ITU-T & Accessibility

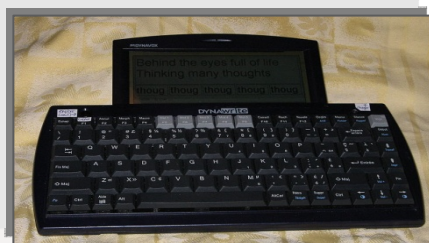## Xiaoya Yang

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What do accessible ICTs mean?

- Screen readers for the blind to enable them to access websites and documents
- Closed captioning for broadcasting for the deaf
- Video description for broadcasting for the blind
- Text to speech devices for those with speech impairments to allow for two way communication for inclusive education and work

ext to speech device **Committed to connecting the World**

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Why promote accessible ICTs?

- Accessibility is a human right recognized in the UN Convention on the Rights of Persons with Disabilities (CRPD)
- Enshrined in Article 9 of the CRPD
  - Article 9 of the CRPD defines ICT accessibility as an integral part of accessibility rights on par with transportation and the physical environment.
  - Article 9 concerns all ICT products and ICT based applications and services, with a far-reaching implication for industry, governments and civil society
- All of us who age will have age-related disabilities, **We all (100%)** can benefit from more accessible devices

Captioning benefits everyone

- Captioning:
  - real-time on-screen transcript of dialogue
- For hearing impaired, non-native speakers, all
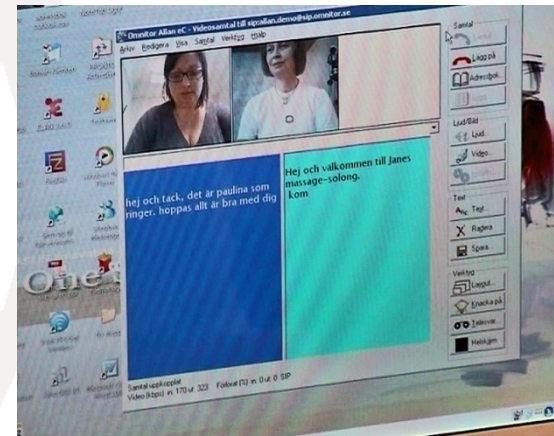

- Captioning service: remotely or on site

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ITU makes IPTV accessible

- "Requirements for the support of IPTV services" (ITU-T Y.1901)

  - Subtitles/Captions
  - Realtime captioning
  - Recording of accessibility features, e.g. captioning
  - Audio description
  - Audio feedback of remote control

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Embracing total conversation

- A deaf-blind woman uses multimedia communication (ITU-T F.703 service description):
  - ➤ She uses sign-language
  - ➤ She receives text
- Also for emergency outreach (112)

refreshable Braille device

Voice, video, text relay

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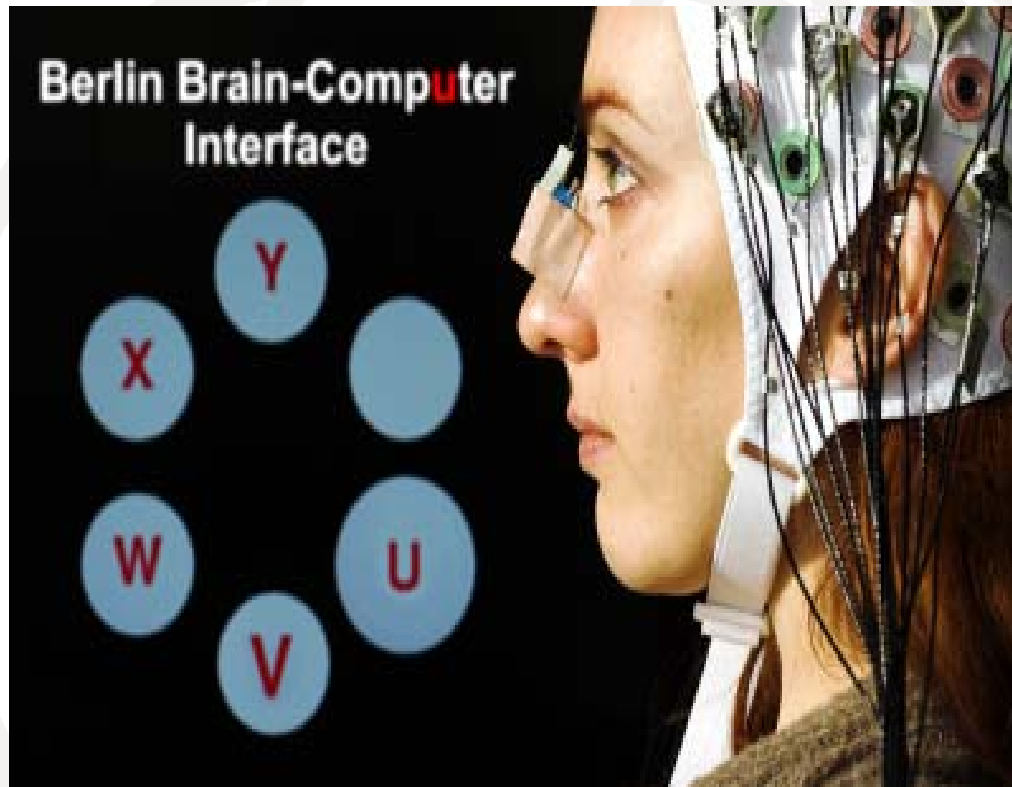International Telecommunication Union

Innovative User Interfaces: touchscreen (also for the blind)

- Ingenious idea (Google): use relative, not absolute positioning

- not your finger finds the keyboard but the keyboard finds your finger

http://www.youtube.com/watch?v=xS-ju61vOQw

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Controlling a device by mere thought

Berlin Brain-Computer Interface

- EEG (electroence-phalograph)mea-sures brainwaves
- Move e.g. objects around a computer screen

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Assistive technology to move to the cloud

- Carry your assistive technology software and user preferences on USB Flash Drives/Keys …
- … or move it to the cloud

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Accessibility & Standardization

- **Universal design**:
  - ➢ products are designed from the beginning to be accessible to everyone including persons with disabilities
  - ➢ No expensive refits

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What ITU's been doing?

- First international standards body to address accessibility issues - in 1991

- 1994 the international text telephone standard, Recommendation ITU-T V.18, was published

  - A major landmark tying together text telephone protocols allowing different - previously incompatible - textphones in different countries to communicate

- World Telecommunication Standardization Assembly 2008 (WTSA-08): WTSA Res. 70 - first ITU Resolution addressing accessibility

- World Telecommunication Development Conference 2010 (WTDC-10): WTDC Res. 58

- Plenipotentiary Conference 2010: PP Resolution 175 - first PP Resolution on accessibility

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Some ITU-T Standards on Accessibility

- ITU-T V.18 for text telephony,
- ITU-T T.140 as the general presentation protocol for text conversation,
- ITU-T T.134 for text conversation in the ITU-T T.120 data conferencing environment,
- Annex G to ITU-T H.323 for text conversation in ITU-T H.323 packet multimedia environment.
- Annex L to ITU-T H.324 for text conversation in low bit-rate multimedia applications
- ITU-T F.703 – Multimedia conversation service description. Includes definitions of the accessible conversational services
- H-series Supplement 1 – Application profile – Sign language and lip reading real time conversation using low bit rate video communication
- ITU-T F.790 – Telecommunications accessibility guidelines for older persons and persons with disabilities
- ITU-T Y.1901, Requirements for the support of IPTV services
- Technical Paper FSTP-TACL – Telecommunications Accessibility Checklist

    FOR MORE DETAILS: http://itu.int/ITU-T/accessibility

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Current ITU-T Work on Accessibility

- ITU-T Study Group 16, Question 26: "*Accessibility to multimedia systems and services*"

- ITU-T Study Group 2, Question 4: "*Human factors related issues for improvement of the quality of life through international telecommunications*"

- Accessibility considered in IPTV GSI, Cloud FG

- Joint coordination activity on accessibility and human factors (JCA-AHF)

- Dynamic Coalition on Accessibility and Disabilities, under the Internet Governance Forum

- 15+ workshops in 2009-2010

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ITU Accessibility Events in 2010

- **Joint WIPO-ITU Accessibility Workshop**
  Geneva, Switzerland, 2 - 5 February 2010

- **ITU workshop on Accessibility to ICTs**
  Expo-10, Shanghai, China, 23 July 2010

- **DCAD workshop on "From Athens to Vilnius: beyond the UN Convention on the rights of persons with disabilities"**
  IGF, Vilnius, Lithuania, 14 – 17 September 2010

- **DCAD - EBU workshop on "Can mobile 'Apps' create a new golden age of Accessibility?",**
  IGF, Vilnius, Lithuania, 14 – 17 September 2010

- **World Standard Cooperation (ITU, ISO, IEC) Workshop on Accessibility and ICTs,**
  Geneva, Switzerland, 3 – 5 November 2010

- **Joint ITU-EBU Workshop "Media access to all",**
  Geneva, Switzerland, 23 – 24 November 2010

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International Communication Union

Next Steps

- ITU-T:
  - SG 16 will discuss FG Accessibility proposal (14-25 March 2011)
  - JCA-AHF meeting during SG16
  - Accessibility workshop in IGF 2011, Kenya

- ITU:
  - Accessibility Task Force to review ITU accessibility
    - Physical - premises
    - Services, including ICTs (webpage, web conferencing, etc)
    - Human resource policy

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Volunteer contribution from Members are invited.

Thanks for your attention!

Any questions?

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