The use, role and application of advanced technology in the lives of disabled people in the U.K.

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The problem:
- Disabled people are under-using assistive technological devices ‘prescribed’
- Designers and engineers are driven by different motives to disabled people – excitement at the possibilities clouds pragmatic judgement
- The situation was therefore – disabled people want better functioning devices, designers/engineers need to listen more and include user feedback

The project
- 45 in-depth interviews with disabled people across Scotland and England (UK)
- 7 User Clubs (drop in sessions)
- 4 Focus Groups
- 1 Innovation Day for disabled people, designers, engineers, architects, NGOs, private and public service providers

Orientation
- Social model of disability (Oliver 1990)
- What frustrations and joys did disabled people experience in using both specialised and mainstream market devices – what did they want for the future?
- How does advanced/assistive technology assist or hinder disabled people in independent living?

Findings
- Users were out of step with the market, requesting ‘innovations’ that had been already invented
- AAC (alternative and augmentative communication) devices – users wanted the means to program these – only professionals were able to do this

The Users’ wish list: 1
- Face-controlled electric wheelchair;
- A solar-powered battery for a ‘talker’ (communication device) as the batteries are constantly wearing down;
- Several devices for gardening including one that would enable a person with use of one hand to sweep up leaves and a wheelchair user to trim a hedge, as well as a robotic lawn mower;
- A multiple-use device that could enable a wheelchair user to turn small knobs, for example heating controls or light switches via a long pole mounting.
The Users’ Wish List: 2

- A voice activated fully automatic car - the current models all require some degree of hand control.
- For Deaf and hearing impaired users,
  - a ‘missed calls register’ on a pager system similar to that on existing mobile phones,
  - a cheap and useable videophone so that Deaf people can sign to each other,
  - a device that translates the spoken word into text instantly on a mobile phone without going through the medium of a Palantypst or human operator (as in the Type Talk system),
  - all TV programmes to have subtitles.

Barriers and Facilitators to Learning to use Technologies

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Flexibilities of devices

- Deaf user in the shower, has a pager for front door bell. The device has no ‘missed calls’ register – so the user has no idea that the visitor is still outside. However, ‘missed call register’ is a standard function on mobile phones - why not on these pagers?
Voice recognition example

[to computer:] wake up... start Microsoft Word...<Respondent>'s address...
[computer prints entire address]... select all... right align that... left click... [computer replaces address with 'Backlight']... scratch that... mouse left click... [no response]... mouse left click... [no response]... go to sleep... [computer inserts the word 'Consciously'] scratch that... go to sleep.

User Innovation Day issues

• Size of new technological devices (University)
• Disabled people excluded from mobiles by credit system (NGO)
• BSL users excluded as mobile instructions are in written English and must register using speech (Charity)
• Affordability and dexterity of mobiles are major issues. High street chains can sell unusable products to disabled people legally (Charity)

User Innovation Day Issues 2

• DDA 2005 makes discrimination in services against disabled people illegal but does not cover products or design – this is a loophole (NGO)
• Ricability and the Disability Rights Commission campaigned for ‘universal design’ to be included in the DDA but they were unsuccessful (NGO)

User Innovation Day issues 3

• Water, gas and electricity are classed as utilities. The UK Government makes special provision to ensure disabled people’s full access to these services. Phones are classed as a luxury item - yet disabled people critically rely on them to summon assistance. Should landline phones be classed as a utility? (BT – service provider)
• Many disabled people cannot use public phone boxes as they are not fully accessible. Mobile phones are not a luxury item but a necessity for disabled people (User)

Summary

• Size
• Choice
• Flexibility
• Aesthetics
• Law
• Access
Thanks....

• For listening

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