Dis·IT
Disability & Information Technologies Research Alliance

What do Canadian disability advocacy organizations need to know about **new telecommunications technologies?**

The Big Issues in Less than 30 Seconds

- New technologies have the potential to make telecommunications **more accessible** to Canadians with disabilities.
- But turning that potential into reality requires companies who develop and implement new technologies to incorporate **the access requirements** of people with disabilities in their new equipment and services.
- Canadian telecommunications companies **don't have a good track record** of voluntarily making their equipment and services accessible.
- More and more people with disabilities will be **excluded** if new telecommunications equipment and services are inaccessible.

Telecommunications technology is changing radically and fast

- Traditional wired phone service is being replaced by wireless/mobile/cellular phones and the Internet.
  - Almost everybody now has a wireless cellular phone.
  - iPhones, Blackberrys and other "smart phones" provide wireless access to voice, e-mail, and the Internet as well as multimedia features like cameras, music players, games, GPS (global positioning), even TV.
  - New Internet-based "VoIP" phone services could soon replace traditional wired phone service.
- It's not just about talking on the phone anymore.
  - E-mail, text messaging, and social networking websites like Facebook are popular alternatives to voice communications.
  - Web cameras and advanced cell phones provide video communications over the internet.

New technologies have the potential to make telecommunications more accessible

- Internet phone service has amazing potential for people with disabilities.
  - The Internet can handle more data faster than phone lines, and can simultaneously transmit different modes of communication (e.g., voice, text, graphics, video).

  As a result:
  - People with disabilities may be able to use their preferred ways of communicating.
  - Relay services could translate from one way to another (e.g., sign language to voice, voice to text).
- Many wireless phones have advanced features such as cameras, web browsers, and global positioning that offer many opportunities for people with disabilities (e.g., navigation/way-finding, paying for purchases).

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This is one of a series of fact sheets on telecommunications and people with disabilities produced by the Disability and Information Technologies (Dis-IT) Research Alliance. All of the fact sheets are available at www.dis-it.ca.

The big "but"

- If the companies that develop and implement new telecom technologies don't make them accessible, people with disabilities will be excluded from these new technologies and, more importantly, the new opportunities that new technologies provide.
- Canadian telecom companies don't have a good track record on accessibility.

New telecom technologies exclude more and more people with disabilities

- Until the 1990s, telephones were relatively simple devices.
- Since then, phones have become more complex and inaccessible:
  - Visual displays exclude people who have vision impairments.
  - Tiny buttons/keys exclude people with mobility impairments.
  - "Soft" keys that change function depending on how the phone is being used exclude people with learning and intellectual disabilities.
- There is a history of new telecom technologies undermining the accessibility that existed in older technologies.
  - Almost every new generation of phones has initially been incompatible with hearing aids.
  - Companies may charge a premium for the high data transfer speeds required for video and other non-voice forms of communication that would benefit many people with disabilities.
- Barriers aren't only technical.
  - Devices using new technologies are usually expensive. Even if a device is *technically* fully accessible, many people with disabilities cannot benefit from it if they cannot afford it.

Universal/inclusive design is the bottom-line

- Universal design (or inclusive design) is an approach to making mainstream equipment and services that are usable by as many people as possible without needing assistive or adaptive equipment or specialized services.
- A major principle of universal/inclusive design is having multiple ways of operating a device (e.g., dialing a number by touch or voice, reading information on a display visually or as audio).
- Universal/inclusive design benefits all users, not just people with disabilities.
- It's getting easier to make universally accessible devices because many new telecom technologies are software-based, which are easier and less expensive to make accessible than hardware-based technologies.

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