



## ARE WE THERE YET?

### THE STRUGGLE FOR PHONE ACCESSIBILITY INFORMATION

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An international online database was launched in 2009 by the Mobile Manufacturers Forum on accessibility features on mobile phones for people with disabilities (AMTA 2009). This was a direct result of the development of an Australian Industry Code about information on accessibility features for telephone equipment.

This paper outlines the need for phone accessibility information by consumers and describes the complex processes that led to this new service. It examines the code development process and its difficulties. It is an example of the need to consider changing the self-regulatory model to better benefit consumers with disabilities.

## BACKGROUND

Technology such as vibrating alert, speech recognition and speech generation was invented to enable people with a disability to participate more fully in our society. These features are now included in many mobile phones and used by the bulk of the population (Law 2006). The features assist the able-bodied community at times when, for example, they are not able to hear their phone ringing while in a noisy environment or not being able to see the phone while driving a vehicle.

Whereas we might think of this as a temporary disability, it is simply a functional limitation due to a particular circumstance at a given time. In a similar way, we need to think of a disability as a functional limitation due to a physical impairment. The reality of a longer-term functional limitation is more accurately portrayed when we take age into account. At 18–24 years, 9.5% of the population have a disability, climbing gradually to 64% of the 75 years or older group (Trace 2001).

This fact and the importance of the integration of people with disabilities into our technological society has highlighted the need for functional limitation to be taken into account at the time of product design; commonly referred to as Universal Design (UD) or Inclusive Design. Universal Design has often been misinterpreted as the design of a single product to suit the needs of all people with a functional limitation. Rather, UD is a process that takes into account the needs of those with a functional limitation at the time of design (Preiser & Ostroff 2001, Keates & Clarkson 2003). This can be a zero or low cost option when, for example, increasing the contrast of keypad characters through appropriate choice of foreground and background colours and the choice of the size of the characters on the display. Adopting UD principles will increase the number of people able to use the product and consequently the size of the market that the product will appeal to.

The fact that a product (or phone) does not have a certain feature does not make it inferior or unsuitable. A phone with large keys will be easier to use by a person with gross motor control but will be unworkable for a person with only fine motor control. Hence the size of the keys is

important in the matching of a particular phone to suit a person's needs. Similarly, a person who is blind will have no use for a visual display and a person who is deaf has no need for sound output. Clearly a phone that has spoken text, a large visual display and high quality sound output will be applicable to a larger population. Many current phones do have features that are needed by people with a disability or who are ageing.

By informing the public about the accessibility features that do exist on phones, industry can help those with a disability or a functional limitation will to choose from a range of phones to identify the one most suitable for their disability/functional limitation.

## **INTRODUCTION**

The Global Accessibility Reporting Initiative (GARI) was launched in 2009 by Senator Stephen Conroy, the Minister of Broadband, Communications and the Digital Economy (GARI 2009). GARI is an international database of information about mobile phone accessibility features developed by the Mobile Manufacturers Forum. This initiative will assist consumers with disabilities to obtain information on mobile phones that meets their requirements.

The GARI was established as a direct result of the Australian Industry Code on Information on Accessibility Features for Telephone Equipment. There was a long regulatory road to the establishment of this Code.

## **THE REGULATORY PROCESS**

Following the de-regulation of the Australian telecommunications industry in 1997, the Australian Communications Industry Forum (ACIF) was established to facilitate and support an effective and viable telecommunications industry to meet the needs of the Australian population. In particular, ACIF was responsible for the development of Standards, Codes and Guidelines in telecommunications according to the self-regulatory model.

One of the early tasks was to develop a Disability Standard in telecommunications equipment to meet the particular needs of Australians with a disability or impairment. The corresponding Federal Government Act is:

‘TELECOMMUNICATIONS ACT 1997 – SECT 380

Disability standards

- (1) The ACMA may, by written instrument, make a standard relating to specified customer equipment if:
  - (a) the customer equipment is for use in connection with the standard telephone service; and
  - (b) the customer equipment is for use primarily by persons who do not have a disability; and
  - (c) the standard relates to the features of the equipment that are designed to cater for any or all of the special needs of persons with disabilities.
- (2) The following are examples of features mentioned in paragraph (1)(c):
  - (a) an induction loop that is designed to assist in the operation of a hearing aid
  - (b) a raised dot on the button labelled "5" on a telephone' (Commonwealth of Australia 1997).

An ACIF Working Committee was formed and met over a two-year period commencing in 1999 to develop the required Standard. Despite the extensive research into consumer needs conducted by the Consumers' Telecommunications Network (Corbin 1998) and the tabling of other documents of significance by the consumer representatives (e.g. Brandt 1995), agreement was only possible for the examples that were referred to in the Act. None of the many additional features of significance to people with disabilities were considered in the final Standard (AS/ACIF S040:2001). The industry had demonstrated its commitment to go no further effectively ensuring that there would be two sectors of the Australian population; one that could access any phone anywhere and a significant second group who would require 'special' features to access the telecommunications network. Thus a sector of the population would be marginalised and be considered or defined as disabled.(Goggin & Newell 2003).

However, sectors of the industry continued to work on these issues informally and as a result the Disability-Industry Partnership was established. Members of the Partnership developed a specification for a web site that would list the features of significance to those with a disability that existed on the phones available in Australia. This specification included a facility where an end user, health care worker or relative would be able to search for the particular features needed by the end user to effectively gain access to the Australian telecommunications network. Even though considerable resources were applied to this task, no funding was forthcoming.

In 2002 the Australian Communications Authority (ACA) requested its advisory body the Communications Technical Regulation Advisory Committee to establish a Disability Standards Working Group to consider issues for inclusion in a revised Disability Standard or for adoption as part of an industry guideline to enhance the accessibility of telecommunications services for people with a disability.

The resulting report (ACA 2003) recommended that specific additional features designed to aid people with disabilities to access telephone handsets be included in the Disability Standard. However, the ACA's response recommended that the features identified be included into an industry guideline instead. At the time, it was noted that there was inadequate information available on accessibility features of existing phones for consumers with a disability.

In October 2003, ACIF (now the Communications Alliance) was asked by the ACA to develop:

- an industry Code requiring importers and manufacturers of customer equipment that use a telephone handset or keypad that is manufactured in, or imported to Australia, for use with the standard telephone service, to provide information about whether or not their equipment has certain features that could enhance accessibility for people with a disability; and
- an industry guideline outlining the types of features that would enhance the accessibility for consumers with a disability, to be considered during the future importation and manufacture of telephone handsets or keypads that are manufactured in, or imported to Australia, for use with the standard telephone service.

The objective of the Code was to ask equipment suppliers to provide information on the features of their equipment which may assist in meeting people's communications needs. This was to be done in one of two ways:

- through the provision of such information by equipment suppliers (ES) to carriage service providers (CSP) in order that CSPs may be able to inform their own customers about equipment features; and
- through the provision of such information to consumers, on request of that consumer, with such information on features of their customer equipment that might meet that individual's communications needs.

The first meeting of the Working Committee to develop the Code was held on 13th April, 2004. Approximately 20 face-to-face half and full day meetings occurred. A draft version of the Code was released asking for public comments by 13<sup>th</sup> December 2004. These were received but due to unresolved issues between key stakeholders, a new approach was proposed in mid-2005.

The proposal contained:

- A significant decrease in the features to be recorded by the suppliers. The features were reduced to questions that nearly all required a yes / no answer and did not require any physical measurement.
- A requirement that the suppliers respond to customer enquiries regarding the particular features on a particular phone.
- The introduction of a regular review process.

The Code (ACIF C625:2005) finally was submitted to the Australian Communications and Media Authority (ACMA, formerly the ACA) in November 2005. However, there were considerable delays in registration of the Code by ACMA due to industry concerns about aspects of the Code. The Minister was informed about the delays. The Code was finally registered on 12th October 2006. Suppliers were given six months to implement the Code following registration. A regular review process was built into the Code.

The Code did not apply to the provision by equipment suppliers of information on customer equipment to retail outlets not under the control of carriage service providers. If that information was not available from retail outlets, people would need to request it directly from the equipment supplier.

The accompanying Industry Guideline lists the equipment features that equipment suppliers are required to report (ACIF G627:2005). The end result was a Guideline that left out key consumer information such as hearing aid compatibility and the size of the keys, lettering and screen.

A key issue was the method used by manufacturers and importers of telephone equipment for the supply of information to carriage service providers (CSPs) on accessible features. There was no direction in the Code on this aspect. Initially it was done through the use of spreadsheets based on the matrices of features and distributed to CSPs for further dissemination to their customers. This was a clumsy and burdensome way to provide this type of information. For many years, the consumer body, Telecommunications and Disability Consumer Representation (TEDICORE) had been discussing with key government and industry stakeholders the need for an online database. Such a centralised database would have provided a streamlined and uniform way for manufacturers and importers of telephone equipment to input the data in a secure environment. This data would then be searchable by CSPs and consumers with disabilities based on criteria of a variety of features. The results of the search would list a number of fixed, mobile,

cordless or office telephones offering the required features. This online database needed to be designed so that it was accessible for users and easily navigable through a website. Unfortunately, there was limited support from industry to set up an online database for all types of phone equipment.

Therefore, consumers were faced with a burdensome method of obtaining the information. Even when companies like Nokia and Motorola followed the Code requirements by placing information prominently about each phone model on its website, it was time-consuming both for retail phone staff and customers to open the link to each of the 39 models listed (in the case of Nokia) and go down the list manually to find which of the models had a particular feature.

Another problem was the lack of compliance by some of the key suppliers and manufacturers of phone equipment. This was very frustrating for people with disabilities who needed to find phone handsets to meet their needs. This was made clear to Communications Alliance through its Disability Council. As a result, Communications Alliance wrote a letter in December 2007 reminding the relevant parties of the requirements under the Code. The Code was registered with the Australian Communications and Media Authority (ACMA), requiring compliance with the Code, yet there was no enforcement of the Code. After TEDICORE raised its concerns, ACMA undertook an audit in 2008. This comprised a shadow shopping exercise in a number of phone shops as well as checking phone manufacturers' websites for accessibility information. Recommendations were made to the Authority about the best ways to improve compliance to the Code. These recommendations are still to be made public.

Clearly the Code needed to be considerably expanded in its reporting of features, by informing consumers about features that they really need rather than those that are easy to report.

As required by the Code, Communications Alliance initiated a review in 2008, resulting in a revision of the Code. The Working Committee first met early in 2009 and were able to distribute a draft copy of the revised Code and Guideline for public comment on 31 July 2009. The final committee ballot occurred in September and was unanimously positive. The Code & Guideline (C625 2009; G627 2009) has been approved by the Communications Alliance Board, published and submitted to ACMA for registration.

In contrast to the original Working Committee there was an acceptance that the information being sought was important to those with a disability and the industry representatives acknowledged their commitment to provide the necessary information.

There was a requirement by Communications Alliance to report to the ACMA on progress at specified intervals. There was a marked improvement in the Working Committee process and a genuine commitment to finding a consensus solution. The cooperation provided a clear indication that we are now "well down the road" to identifying meaningful information to assist those who need particular features on a phone so that they can gain meaningful access to the telecommunications network.

## **INTERNATIONAL DATABASE OF ACCESSIBILITY INFORMATION ON MOBILE PHONES**

Just prior to the Code & Guideline review, some of the members of the Working Committee had made contact with the Mobile Manufacturers Forum (MMF), an international organisation with a mandate to facilitate the joint funding of key research projects and cooperation on standards,

regulatory issues and communications concerning the safety of wireless technology, accessibility and environmental issues (MMF 2009). There was a growing international trend for requirements on industry to document accessibility features on their mobile phones and the Australian Code with its specific Guidelines presented the incentive to systematically provide this information. Importantly, industry would need to provide the information once only on an international basis. Thus, the Global Accessibility Reporting Initiative (GARI) was born. In general terms, GARI aimed to provide a central information source on accessibility in mobile devices. The GARI website (GARI 2009) provided an avenue to search for the various features that a mobile phone may have and link through to manufacturer's websites for specific information on particular models. The feature list (also referred to as the GARI template) was built on the matrices in the ACIF G627:2005 Guideline.

Cooperation with the MMF led to their Secretary General becoming involved in the Working Committee as a non-voting member and, as a consequence, the features included in the Guideline under revision were closely aligned with those included in the GARI template. The Working Committee agreed to modify the Code so that MMF participating companies who have already completed and submitted the GARI template and now wish to make the phone available in Australia only need to flag that within the web site to meet the requirements of the Code.

The Global Accessibility Reporting Initiative web site enables users with disabilities to nominate the features they need so that only those mobile phones that match the requirements are presented. A photograph of each of the phones aids the consumer as well. The user can select up to three phones presented and see a comparison table of all of the device characteristics for each phone. In addition, by hovering over the '?' next to each feature, an explanation of the feature is presented. The list of features are categorised under the headings of 'Type of Device', 'Physical features of the phone', 'Features assisting people with mobility/dexterity impairment', 'Features assisting people with vision impairment', 'Features assisting people with hearing/speech impairment' and 'Features assisting people with cognition impairment'.

Users of the website need to indicate the world region they live in to identify the phones available to them. The user of the website can select English, French, Spanish, Portuguese or German languages. This will assist Australians with a non-English background to select an appropriate mobile phone. Information supplied by the manufacturer describing extra features and capabilities of the phone is currently only available in English. The GARI website is compliant with the W3C Web Content Accessibility Guidelines ensuring that consumers with disabilities can successfully use the site for effective information retrieval.

It is important to note that not all phone manufacturers are MMF members. Therefore, there are a few key omissions to the mobile phones listed on the website.

As broadband becomes more ubiquitous in Australia, it should be possible for consumers with disabilities to avoid a visit to a retail outlet in the first instance when choosing a mobile phone to meet their needs. This is especially important for people with restricted mobility and those who live in rural and remote areas.

## **DISCUSSION**

The initiative of the MMF resulting in the creation of the GARI website is a significant and important milestone. This site will enable a large number of people with disabilities from across

the globe to access the vital information needed to ensure that they can effectively join in the community of mobile phone users. Clearly the need has been highlighted internationally and the mobile phone manufacturers have responded. The push by Australian consumers with regulatory oversight by the ACMA has resulted in a meaningful, cost effective and global solution for information about mobile phone accessibility features.

Disability comes in many different forms. Some limitations are simple and straightforward enabling users to quickly identify the features they need and to then identify the range of mobile phones likely to meet those needs. However, those with cognitive and multiple disabilities often require additional professional support to identify the phone features and characteristics needed. The GARI website is an important tool which will be used by health professionals to identify possible solutions thus decreasing the time and cost of the intervention.

The mobile phone industry has demonstrated that they are listening to the needs of consumers with a disability. Dialogue with key industry stakeholders is an essential process and, when supported, can produce meaningful results. Given the conflicts between the profit motives of the industry and the needs of those with a disability, positive dialogue may be difficult and sometimes avoided. The Australian Mobile Telecommunications Association and its Accessibility Committee members has been a good conduit at times. The authors' experiences indicate that a meaningful dialogue between the key industry players and end users is essential for working towards satisfactory solutions.

No corresponding website currently exists for home phones. Compliance with the Code requires suppliers to complete the matrix for each phone model. CSPs and end users will still have to look through individual matrices to find solutions suitable to their needs. This is clearly unacceptable and without an effective way of enabling end users to find appropriate fixed and cordless phones there is the potential that the information collected by suppliers will not be used effectively.

The need for information on phone accessibility features was highlighted back in 1999 and it has taken 10 years to arrive at this solution that still does not cover all types of phones nor from all manufacturers or importers. This is unacceptable. The current regulatory process in Australia has not worked for consumers with a disability. The length of time and complexity in reaching a successful outcome in communications regulation was studied by Choice and Galexia. The ACIF Code and Guideline for Information on Accessibility Features for Telephone Equipment was used as a case study (Galexia 2008). This clearly indicates that there are limitations in the regulatory processes. It should not take 10 years to get a reasonable outcome for consumers with disabilities. Even when finally, after consumer representation and regulatory direction, the Code development process commenced in 2003, positive results should have been achieved within a realistic timeframe. This would have enabled consumers with disabilities to benefit much earlier.

The British communications regulator, Ofcom, has explored appropriate regulatory solutions in terms of the role of self-regulation, co-regulation and statutory requirements. Ofcom found "that self-regulation is most likely to work where the following conditions are present: industry collectively has an interest in solving the issue; industry is able to establish clear objectives for a potential scheme; and the likely industry solution matches the legitimate needs of citizens and consumers. It is unlikely to be appropriate where the following conditions are found: there are incentives for individual companies not to participate; or there are incentives for participating companies not to comply with agreed codes" (Ofcom 2008, 2–3). Ofcom further stated that where they determined "that self-regulation is unlikely to succeed, co-regulation may be used to

ensure that incentives are effectively aligned. Where neither self- or co-regulation are appropriate but regulation is necessary, a statutory solution will be required” (Ofcom 2008, 2–3). In Australia, we are at the cross-roads of regulatory reform and consumer organisations such as the Australian Communications Consumer Action Network (ACCAN) are working to achieve change so that consumers will not in future be disadvantaged by an imbalance between industry and consumer needs as is currently the situation (Conroy 2009).

## CONCLUSION

Consumers with disabilities clearly articulated a need for information on phones to meet their accessibility requirements. We are nearly there through the combined effort of many stakeholders but it has been a very long and bumpy journey with some roadblocks still ahead.

Consumers are benefitting from the Global Accessibility Reporting Initiative database. However, there needs to be an online database to provide information about accessibility features for fixed and cordless phones as well as the current mobile phones.

Working towards an improved regulatory framework that is fast, responsive and enforces when necessary will make the next ten years a smoother ride for the consumer.

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## REFERENCES

- ACA 2003 Disability Standards Working Group. 2003. ‘Report on the features for inclusion in the future disability standard’. Communications Technical Regulation Advisory Committee. Australian Communications Authority.
- ACIF C625:2005 *Information On Accessibility Features For Telephone Equipment*. Industry Code, Australian Communications Industry Forum.
- ACIF G627:2005 *Operational Matrices For Reporting On Accessibility Features For Telephone Equipment*. Industry Guideline, Australian Communications Industry Forum.
- AMTA. 2009. *Global project to improve access to mobiles for disabled and elderly*. Australian Mobile Telecommunications Association. Media release. Accessed 12 January 2010. Available from: [http://www.amta.org.au/articles/amta/Global.project.to.improve.access.to.mobiles.for.disabled.and.elderly\\_10134](http://www.amta.org.au/articles/amta/Global.project.to.improve.access.to.mobiles.for.disabled.and.elderly_10134).
- AS/ACIF S040:2001 *Requirements for Customer Equipment for use with the Standard Telephone Service – Features for special needs of persons with disabilities*. Australian Standard, Australian Communications Industry Forum. Accessed 12 January 2010. Available from: [http://www.commsalliance.com.au/\\_\\_data/assets/pdf\\_file/0017/2429/S040\\_2001.pdf](http://www.commsalliance.com.au/__data/assets/pdf_file/0017/2429/S040_2001.pdf).
- Brandt, Åse (ed). The Nordic Committee on Disability. 1995. *Telephones for All: Nordic design guidelines*. NNH 3/95 Rosendahls Bogtrykkeri, Esbjerg.
- C625:2009 *Information on Accessibility Features for Telephone Equipment*. Industry Code, Communications Alliance Ltd 2009. Accessed 12 January 2010. Available from: [http://www.commsalliance.com.au/\\_\\_data/assets/pdf\\_file/0013/1345/C625\\_2009.pdf](http://www.commsalliance.com.au/__data/assets/pdf_file/0013/1345/C625_2009.pdf).
- G627:2009 *Operational Matrices for Reporting on Accessibility Features for Telephone Equipment*. Industry Guideline, Communications Alliance Ltd 2009. Accessed 12 January 2010. Available from: [http://www.commsalliance.com.au/\\_\\_data/assets/pdf\\_file/0017/1727/G627\\_2009.pdf](http://www.commsalliance.com.au/__data/assets/pdf_file/0017/1727/G627_2009.pdf).

- Commonwealth of Australia. 1997. Telecommunications Act 1997. Accessed 12 January 2010. Available from: [http://www.austlii.edu.au/au/legis/cth/consol\\_act/ta1997214](http://www.austlii.edu.au/au/legis/cth/consol_act/ta1997214).
- Conroy, S. 2009. CommsDay Summit – Speech. Accessed 15 January 2010. Available from: <http://www.minister.dbcde.gov.au/media/speeches/2009/012>.
- Corbin, T; Campbell, H. 1998. 'Technical standards for disability needs'. Consumers' Telecommunications Network.
- Galexia. 2008. 'Consumer Protection in the Communications Industry: Moving to best practice - Issues Paper'. Choice. Accessed 15 January 2010. Available from: [http://www.galexia.com/public/research/assets/choice\\_consumer\\_protection\\_in\\_telecoms.pdf](http://www.galexia.com/public/research/assets/choice_consumer_protection_in_telecoms.pdf).
- GARI 2009. Global Accessibility Reporting Initiative. [Internet] Accessed 12 January 2010. Available from: <http://www.mobileaccessibility.info>.
- Goggin, G; Newell, C. 2003. *Digital Disability: The Social Construction of Disability in New Media*. Lanham, Rowman & Littlefield.
- Keates, S; Clarkson, J. 2003 *Countering design exclusion: An introduction to inclusive design*. Springer-Verlag London, Great Britain
- Law, C. 2006 'The technology in your cell phone wasn't invented for you'. Communications, Policy & Research Forum, Sydney, Australia, September 25–26, 2006.
- MMF 2009. Mobile Manufacturers Forum, [Internet] Accessed 12 January 2010. Available from: <http://mmfai.info/public/>
- Ofcom 2008. *Identifying appropriate regulatory solutions: principles for analysing self- and co-regulation*. Accessed 14 January 2010. Available from: <http://www.ofcom.org.uk/consult/condocs/coregulation/statement/statement.pdf>.
- Preiser, W; Ostroff, E. (ed). 2001. *Universal Design Handbook*, McGraw-Hill.
- Trace R&D Center 2001 'Disability As a Function of Age'. [Internet] University of Wisconsin. Accessed 12 January 2010. Available from: [http://trace.wisc.edu/docs/function-aging/weebles\\_handout.pdf](http://trace.wisc.edu/docs/function-aging/weebles_handout.pdf).

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