Assistive technology or mainstreaming of ICT? Yes, please!

AAATE 2009

Øystein Dale, the Norwegian Computing Centre (formerly at the Delta Centre)
Introduction to subject

• Information and communication technology (ICT) is everywhere in modern society.
• Access to and mastery of ICT - vital for the ability to be fully integrated citizens
• ICT needs to be accessible for all irrespective of individual characteristics and abilities
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• Access to and mastery of ICT - vital for the ability to be fully integrated citizens
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Introduction cont.

...but accessible through universal design?
• …or through individual adaptation including use of assistive technology?
Project

• This dilemma inspired the Delta Centre to initiate a project
• Many objectives – amongst others:
  • To investigate how accessible ICT is for persons with disabilities…
  • …and to find out how well ICT works with assistive technology (AT)…
  • Universal design (mainstreaming) or AT?
Methods

1. Literature review of relevant material documenting the state of accessibility to ICT in Norway.
2. Interview study - professionals and representatives for user organisations/NGOs
3. Accessibility evaluation of 12 popular Web 2.0 orientated services
Interview study

• Input from approximately 30 professionals and representatives for NGOs/user organisations.
• In-depth interviews and focus groups.
• Very, comprehensive material – present only some of the findings...
Barriers and challenges to ICT usage

- Barriers and challenges in virtually every area of life – and with most technologies
- Varying from minor annoyance to total exclusion
- Affects – work, education, communication & socialising, leisure activities – ultimately quality of life.
- ICT and assistive technology do often not work well together
Why do barriers and challenges occur?

- Technology - rapid development, market driven and immature
- Non-inclusive design of ICT - procurers and developers lack knowledge and awareness
- The distribution and management of AT
Why do barriers and challenges occur? II

• (So far) a lack of legislation regulating accessibility to ICT
• Lacking coordination of ICT and AT policy
• Reasons pertaining to the end user – skills and motivation
Universal design or assistive technology?

• Despite increased focus on universal design – there will still be a need for assistive technology in the foreseeable future

• Why:
  • Increase in elderly population
  • Universal design not adequate for all – very complex requirements
  • High cost of integrating AT in mainstream solutions
  • More accessible technology may lead to more potential AT-users using technology
  • …and not always advantageous to do so from a user perspective – may lead to poor solution for all!
Accessibility evaluation of 12 popular Web 2.0 orientated services

• Expert evaluation conducted by MediaLT
• Criteria:
  • Principles of universal design
  • Internationally recognized accessibility guidelines – WCAG 1/2
  • Interoperability with AT.
• Input from the public based on their experiences
• Perform concrete tasks
# Accessibility evaluation of 12 popular web services

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<th>Website</th>
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</table>
Web accessibility evaluation - conclusion

- Services are difficult and sometimes impossible to use.
- Universal design and accessibility has been given inadequate attention.
- Includes poor interoperability with assistive technology.
Summing up…

• Despite the fact that ICT has given people with disabilities many new opportunities, there are a number of serious accessibility issues denying many people equal usage of ICT in Norway.

• This has an adverse effect on many life areas.

• Universal design of ICT may accommodate some of these issues, but will not make AT superfluous in the foreseeable future – if ever.
Any changes on the horizon?

• In Norway – new anti-discrimination legislation.
• New ICT offered to the public shall be “universally designed” from 1. July 2011.
• Existing ICT from 1. January 2021.
• Note! Does not include all ICT – only main solution.
• Individual adaptation and AT for certain areas
Thank you!

For questions in regards to the project, please, contact:

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