

TEDICORE

Submission to Inquiry into Wireless Broadband Technologies

1. Background

TEDICORE (Telecommunications and Disability Consumer Representation) welcomes the opportunity to respond to the Inquiry into Wireless Broadband Technologies.

TEDICORE is supported by the Commonwealth through the "Grants to Fund Telecommunications Consumer Representations" program of the Department of Communications, Information Technology and the Arts. TEDICORE is administered by Blind Citizens Australia but is a cross-disability project. It aims to advance and represent the interests of people with a disability in relation to telecommunications issues and promote equity and accessibility. A Project Advisory Body with members from peak disability bodies such as Australian Association of the Deaf, Deafness Forum, Physical Disability Council of Australia, Women with Disabilities Australia, Blind Citizens Australia and Communication Aid Users Society as well as Dr Christopher Newell AM ensure that there is broad representation.

2. Overview

Wireless broadband can open up many new possibilities of communication for people with disabilities but it also has the potential to close doors to existing communication options. This submission briefly outlines some of these dilemmas and makes recommendations for solutions.

People with disabilities comprise over 19% of the population according to the Australian Bureau of Statistics (1998). As our population ages, the number of people with functional limitations will increase. This means that essentially, over one quarter of Australia's population could be affected in some way by the implementation of significant new technologies if they are inaccessible.

2.1 Barriers to digital mobile services for people with disabilities

In the past, people with disabilities were not considered when new technologies were designed and implemented often simply because there seemed to be no need to do so and no awareness of the implications. This has needlessly isolated people who previously could use particular network services.

Two examples of the consequences of this have been:

1. The interference of GSM mobile handsets with hearing aids
2. The incompatibility of TTYs (text telephones) for Deaf people and people with hearing or speech impairments with digital mobile phones.

The first example resulted in a complaint under the Disability Discrimination Act, a public inquiry and an offer by the three major telecommunications mobile service providers to transfer people to a contract using CDMA (offering much reduced interference with hearing aids) at no additional cost or the free supply of a neck-loop depending on the handset used.

There has been a limited resolution of the second example. This is an important issue as Wireless Local Loop (WLL) is starting to be utilised in rural and remote areas of Australia. This means that people who are Deaf or have a hearing or speech impairment do not have access to a telephone service in these areas. The limited resolution currently offered is to survey if any Deaf people or people with a hearing or speech impairment live in the areas planned for utilisation of the WLL. If this is the case, a fixed line service would be installed. However, this would bar people from visiting or moving to these areas if they had a hearing or speech impairment. It adds a considerable danger if some people with hearing impairments decide to visit friends or family and are not able to contact emergency services through the specially dedicated text emergency number administered by the Australian Communication Exchange (ACE).

This problem has been dealt with by the FCC in U.S.A. which recognises the importance of ensuring that everyone has access to emergency services. It has ordered that networks be adapted so that TTYs can be used over digital wireless systems to enable people with hearing or speech impairments to make emergency calls. The deadline for implementation is 30th June 2002. In Australia, TTYs principally use the same Baudot system as in U.S.A. so this is very pertinent. While it is likely that there may be a move away from these legacy systems, there is a large customer base for TTYs. It is important that there is backward compatibility so that in the future a person with a new wireless broadband device can still communicate with a person using an older device such as a Baudot-based TTY. If this does not occur, there will be many people who are forced out of the communications paradigm.

3.Opportunities

Both the above examples relate to the closure of the analogue mobile network in Australia when there was no consideration of the consequences for people with disabilities. With the move to wireless broadband technologies, there is an opportunity to not only ensure that people with disabilities are not barred from using the new technologies, but also to test and incorporate new services which would especially benefit people with disabilities.

The obvious advantages of services accessible for people with disabilities is that people can then participate fully in the digital economy and thus contribute to Australian society as a whole.

Examples are given below of how European countries have invested in project funding to investigate the opportunities of broadband for people with disabilities.

3.1 International activities

In Sweden, broadband pilot projects funded through the government regulator for AUD \$4 million will test a number of applications for people with disabilities. Projects include:

- An information service centre for deaf/blind people.
- Daily information and communication for people with intellectual disabilities.
- Distribution of digital talking books to university students with vision impairments.
- Distance education for people with disabilities.
- Various applications of mobile broadband (synchronous networks).
- Distance counselling for job-seekers.

There is also the European Commission WISDOM project where a variety of applications for Deaf people using sign language through their mobile device are being tested. The importance of

synchronous networks are important here as communication is obviously as active downstream and upstream.

Further information about broadband technologies and scenarios can be found in Chapters 4 and 5 of COST 219bis's latest book *Bridging the Gap*¹

COST 219bis is a European Action Project on telecommunications for people with disabilities and has been operational for the past 15 years in initiating research and development programs and disseminating information.

4. Recommendations for creating accessible mobile broadband technologies

We need the life-experience of people with disabilities and Deaf people to be incorporated, from R&D onwards through to the evaluation of effectiveness and efficiency of technology.

In order to create accessible mobile broadband technologies, we need:

- A recognition of the values we incorporate into technologies;
- The incorporation of disability needs into notions of quality;
- An effective regulatory regime which ensures the market does deliver for all equitably;
- Any-to-any connectivity incorporating disability routinely;
- Affordability;
- Standards setting where people with disabilities are integrally involved;
- Research, testing and implementation of applications for use by a broader proportion of the population;
- Development of user interfaces which are adaptable and individually specifiable.²

TEDICORE believes that the above recommendations will help to ensure that the deliberations of the Inquiry will include all members of the community in the new era of broadband communications. TEDICORE wishes to emphasise the importance of consultation with people with disabilities and suggests that any fora or committee include representatives from disability organisations to assist in ensuring that mobile broadband technologies will deliver new opportunities in accessible communications and will move away from the barriers placed before people with disabilities in the past.

TEDICORE looks forward to further discussions about the above issues with members of the Inquiry.

¹ http://www.tiresias.org/phoneability/bridging_the_gap/

² Eg a blind person has speech output and a Deaf person has choices of text or video output wireless devices to work with assistive technology.

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