**Where do I start?**

**Female seniors and the Internet**

A consumer research report by

the Council on the Ageing (WA)

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COTA (WA) is an incorporated not-for-profit organisation run by older people for older people. It is the peak non-government seniors’ organisation in Western Australia, advocating on behalf of all seniors to influence government, business and the community. It provides programs and projects that benefit seniors (such as Living Longer Living Stronger), and assists the national COTA body in the areas of policy development and information dissemination.

Council on the Ageing (WA)

Level 3, 110 William Street

Perth, WA 6000

Website: <http://www.cotawa.asn.au>

E-mail: [admin@cotawa.asn.au](mailto:admin@cotawa.asn.au)

Telephone: +61 8 9321 2133

Australian Communications Consumer Action Network

Website: www.accan.org.au

E-mail: grants@accan.org.au

Telephone: +61 2 9288 4000;

TTY: +61 2 9281 5322

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# Executive Summary

**Background and Aims**

While there have been many studies and surveys about internet use in the general population, there have been fewer investigating the experiences of seniors using the internet (and not using the internet) and none can be found that focus on female seniors in Australia. This is despite more than half of Australians over 65 describing their internet competency as below average, and only 10 per cent as above average (ACMA 2009a).

This project was established in response to a West Australian Government report which showed that fewer than 30% of WA women over 65 had used a computer at home in the previous 12 months, and fewer than 25% had accessed the internet (WA Department for Communities 2009). This was a lower level of use than men in the same age bracket and than women in younger age brackets.

As the population ages, the number of government agencies and organisations servicing seniors is also growing. This, combined with the reality that most agencies and organisations are making (or have already made) the internet their preferred means of information and service delivery (Commonwealth of Australia 2009) suggests that those without the means to use the internet may be at a significant disadvantage.

The main aims of the research project were:

1. To identify factors affecting female seniors’ use of internet-based resources
2. To determine whether there is a gap between female senior internet users and non-users, specifically relating to information and service provision, and whether (and in what ways) this impacts wellbeing
3. To make recommendations for inclusive forms of information dissemination and internet access for seniors.

The study was co-funded by the Australian Communications Consumer Advocacy Network’s (ACCAN) Grants Scheme and Council on the Ageing (COTA) WA, and was conducted by COTA (WA) between August 2010 and January 2011.

**Study design and methods**

A qualitative approach was adopted that enabled an in-depth examination of attitudes to internet use and issues related to wellbeing, which may have been more difficult to assess using quantitative methods. The report features a rich collection of quotes from the seniors interviewed.

The study was conducted in two parts:

1. A literature review and scoping interviews were undertaken to gain an overview of issues potentially important to seniors using the internet. Informal interviews were conducted with the provider of a technology trouble-shooting service, an internet provider, tutors for senior internet users and a number of female seniors.
2. Focus group sessions and interviews were conducted with 50 senior female internet users and non-users. Five focus groups were held with 35 participants in total. Face-to-face interviews were conducted with a further 15 women.

The sample was drawn from the Perth metropolitan area, and consisted of 25 internet users and 25 non-users. Seven Italian-speaking seniors were included in the study – five non-users and two users. This was to explore service and internet use issues for people from a non-English speaking background whose English skills remain limited.

**Findings**

For female seniors, lower educational level, income level and workforce participation have been identified as potential contributing factors to low internet use (Ewing & Thomas 2010). Lack of skills, anxiety about technology, security fears, lack of interest and lack of time have also been identified by several studies as reasons why seniors do not connect. This study has been able to expand on these findings by gathering the personal accounts and experiences of senior women. The findings highlight the degree to which lack of access to training, technical assistance and information are a problem for this group - compounding the related barriers of lack of knowledge and the fear of doing something wrong.

***At a glance:***

* The average age of non-users and users in the study was 72.2 and 71.3 respectively.
* The most common use for the internet was email. Keeping in touch with family and friends overseas was the main reason cited for having email – and was a common reason for “going on the internet” in the first place. Many non-users felt pressured to sign up for email by family and friends or by groups they belong to.
* Lack of knowledge was a major barrier for those who had not used the internet and for those who had used it a little and wanted to use it more. Lack of knowledge extended to everything from how to choose a suitable computer, what sort of modem to use and which internet provider to use, to how to send photos, download music, download software, and maintain virus protection. Linked to lack of knowledge is the fear of doing something wrong and appearing ignorant. Fears about internet security were fed by news articles or programs about scams involving stolen credit card details. Some were fearful that technology and internet use would have a detrimental effect on the wellbeing of society, and that people would lose the ability to communicate.
* Bad experiences with ISPs and telcos left some participants feeling disillusioned, confused and extremely wary. These feelings were sometimes enough to cause the participant to terminate a service or to abandon establishing one.
* Lack of services and lack of awareness of where to find help - including for technical assistance and for tuition – were also barriers to internet use. Seniors without family members who could help set up a computer and internet connection were often left wondering who to contact. Seniors expressed a desire for one-on-one tuition tailored to their needs, but did not know where they could access this.
* The cost of the internet was a barrier to those considering getting it, but not generally for those already using it. Lack of interest in using the internet was another barrier, as was lack of time (or at least an unwillingness to spend time on this activity).
* In terms of service information awareness, there were differences between individuals but not across the two groups. There was a greater difference in ways of finding information, with users obviously using the internet more (or more commonly a combination of Google and the phone), and non-users using a wide variety of sources.
* Participants were quite vague about their use of government websites. None specifically mentioned the portal sites, australia.gov.au and wa.gov.au. While some users mentioned going directly to a government website, others were more likely to “Google” for government services. This meant they did not have to find the right section of a government department. Some had experienced problems when attempting to download forms.
* In general, users perceived the internet as having a positive impact on personal wellbeing and non-users perceived it as having a negative impact. Non-users also believed that not having internet access would have a negative impact on their future wellbeing.
* On the basis of the analysis, participants in this study can be categorised into four types:

1. Users who enjoy using the internet and believe those not using it are missing out;
2. Users who use the internet only as necessary and with some resentment;
3. Non-users who plan to use the internet but feel uncertain about it;
4. Non-users who are happy not to use the internet and do not feel they are missing out.

**Conclusions and Recommendations**

While other studies have provided statistical evidence of level of use of e-government and satisfaction with government websites, this study has shed light on how seniors actually cope with using websites and how they deal with e-government. The insights into attitudes to online government services provided in this study suggest room for improvement. At this stage non-users of the internet seem to be as well-informed as internet users, due to the wide availability of information in other forms. However, this may not always be the case. Studies suggest that those who are not connected to the internet are on the wrong side of a digital divide. While this study found that senior female non-users experienced only minor inconveniences or disadvantages at present, it also found that most non-users felt they would be disadvantaged in years to come. Thus, as Australia heads into an NBN-enabled future, it is important to ensure that everyone is able to participate and reap the benefits. It is important to identify the needs of digitally disadvantaged groups now, in order to make the necessary service provisions. This study has helped to identify the internet-related practices and requirements of one of these groups – female seniors.

The following recommendations are aimed at improving the availability, affordability and accessibility of internet communications to enhance the lives of female seniors.

* Widely available, low-cost training aimed at improving digital media literacy skills, and targeted promotion of the benefits of the Internet and broadband for seniors. Female seniors will benefit if the Government’s Digital Economy Strategy can deliver tailored initiatives in these areas.
* Better consumer protection and customer service in the communications market. The Australian Communications and Media Authority’s ‘Reconnecting the Customer’ Inquiry report and implementation is a significant opportunity to deliver better outcomes for consumers.
* Advice and assistance services to enable seniors to navigate the market.
* More reliable and accessible technical support services for seniors.
* Provision of more targeted government-sponsored cyber security and safety campaigns.
* Consultation with seniors on e-government matters.

# Background and Aims

While there have been many studies and surveys about internet use in the general population, there have been fewer investigating the experiences of seniors using the internet (and not using the internet) and none could be found that focus on female seniors. This is despite more than half of Australians over 65 describing their internet competency as below average, and only 10 per cent as above average (ACMA 2009a).

This project was established in response to a West Australian report which showed that fewer than 30% of WA women over 65 had used a computer at home in the previous 12 months, and fewer than 25% had accessed the internet (WA Department for Communities 2009). This is much lower than the 40% of men in this age group who accessed the internet, and significantly lower than the 62% of women in the age group below this (55-64) who used the internet (ABS 2007a). Given our ageing population (12% of the Perth population is aged 65 or more (ABS 2007b)) and the fact that women outlive men (WA Department for Communities 2006) this is cause for concern. As the population ages, the number of government agencies and organisations servicing seniors is also growing. This, combined with the reality that most agencies and organisations are making (or have already made) the internet their preferred means of information and service delivery (Commonwealth of Australia 2009) suggests that those without the means to use the internet may be at a significant disadvantage.

Women over 65 also have a lower level of educational attainment than men of the same age, have spent less time in the workforce and have a lower income level (ABS 2007a). This places them at a further disadvantage, given that internet use is associated with socio-economic factors (Ewing & Thomas 2010).

One of the possible consequences of the low level of internet use among female seniors is the appearance of an information divide; those with internet access - who are also competent in its use – will have access to a much greater volume of information relevant to everyday living than those who are not connected and able to use the internet. This translates into access to essential services, communication, productivity and social inclusion. This study considers the possible impacts of this division on wellbeing. It also attempts to identify the factors inhibiting women over 65 from using the internet. This study was co-funded by the Australian Communications Consumer Advocacy Network’s (ACCAN) Grants Scheme and co-funded and conducted by Council on the Ageing WA (COTA) between August 2010 and January 2011.

The main aims of the research project were:

1. To identify factors affecting female seniors’ use of internet-based resources
2. To determine whether there is a gap between female senior internet users and non-users, specifically relating to information and service provision, and whether (and in what ways) this impacts wellbeing
3. To make recommendations for inclusive forms of information dissemination and internet access for seniors.

A qualitative approach was adopted which allowed for an in-depth examination of attitudes to internet use and issues related to wellbeing, which may have been difficult to assess quantitatively. The report contains rich quotes of the female seniors interviewed for the study.

**What this study did not attempt**

This study did not attempt to compare women’s experiences with those of men; although it may be of value to do so, the purpose of this study was to assess senior women’s experiences since this was the group identified as the smallest user group. While one prominent ethnic group was targeted for study, this study does not claim to be representative of the views of all ethnic groups. Similarly, other minority groups, such as people with disabilities, seniors with impaired cognitive ability and remote and rural populations were not part of this study.

It was not the aim of this study to assess female seniors’ ability to use the internet in any formal sense. While there are tools to do this (see Johnson 2007), the key purpose in this case was to gather their impressions and experiences of the internet, rather than to measure skills quantitatively.

Finally, a complete audit of the websites seniors may use was not conducted. Therefore, websites have not been assessed for user-friendliness. Conclusions about ease of use have been drawn from the reported experiences of the participants.

# Study design and methods

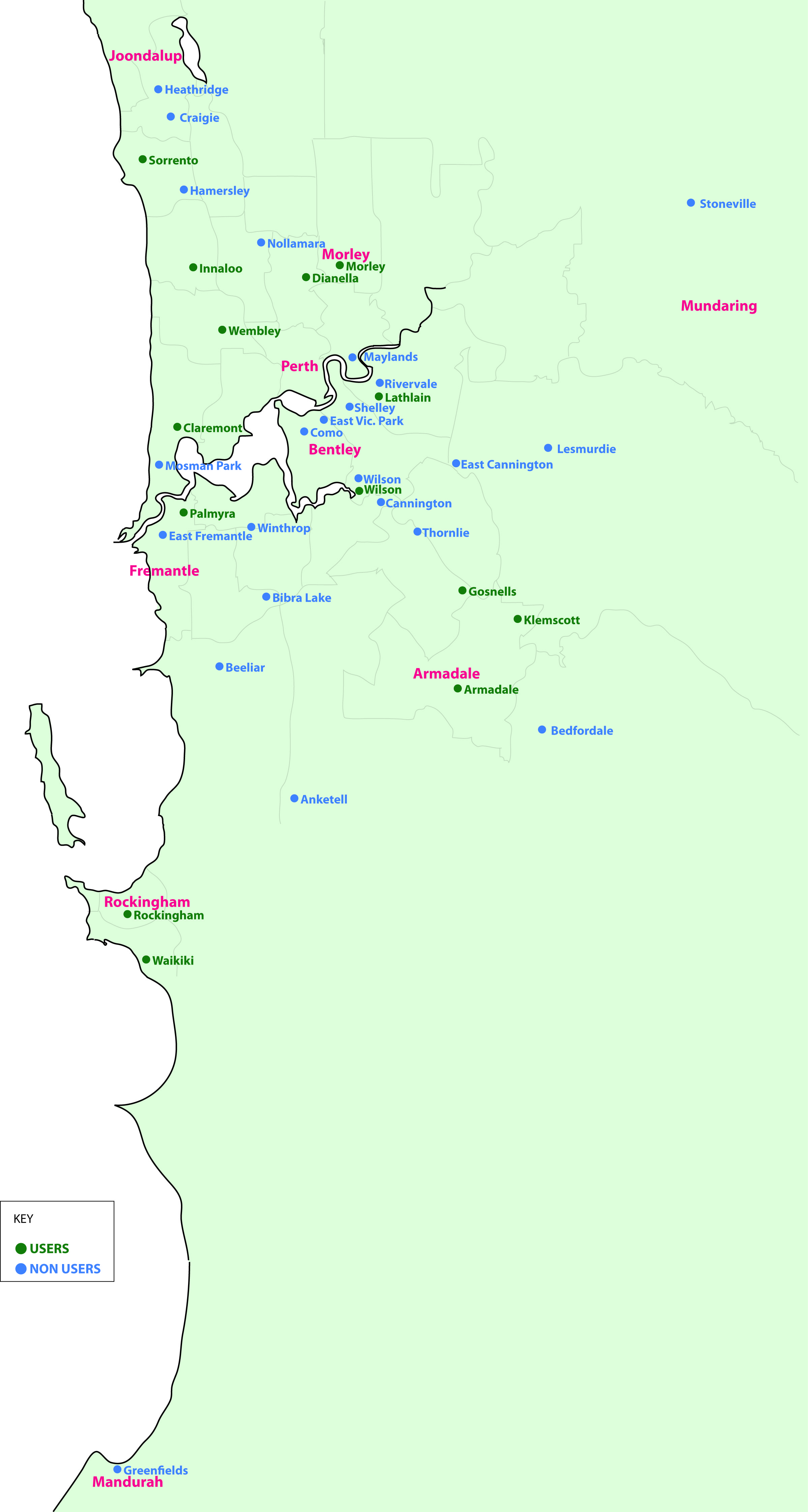
The study employed a qualitative methodology using focus groups and interviews to collect data. This was considered the most appropriate approach for a number of reasons. Firstly, studies have found that quantitative surveys with senior citizens produce a lower response rate and greater quantity of incomplete data compared with the rest of the population (O’Mahony et al. 1998; Jobe & Mingay 1990). This requires a time-consuming process of following up non-responses and incomplete data. Secondly, face-to-face collection of data meant the experiences of seniors from non-English speaking backgrounds could be gathered more effectively. Thirdly, and most importantly, a qualitative study allows for the exploration of individual points of view and takes into account the context of everyday life in a way which a quantitative study cannot (Denzin & Lincoln 2005) . Since there have been few studies which have sought to understand what inhibits seniors from using the internet, this was considered important.

The study was conducted in two parts:

1. A literature review and scoping interviews were undertaken to gain an understanding of seniors’ issues when using the internet. This information was used to design appropriate lines of questioning for the focus groups and interviews.
2. Focus group sessions and interviews were conducted with female senior internet users and non-users. Five focus groups were held with 35 participants in total. Face-to-face interviews were conducted with a further 15 women.

**Sample selection**

Internet users and non-users were sought for the study. Some women identified themselves as non-users but had had limited experience with the internet. These participants have been categorised as non-users for the purposes of sample selection and analysis, but have been labelled “limited user” where appropriate in the presentation of findings. Equal numbers of users and non-users were selected (25 each). The sample was drawn from the Perth metropolitan area - south to Mandurah, north to Sorrento, east to Mundaring and west to Fremantle - with a roughly equal distribution of users and non-users throughout this area (see Figure 1). This was to maximise the chances of selecting a range of socio-economic types, bearing in mind that factors related to socio-economic status (such as wealth/income and education level) influence internet use (Ewing & Thomas 2010). Seven Italian-speaking seniors, most with limited English, were included in the study – five non-users and two users. This was to explore service and internet use issues for people from a non-English speaking background whose English skills remain limited. Italians were chosen because Italian is the most common language spoken at home after English (ABS 2007c). There are approximately 15,000 Italian-speaking women in Perth, and the largest number are in the 65-74 age bracket (ABS 2007c). More than 2000 cannot speak English well or at all, and more females than males cannot speak English well (ABS 2007c).

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**Figure 1: Distribution of study participants within metropolitan Perth. The study area extended to Joondalup in the north, Mandurah in the south and east to Mundaring, with internet users and non-users distributed throughout.**

**Recruitment**

Participants were recruited via various means, including an article in the Perth seniors’ newspaper *Have-A-Go News*, at a technology trouble-shooting day for seniors conducted by COTA, through COTA membership organisations such as the Older Women’s Network, by community officers with shire councils, through shire seniors’ groups, and at an exhibition day during Seniors’ Week. Screening questions including age, number of people in household, frequency of internet use and suburb, were employed to ensure a diverse sample. The sample was not intended to be statistically representative, since no statistical analysis was to be conducted. However, it was designed to capture a broad range of views and experiences.

**Data collection**

Focus groups for users and non-users were conducted separately, mainly because non-users may have felt hesitant to reveal their lack of knowledge in the presence of users. The sessions were video and audio recorded with the consent of the participants. Three sessions were conducted at a city centre location, one at the meeting room of a seniors’ group, and one (Italian) at a seniors’ community centre. An Italian-speaking moderator was engaged to translate and help moderate the Italian focus group session. The duration of the focus groups ranged from 45 minutes to 90 minutes. The interviews were conducted either individually or in pairs at the homes of the participants, apart from two conducted at seniors’ community centres. The interviews were audio recorded (with consent) and lasted between 30 and 60 minutes. All focus groups and interviews were transcribed.

**Data analysis**

The focus group and interview transcripts were coded and the data explored using NVivo 8 qualitative data analysis software. Broad themes were conceptualised before the start of coding (e.g. barriers to use, uses, fears, ways of finding information) and consolidated during coding. Data were analysed with reference to the study objectives and relevant literature.

**Ethical considerations**

This research was considered to be a low risk to participants, hence the Human Research Ethics Committee (HREC) procedure for low-risk research was followed. This enabled the ethics application to be assessed by suitably qualified members of the COTA board. Protocols for ethical recruitment procedures were followed, and care was taken to ensure that cultural norms and values were respected when interviewing members of the Italian community.

Information and consent letters were presented to participants to ensure that they were aware of the purpose of the study and their rights as a study participant. The letter explained to participants that all information would be treated as confidential and that no original names would be used in publications arising from the research, and that they had the right to withdraw from the study at any time. Substitute names have been used for all participants to protect their identities.

# Literature and scoping research

## Review of relevant literature and previous studies

### The digital divide

Internet use among Australians aged 65 or more has increased almost five-fold since 2005 to around 50% (Australian Government Information Management Office (AGIMO) 2009). However, this age group still uses the internet least, with usage among 18 to 44-year-olds between 90% and 100%, 45 to 54-year-olds just under 90% and 55 to 64-year-olds at 76%. In 2006, women aged 65 or more used computers and the internet much less than men. Only 30% of women had used a computer at home in the previous 12 months, and only 25% had used the internet at home. For men, the figures were 50% and 40% respectively (ABS 2007a). The difference between men and women in this age group is much greater than in other age groups; for example 62% of women in the 55-64 age group used a computer compared with 70% of men, and 54% used the internet compared with 62% of men (ABS 2007a).

Seniors are among those sectors of society residing on the disadvantaged side of the digital divide. These are people who either cannot access the internet, cannot afford it, do not know how to use it or are not interested in using it. Other groups more likely to be on this side of the divide include low-earners, people with disabilities, the less educated, the unemployed, geographically isolated communities and ethnic minorities (DIG/Econsult 2010; AgeUK 2009). These groups, which are often already disadvantaged financially, are further disadvantaged by lack of internet access, since costs of online transactions are likely to be lower than their offline equivalent (Commonwealth of Australia 2009). Lack of internet access also impacts household costs by limiting access to goods and services and health and emergency information, for example (DIG/Econsult 2010; AgeUK 2009). As noted in *The Economic Impact of Digital Exclusion*, those excluded at present may find the impact even greater in the future; “being on the outside is worsened when being on the inside is made more efficient” (DIG/Econsult 2010: 43). In attempting to quantify the cost of digital exclusion to the US as a whole, the DIG/Econsult report arrived at an estimate of $55 billion per year.

There is also evidence to suggest that those excluded from using electronic services and other aspects of the digital world will be disadvantaged not only economically, but socially (UK Department for Communities and Local Government 2008, cited in Commonwealth of Australia 2009). Studies suggest that the enhanced ability of citizens to access economic, social and political institutions electronically will result in greater civic engagement and result in more meaningful, participatory and democratic government (DIG/Econsult 2010; Russell, Campbell &Hughes 2008). More specifically, for seniors virtual connections (online social networks) may be able to “provide a sense of purpose, identity and engagement” and online services can help maintain independence (Russell et al. 2008: 81).

The government sees one of its primary roles as “enabling individuals, households and businesses to take up the opportunities the digital economy offers” (Commonwealth of Australia 2009: 7). If this is the case, access must be a key government concern; access does not mean merely access to internet connectivity, but access to the skills needed to use the internet (Dugdale, Daly, Papandrea & Maley 2005; ACMA 2009a). This has led to the use of the terms “digital use divide” or “participation gap”, rather than digital divide, which better describe the situation in which people may have connectivity (for example, Broadband is available in their area) but are unable to take advantage of it for other reasons (ACMA 2009a).

### Internet literacy

One of the factors behind a digital use divide or participation gap – and one which applies particularly to seniors – is digital literacy. There are various definitions of digital or internet literacy, but they commonly include technical competence with connectivity, security and downloads, functional use of common internet activities such as communication (e.g. email, instant messaging), information (e.g. health), recreation (movies, music, games) and commercial activities (e.g. banking, purchasing) (Johnson 2007; Commonwealth of Australia 2009). Australia’s digital media literacy policy and programs focus on three core skill sets:

* the technical ability to engage at a basic level with a computer and the internet, such as to create documents and emails
* the ability to understand and critically evaluate digital media and digital media content
* the ability to create content and communications (Commonwealth of Australia 2009: 44).

Johnson (2007) sees internet literacy as requiring a set of cognitive skills similar to those for other types of literacy. For example, Bloom’s taxonomy of cognitive skills includes comprehension as well as evaluation – that is, a literate person must be able to understand and interpret information as well as verify and assess it. A taxonomy to assess internet literacy would necessarily include these various aspects, since young users, for example, may possess basic knowledge skills which enable them to access the internet but lack the cognitive maturity to evaluate online communication and information (Katz & Rice 2002, in Johnson 2007). For senior citizens the opposite is often the case: they are ignorant of internet operation but possess the higher-order thinking skills needed for performing online interaction and transactions (Reed et al. 2005, in Johnson 2007). As Johnson (2007) points out, while the digital literacy of younger people may be assessed in formal learning situations, such as school and university, seniors are generally beyond this stage of formal learning where assessment might take place. This makes identifying the areas of weakness which need to be targeted more difficult. Age has been found to be a predictor of literacy and numeracy skill levels - that is, the older the person, the lower his or her literacy and numeracy skills are likely to be. While this may be partly attributable to disability, it is more

likely to have a historical explanation (i.e. educational attainment, low income, lack of opportunity (Millar & Falk 2000)). It is not surprising then, to find that seniors are among the least digitally literate in the population.

### Reasons for not connecting

Various studies have investigated the reasons why older people are not connecting to the internet. Some common factors are lack of interest or relevance (Ewing &Thomas 2010; ACMA 2009a; ACMA 2009c; Russell et al. 2008), lack of skills (Ewing &Thomas 2010; ACMA 2009a), cost (Ewing &Thomas 2010; ACMA 2009c; Russell et al. 2008), difficulty of using or anxiety about technology (ACMA 2009c; Russell et al. 2008), no computer/no access (Ewing &Thomas 2010), lack of time (Ewing &Thomas 2010), lack of training (Russell et al. 2008) and health barriers (Russell et al. 2008). Older Australians were also concerned about security and viruses (Ewing & Thomas 2010), and concerns about fraud and invasion of privacy were common to not only seniors but the whole population (ACMA 2009c). A study of seniors’ intention to use the internet found perceived usefulness and perceived ease of use to be the two most significant predictors, with internet safety perception also predicting perceived usefulness (Phang et al. 2005).

Internet use among seniors is related to income, with those with a higher socio-economic status more likely to be connected (Russell et al. 2008; Ewing & Thomas 2010). Users are more likely to be married, to be home-owners and to be English-speaking (Russell et al. 2008). However, Ewing and Thomas (2010) found that over 65s born overseas were almost twice as likely to use the internet as those born in Australia, with the desire to stay in touch with their home country and overseas relatives a likely reason. The type of work seniors used to do and their qualifications was found to have little influence on internet use (CCI 2010).

### E-government strategies

In Australia and globally, the trend is for governments to make more and more services available online, following the lead of the commercial sector. This is not only because of a perceived demand by consumers, but because of the capacity to provide a more efficient service and cost savings. As the Western Australian Government notes, “the cost of traditional service delivery methods is continually increasing. Labour and resource intensive delivery channels such as counter and postal services are becoming increasingly unsustainable for government” (Office of e-Government 2007: 30). All European Union states are committed to implementing E-government and 84% of services were available online as early as 2004 (Niehaves & Becker 2008). In Australia, the goal is also to provide integrated government services which will allow citizens to interact easily with the public sector at any time and place convenient to them; electronic delivery will underpin all other delivery channels (Office of e-Government 2007; AGIMO 2006). The Commonwealth Government’s e-Government strategy document of 2006 envisaged that by 2010, electronic service delivery would be the preferred mode, even though people would still be able to choose from a range of service delivery modes (AGIMO 2006). The strategy states that the government will ensure that people with a disability are able to access government services easily – although the needs of seniors or other groups with accessibility issues are not specifically addressed. While the document mentions catering to a diverse range of government service users, there is no mention of internet non-users or of the strategies that may be necessary to ensure access. The Western Australian Government’s strategy is more detailed in this area, acknowledging that “traditional service delivery channels such as shop-fronts and printed material (letters, publications) will continue to be important to those citizens with different accessibility requirements”, such as those with lack of skills or limited access to technology (Office of e-Government 2007: 9).

Research shows that the level of satisfaction with government interaction is highest for those who used the internet for contacting government rather than traditional means (Commonwealth of Australia 2009); however, for some citizens there is no choice: digital exclusion means the opportunity to interact with government electronically is not possible or is prohibitively difficult. Ironically, as noted by Taylor (2005) and Dugdale et al. (2005), the very people that are excluded from e-government services are often the ones with the highest government services needs. As less experienced web users, they are also “more likely to lack the time, resources and background knowledge to overcome barriers they may encounter in using online communication” (Arch & Hardy 2005: 81). Interestingly, Taylor (2005) also notes that the take up of e-government across the world has been below expectations, partly because of a focus on problems of access rather than effective use, which could include “physical, attitudinal, educational, disability, cultural or integration concepts” (p.109).

So long as there are alternative ways of accessing government services, such as by telephone or over the counter, many digitally excluded citizens will no doubt use these. However, many citizens who find it difficult to get to appointments in person may find it more convenient to use online services, and government online services which are easy to use may make the difference between exclusion and inclusion. The Australian government has recognised that much can be done to improve its online service delivery, such as making navigation more simple, ensuring relevant information is returned and making language more simple (Commonwealth of Australia 2009). The federal and state governments have also been working on integrating and connecting agencies so that users do not need to have an understanding of how government is structured in order to find and use the service they need online (Commonwealth of Australia 2009; Office of E-Government 2007). Single-entry-point websites, such as australia.gov.au and wa.gov.au, are part of this. Note that the WA government portal home page does not have a heading for seniors; Seniors is listed under Health, and also has a listing under Community Safety. Similarly, on the national government website, the word Seniors does not appear on the home page. Users will find it by clicking on ‘Life events’ and then ‘Enjoying Later Life’. This page has a link for seniors.gov.au , which is a comprehensive listing of information and services for seniors.

Another part of the e-government strategy is to expand interactive capability, so that customers can complete more forms online rather than needing to download forms and complete the transaction by post or in person (Office of E-Government 2007).

In addition, the requirement for government departments and agencies to provide accessible information and online services has been a component of each e-Government strategy since 2000 (AGIMO 2010). Government websites will be required to comply with the World Wide Web Consortium’s (W3C) *Web Content Accessibility Guidelines* (WCAG) version 2.0 at the minimum compliance level (Single A) by the end of 2012. Triple A is the highest level, but the W3C acknowledges that even at this level, some users will still experience some difficulty in accessing content (AGIMO 2010). The guidelines identify techniques to create and manage web content in ways that are more accessible to people with visual, auditory, physical, speech, cognitive and neurological disabilities, although these techniques are regarded as making websites more usable for everybody, regardless of age, ethnicity or disability (AGIMO 2010). Arch and Hardy (2005) contend that websites that are developed under principles of universal design cannot include every person and every circumstance. For this reason, alternative delivery channels will always need to be retained, not only for those with permanent accessibility issues but for users temporarily unable to use e-government due to temporary impairment or power failures, for example.

Taylor (2005) agrees that ‘one size does not fit all’ for e-government service delivery (p.113), and adds that e-government has failed to adequately address the diversity of ‘web limiting conditions’ which could be technical, environmental and educational (as the findings of this study also show). Also, website development tended to be rule-based and not related to the real usability issues faced by people with disabilities. Arch and Hardy (2005) identified a lack of knowledge of the accessibility guidelines among web and technical managers and site commissioners within government, although whether this is still the case six years later is not clear. Managers were often unable to determine whether government accessibility

requirements had been fully met without independent expert advice. Also, accessibility was an ongoing rather than one-off issue, since government sites underwent continual changes in content, functionality and design. This meant accessibility had to be continually checked (Arch &Hardy 2005). The Web Accessibility National Transition Strategy is overseeing this process now, with the first part of the process - a ‘stocktake’ of agency websites - due to have been completed in December 2010 (AGIMO 2010). The government also monitors satisfaction with e-government sevices through its annual Interacting with Government survey, which identifies areas where improvement is needed. Usability issues were cited by one-fifth of people as a reason for being dissatisfied with their use of a government service (AGIMO 2009). While more than half of the general population rated the most recent government website they had visited as easy to use (55% gave an ‘excellent’ rating), only 36% rated it as excellent in terms of being designed for all kinds of people (AGIMO 2009). (One should note here that this figure likely excludes people who had not visited a government website for the very reason that it was *not* well-designed for all kinds of people).

While the internet is the most frequently used method for contacting government for those aged 64 and under, those aged 65 or more are most likely to make contact in person. Only 18% of men and 8% of women in this age group had used the internet for their most recent contact with government in the 2009 survey, representing a decrease from 2008 (AGIMO 2009). A quarter of internet users had been unsuccessful in finding government information or services online. While the main reason for this across the general population was that the website did not have the information they wanted (42%), followed by the website being too hard to use or understand (28%), in the 55+ age group the main reason was that the website was too hard to use or understand (40%).

## Scoping research

Informal interviews (eight in all) were conducted with the provider of a technology trouble-shooting service, an internet provider, tutors for senior internet users and a number of female seniors.

### The trouble-shooter’s perspective

The service for helping people with technology in their own homes was set up because the proprietor recognised that there was a gap in the technical knowledge of many consumers and the technical support offered by the manufacturers. He assists customers in setting up all types of technology in the home - including computers, TVs and stereos, mobile phones and other white goods – as well as with purchasing items such as computers, and basic computer skills. The business grew from the fact that he was frequently called upon to help relatives with technology in the home, particularly the older ones. In dealing with clients ranging in age from 17 to 92, he observed that seniors tend to wait a long time before they phone to get help; they were wary of calling someone they did not know because they did not know if they could be trusted. In terms of internet use, he has noticed seniors are most concerned about pressing the wrong button and security. He takes the time to explain the differences between a hacker, a virus and spam and other security issues because “they don’t learn very well whilst they’re afraid”. His father likes the fact that he provides him with step-by-step instructions in language he can understand (as well as a Don’t Panic sign “because I used to panic if I pressed the wrong button”.)

### Tutors’ perspectives

Tutors for seniors in computer and internet use encountered a range of seniors, from those who had never touched a computer and wanted to see what they could do before buying one, to those interested in topping up skills for particular programs, such as Excel and Photoshop. Many had not used a mouse before and could not type. Most wanted to learn how to send emails (and attach photos) and search for information using Google, but few asked about Skype or social networking sites. Many were interested in travel-related skills, such as booking airline tickets and hotels, but were hesitant to put credit card details online. Sometimes tutors had to search for the activity that would motivate a senior to learn – for example, the ability to find links to a home country if the person was from overseas, or the desire to research family history. One-on-one tutoring was considered particularly helpful because after some initial broadly focussed lessons students and tutors could focus on the areas where they needed most help.

### Seniors’ perspectives

Seniors mentioned feeling silly when they did not know how to use a computer, although one noted that learning in a small group meant that they learnt through laughter: “We all said, ‘Oh I had that problem too’ and you don’t feel so bad.” Those who had started learning wanted to know very specific things – such as how to create favourite website lists, how to use the internet to update information with organisations, and how to scan photos for emailing. Areas of interest and skill levels were diverse. Some who had been using the internet found that it was “no use going back to it a week later” because too much would have been forgotten. One senior had found the cost of having the internet at home was prohibitive and had resorted to using it only at the library where it was free. Several admitted they were a bit frightened of the internet and computers and of “losing everything”. Some thought it would be necessary to be familiar with the internet even though “it could get jolly annoying”.

Some seniors at an expo for seniors who were not interested in taking part in this study said they had recently retired and had had enough of using computers during their working life. They associated computer use with work. Many were keen on staying active and did not see this as compatible with using the computer (“I’m not a sit-down person”; “I’ve had to be in offices all my life”; “I hope it will never be my lot to sit in front of a computer four hours a day”.) Some felt they were too old for the internet to be relevant to them. In some cases, women had left the “technical” aspects of their household to their husbands, and this included using the internet. In some cases women were happy with this arrangement, but others indicated they would like the opportunity to access the computer. In one case, the husband was frustrated that the wife was not interested in learning about the internet.

Lines of questioning for the focus groups and interviews, derived from the literature and scoping study, included thoughts about the internet, uses, experiences of using the internet, expected future use, accessibility and affordability, information awareness and ways of finding information.

# Findings

## Sample characteristics

The average age of non-users and users was almost the same – 72.2 and 71.3 respectively (see Figure 2). The median was slightly higher for non-users (74.5) than users (72.3). However, as the graph shows, the greatest number of users was in the 65-69 age group, while non-users were fairly evenly spread across the four age brackets from 65 to 85. This reflects census data which show that users are younger on average than non-users (ABS 2007a).

**Figure 2: Age distribution of internet users and non-users. The greatest number of users was in the 65-69-year-old age bracket (11 participants). The greatest number of non-users was in the 65-69-year-old bracket and the 70-74-year-old bracket (both 7 participants). Most participants were in the 65-69 age bracket. There were more non-users than users in the 70-74, 75-79, and 80-84 age brackets.**

Non-users were more likely to come from single-person households than were users. This was perhaps contrary to expectations, since it seemed logical to suggest that people living alone would be more inclined to seek out ways of connecting with others, such as via email. Analysis of the data from this study cannot provide an explanation for this, although it would be of interest to investigate whether this is a part of a bigger trend so that women living alone could be targeted for special assistance. Australian Bureau of Statistics data show that about half of single-parent families without dependent children use the internet, which is about the same as for couples without dependent children, but less than for families with dependent children (ABS 2008). The presence of children appears to be a bigger determinant than being part of a couple.

Many participants had family or friends living overseas. While data for this attribute were not available for all participants, what there is shows that more users than non-users had close family or friends living overseas (see Figure 3). Many identified staying in touch with overseas relatives as a primary reason for having the internet, as discussed below.

**Figure 3: Number of internet users and non-users with close family or friends living overseas. While not all of the non-users of the internet had friends or family overseas or interstate (7 of 9 non-users), all of the users did (12 users).**

## Uses of the Internet

**Email**

Email was easily the most common use for the internet. This is consistent with the general population in Australia (Ewing & Thomas 2010) and with the 65+ population in the US (Nielsen 2009). Of the internet users, only five did not really use email. For others, emailing was virtually the only use of the internet; this was all some beginners knew how to do. Keeping in touch with family and friends overseas was the main reason cited for having email – and was a common reason for “going on the internet” in the first place. This was mainly because it was recognised as being cheaper than international phone calls, and it was possible to send photos. However, some non-users said they would still prefer to hear a voice than to consider communicating by email.

A number of the limited users said they felt pressured by family and friends to check their email more regularly, rather than once every two or three weeks:

*There’s such a pressure these days that you should look at it first thing in the morning and every couple of hours during the day and ... you know really good friends are incredibly rude because you don’t get back to them – Rose, limited user*

And many non-users felt pressured to sign up for email by family and friends or by groups they belong to:

*(My son’s) furious with me now because I won’t (sign up for email) and we had a big row this morning on the phone ... and my family virtually cut me out because I won’t have anything to do with it. They won’t write letters any more, so I have to live with that – Gilly, non-user.*

*In my (club) – which is now 13 years old ... we never had email newsletters. Now the bulletin editor has said to me “you know, you’re probably only one of three that have to have the news bulletin posted to you. What is wrong with you?” – Helen, non-user*

A number of participants mentioned that it was belonging to a club or group that had made it necessary to get an email account – especially if they were office-bearers.

“I don’t like sitting down and writing a letter but I think if you can sit at the computer, send a few lines off - how are you, this is happening, get it away - I would do it. Email, I would use it for that definitely” – Dorothy, non- user

**“Googling” and other research**

The second most frequently cited use was “googling”, or using the Google search engine. One participant described herself as a “Google addict” and said it had been used to resolve arguments between her and her husband. Others were equally enthusiastic:

*.... generally if I want to know anything about anything I look it up on Google and I always get what I want – Glenda, user*

*... if I don't know something I Google it. Recipes, gardening, how to control pests on your tomato bushes was my latest look up – Amanda, user*

Apart from recipes and gardening, looking up family history and health and medication information was also popular. While some were sceptical of online health information, others believed it was helpful because “the doctor never tells you enough”. These patterns of use were consistent with other findings (CCI 2010). Google was the number one visited site by 65+ users in the US (Nielsen 2009), and is the top site by users of all ages in Australia (Hitwise 2010).

**Travel – airfare bookings and accommodation**

Participants who made online flight bookings were motivated to do so mainly because of the ability to save money this way. Even one of the most internet resistant participants had allowed her son to find her a good airfare online on occasions.

Some mentioned the advantages of being able to see accommodation before it was booked – although one participant experienced a problem when going online was the only way to book a hotel. This finding aligns with the experience of tutors interviewed for the scoping study. It was the eighth most popular online activity for 65+ users in the US (Nielsen 2009).

**Banking and paying bills**

A minority of participants chose to pay bills online and even fewer were comfortable about doing banking online. Those who had used bill-paying services could see advantages in not having to leave the house, not having to queue, being able to do it at any time and being able to organise payment for a particular time. One of the Italian users was particularly enthusiastic about paying bills and online banking:

*...it is fantastic. For me it is very good. See I don’t worry about going into the bank, to queue to pay the bill or (find out) some information. Sometimes I must look at my budget. This is important - look at how much money you have, how much you have spent. I organise everything on internet and I’m alright ... I already know my budget, my balance is on the internet. And also if I have some bill, I don’t necessarily have to pay straight away ... you go to the internet, you set the date ... This is important because I don’t worry any more – Valentina, Italian user*

One participant had no choice but to do her banking online because her bank did not have a shop-front in Perth until recently.

*My bank was totally online... I haven't had the fooling around on phones and queuing up, it's just been superb – Louise, user*

The majority of users and non-users, however, were adamant that they would not use the internet for banking, citing security concerns. This was also found to be a major concern among older people in studies here and abroad (CCI 2010; AgeUK 2009).

**Skype**

Four participants mentioned using Skype to communicate with family and friends overseas or interstate. One of the non-users from the Italian group enjoyed being able to speak with her son and grandson when they were abroad, but this was not set up in her own home but from the home of another family member. One of the Italian-speaking users, however, has learnt to set it up for herself so that she can see family in her home country and her children and grandchildren interstate using the video function. Another grandmother is looking forward to still being able to hear her grandchildren read when they move interstate.

**Social networking**

Very few people used Facebook or any other social networking tools, but many had an opinion about it. While some could see benefits – such as how a Facebook posting had helped a refugee family find the rest of their family in another country – most felt it was something for young people who did not seem concerned about privacy.

*If you’re on Facebook they know the number of children you’ve got, their names, their ages, what they get up to, their addresses. They get the whole picture and it does happen sometimes that people will want a whole identity and that’s the worrying thing. I don’t go on Facebook now because I had enough of that – Lesley, user*

*The thing with young people is nothing in their lives is secret any more - everyone knows everything about them and it’s why they can be so easily got at. I like to be private – Moira, user*

*And see that wouldn’t interest me one bit ... I don’t want to live my life through the computer – Anne, limited user*

While it was something considered a bit juvenile, lack of privacy and security concerns (once again) were also reasons for not wanting to use sites such as Facebook. Interestingly, Facebook was the third most popular website among 65+ users in the US, ahead of Amazon and Yahoo!, indicating that the distaste for Facebook might be more particular to Australian seniors (Nielsen 2009).

**Other uses**

Several participants used the internet to access news services, with one accessing a service from her home country in Europe on a daily basis. Two participants mentioned using the internet for further education - particularly for research; and many participants used the internet for leisure purposes, such as downloading music and TV programs, making cards and other crafts, playing games such as cards and draughts, and for brain training.

## Barriers to using the internet

Data regarding barriers were drawn mainly from the interviews with non-users, since it was of particular interest to discover the factors that were inhibiting non-users from using the internet. However there is also useful data from limited users who were experiencing difficulties with internet connections or with using the internet, and from users who were also experiencing problems.

**Lack of knowledge**

Lack of knowledge was a major barrier for those who have not used the internet and for those who had used it a little and wanted to use it more. Lack of knowledge underpinned participants’ fear of using the internet, which will be discussed in the next section. Lack of knowledge extended to everything from how to choose a suitable computer, what sort of modem to use, which internet provider to use and which plan to select, to how to use the internet for emailing, sending photos, downloading music, downloading software, fixing errors and protecting themselves from viruses. As the translator for the Italian non-users groups commented: “They don’t know the technology, and also what to use it for. There’s a little bit of fear that they can do something wrong”. Lack of understanding of technical aspects and the fear of doing something wrong were the two major deterrents identified among UK seniors (AgeUK 2009). Participants in the CCI study also spoke of fears of “breaking the computer” (CCI 2010).

For non-users, lack of knowledge about how to get started was a major barrier – and as mentioned in the section on lack of services, help was not always available. Many non-users, as noted by Ingrid – the user who has tutored fellow seniors – had “no idea what you can do or what’s there”.

*There’s so much that you can do that people like myself know nothing about. Absolutely nothing – Dorothy, non-user*

*I don’t know what I’m doing. I don’t know whether I’m shopping well in the sense that I don’t know how many megabits it is. I don’t know if it’s slow – Judy, non-user*

*... you’re not sure whether you download that what you’re going to get – Nancy, limited user*

*I’ve never felt so at sea and confused about it. It was terrible... And I thought I should have done a course in how to choose a computer, because it’s very over-whelming – Marion, user*

For those who want to start using the internet for the first time or have learnt a little, lack of knowledge can make the process confusing and frustrating and engender a lack of confidence.

*But I’ve got huge lots of questions ... it never seems to work the way I want it to, and I’m a bit reluctant - almost scared, but not scared, it’s hard to explain – Kerry, limited user*

Unfamiliarity with terminology contributed to feelings of confusion:

*Mostly the language doesn’t mean anything to me – Elsie, non-user*

*I do listen to some of the computer talkback programs and it’s all gobbledygook to me, and I don’t know what they’re talking about, so that’s another barrier to me – Joyce, non-user*

*... something wasn’t working and so innocently ... you ring the troubleshooting thing and they’re telling you all these things to do and they’re asking you all these questions and you’re being bombarded. I didn’t even know what they were talking about, I didn’t even know the terminology, so I wouldn’t do that now, I wouldn’t ring Telstra or someone, I just wouldn’t – Marion, user*

Seniors seemed to believe that they were the only sector of society that was struggling with the technology and the language of this new world, and many made self-deprecating remarks about their lack of ability:

*And I’m tertiary educated so I don't know if I’m getting dumber as I get older – Denise, limited user*

*It was so simple and I said ‘I think I’m thick’ – Rita, limited user*

**Fear**

The data suggest there are two main areas of fear: one is related to lack of knowledge and includes fear of doing something wrong and fear of displaying ignorance; the other is in regard to internet security – which in some respects is also linked to lack of knowledge.

Fear of doing something wrong prevented many beginners from exploring and using the internet to its full potential.

*I think we are too scared of the computer that if we ... press something, something will start moving. That’s what our problems are: scared – Brenda, limited user.*

*... they say you can’t make a mistake, but in actual fact you can, you can lose stuff and you can make a mistake ... I’m not very brave, so I don’t try things because it might disappear into the ether – Kerry, limited user*

*I’m more frightened that I’m going to do something wrong on it and I don’t want to do that. [Interviewer: What do you think might happen?] I don’t know, I might stuff it up completely or get into something I can’t get out of or get a virus or something. I don’t know – Anne, limited user*

*Denise’s story of receiving a phone call from a ‘technical support service’ embodies issues associated with lack of knowledge and fears about security and appearing ignorant. The call was typical of a scam doing the rounds at the time:*

*He said ‘Have you had a pop-up lately on your screen?’ I said ‘what’s a pop-up?’ ... And I said ‘who are you because we’re being warned not to talk to strangers about our personal information in case it gets stolen, and how do you know about me?’ He said ‘Oh you're registered as a user of XP. Have you got XP windows?’ and I said ‘yes I have’ and then I thought should I have told him that? And I don't know whether I should have owned up because he might have been searching randomly and he said ‘we’ve had people ringing us because they have viruses, and if you get this pop-up, don't press yes’. I said ‘Do you press the red X?’ He said ‘yes’, and I said ‘If that comes up’ - I didn't tell him it already had! - ‘how do I notify you?’ He said ‘you can ring this number and ask for Brian’ ... and I thought I still don't know where you are or who you are. And I didn't own up that I had pressed the red X. And you see this is why I’m intimidated by it, because I have no way of knowing what I’m meant to do in these circumstances.*

Some seniors felt embarrassed by their lack of knowledge:

*We had a friend who came around, and he thought I was very intelligent and then when he found out I was computer illiterate ... he started looking at me, and ... I felt a bit self-conscious, yes – Rena, non-user*

*I think there’s also an element of embarrassment too. Here you are and you’re a successful business person ... and you’ve got to get some young person to teach you – Judy, non-user*

While many participants liked the idea of one-on-one tutoring, there was an acknowledgement by some that learning with someone in the same situation would provide moral support:

*... for us both to go together, we don’t feel silly together – Audrey, non-user*

Ingrid, the senior who has taught other seniors, also believes in this strategy:

*You see, they’re scared of feeling stupid ... you get a little group of people that have never used it, they realise they’re all in the same boat, and I think that’s very important – Ingrid, user*

Fears about internet security were fed by news articles or programs about scams involving stolen credit card details. This was enough to contribute to non-users’ hesitance to sign up, and to make users reluctant to use the internet for e-commerce. In this sense, participants may not have believed they lacked knowledge about security issues, since attention to the news ensured they were ‘well-informed’. However, there was a great deal of ignorance in regard to secure sites, and a degree of uncertainty regarding anti-virus software. Ingrid, the seniors’ tutor, also recognised that seniors are ‘absolutely terrified of viruses’. They were afraid to start the computer ‘because new viruses can steal your bank account and they can do this and they can do that’.

*What is very worrying is these very, very sophisticated scams, and this was to do with travel and a lot of people go on the internet for travel purposes – Joyce, non-user, referring to a news item she had seen.*

*That’s the worry – they are so clever. In one breath you want to learn it but there’s this other concern – Bernie, non-user*

*There’s always this worry as we get older that if all your money went, we don’t have the facility at our age to replace it. Young people can, but we don’t have time to replenish. That’s one of the problems – Elsie, non-user*

As discussed in the section on Uses, few seniors were prepared to use the internet for e-commerce because of fears about security:

*There’s no way I would do my banking or anything like that because I just don’t feel confident, or that it’s secure enough. I know it’s supposed to be, but you hear horrible things – Kerry, limited user*

Even though mobility was an issue for one participant, banking and paying bills over the internet was not considered an option:

*I haven’t really liked the idea of doing that. You know I think it’s a bit sort of kind of ‘out there’. You know it’s a bit difficult unless you can get a safe way of doing it. I wouldn’t be very comfortable with that – Marion, user*

Another fear among users and non-users – but particularly non-users – was the negative impact of technology and internet use on the wellbeing of society as a whole. People had “lost the ability to be social” and to communicate:

*I made it my business to learn and to know every family coming in (to our community). People just rely on me now to organise Neighbourhood Watch and to organise community groups and so forth. However, I’m very happy to do that because I have seen great value in that and have been able to be part of building a caring community, which I think we’re slowly - maybe even quite quickly - moving away from. People isolate themselves with their computers and their televisions; this is why we’re losing the community – Hazel, non-user*

*I think the use of computers is going to make us much more isolated, all of us ... In one way you’re communicating more and more and more, but in another way you’re not doing face to face communication – Ronnie, user*

The impact of a perceived reduction in face-to-face communication was mentioned by about a third of participants. One participant suggested that communication would be a lost art and people who had retained this skill (because they had limited their computer use) would become valuable. Communicating face-to-face was regarded as a more valid way of communicating:

*... the feelings on the face don’t always come across in a flat screen, and the atmosphere in the room can make a difference – Barbara, user*

*.... people don’t communicate any more really. See my girlfriend, she’s on the internet every day, she says she speaks to her daughter every day – but they only talk on the internet. That to me is not communicating – Anne, limited user*

A number were worried about the “addictive nature” of Facebook and two mentioned friends who had been drawn in to cultish groups via the internet. Others were concerned that young people were losing cognitive abilities:

*... we all talk with a great deal of respect about how our young people are so technologically competent, but ... (students) don’t learn how to think. They’ve lost the ability to think – Barbara, user*

*Youngsters are losing their ability to spell because of what they use on email and on their little (phone screens) – Maggie, user*

*My son - if you asked him what two and two are he would probably take out a calculator. They don't have to think. I don't know if that's important. We are living in a changing world and people may not have to be able to spell and count because they have machines that can do this for them – Moira, user*

Concerns were not isolated to cognitive abilities. A number of the non-users saw a link between excessive computer use and deteriorating physical health:

*Gilly (non-user): I read something the other day: older people in the last four years, they’re not getting the exercise they should get. It didn’t say why but you can guess. It’s terribly important that we are active - more important when you’re older even than when you’re younger... They never mention that fact - that most of the people are watching TV or are on the internet.*

*Helen (non-user): I do have a friend who would probably sit for seven hours a day and you’re right, she has ballooned, she’s short of breath.*

**Lack of support services**

Many seniors indicated that they needed (or would need) help with buying a computer and setting it up, and with trouble-shooting when something went wrong. For many, asking a family member or friend was the first and obvious choice. Almost half of the participants said they would rely or had relied on family members (son, daughter, brother-in-law, grandchild, niece/nephew) or friends for help. This was not always satisfactory because often family members were busy and found it difficult to find time to help. A study of digital inclusion in the UK made the same finding (AgeUK 2009). Those who had no family nearby found other sources of help that were free-of-charge, such as online help sites (three users) or asking “the nice man in the library”. Others felt they had no option but to try to find a reliable and affordable technical help service, and some really had no idea of where they should go for advice:

*Where would I begin to go to access really good basic information from somebody that I can trust – to purchase and then to set up? – Hazel, non-user*

*... if ever anything goes wrong with mine it’s ‘get your grandchildren to do it’. Well I don’t have grandchildren, and I don’t have any relatives in this country. I’ve got friends but half of those don’t know ... So if anything goes wrong I’ve got to call somebody in and I’ve got to presume that they know what they’re doing... I’m still trying to find somebody who can actually do the job. A lot of them are real cowboys – Rose, limited user*

*I need a technician to come and check it out and find out what’s going on. [Interviewer: So who can you contact to do that?] I have no idea. Apart from that, it costs you an arm and a leg so I couldn’t afford to get it done at the moment... – Marion, user*

Some participants also had trouble finding suitable tuition. ‘Suitable’ meant affordable, frequent (so that information learnt would not be forgotten), accessible (not too far from home) and preferably one-on-one. Once again, relying on family members for lessons was not always successful because they lacked time or would advance too fast or lose patience, as the following quotes illustrate:

*If I ask two or three times my daughter gets upset – “I already told you!” – Brenda, limited user*

*... (my son) was sitting next to me and I couldn’t think what I was supposed to be doing and he was starting to get stroppy with me because it was so clear (to him) – Rita, limited user*

*I was going to do a computer course about five years ago and my other grandson says to me “Nan I’ll teach you” but of course you can never get hold of them – Anne, limited user*

*Only trouble is – and Beryl said the same with her son – he came and fixed it but I didn’t see what he did! And I get frustrated then because I would like to do it myself. I think it might be a bit of a power thing – Kath, user*

*They tell you so quickly – and you think “Can you say it slowly so I can write it down?” If I don’t write it down, by the next time I do it if it’s something I don’t do very often it’s gone in here and out of there – Lesley, user*

*My grandchildren show me what to do but they're not very good because they know it so well – “you do this, this, this”... – Glenda, user*

Most participants wanted tuition that could be tailored to their needs, which they felt would probably entail one-on-one learning. Although learning in a group had the advantages of camaraderie and moral support, it was difficult if pupils were at different levels.

*I think with classes it takes me too long to learn. I need more one on one ... I feel I could learn more that way – Dorothy, non-user*

*I agree with that too because what you want to know isn’t necessarily what the person you’re sitting next to wants to know – Audrey, non-user*

*Usually any help is useful, but sometimes you don’t want to go through the same thing over and over again too – Kerry, limited user*

Although a couple of participants mentioned positive experiences when being tutored by a younger person, the dominant view was that tuition “by seniors, for seniors” would be preferable, with both parties “thinking on the same level”.

*... a gentleman in his 70s said if you go to tech (TAFE courses) they will tell you everything and you will be expected to remember it next week. We’ll tell you 16 times and you will still forget it but it’s alright because we will tell you again – Elsie, non-user, commenting on a course for seniors run at a retirement village*

A number of participants mentioned forgetting what they had been taught, either between courses or from one week to the next – particularly if there was no computer at home to practice on.

*When you learn something and don’t use it for half a year, it’s completely gone and you have to start again – Brenda, limited user*

*If you don’t have a computer in the house it’s no point to learn it – Giannetta, non-user*

*... but if you don’t do it frequently you’ve forgotten and you have to start again – Ronnie, user*

While some participants had completed multiple courses and knew where to access free or low cost lessons (“lots of shire councils do or know of courses that seniors can go to and some of them are free”; “they’re in the library, they’re everywhere”), many were unsure of how to find something affordable. One participant suggested including information about courses with Centrelink correspondence.

Participants in the CCI study of older Australian internet users identified similar problems: lack of skills, not knowing what computer to buy and not wanting to burden family members as barriers to use; lack of awareness of support services; classes which were not paced well for older learners; and ineffective learning in group situations (Ewing & Thomas 2010). Seniors in the UK also spoke of lack of time and patience among family members; they were also ignorant of the help available to them (AgeUK 2009).

*I still keep in touch with (my young former lodger), so I think if ever I was going to buy a computer, if ever I was in the situation where I had to get it set up for myself from scratch, I’d just offer him a huge bribe and get him to do it for me – Ronnie, user*

**Complications with Internet Service Providers and telcos**

*“I lost a bill and I rang them up and they said ‘look you’re not using that very much, why don’t you go onto a wireless connection?’. So I got the man to come to put the wireless on because it was only going to be $10 a month, and he said ‘well you don’t really need it, you’ve got this (two-year) contract.’ So he rang up Telstra then and said that there was this elderly lady and she didn’t have a clue, and she’s been conned into this rah rah, and (even) then they didn’t quite get it right. So I went down to the Telstra shop and in the end they said to me don’t ever get anything over the phone again” – Nancy, limited user*

A number of people had encountered problems with Internet Service Providers (ISPs) and telcos, ranging from frustrations with the technical help line to over-use charges and being talked into new contracts or plans without adequate explanation. Participants were often left feeling disillusioned, confused and extremely wary. These feelings were sometimes enough to cause the participant to terminate a service or to abandon establishing one. Even when the incident occurred with a telco service that was not internet-related (e.g. mobile phone), the level of trust in the telco as a whole was severely diminished. One user refused to have an internet service at home because of over-use charges during a period when she was overseas. She now chooses to use the internet at her local library.

*It would be a long time before I bite again – Liz, user*

Another participant who was charged for exceeding her limit when she had not been using the internet felt she was dealt with very poorly:

*... when I phoned them up I’ve had absolutely abysmal service – I’ve had them hang up on me. I’ve actually often been on the phone three hours trying to get the problem sorted out and I have actually been reduced to tears – Rose, limited user.*

In some cases lack of knowledge on the part of the participant meant they did not understand what was being offered. Unfamiliarity with terminology (see also the section on Lack of knowledge) can make problems difficult to resolve with the ISP, but it also appears that incompetence on the part of the providers is often to blame.

**Affordability**

*“One big disadvantage of the internet is the cost, particularly if you know you are going to use it a lot for looking up stuff as the download limits on reasonable costs are very low, and the times they have the off-peak period where the cost is cheaper or the allowance is greater are at stupid times - for example from midnight to 8am” – Stella, user*

While there was acknowledgement among the group that internet expenses would be too much for some pensioners, only a few of the participants were of the opinion that they could not afford it. This finding is similar to that of a UK study of seniors, which identified cost as a barrier but not necessarily the biggest deterrent (AgeUK 2009).

In some cases the cost of associated hardware and software (including the computer itself) was a barrier. Others commented that they could not justify the expense for the amount of time they felt they would use the internet. Two users had remained on dial-up because it was more affordable and a number of users had shopped around to find a more affordable deal. For example, one user had opted to pay less for a slower connection because speed was not important to her. However, opinions varied as to what was a good deal. Some users felt that $30 or $40 a month was reasonable; however, this was considered exorbitant to some non-users, who until the focus group had little idea of what the cost might be.

*I feel for seniors there should be a discount ... to encourage seniors to play around and learn ... I do feel concerned about the costs and that’s why I go to the library – Liz, user*

While users such as Liz elected to use the library to avoid the expense, there were disadvantages to this, such as download limits and availability:

*...at my local library if you wish to use the computer you have to book a week ahead and the initial booking can only be for an hour. On the day you go down if there are no other bookings you can ask if you can have extra time – Stella, user*

**Lack of desire/ lack of time**

For some non-users, not being connected to the internet was not necessarily related to affordability or accessibility – they simply had no desire to use it. This was either because they were not sufficiently interested in it, they felt they did not need it, they did not have the energy to learn something new, or they objected to it on principle or philosophical grounds (or a combination of any of these factors). The Italian non-users all felt like this – in stark contrast to the two Italian users who were keen to learn as much as they could. This comment from one of the Italian non-users was typical of the group:

*I’m not really interested because I don’t want to spoil my brain too much... I don’t think I cannot learn it, but I could not be bothered – Giannetta, Italian non-user*

Several in the non-users group felt the same way as expressed by Hazel:

*I really don’t have a strong interest in it at all at the moment. Perhaps in the future if the time comes where I become physically limited or have a disability or whatever and I’m perhaps confined I may – may – take an extra interest and push myself in that direction. But in speaking with some of my younger relatives they just say to me “If you’re managing well we see no need for you to have to take that on board” – Hazel, non-user*

While most non-users (and some limited users) cited lack of time as a reason for not using the internet, in most cases this was connected to priorities; learning to use the internet was not something they were sufficiently interested in to make time for. They preferred to spend their time in other ways – often outdoors:

*I love nature and I’m out of doors all the time. I’m not interested in staying indoors – Gilly, non-user*

*I’d rather get outside and do something, play tennis or swim or something – Rita, limited user*

*I haven’t got 30 days to sit and play with this photo thing, and then decide whether I want to buy it or not. So you need to be able to have time to sit down and play – Kerry, limited user*

*I wouldn't say I’d like to. It wouldn’t be a priority for me. If I can get somebody else to do it (look things up) I will – Joyce, non-user*

*I have one day I come here (seniors’ centre), one day I go to craft for a half day, then one day I have to look after my grandson, then I have the garden to look after, do the washing, clean the house... I don’t think I have the chance and the strength to do the other things... to go and learn the computer you have to force yourself one day, two day, three days a week to go there and do it. And we don’t have that time. And after we get too tired – Giannetta, Italian non-user.*

A preference for using traditional methods was also cited. As documented earlier, some people had a preference for paying bills at the post office because they liked the contact with people and the excuse to go out of the house. Some prefer traditional methods – face-to-face contact, telephone, letters by post, books – because this is what they are familiar with:

*I’m old and conservative and I’m used to always going to the post office or sending a cheque – Judy, non-user*

*I feel I am in my security blanket when I am back in my old world and this new world is a little bit confronting for me – Bernie, non-user*

*I still look to books and papers first .... My friend looked up (the movie times) on the internet. I would look in the paper or the TV magazine. You know, I’m just so used to print... I mean I’m 77 so old habits die hard, don’t they? – Beryl, user*

Others preferred traditional methods because they are perceived as friendlier, more personal and more effective:

*Isn’t it nicer to talk to somebody? – Janet, non-user*

*I prefer to talk to people. I ring people up rather than send emails – Denise, limited user*

*I’m probably a bit old-fashioned. I like to have one-on-one eye contact and all that sort of stuff – Judy, non-user*

*I don’t think I’d send them any messages, I’d still go down and sit with my book and wait – Nancy, limited user, in reference to emailing a government service*

*I wish I hadn’t given away my old portable typewriter that I used to do assignments on – if you want to type a letter on the computer you’ve got to turn it on, wait for it to do this, click on that, bring up this program, go in there, make sure it’s the right font and all the rest of it and then I think “I could have had this typed – all I had to do was stick the paper in and type it!” – Denise, limited user*

While a few participants were intrigued — and in one case excited – at the prospect of e-books, most participants did not think they would be interested in reading in this way. Most liked the feel of a real book, liked to browse in real libraries and bookshops and thought it would be a shame if real books disappeared from the shelves.

**Physical impediments**

Few participants in the study were affected by physical factors that prevented them from using the internet. However, one participant suffered from arthritis and could only use the computer for short periods, a couple mentioned problems using bifocal glasses, and several mentioned being unable to tolerate the glare of the screen for long periods and/or headaches they believed were caused by viewing the screen.

Many participants mentioned cognitive impediments, which they perceived as related to age:

*I get very frustrated. I allow for the fact that at 84 years my brain is not so alert, but there are things that I can’t do that I want to do – that I’ve done a day or two before but somehow can’t get there the next time – Mavis, user*

*... my poor little brain doesn’t work sometimes, it wants to go off on something else – Rita, limited user*

*A friend of mine was going to New York and she was doing all the tickets and she messed the whole lot up and someone else had to do it. [Interviewer: Could she go back and correct it?] Yes, thank god, they understood, being a senior - Bernie, non-user*

## Information awareness and ways of finding information

Participants were asked about their awareness of benefits which can be obtained by holding a Seniors Card. A Seniors Card is available to permanent residents of WA aged 60 or more who work 20 hours or less per week. It entitles the bearer to a range of government concessions and discounts from businesses. Participants were also asked how they go about finding information, particularly related to government services. There did not seem to be a notable difference between levels of awareness between the users and non-users.

Without prompting, both groups mentioned a range of discounts, rebates or subsidies and free services obtainable with the Seniors Card, the most commonly cited being free bus and train travel. Members from both groups mentioned discounts on shire rates, water rates, spectacles, movies and some restaurants and shops, and the free annual bus trip to a country centre within the state. A few from each group mentioned discounts on phone services, free drivers’ licence, hearing aid subsidy and a discount on electricity (although there was some uncertainty about this). One or two women mentioned subsidies for insurance and mobility aids. The least well-known benefit was the rebate for home security measures, although when prompted a few said they had taken advantage of this.

There were differing degrees of awareness between individuals – for example, some could quote actual rates for discounts and the details of the free travel while others knew only that it was available – but overall awareness between the two groups was comparable.

Differences were more apparent in the methods used to find information. Not surprisingly, users were more likely than non-users (or limited users) to access information or phone numbers from the internet, but there were still a handful among the users who preferred to use the telephone and the telephone book:

*I would look it up in the phone book. I am not happy at looking up numbers on the computer - Kath, user*

*If for me (it is) something new, I prefer a telephone because I want to talk with the people – it’s more understanding - Valentina, Italian user*

Some of the users found it easier to find contact information on Google than to search the telephone book:

*I’d use the Google. Sometimes I find the phone book a bit hard to use when you’re looking up government things – you have to find the right section – Jeanie, user*

Marion agreed, although she preferred to use the internet to find the number and then the phone to find out the information she needs:

*It was quicker to find it (on the internet than in the phone book) but then ... it’s necessary to ring up to get the information you want because sometimes it’s not there – Marion, user*

The non-users used a wide variety of sources to find information and to access phone numbers. While many used the phone book, other sources were newspapers (including community newspapers and the *Have-A-Go* newspaper for seniors), TV, radio, leaflets, shire information, clubs, libraries, and in person at the relevant office. Some – particularly the Italian participants – also reported that they would get someone else, such as a son or daughter, to find the information for them.

One participant who had used the internet a little found it quicker to use the phone to find out information regarding public transport services:

*They’re very helpful when you get through. They tell you which train to catch and when it leaves. That suits me – it would take me an hour to find that out on the internet by the time I turned it on and found my way in to the right site – Denise, limited user.*

Despite expressing frustration at often having to wait a long time on the phone, beginner users were not motivated to go to a website:

*... but while you're waiting to get through they try to direct you to the www.transperth – and I say ”No I’m not doing that, I will wait” – Denise, user*

*I get frustrated because they go one, two, three or four and you’ve got to take a guess and hope that you got the right number, or if you hang on long enough eventually somebody will come on and you can play the old lady trick. But I haven’t yet got technologically minded enough to automatically think ‘I’ll go to the internet’... you automatically think of other ways of finding it out first – Kerry, limited user.*

The finding that both groups had comparable levels of awareness of services indicates that the methods each is using to find the information are comparably effective. At this stage it would seem that there are many ways for seniors to access the information they need. In the future, if information is not so readily available in places other than the internet, the differences between the groups may be greater.

Participants were asked how they would like to receive feedback from the study – via email or through the post. Interestingly, among the users, the number who elected to receive it by post was almost double that of email (see Table 2). Only eight elected to receive it by email – one of these a new user who thought she would be “brave”. When given an option, there is obviously still a preference for material in hard copy format, even among internet users.

**Table 2: Study feedback delivery method chosen by participants**

|  |  |  |
| --- | --- | --- |
| **Delivery of report** | **Non-users** (n = 25) | **Users** (n = 25) |
| By email | 1 | 7 |
| By post | 22 | 13 |
| Unknown | 2 | 5 |

## Use of e-government services

Participants were quite vague about their use of government websites. None specifically mentioned the portal sites, australia.gov.au and wa.gov.au, which is consistent with the *Interacting with Government* survey which shows that only 40% of those who used the internet for government contact were aware of the site. This had not altered in three years (AGIMO 2009). A couple mentioned the seniors’ website, but it was not clear which site this was. While some users mentioned going directly to a government website (using a URL which they may have taken from a bill or some correspondence), others were more likely to Google for government services. This meant they did not have to find the right section of a government department. Sites accessed, apart from seniors, were the Bureau of Meteorology, the Department of Foreign Affairs (“When I'm going to travel I always go on to Department of Foreign Affairs and check up on visas and if it’s safe to go to that country and I always record (register) when I go away”), the Department of Transport (usually to check train and bus services) and the Department of Health (in relation to wills). Some had used the Western Power and Water Corporation websites.

While some people had downloaded forms with success, others had experienced problems. One person was unable to download forms needed to apply to work on an election (“I don’t know why it failed”), and another had problems downloading a passport renewal application. Some women described the frustration of attempting to do something online and being forced to fix it in person:

*We had to do it for our solar panels, when we applied for the renewable energy, and it all had to be done again. And then it got lost in the system twice. In the end ... I wasn’t able to email that off and had to download the form, fill it out and then we took it right into the office and handed it to the girl. And I said ‘I will stand here while you go and give it to the place it should go to’ – Ruth, user*

*One time I went to Centrelink and they said ‘why don’t you get an internet connection and you can see what’s happening with your thing?’, so they gave me a temporary password and the email address and when I got it I could not see where to press, so I rang them up. I must’ve been there at least a half an hour on the phone going through this, and the man said ‘it’s alright I had someone the other day that took two hours.’ So we got through it all, I was connected and he said ‘well there you are, that’s finished’, and I said ‘thank you very much’. Then I looked at the screen and I could not see anywhere that said exit. Nowhere. I even looked down the file and everything, there was nowhere that said exit. So I didn’t know what to do, so I just had to turn the computer off and next time I went down there and said ‘I don’t want this’ – Nancy, limited user*

Others had experienced navigation problems:

*I tried to find out what was happening for Seniors Week over the internet and I must have wasted about half an hour and I was still none the wiser. All sorts of unrelated things, in the end I thought this is so damn frustrating and I gave up – Denise, limited user.*

*Sometimes you get a lot of misinformation or it goes off at a tangent much more than you need. It’s trying to pinpoint which bit you need when it comes up. But I still find that’s the easiest way to find information – Lesley, user*

*It’s a bit confusing. I find that there’s so much information that it’s hard to pinpoint exactly which place to go to – Beryl, user*

One experienced user claims that some websites are excellent but some are “very slack”:

*There’s one senior website I can think of that for months and months, nobody seems to do anything to update or change, you know - Ingrid, user*

## Impact on wellbeing

Personal wellbeing can be regarded as the general ongoing state of feeling well and contented. The leading measure of wellbeing in Australia is the Australian Unity Wellbeing Index, a joint project between Australian Unity and Deakin University’s Australian Centre on Quality of Life. It measures level of satisfaction with health, personal relationships, safety, standard of living, achievements, community connectedness and future security (Australian Unity 2010). Although the index was not used directly for this study, the index elements were used as a guide in determining the potential impact of the internet (presence or absence) on users and non-users in terms of wellbeing.

It should be noted wellbeing is difficult to measure in the limited context of a single focus group session or interview, and also that a degree of self-selection was evident in both groups. That is, the majority of those who volunteered for the study had some interest in the internet – either because they wanted to learn more about it, they were avid users who wanted to share their experiences, or they had experienced problems with the internet and were opposed to using it. Not surprisingly, they also tended to be active and engaged women who enjoyed participating in workshops or discussions. Hence, if wellbeing had been measured using the index it would not have been surprising to find both groups returning a high score.

*Personal relationships* – Nine of the users were the only member of their household. For these people in particular the ability to stay in touch with close family living far away via email was highly valued. However, an almost equal number of users were not alone in their home. Also, more of the non-users came from single-member households than households with two or more members. Twice as many multi-member households as single-member households were users. Thus, in this study, coming from a single-member household did not make internet use more likely, despite the possibilities for companionship offered by social networking sites. Non-users and users reported a similar degree of interest and internet experience to their husbands or partners, ranging from complete disinterest and illiteracy to monopolising the computer. In one of the focus groups there was a suggestion that the internet ‘saves marriages’ by resolving arguments about factual information.

*Safety* – Any concerns about safety in relation to the internet were in regard to financial security (keeping money safe by avoiding internet transactions) and keeping personal details secure (by avoiding sites such as Facebook). Only a couple of participants (both users) felt more secure using e-commerce, mainly because they could easily detect fraudulent activity by immediately checking online bank statements. Most participants perceived the internet as compromising safety.

*Standard of living* – A number of participants recognised that the internet could save them money and that this could have an impact on the standard of living of a pensioner on a tight budget. Discounts could be obtained by doing certain things online, such as travel bookings (particularly airline tickets), insurance and paying bills (some companies charged extra for posting a bill). Paying bills and shopping online could also save on petrol costs, and using email saved on phone bills and postage. People without internet access missed out on the benefits of shopping discount cards which needed to be registered online. Of course, these savings needed to be weighed against the cost of the internet connection and other associated costs (as discussed in the section on Affordability).

*Achievements* – A sense of personal achievement at mastering aspects of the internet was certainly felt by the users group. Some users were keen to enhance this feeling by learning more – particularly the two Italian users:

*The second course will be better. We do a little bit more - every time it is ready, I am the first – Valentina, Italian user*

*I was doing pretty good, I love it, yes – Sophia, Italian user*

Some of the non-users also indicated they would feel a sense of achievement by learning to use the internet:

*I would like to be able to use it, because I don’t like to think I’ve failed at something – Nancy, limited user*

*I probably would prefer to be reasonably computer literate to be self-sufficient and responsible for myself – Judy, non-user*

However, for those non-users who were not interested in the internet, there was no sense of failure in not being able to use it. They valued other skills and activities more highly and derived a sense of achievement and satisfaction from those.

*Community connectedness* – The internet was regarded as having the ability to both isolate people and connect people. As discussed earlier, non-users and some users were concerned that the internet may erode community connectedness if people were less inclined to meet and interact in person. Some were already experiencing this in a minor way – for example, Rose noted that her brother had more than 1000 friends on Facebook but he never contacted her personally. However, isolation due to the internet was more likely to occur for those who did not have access to it. Some of those with access had found that it had connected them to people and community events – “it has allowed me to get involved in attending more forums on public health”, said Stella; Ronnie was able to find information about free concerts because she could look up *“*six or eight different city councils and see all their programs in half an hour of sitting at the computer”; and members of groups or organisations were able to keep in touch with other members easily by email. Some were also members of virtual communities, such as old scholars groups. But many of those who did not have internet access were already feeling sidelined – not only by family and friends who used email, but because they were missing out on opportunities that were only available online, such as entering competitions or following up information about products, services or events:

*... sometimes you do want to join in to something or competitions and that and it’s very frustrating. I often feel quite left out – Bernie, non-user*

*I’ve read things that interest me and it says go to the website so I’ve just not bothered – Anne, non-user*

*My mum now is coming up for 90 and she is missing out on more and more things, because so many things you hear on the radio – go to our site, www-something. So all those older people, or people who weren’t quick enough to write down the address even, they just can’t do it – Ronnie, user*

One participant also mentioned the difficulty of dealing with tradesmen or shops who direct customers to websites, assuming that everyone has a computer and internet access. Some non-users, however, were prepared to put up with this until such time as they were physically incapable of going out among the community:

*From a practical point of view I think it is important because you can keep informed .... which I don’t do now, and I think also as one becomes older and you’re not as mobile I think it could be vital – Judy, non-user*

Others also felt that people who were physically incapacitated would benefit from the internet.

*I can understand that if a person was housebound and immobile, rather than watching the idiot box all day ... maybe some information that stimulated your brain - Helen, non-user*

*... in my street there were about three senior women who’d lost their husbands ... and they’re disabled ... They’re intelligent women; if they had access, someone could come to the home and teach them and I think they’d be a lot more stimulated and informed – Judy, non-user*

Here we see references not only to the convenience of being able to access information from home and connecting with others, but to mental and emotional health. This will be discussed next.

*Health* - Members of both groups mentioned that it would be (or had been) helpful to access health information from the internet. It could be empowering to be informed about a health condition or medication when traditional sources (i.e. doctors and pharmacists) were not forthcoming or readily available. But there were also perceived mental and emotional health benefits to having the internet. For seniors who were isolated for one reason or another, the internet was seen as offering stimulation and warding off depression. Ingrid, the senior citizen who has tutored and assisted other senior citizens with computers and the internet for the past 10 years, sees this as the primary benefit:

*... they can get by without it, but their life is so much richer and so much more interesting, and they’ve got the world at their fingertips ... It gives a new lease on life. I mean, let’s face it, older people don’t know what the future holds. They might not be so mobile any more. They might have a fall and be stuck for weeks or months even, or have something permanently… If they know how to use a computer, it’s a completely different ball game. Their life is so much better. The quality of their life is so much better – Ingrid, user and trainer*

She described introducing the computer to a woman of around 90 whose husband had died five years earlier who was living alone and was bored and depressed:

*Any little thing that she hears on television, reads in the paper, goes straight to the computer to check it out. It’s fantastic. You’ve got no idea how this has changed her life - instead of being bored, depressed, you know, too much time on her hands. She just doesn’t have enough time now to do all the things she wants to do. But it does make an enormous difference. I can’t stress that enough, and that’s why I feel really passionate about it. All older people should have a computer – Ingrid, user and trainer*

Participants did not speak openly about personal mental health issues, hence it is not possible or appropriate to make judgements about differences in health (mental or physical) between users and non-users. However, some participants did speak about it in general terms or in reference to people they knew:

*I think if the internet is made inaccessible to the older population it would be a travesty really because isolation is such a terrible thing for people who are housebound ... If my sister couldn’t afford it would devastate her because she would lose contact with everybody ... and it’s cheaper if you keep them happy in their own home rather than end up sick in hospital – Barbara, user*

*... and also medically I think if people are stimulated they stay more healthy – Judy, non-user*

*Future security* – Users felt more secure about their future than non-users, because almost all participants recognised that the internet was here to stay and it would be important (or even vital) to know how to use it. One of the non-users (the eldest participant) thought she “might have to die fairly soon” if she was going to avoid using the internet. Another non-user, one of the youngest participants, did not think she would need to know how to use it – even if her husband, who does use it, was no longer around:

*... there are alternative ways of finding out what I need to know – Janet, non-user*

While most users were comfortable with the idea of using internet services more and more (“I will be confident because I start learning now”) the non-users felt they would have to make a concerted effort to learn so that they would not be “left behind”:

*Well I’ve been told if you’re computer illiterate now it’s only going to take about another two years and you will be illiterate if you can’t use a computer, and I think that might be true because you do get left behind. There’s a lot of things you can’t do if you haven’t got a computer – Audrey, non-user*

*I know I have to move on – my kids told me that - or I will get left behind – Bernie, non-user*

*... we may need to have greater access to what’s happening in the world out there so that we can keep a close eye on what’s going to happen to us in the future ... if there’s going to be any change in legislation for the old people and the laws going through at the moment and stuff like that. So ... you have to have it basically, and I’m very glad that I was given a set but ... you can only learn so much at a time I guess – Kerry, limited user*

*It is I think just a fact of life for older people that things will get more limited for them, and I can’t see any way around that really. [Interviewer: So you think that in years to come it’s going to be essential to have that internet connection?] Oh yes. I think so, yeah. Because more and more companies are expecting that you’ll do things on the computer – Ronnie, user.*

In summary, while the actual impact of the internet on the wellbeing of the participants could not be measured, users portrayed the internet as having a mostly positive impact on wellbeing. Overall, the negative impacts perceived by users were in relation to online safety (they felt their finances were less safe if conducted via the internet), and community connectedness (insofar as they saw people as losing the ability to communicate in person, which they still regarded as valuable). Non-users could identify some positive impacts on wellbeing (such as health and standard of living), but overall they saw it as having a negative impact. Email had upset personal relationships within families, people were losing the ability to communicate, they were feeling left out and left behind and they did not feel as secure about the future because of a perceived reliance on a technology they did not yet understand.

## Summary of findings

The internet was used mainly for email and for finding information (usually using Google) such as recipes, family history and health-related information. Users were prepared to book and pay for travel online but many were hesitant to use the internet for other financial transactions or for banking.

There were many barriers to using the internet, including bad experiences with ISPs and telcos, lack of services, and lack of awareness of where to find help - including for technical assistance and for tuition. Lack of knowledge was a major barrier, with unfamiliarity with terminology and processes leading to a fear of doing something wrong and/or appearing ignorant. The cost of the internet was a barrier to those considering getting it, but not generally for those already using it. Lack of interest in using the internet was another barrier, as was lack of time (or at least an unwillingness to spend time on this activity).

In terms of information awareness, there were differences between individuals but not across the two groups. There was a greater difference in ways of finding information, with users obviously using the internet more (or more commonly a combination of Google and the phone), and non-users using a wide variety of sources.

A few participants had accessed government websites with varying levels of satisfaction. A few had experienced a great deal of frustration trying to conduct business electronically, and in trying to download forms. None had been to the state and federal government website portals.

In general, users perceived the internet as having a positive impact on personal wellbeing and non-users perceived it as having a negative impact. Non-users also believed that not having internet access would have a negative impact on their future wellbeing.

On the basis of the analysis, participants in this study can be categorised into four types:

* Users who enjoy using the internet and believe those not using it are missing out;
* Users who use the internet only as necessary and with some resentment;
* Non-users who plan to use the internet but feel uncertain about it;
* Non-users who are happy not to use the internet and do not feel they are missing out.

Mick and Fournier (1998) identify eight paradoxes of adoption of technology, of which four in particular are reflected in this study:

* Freedom/enslavement - Technology can facilitate independence or fewer restrictions and technology can lead to dependence or more restrictions
* Competence/incompetence -Technology can facilitate feelings of intelligence or efficacy and technology can lead to feelings of ignorance or ineptitude
* Efficiency/inefficiency - Technology can facilitate less effort or time spent in certain activities and technology can lead to more effort or time in certain activities
* Assimilation/isolation - Technology can facilitate human togetherness, and technology can lead to human separation.

We can see from the findings that users and non-users identified all of these concurrent pros and cons in relation to using the internet, so it is no wonder there is a degree of confusion and hesitation in fully embracing it.

# Conclusions and Recommendations

The aims of this study were:

1. **To identify factors affecting female seniors’ use of internet-based resources**

The factors affecting female seniors’ use of internet-based resources were the issues covered in section 4.3 - Barriers. While affordability and bad experiences with telcos or ISPs had some bearing on using the internet, the greatest problems were associated with lack of supporting services, lack of knowledge, and fear. Lack of services did not relate to the internet (broadband) service itself, but to a perceived lack of services to support people with setting up and learning how to use the internet. Seniors are an in-between group who have been allowed to slip through the cracks to some extent; many were leaving the workforce as the internet was taking off, or were in management roles where they were able to delegate computing tasks to others. As a school principal, one of the participants had seen to it that teachers and administration staff had computer training, but had left herself out of it. Others were not in the workforce or not in jobs that required this type of knowledge. Opportunities for training through study or work have not been available. Thus, those that have wanted to learn have taught themselves, relied on family members or enrolled in courses for seniors. Their education in ICT has tended to be ad hoc and incomplete. Most seniors seemed aware that they would be able to access training courses (even if they did not know exactly where), but were concerned about cost and expressed a distinct preference for one-on-one tutoring.

Moreso than training, difficulty in finding someone to provide assistance with buying a computer and with trouble-shooting was a common complaint. The private technical home help service discussed in the scoping study is a perfect example of what is required, but there are not enough of these services and they may not be affordable for some seniors.

1. **To determine whether there is a knowledge gap between female senior internet users and non-users, specifically relating to information and service provision, and whether (and in what ways) this impacts wellbeing**

Internet users and non-users in this study had comparable levels of awareness of information and services; this is because those who were not internet users were adept at finding information by other means, and had called on family members or friends when they needed to access online information or services. These participants were physically and socially active; however, all participants acknowledged that for less active seniors, the internet would be useful. At this point, there is no difference in information awareness and hence it is not possible to determine whether using the internet to find information impacts well-being. However, projecting into the future, most non-users considered they would be worse off if they did not have internet access. Many of the users were also so overwhelmingly positive about the impact of the internet on their lives that it is difficult not to conclude, even from this study, that there is a link between internet access and well-being – related not only to the ability to access information and services but for the social connectedness and stimulation it can provide.

1. **To make recommendations for inclusive forms of information dissemination and internet access.**

The following recommendations are aimed at improving the availability, affordability and accessibility of internet communications to enhance the lives of female seniors.

**Recommendation 1:**

*More low-cost training aimed at improving digital media literacy skills.*

Affordability is a key concern here, since many seniors are pensioners and/or have a limited income. UK research (in line with this study) suggests that over 55s are one of two groups least likely to get online without intervention and support (Department for Business, Innovation and Skills (BIS) 2010). Therefore, governments need to ensure their digital media literacy programs are well targeted. Training for seniors needs to be made a priority. According to the UK study, needs of people currently offline vary from the need to get online (access), to the need to manage online risks, to the need to get interested (BIS 2010). This latter need is particularly pertinent to older people, who do not necessarily perceive any benefits in being able to use the internet (as demonstrated in the findings of this study). Therefore, training needs to be customised to suit the needs of this group (and others). For example, while many seniors expressed a preference for one-on-one training, some preferred to learn in a group. Both of these options should be provided. The government could take a lead in training provision through formal education institutions, as well as by supporting existing community groups and programs. There is also a coordinating role for the government (local and state) in listing available courses (and their cost) in publications for seniors, and matching up program providers to the people who can benefit most. To keep the cost low, training may need to be provided by volunteers supported by not-for-profit organisations (which could provide a venue and training for the tutors). Such schemes currently exist, at organisations such as COTA (WA) and Citiplace Community Centre in Perth; and the government announced in May 2011 that one-on-one training and group sessions will be offered in communities that are early recipients of the National Broadband Network. However, there do not seem to be enough courses and many seniors do not know about them. There is an obvious need for better publicity, and a possible role here for the government in subsidising advertising material for the training providers. The UK, in its race to have 60% of the people currently offline online by early 2014, has developed a needs-based consumer framework for digital participation to identify areas where people are most likely to need support. This has been mapped against the support that is already being provided by government, industry, community organisations and the education sector, making unmet needs apparent (BIS 2010). A similar approach in Australia would help to identify how well current programs are meeting the needs of seniors and where there are shortfalls.

**Recommendation 2:**

*Better consumer protection and customer service in the communications market.*

As detailed in ACCAN’s (2010) study of consumer experiences of the telecommunications industry, *Reconnecting the Customer*, consumers are very poorly served in terms of customer service and complaint handling in the telecommunications industry. Seniors in particular are prone to unsatisfactory experiences in the market, as demonstrated by the stories of frustration and bewilderment provided by participants in this study. Lack of knowledge about the technology, unfamiliarity with the language used, and factors associated with age (such as hearing difficulties) make seniors more susceptible to poor practices. They need to be protected from this by the provision of a revised and improved rules, regulations and complaints handling process, as detailed in ACCAN (2010).

**Recommendation 3:**

*Advice and assistance services to enable seniors to navigate the market.*

The findings show that seniors considering using the internet at home require assistance of various kinds, including an explanation of terminology, what sort of computer/modem/printer to buy, information on different ISPs and plans and where to go for help to set it up. Without this knowledge there is often no way of getting started. Clear, independent advice would help reduce seniors’ concerns about being misled by telcos and/or ISPs (underlining the need for the previous recommendation). Given that the relevant technology is ever-changing and plans offered by telcos also change rapidly, leaflets or brochures are probably not the most appropriate means of conveying this information. Information sessions with a question and answer component could be coordinated by the relevant government department, using their own staff or knowledgeable recruits (for example, from groups such as the Australian Seniors Computer Clubs Association). While some special interest groups are already providing similar advice, these sessions would be more broadly targeted and held at widely accessible places such as shire libraries. In addition, a tech-help hotline for people who cannot attend information sessions or who need immediate help should be managed by the relevant government department and listed in the telephone directory (see Recommendation 4).

**Recommendation 4:**

*More reliable and accessible technical support services for seniors.*

The study findings show that seniors who do not have family members to call upon are unsure about where to find help in setting up their equipment. Over-the-phone help provided by telcos is often inadequate because of seniors’ lack of familiarity with the terminology. With regard to anything more complex than plugging in a portable wireless modem to a laptop, many seniors are likely to require a home visit. Such a service would assist seniors with setting up hardware and software in their homes, and trouble-shoot any ongoing problems. The lack of provision of this service by telcos leaves a gap best filled by private technical support services, such as the one described in the scoping study. At present few of these exist. If the market is not filled automatically, the government may need to consider a recruitment program or perhaps sponsorship of computer clubs to provide this kind of service. Technicians may need to be registered in some way so that seniors feel reassured that they can be trusted. The provision of a technical help line designed specifically for seniors and staffed by people who can speak to them in language they understand is also recommended. This could be a branch of the same tech-help hotline referred to in Recommendation 3. Callers could be directed to one of two services – one for help with setting up equipment and buying equipment (hardware issues), and another for help with software and computing issues. This should be a free call. This service would differ from call-up services offered by telcos/ISPs and online help menus offered by software companies in that the person providing advice would be directed to use plain language where possible and to explain any technical terms used. A plain language reference manual for helpline operators could be developed in conjunction with seniors. A dedicated seniors’ helpline would help to address the complaint raised by study participants that advice is often difficult to understand. Seniors – particularly female – may feel more comfortable about using a service which does not make them feel embarrassed for asking questions they think will be perceived as “silly” or elementary.

**Recommendation 5:**

*Provision of government-sponsored cyber security and safety campaigns.*

Seniors’ fears about using the internet were often related to lack of knowledge, as discussed in Recommendation 1. However, much of the fear about use was related specifically to internet security. Seniors seemed to be exposed to a lot of misinformation, with the result that even users who were happy using the internet for many other purposes were too afraid to do banking online. Given the advantages for this age group of being able to do banking and transactions from home, this is an area that needs to be specifically addressed. Fears need to be allayed by providing clear and substantial information from a trusted source, to balance the horror stories regarding fraud and scams which appear in the popular media. As noted by a government report, “the promotion of digital confidence requires a delicate balance between highlighting and educating Australians about online risks and about online benefits” (Commonwealth of Australia 2009: 85), whereas most government consumer education campaigns had highlighted only the risks. A campaign to provide information about risks and benefits should be managed by the government but could be out-sourced to organisations such as COTA. Appropriate experts would need to be consulted. While websites such as the Australian Competition and Consumer Commission’s [SCAMwatch](http://www.scamwatch.gov.au) and the government’s Stay Smart Online contain a much useful information about online scams, fraud, and ways to protect your computer, the information could appear quite overwhelming for users who are new to the internet and to technology in general. For some seniors, the information might be best presented in bite-size quantities and/or explained in person.

**Recommendation 6:**

*Targeted promotion of the benefits of the Internet and broadband for seniors.*

The findings show that non-users had a number of lifestyle-related concerns about using the internet, such as becoming too inactive (with negative health implications), and becoming socially disengaged. Reassurance needs to be given that they are in control of the internet, rather than the reverse. While it is possible that seniors will spend longer on the internet than they wish while they are learning, well-targeted training (Recommendation 1) could ensure that they are able to use the internet efficiently and purely as a tool if that is their wish. More information sessions (through groups such as COTA) could highlight the lifestyle benefits of internet access to those seniors who may be considering connecting. They could be shown positive examples of how the internet can assist with health and well-being (along the same lines as the advertisement for an interactive fitness game featuring respected senior UK actor Helen Mirren). Additionally, they could be made aware of findings such as these from the Ewing and Thomas (2010) study: 43% of people said internet access had increased their contact with various groups rather than decreased it (particularly with those who shared hobbies or recreational activities) and about half said it had remained the same; 72% of people agreed or strongly agreed that the internet had made their lives easier. It is also important that seniors are made aware of how the National Broadband Network is being rolled out, and what the NBN will mean for them. A degree of uncertainty and misinformation about the NBN was evident in the focus group sessions.

Information sessions would be targeted to seniors who have considered connecting to the internet but are yet to remain convinced of the benefits. Sessions would need to include a (large-screen) demonstration of what can be achieved, since non-users (in this study at least) had a very limited concept of how websites look and work. For sessions aimed at female seniors, it would be important to include a senior female internet “ambassador” who could show others what she enjoyed about using the internet. The list of most popular uses contained in this study could be drawn upon to highlight some benefits of the internet (such as finding recipes and accessing pictures of grandchildren).

**Recommendation 7:**

*Consultation with seniors on e-government matters*

In addition to conforming to accessibility guidelines, government websites used by seniors should be designed with input from the people who use them. E-government services are growing exponentially and continually evolving. Although governments are bound by a set of access and usability guidelines, studies show that there is some uncertainty as to how effective these are and to what degree they are followed and updated. Participants in this study had experienced confusion and frustration when navigating government websites and attempting to download forms. Information and services for seniors on government websites was hidden behind other labels, making it difficult to locate. There is clearly scope for improving the user-friendliness of government websites, and where these are sites likely to be accessed by seniors, it would be useful to seek their input. Establishing a panel (or panels) of seniors who could be consulted on policy and product development may be one way of achieving this. Websites should also be “road-tested” with seniors to ensure that they can be used intuitively.

## Concluding comments

This study has helped to identify factors affecting use of the internet by women over 65 – a group identified in other studies as using the internet less than women in other age groups and less than men in the same age group. Lower educational level, income level and workforce participation for this group have been identified as potential contributing factors to low internet use (Ewing & Thomas 2010). Lack of skills, anxiety about technology, security fears, lack of interest and lack of time have also been identified by several studies as reasons why seniors do not connect. This study has been able to expand on these findings by gathering the personal accounts and experiences of a disadvantaged group – senior women. The findings highlight the degree to which lack of access to training, technical assistance and information are a problem for this group - compounding the related barriers of lack of knowledge and the fear of doing something wrong.

While other studies have provided statistical evidence of level of use of e-government and satisfaction with government websites, this study has shed light on how seniors actually cope with using websites and how they deal with e-government. The insights into attitudes to online government services provided in this study suggest room for improvement. At this stage non-users of the internet seem to be as well-informed as internet users, due to the wide availability of information in other forms. However, this may not always be the case. Studies suggest that those who are not connected to the internet are on the wrong side of a digital divide. While this study found that senior female non-users experienced only minor inconveniences or disadvantages at present, it also found that most non-users felt they would be disadvantaged in years to come. Thus, as Australia heads into an NBN-enabled future, it is important to ensure that everyone is able to participate and reap the benefits. It is important to identify the needs of digitally disadvantaged groups now, in order to make the necessary service provisions. This study has helped to identify the internet-related practices and requirements of one of these groups – female seniors.

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