



Executive Training: Role of ICT in developing inclusive society for persons with disabilities

Mobile communication accessibility framework

ITU Regional Initiative 3 on ensuring accessible telecommunication/ICT, in particular for persons with disabilities

Accessible mobile phones and services

- According to the UN Convention on the Rights of Persons with Disabilities, access by persons to mobile phones and services is fundamental to enabling the enjoyment of these rights by persons with disabilities.
- For PWD it is important that mobile phones and services contain accessibility features and are compatible with assistive technologies such as hearing aids, and that they can communicate with others and access emergency services via relay services.

Mobile Communication accessibility policy framework

Regulators and other policy actors can implement policies that ensure conditions to improve the availability of accessible mobile phones and services:

- Developing policies in consultation with persons with disabilities;
- Regulators using funding from the universal service / access fund to subsidise the provision of a national relay service by phone operators;
- Regulators working with appropriate emergency services and the mobile phone operators to ensure the availability of equitable access to emergency services for persons with disabilities.

Mobile Communication accessibility policy framework

- Mobile phone operators ensuring the availability of affordable and accessibility mobile phones to persons with disabilities;
- Mobile phone operators providing information on these mobile phones, including their compatibility with assistive technologies such as hearing aids;
- Mobile phone operators providing data or SMS only packages to deaf users who may not use voice services.

Accessibility features on mobile phones

- Simple features in basic mobile phones include a small tactile dot on the “5” key, which enables people with a vision impairment to orient their fingers to find the correct number on the keypad.
- Many phones today use icons instead of nested text menus, making it easier for people with an intellectual disability to use the phone.
- Most smart phones today can read out text on the screen and even take voice commands, enabling people who cannot either see or touch the screen to use the phone.

Trends and requirements

- Mainstream mobile operating systems offer extensive embedded accessibility features for all types of disabilities with documented Application Programming Interface (API).
- API allows developers to make their applications accessible.
- Key priorities for ITU Members should be to educate developers in taking advantage of the accessibility APIs.
- “Internet of Things” coupled with mobile applications presents a considerable potential for new development opportunities enhancing the lives of seniors and PwD.

Design for All

7 principles of Design for All to be used in mobile apps development:

- Equitable Use: the design must be useful and marketable to any group of users-avoiding segregation or stigmatization of any users.
- Flexible in use: the design must accommodate a wide range of individual preferences and abilities.
- Simple and intuitive to use: the design must be easy to use and understand, regardless of the user's experience, knowledge, skills or concentration level.

Design for All

- Perceivable information: the design must communicate necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.
- Tolerance for error: minimize hazards and consequences of accidental or unintended actions.
- Low physical effort: usable efficiently and comfortably and with minimum fatigue.
- Size and space for approach and use: appropriate size and space must be provided for approach, reach, manipulation and use, regardless of the user's body size, posture or mobility.

Key policy considerations

- Regulators should consider using funding from the universal service / access fund to subsidize the provision of a national relay service by phone operators for persons who are unable to hear and use the telephone in the normal way.
- Regulators should ensure that spectrum allocation takes into account the possibility of interference between mobile phone handsets and hearing aids.
- Regulators should work with mobile phone operators and other stakeholders in the development of text relay services and video relay services for sign language for persons with disabilities.

Key policy considerations

- Regulators should work with appropriate emergency services and the mobile phone operators and mobile phone manufacturers to ensure the availability of equitable access to emergency services for persons with disabilities.
- Regulators should liaise with mobile phone operators and manufacturers to ensure an adequate availability of affordable and accessible mobile phones to persons with disabilities.
- Regulators should liaise with mobile phone operators to ensure adequate provision of information on these mobile phones, including their compatibility with assistive technologies such as hearing aids.
- Mobile phone operators should consider providing data or SMS only packages to deaf users who may do not wish to and cannot use voice services.

ITU-G3ICT Making mobile phones and services accessible



[http://www.itu.int/en/ITU-D/Digital Inclusion/Pages/Reports.aspx](http://www.itu.int/en/ITU-D/Digital%20Inclusion/Pages/Reports.aspx)



Thank you!

More information:

www.itu.int/en/ITU-D/Digital-Inclusion/

www.itu.int/accessibility