

**ACCESSIBILITY IN STANDARDS - IMPLICATIONS FOR ITU-D WORK  
FOR PERSONS WITH DISABILITIES**

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International Telecommunication Union

## Accessibility in Standards - Implications for ITU-D work for persons with disabilities

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ITU-D Seminar September 17 2007  
Sharing experience on best practices and services for people with disabilities



### Some people need to communicate in alternative media

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- There has been efforts since long to create telecommunications services for people who cannot use voice telephony.
- Picture:  
*Robert Weitbrecht*  
*Andrew Saks*  
*James C Marsters*  
*with the first successful deaf telecommunications system.*
- Just as Alexander Graham Bell's telephone, its principle is still in operation today.
- Development moves on. New opportunities are created. User's needs to communicate remains.



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## Achievements in Accessibility standardisation for personal communication

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From the text telephone to accessible mainstream multimedia:

- o Service definitions. F.700, F.703, F.724
- o **F.790 for telecommunications accessibility guidelines for the elderly and people with disabilities**
- o **FSTP-TACL Telecommunications Accessibility Checklist**
- o Harmonizing text telephone communication ITU-T V.18
- o Common standard for Text Conversation presentation and coding - used in all real-time text applications: ITU-T T.140
- o Text Conversation added to all multimedia environments defined by ITU-T, IETF, 3GPP, and ETSI
  - Latest addition: support for realtime text in 3G (H.324 Annex L)
- o Total Conversation and Text telephony interoperability. Gateway H.248.2, V.151, V.152
- o Text transport in IP: RFC4103, RFC 4351

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## F.790 Telecommunications accessibility guidelines for the elderly and people with disabilities.

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The spectacular growth in information communication technology (ICT), in particular the rapid proliferation of the Internet, means that people are required to use telecommunications equipment and services much more frequently than before.

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### F.790 Telecommunications accessibility guidelines for the elderly and people with disabilities.

- Lack of accessibility may prevent older persons and persons with disabilities from enjoying these benefits
- This becomes more serious with the increasing percentage of aging persons worldwide.
- Thus, in order to enhance telecommunications accessibility, guidelines are indispensable not only domestically but also internationally



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### F.790 Telecommunications accessibility guidelines for the elderly and people with disabilities.

#### **ITU-T Rec. F.790**

- Provides general guidelines for standardizing, planning, developing, designing and distributing all forms of telecommunications equipment, software and associated telecommunications services
- Enhances their use by older persons and persons with permanent or temporary disabilities, ensuring accessibility for people with the widest possible range of abilities



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## Accessibility Checklist for standards work

A reference material for standards developers:

- Accessibility for people with disabilities is a cross-sector discipline
- All standardisation work items and developments must consider accessibility
  - It is more cost-effective to have it from inception than to have to retrofit later
- Good accessibility is only achievable by awareness and common goals
- A tool for common goals is an accessibility checklist for standardisers.

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## Accessibility Checklist, FSTP-TACL, Telecommunications Accessibility Checklist

Main topics in the Accessibility Checklist:

- Control of devices
- Control of services
- Media transport
- Media entry by the user
- Media presentation to the user
- Invocation of media translating services
- User profile management
- User profile usage

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## Needs in NGN and future work

- NGN and “H.325” (a.k.a. “AMS”) are fresh initiatives where accessibility can be and is being included from the beginning.
- Accessibility is now integrated in NGN scope and requirements with the following goals:
  - Inclusion of real time text and video with voice in conversational services.
  - Use only of full motion video.
  - Global interoperability of accessible calls



## Real time text conversation

- Text with real time conversational flow is an often needed component in human interaction
- Often confused with instant messaging: IM is important but does not give full feeling of contact

User A	User B
Because then you get a live conversation suitable for a real time call.	Why do you need real-time text transmission?  Yes, I see, I can read your thoughts at the moment you express them. No waiting. Good!



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## Conclusions

- Design systems for the widest possible range of capabilities of the user
  - Apply F.790 for telecommunications accessibility guidelines for the elderly and people with disabilities
  
- All standardisation work items and developments must consider accessibility
  - Apply accessibility checklist to standardisation work items and development
  
- Most importantly: encourage the implementation of international standards that include accessibility features and make regulators aware to achieve this goal!



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ITU-T SG16 Accessibility Website

<http://www.itu.int/ITU-T/studygroups/com16/accessibility/index.html>

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