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ISO/IEC JTC1 SC 35 Chair

ITU Webinar
ISO/IEC JTC 1 SC 35
Plenary meeting, Paris July 2017
SC35 Scope

Standardization in the field of user-system interfaces in information and communication technology (ICT) environments and support for these interfaces to serve all users, including people having accessibility or other specific needs, with a priority of meeting the JTC 1 requirements for cultural and linguistic adaptability.

- **Stable membership:** 17 P and 17 O, 40 to 50 participants /meeting
- **Nine Active Working Groups**
Key issues on accessibility

• Accessibility considerations for people with disabilities
  • Part 1: User needs summary

• Development of user interface accessibility
  • Part 1: A code of practice for creating accessible ICT products and services
    (IS 2019, ISO/IEC 30071 series)

• The possibility of adopting EN 17161 "Design-for-All" as a part of the ISO/IEC 30071 series is currently under investigation
Modus Operandi

- Develops IT accessibility guidance consistent with

- Deals with a wide range of IT accessibility guidance
  - from *general guidance* in the ISO/IEC 29138 and 30071 series
  - to *detailed guidance* in the ISO/IEC 13066 and 20071 series

- Deals with a range of contexts of use of IT
  - from traditional office and home environments
  - through public and mobile environments
  - to emerging environments, such as immersive environments
Highlights SC35 work

- From traditional user interfaces to **Wearable haptics**
- Information technology – User interfaces – Universal Interface for **human language selection**”

- New important projects:
  - "Affective Computing" within a new WG,
  - Conversational speech interactions
  - Guidance on making content Easy To Read
  - Immersive technologies
  - Sign languages use in videos

- Guidance on audio descriptions and Visual presentation of audio information (including captions and subtitles) but also conversion of modalities (speech, text, images)
Gesture based interfaces

Voice assistant

Samsung

Swipe left/right with 3 fingers

Talkback

Google

Swipe down then right

Voiceover

Apple iOS

Rotate with 2 fingers
<table>
<thead>
<tr>
<th>Action</th>
<th>1 Finger</th>
<th>2 Fingers</th>
<th>3 Fingers</th>
<th>4 Fingers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tap</td>
<td>Speak the item under your finger</td>
<td>Pause / resume speech</td>
<td>Read from top</td>
<td>Speak page number or rows</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Start / stop current action</td>
<td>Read from next item</td>
<td>Move to first element (near top of Screen)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Move to the last element (near bottom of Screen)</td>
</tr>
<tr>
<td>Double tap</td>
<td>Activate the selected item</td>
<td>Information center</td>
<td>Spell last utterance (copy)</td>
<td>Toggle Speech on and off</td>
</tr>
<tr>
<td></td>
<td>Active edit mode (focus on editable text)</td>
<td>Item Chooser</td>
<td>Spell last utterance (copy)</td>
<td>Start voiceover help</td>
</tr>
<tr>
<td>Triple tap</td>
<td>Google Zoom function</td>
<td></td>
<td>Spell last utterance (copy)</td>
<td>Toggle screen curtain on and off</td>
</tr>
<tr>
<td></td>
<td>Double tap the selected item</td>
<td></td>
<td>Spell last utterance (copy)</td>
<td></td>
</tr>
<tr>
<td>Quadruple tap</td>
<td></td>
<td></td>
<td>Spell last utterance (copy)</td>
<td>Copy last spoken text to the clipboard</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Spell last utterance (copy)</td>
<td></td>
</tr>
<tr>
<td>Double tap &amp;</td>
<td>Move or drag an icon, view more options for</td>
<td>Selection mode</td>
<td>Label control</td>
<td></td>
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<tr>
<td>hold</td>
<td>selected items</td>
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</tr>
<tr>
<td>Left swipe</td>
<td>Move to previous / next item</td>
<td>Change pages and screens</td>
<td>Context menu: settings</td>
<td>Move to previous/next pages/screens</td>
</tr>
<tr>
<td>Right swipe</td>
<td>Move to previous / next item</td>
<td>Change pages and screens</td>
<td>Paste</td>
<td>Move to previous/next pages/screens</td>
</tr>
<tr>
<td>Up swipe</td>
<td>Move using selected option of context menu</td>
<td>Select previous/next selected rotor option</td>
<td>Copy</td>
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</tr>
<tr>
<td></td>
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<td></td>
<td>Copy</td>
<td></td>
</tr>
<tr>
<td>Down swipe</td>
<td>Move using selected option of context menu</td>
<td>Select previous/next selected rotor option</td>
<td>Copy</td>
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<td>Copy</td>
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</tr>
<tr>
<td>Left return</td>
<td>Scroll up / down (page)</td>
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<tr>
<td>Right return</td>
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<tr>
<td>Down return</td>
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</tbody>
</table>

2 finger scroll will not function in selection mode.

Source: Samsung Electronics, Apple, Google
Speech to Speech Translation

"Technology that enables speakers of different languages to communicate"

- Speech in Source Language
  - Automatic Speech Recognition (ASR)
  - Spoken Language Translation (SLT)
  - Text-To-Speech (TTS)
  - Speech in Target Language
Speech to Speech Translation

Should be standardized
Affective Computing user interfaces

Targeting consideration of emotions, sentiments, moods, and other affective concepts when designing interfaces and interactions.
Highlights SC35 work

Figure 1 – AUI technical framework
What is new ...

EASY READING

• From interfaces point of view (Character fonts, Contrast, etc.)

• Linguistic and Cultural aspects
Highlights SC35 work

• Creation of a Study Group on Accessibility within immersive environments
• Review state of the art for "Software for playing media content" wrt accessibility
• Enhance Cooperation with ITU (e.g. ISO/IEC 20382-xx "Face-to-face speech translation", and 23773-1 "Simultaneous interpretation system")
• Better cooperation with other ISO bodies e.g. TC37 on the use of "3-letter codes for language identification", Easy to read, etc.
Conclusions ... Accessibility within ISO/IEC JTC 1/SC 35

• Very actively fulfilling its mandate within JTC1 to promote the standardization of ICT accessibility.

• Active participation from 10 countries: Canada, China, France, Germany, Japan, Korea, Netherlands, Spain, Sweden, and United Kingdom.

• SC35 continues to promote “the Guide 71” within its own activities across its various Working Groups.

• And also proactively promoting its adoption within other ISO committees.

• Strong partnership with other bodies e.g. ITU
Thank you very much for your attention
Organization of SC 35
JTC 1/SC 35 is subdivided in Working Groups

- WG1: Keyboards and Input Interfaces – Mr Alain LABONTÉ
- WG2: Graphical User Interface and Interaction – Dr Yoshikazu YAMAMOTO
- WG4: User Interfaces for Mobile Devices – Dr Yoshikazu YAMAMOTO
- WG5: Cultural and Linguistic Adaptability – Mr Thibault GROUAS
- WG6: User Interface Accessibility – Pr. Jim CARTER
- WG7: User Interfaces Object, Actions and Attributes – Pr Jim CARTER
- WG8: User Interfaces for Remote Interactions – Pr. Gottfried ZIMMERMANN (work done)
- WG9: Gesture-based interfaces across devices and methods – Pr. Jee-In Kim
- WG 10: Affective Computing (to start soon)
Example of activities; 20071 series

- **IT—User interface component accessibility**
  - Parts currently under development or redevelopment in italics
  - Dates published after title

  *Part 5: Accessible user interface for accessibility settings on information devices* (to replace ISO/IEC 24786)
  *Part 11: Guidance on text alternatives for images* (IS 2019)
  *Part 15: Guidance on scanning visual information for presentation as text in various modalities* (TS 2017)
  *Part 21: Guidance on audio descriptions* (TS 2015)
  *Part 23: Guidance on the visual presentation of audio information (including captions and subtitles)* (2018)
  *Part 25: Guidance on the audio presentation of text in videos (including captions, subtitles, and other on-screen text)* (TS 2015)
Examples from WG2/4/5/9

• More Examples