knowledge
- Capacity building
- Building confidence and security in the use of ICTs
- Enabling environment
- ICT applications: benefits in all aspects of life
- Cultural diversity and identity, linguistic diversity and local content
- Media
- Ethical dimensions of the Information Society
- International and regional cooperation

# ICT Accessibility Support Instrument (4)

## Convention on the Rights of Persons with Disabilities (CRPD)

“Accessibility is the mean to empowerment”

### Article 21

Freedom of expression and opinion, and access to information

# Universal Service Obligations (USO)

## Principles: (Pre-requisites for ICT Accessibility)

### 1. Accessibility (accessible design)

- Accessibility has to be built in into products and services from their inception

### 2. Availability

- Accessible products and services must be offered to users

### 3. Affordability

- Price to have access to products and services cannot be prohibitive

For more information, please refer to

<http://www.eurim.org.uk/resources/briefings/br10.pdf>

# Accessibility

- Physical requirements (e.g. public telephone, ATM, Kiosk, Xerox, punching machine, etc.)
- Attitude of stakeholders (e.g. service providers, manufacturers, employers, etc.)
  - Lack of awareness/knowledge/management support.
- Regulation/legislation/policy/culture/norms
  - No legal obligation or traditional practice.
- Information
  - Available in inaccessible formats (e.g. e-government, e-commerce, e-learning, etc.)

## Example of Accessibility Issues (1)



Inaccessible public telephone booths

## Example of Accessibility Issues (2)



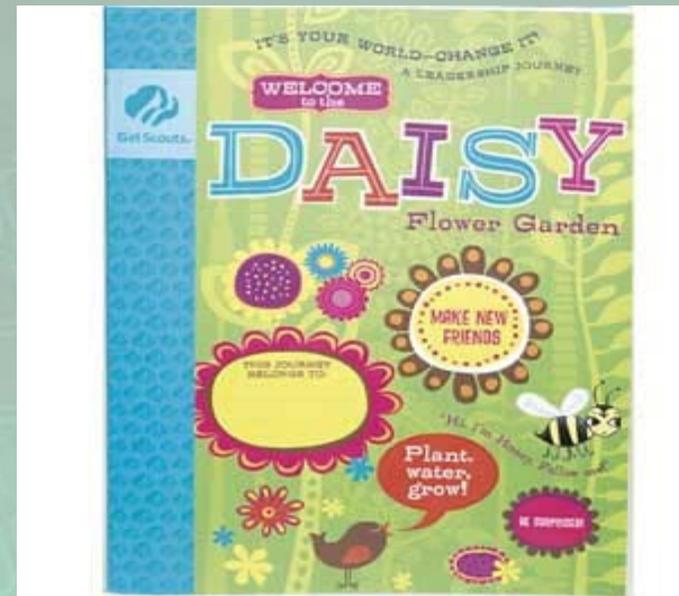
Touch screen ATM

# Availability

- Inadequate tools--assistive devices
  - assistive devices (e.g. TTY, screen reading software, etc.) especially customizable tools
- Lack of information/knowledge to support the acquisition and use of accessible ICT
- Broadband connection/bandwidth and other information/technical infrastructure.

# Affordability :

- Digital Divide
  - Poverty (unemployed)
  - Geographical diversity (urban-rural, developed-developing)
  - Demand and supply
- Licensing/copyright
  - Expensive



## Additional considerations:

- **Interoperability** and convergence of technologies issues

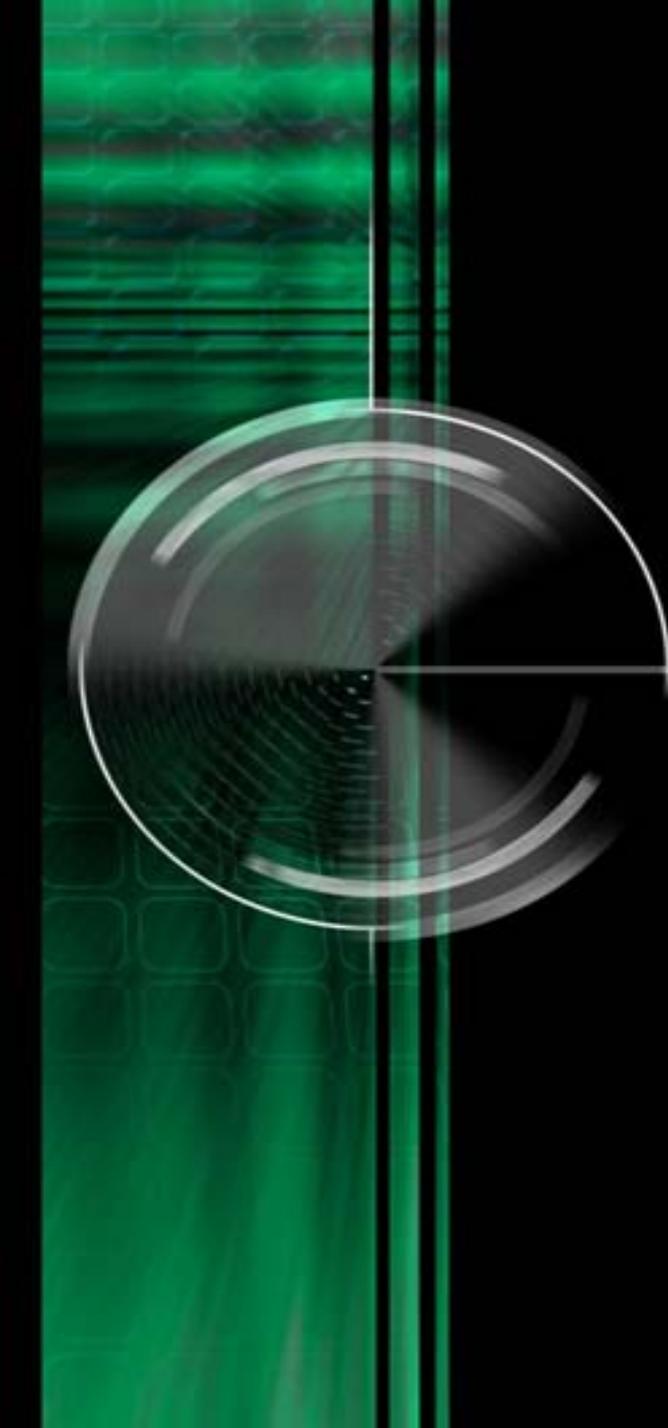
EX. the current lack of interoperability between text telephones across the region.

Mobile phones should be able to send and receive character information and have interfaces that visually or hearing impaired people can access

- **Privacy issues (data protection, operating instructions)**

# Recommendations

- Integrate the universal design principles and to include the end-users throughout the development process.
- Promote the international work collaboration for a better implementation of accessible ICT.
- Standards for accessible ICT are mandated.
- Promote the best practice of accessible products/services
- Promote user-centered design in the development /implementation process (iterative design)
- Establish ICT policies and tools for persons with disabilities based on human rights, not charity



**Thank you for your attention**