Inaccessible information and communication technology (ICT) – a threat to societal participation

NNDR 2009

Øystein Dale, the Norwegian Computing Centre and formerly at the Delta Centre

Outline

- Brief background information

- Introduction to subject

- Key findings from the project *Assistive technology or mainstreaming? Yes, please!*

- Final thoughts

Background information

- The presentation is based on a project conducted by the Delta Centre in 2008

- Is the National Resource Centre for Participation and Accessibility for persons with disabilities

- Project leader - now a research scientist working with eInclusion at the Norwegian Computing Centre

Introduction to subject

- Information and communication technology (ICT) is everywhere in modern society.
- Has to a large extent affected the way we conduct our lives.
- Access to and mastery of ICT - vital for the ability to be fully integrated citizens
- Inaccessible ICT can lead to exclusion from societal participation
- What is ICT?

Introduction cont.

- ICT needs to be accessible for all – including persons with disabilities
- But this is often not the case.
- Typical problems:
  - Web pages with lots of visual elements with no text alternatives.
  - TV programmes with no subtitles or sign language
  - Ticket machines with touch screen only
  - Mouse dependent computer programs
  - +++++

Introduction cont.

- Ok – ICT needs to be accessible…
- …but accessible through universal design, or…
- ..through individual adaptation including use of assistive technology?
- Universal design - in essence - one **mainstream** solution – "one size fits all"

- 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 if ICT works with assistive technology

Methods

1. Literature review of relevant material documenting the state of accessibility to ICT in Norway.

2. Accessibility evaluation of 12 popular Internet services.

3. Interview study - professionals and representatives for user organisations/NGOs

Interview study

- 20 in-depth interviews and two focus groups.
- Professionals and representatives for NGOs.
- Very, very comprehensive material – only some of the findings...

Barriers and challenges – ICT

- Barriers and challenges in virtually every area of life – and with most technologies
- Varying from minor annoyance to total exclusion
- ICT and assistive technology do often not work together
- Affects – work, education, communication & socialising, leisure activities – ultimately quality of life.
- In essence – negative impact on ability to function as fully integrated citizens

Why do barriers and challenges occur?

- Technology - rapid development, market driven and immature
- The way assistive technology is distributed and how the system is managed
- ICT policy is coordinated in Norway
- Reasons pertaining to the end user
- Non-inclusive design of ICT

Literature review – how accessible is ICT in Norway?

- Documentation lacking in many areas – especially empirical studies - notably user´s own experiences

- Despite offering many new opportunities – ICT is more often than not inaccessible and functions poorly with assistive technology

Accessibility evaluation of popular web services

Conclusion: Universal design and accessibility has been given inadequate attention when making the web services tested – hence services are difficult and sometimes impossible to use

Reflect on this...

"People cause oppression, nature does not"

Freely after Tom Shakespeare

- ICT is made by people and <u>can</u> be designed to be inclusive
- This adds insult to injury

Change?

- In Norway – new legislation
- New ICT offered to the public shall be universally designed from 1.7.2011...
- ...and existing ICT from 1.1.2021
- Note! Does not include all ICT – main solution

- Universal design/mainstreaming or assistive technology?
- Yes, please!
- To complement each other
- This is reflected in the new legislation

Thank you!

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

Toril Bergerud Buene

E-mail: tbb@helsedir.no

www.helsedir.no/deltasenteret

Øystein Dale

E-mail: oystein.dale@nr.no