

## **Communications Policy and Research Forum 2009**

### **ACMA Presentation handout:**

#### **Effective Use of Digital Media and Communications**

*Presented by Lesley Osborne, Strategic Research Section*

#### **Why the ACMA is interested in media literacy?**

My wrap up to this afternoon's session is two recently published qualitative studies looking at barriers to the use of digital media and communications. This research delves beyond purported reasons to look at attitudes and motivations of non and limited users of digital communications and the concerns of users about supplying personal information online.

The studies were commissioned by the ACMA as part of its digital media literacy program, and I will start by explaining the ACMA's engagement with these issues, and then move on to the research.

The need for the qualitative studies grew out of the findings of quantitative research the ACMA has commissioned in the last couple of years, which indicates peoples reported reasons for not using digital communications or not using particular features/activities available to them which they are interested in, so I have included some of this material as well.

I will conclude with a brief discussion of some the implications of our digital media literacy research findings.

#### **Why Digital Media Literacy (DML) matters**

##### **DML and communications regulators**

Media literacy became a subject of interest to media and communications policy makers and regulators, such as the ACMA, when developments in digital technology started having significant effects on the way individuals interact with digital communications and media services. In response to increasing levels of basic access to internet services there was a shift towards a 'digital use divide' with greater interest in the *effective use* of a range of media and communications platforms and services to frame digital participation.

Previously media literacy had been seen as playing a part in relation to the management of media consumption, for example, program classification and industry consumer advice for television audiences, which is a long-established and powerful regulatory tool in Australia, and also in consumer education and protection in telecommunications. But it did not have an explicit place in the regulatory toolkit. By focusing on 'tooling up' users at an individual or community level, digital media literacy – which is the term the ACMA uses – promotes the pivotal role that user choice and responsibility play in the new on-demand environment.

In that sense it is a useful regulatory strategy focused on empowering individual users to manage their communications and media experiences, along with other regulatory strategies focused on industry participants and behaviours.

##### **Policy drivers for DML**

Most importantly, the impact of widespread digitalisation of key services and industry sectors has meant that the ability to use and interact with communications services in on-demand environments increasingly informs a person's ability to participate in the digital economy and

networked society – key strategic priorities of Government, to promote the wider use of digital media and communications technologies for increasing digital inclusion and participation.

Put simply *digital media literacy* is the outcome of learning processes involving a combination of ‘literacies’ that give an individual *the ability to confidently use, participate in and understand digital media and services*.

The ACMA undertakes a range of activities, including research, which support or promote use of digital media and communications and the development of digital media literacy skills. Much of the research supports the ACMA’s responsibility to ensure adequate safeguards to protect consumers and to provide secure, trustworthy environments for commercial transactions, entertainment and general pursuit of their interests.

These responsibilities were more straightforward when national governments regulated services provided by local providers on single technology-specific platforms. New, more flexible, more multi-layered approaches are required when we are dealing with globally connected communications, with a greater emphasis on “soft approaches” within co-regulatory frameworks (for example, the approach to cyber-safety). It is here that digital media literacy comes into play, as well as the need to understand the barriers to effective engagement.

## **Digital communications usage in Australia**

Understanding digital media literacy starts with access to services and the quality of that use.

The ACMA commissioned a Telecommunications Consumer Survey in 2009 to examine consumer usage of, and attitudes towards, communication services in Australia.

In 2009, the great majority (83%) of Australians are online, with over half of respondents (53%) in the survey responding they have used the internet 8 or more times in the last 7 days. So the market, combined with Australians’ fondness for new technology, has worked pretty well.

Nevertheless 17 per cent of Australians aged 18+ have never used the internet, and this is higher among older Australians, regional Australians, less educated Australians (those for whom primary or secondary education was highest obtained) and lower income households.

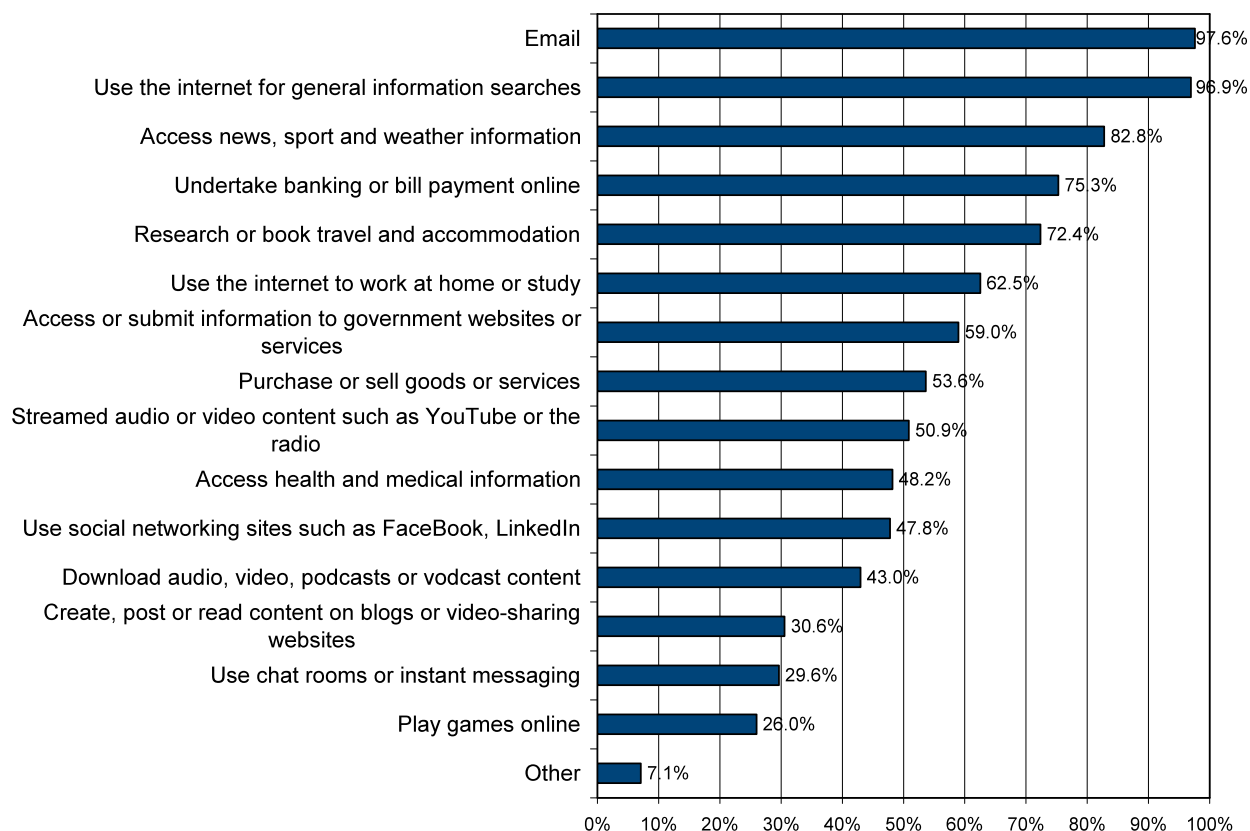
Mobile phone usage is also very high (87%) in Australia. However, research also indicates a gap between penetration of mobile phones with advanced features (51% of mobiles are 3G capable) and use of advanced functionalities.

In the ACMA’s Consumer Research May-June 2008 people who had never used the internet gave the following reasons for this (multiple response possible):

- no need (25 per cent),
- cost (24 per cent),
- no interest (12 per cent),
- no computer or computer too old (10 per cent),
- not computer literate (5 per cent).

## **Internet activities performed (last six months)**

The 2009 survey asked about which activities (from a list of 15, plus any additional which they felt weren’t covered in the list) respondents had performed in the last 6 months.

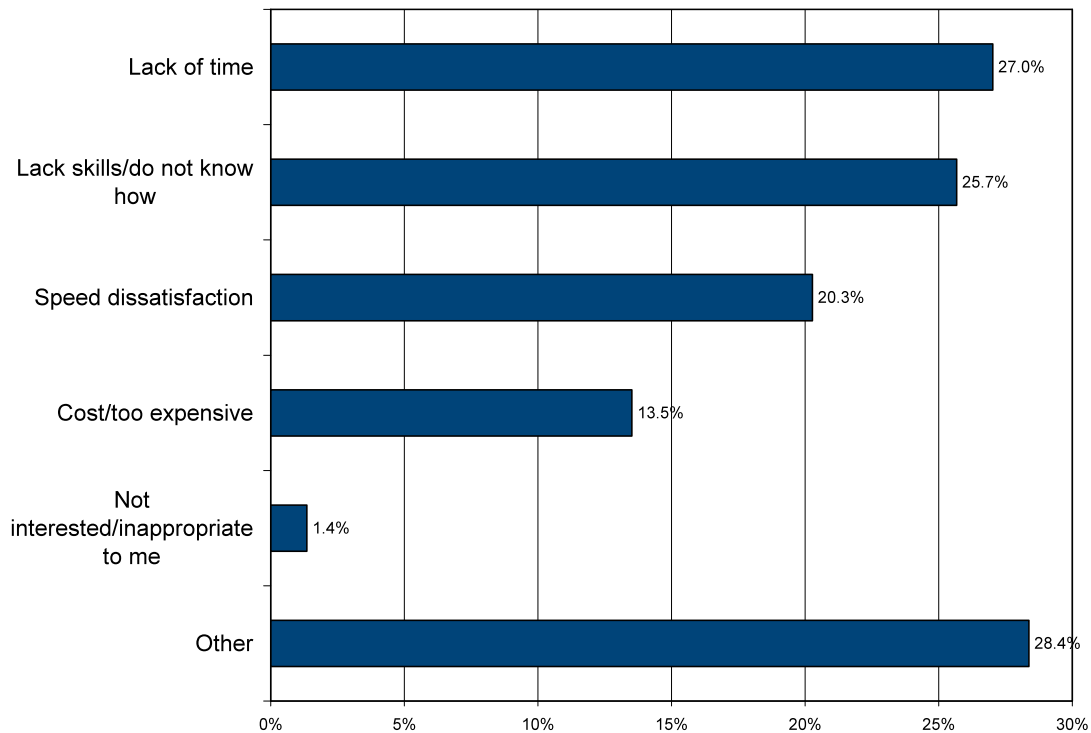


*Figure 1 (Base: Personal users of household internet service n=1,201)*

Figure 1 shows that over 95% of internet users are using the internet for email and general information searches. Nearly 50% are now using social networking sites and 54% of internet users are purchasing or selling goods or services online.

### **Reasons for not performing internet activities**

Users who said “no” to performing any of the activities listed were asked if there were any activities they were interested in performing which they weren’t currently doing.



*Figure 2 (Base: Respondents who indicated 'no' to any of the 15 activities presented, and have interest in performing new activities n=148)*

The majority responded “none/unsure” indicating a lack of interest or uncertainty for performing new activities, but 13% responded positively. These respondents were then asked why they were not performing these activities. Figure 2 summarises the reasons provided for not performing them.

The main reasons provided were lack of time (27%) and lack of skills (25.7%). Cost and speed dissatisfaction were also barriers for people undertaking internet activities that they would like to do.

### **Internet skills as a barrier: Internet skills meet your needs?**

A separate question was included in the 2009 survey looking specifically at whether internet users felt their internet skills met their needs.

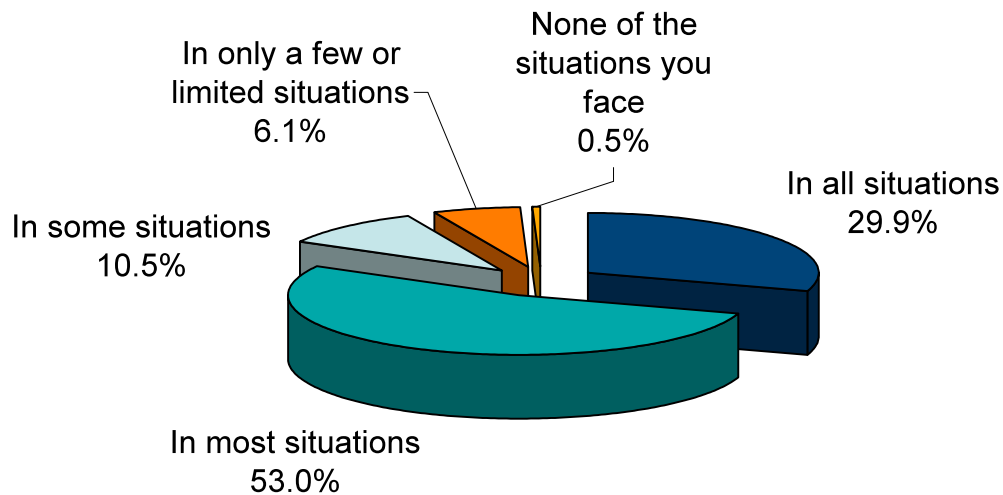


Figure 3 (Base: Personal users of household internet service n=1,201)

As Figure 3 shows, approximately 30% felt their internet skills met their needs in all of the situations they face online. However, the remaining 70% felt their skills were a barrier in at least a few situations they face online, with approximately 17% feeling their skills didn't meet their needs in some or most of the situations they face.

This low skill incidence was higher (and statistically significant) for the following:

- age groups 45+ each have >20% incidence (peaking at 34.4% for ages 55-64)
- 'some secondary school' as highest educational qualification (29.1%)
- income groups under \$50k (25%+)
- partner and no children household structure (25%)
- retired employment status (32%).

This suggests lack of internet skills and confidence in their skills is more of a barrier for particular segments of the population.

### **Concerns about internet security as a barrier: Attitudes to internet security**

Concerns about internet security have also been shown to act as a barrier to conducting certain activities online, such as transactions or disclosing personal information.

In the 2009 survey, questions were included which looked at respondent's knowledge and comfort in protecting their computer.

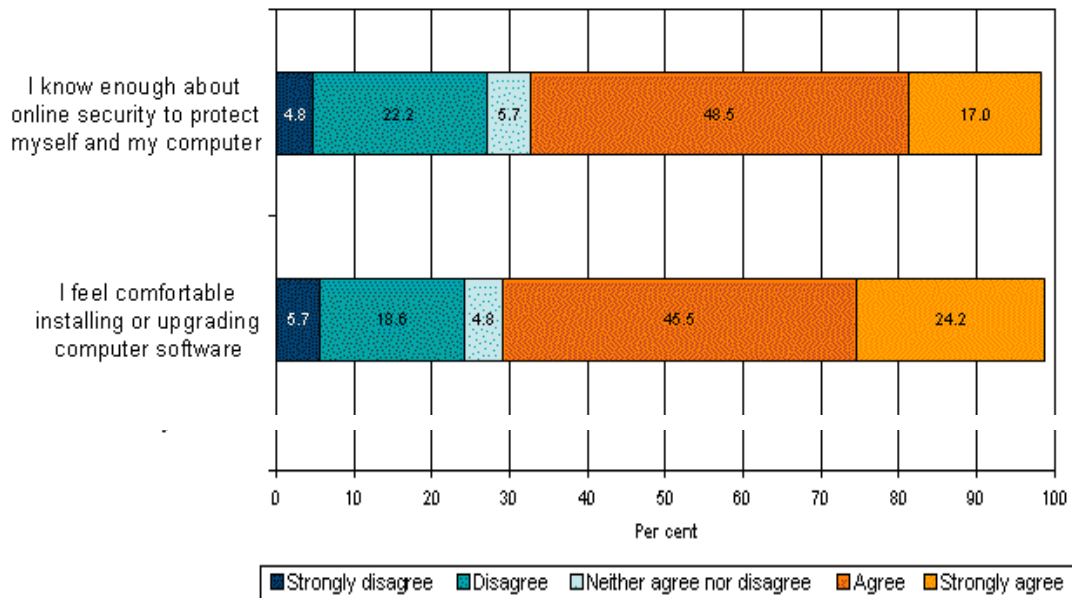


Figure 4 (Base: Internet users n=1,273)

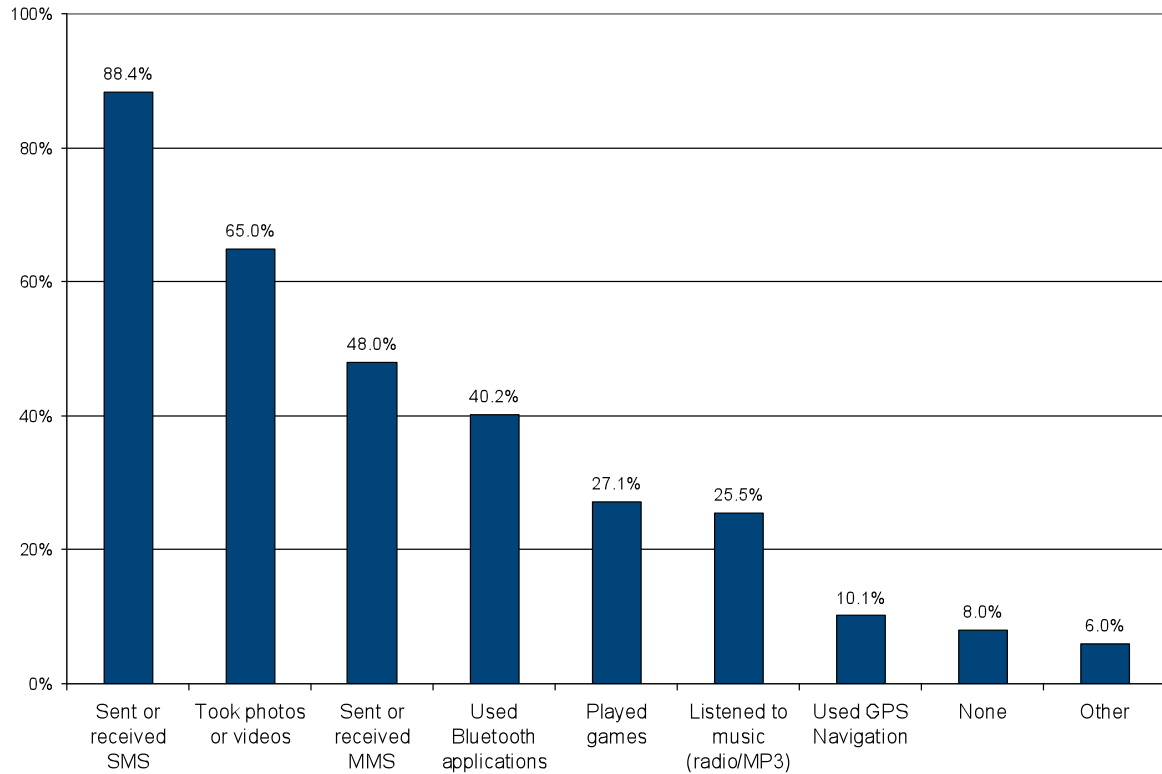
While 93.2% of personal internet users had protective software installed on their home computers, when asked about whether they feel comfortable installing or upgrading software onto their computers or feel they know enough to protect themselves and their computers, approximately 20% of Australians did not (see Figure 4).

Again, this is potentially a greater barrier for certain segments of the population. Females, older Australians and less educated Australians had a higher incidence of disagreeing with both the knowledge and comfort statements.

### Phone based activities (last six months)

A Mobile Telecommunications User Survey was run alongside the Telecommunications Consumer survey in 2009, looking specifically at mobile phone users.

Similar to the question in the Telecommunications Consumer Survey looking at internet activities, mobile phone users were asked if they undertook any of the mobile phone-based activities listed to them in the last six months. Figure 5 below shows the results.



*Figure 5 (Base: All mobile phone users, N=1,305)*

### **Main reason not using mobile activities interested in**

When asked if there were any activities they were not currently using their mobile phone for but which they were interested in, only 15.6% said that there were and the activity most interested in was accessing internet applications (6.1%).

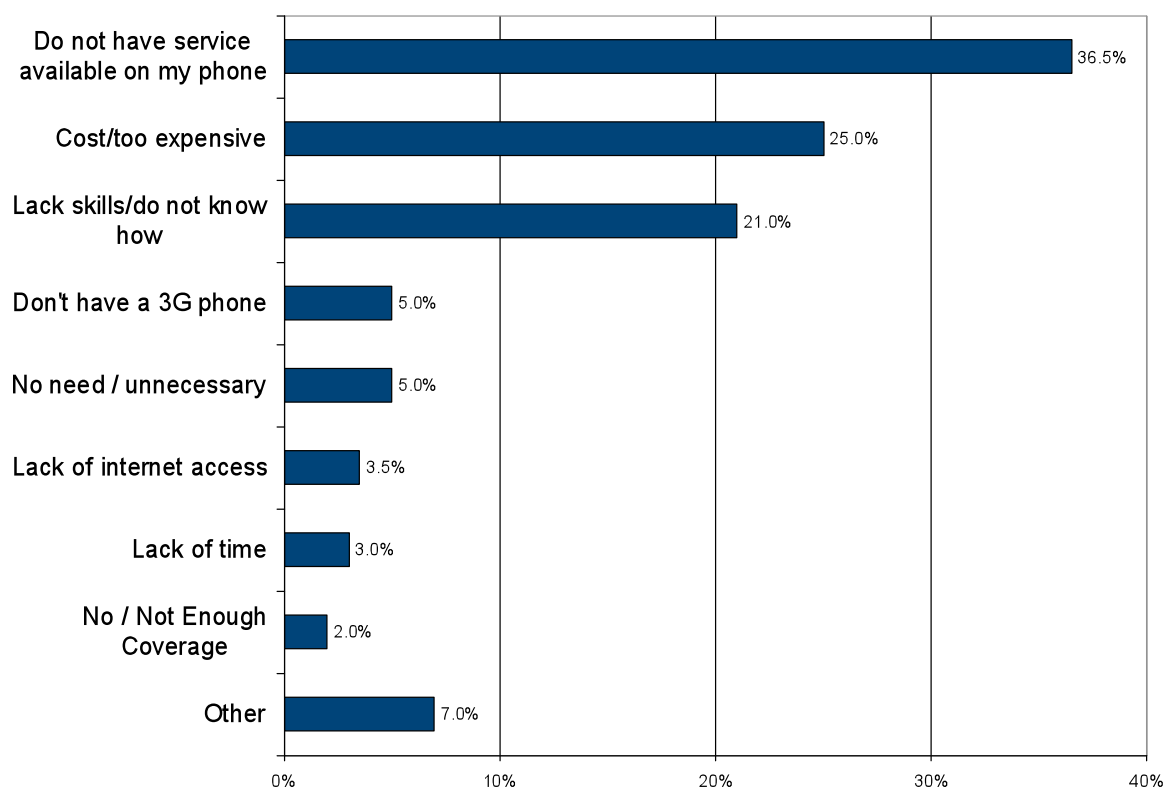


Figure 6 (Base: Mobile phone users that mentioned they had interest in other mobile services that they did not currently use, n=200)

Figure 6 illustrates that although the main reasons given for not using services/ functions which they were interested in was “not having the service available on my phone” (36.5%), Cost/too expensive (25%) and lack skills/do not know how (21%) were also common reasons. Cost and lack of skills/knowledge therefore pose barriers for both internet and mobile phone in performing activities.

Lack of skills/know how had a significantly higher incidence with *females* (30%), *retirees* (55%) and mobile users aged 75+ years (67%).

Of the 84.4% who said they were not interested in any activities beyond what they are currently using their mobile for, this figure was significantly higher with:

- partner no children households (89%)
- certain education groups (some secondary 89% and completed secondary 89%)
- age (55-64 91%; 65-74 91%).

Much of this research around online or digital participation points to a generational divide, which has also been highlighted in Paul Nicholas’ presentation on changing telecommunications use, and reflected in the very high social networking levels amongst teenagers reported by Rosalie. This can overlook the many people in younger or middle age groups who for various reasons might not use digital media and communications or are very marginal or limited users of the internet or advanced features on mobile phones.

## **Qualitative research into non-users and limited users of digital media and communications**

Accordingly when the ACMA commissioned qualitative research to better understand factors influencing non-or-limited use of internet and mobile phones in February this year the sample took into consideration people's usage levels of digital media, their comfort with digital media as well as their life stage.

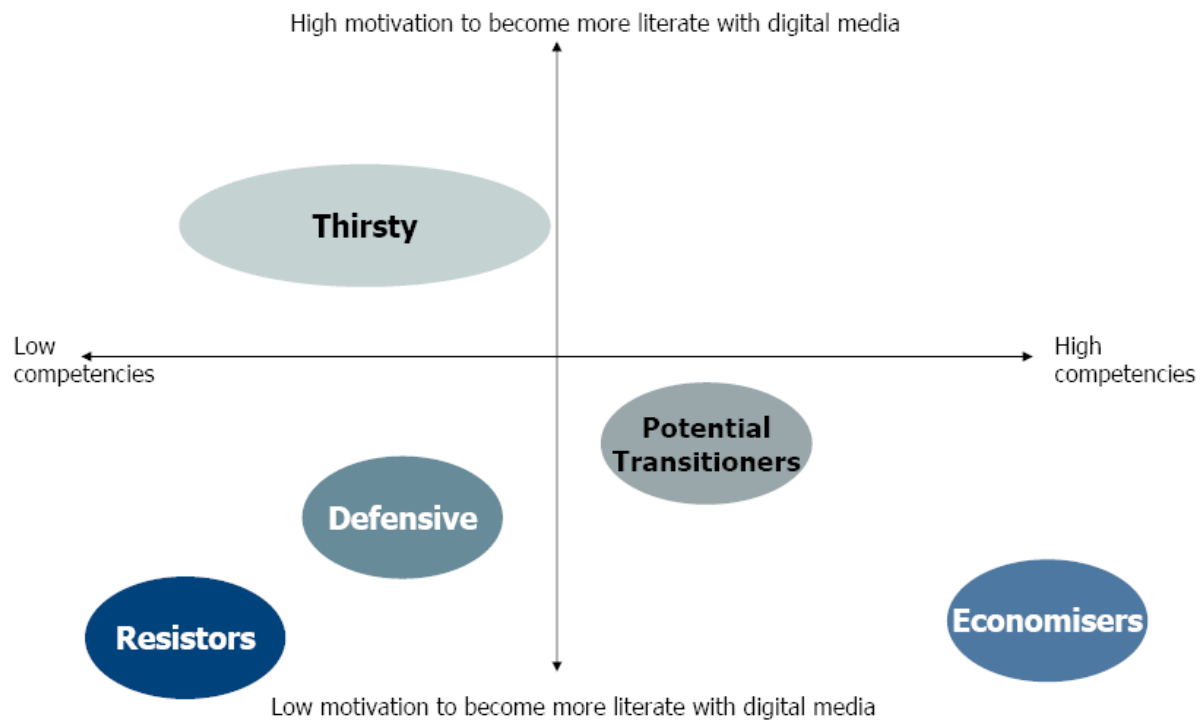
Qualitative research allowed us to go beyond initial reasons given such as "don't have time" or "not interested" and explore the underlying causes influencing non or limited digital participation and how to increase the digital media literacy of these groups.

The research was conducted by GfK Blue Moon and comprised 10 group discussions and six telephone in-depth interviews amongst adult non-and-limited users.

The research confirmed the importance of lack of skills, low individual motivation and economic circumstances as factors in marginal or non use.

Key findings from the research include:

- Digital literacy needs for non- and limited users of digital media are largely associated with the internet. Learning how to use the internet was more important for these people than learning how to use new features on a mobile phone, in terms of enabling them to participate more effectively in society.
- The research highlighted two key factors affecting people's attitudes and behaviour: their existing competencies with using digital media and their level of motivation to become more literate with digital media.
- Comparatively low competencies among non users and limited users can be explained by the fact that many people have not been required to use technology on a day-to-day basis in their job or education. As a consequence they do not understand the underlying assumptions of how digital media works or the associated commonplace language that is used by those who are comfortable with digital media. Most importantly, they have not developed the transferable skills to allow them to become more literate.
- The research indicated that these transferable skills included the capability to use a search engine, to navigate around a website, purchase goods on the Internet, and use features, such as a camera on a mobile phone. Instead, they learn and memorise individual steps, in a method that is similar to rote learning.
- It was also clear that many people did not have a clear understanding of the security measures in place for internet banking as they were extremely hesitant about making these sorts of transactions. A number of people in these groups were concerned about the security of transactions and personal information.
- The key driver to digital media literacy however, was an individual's own motivation to want to use the technology, which reflected life stage (of course), together with his or her interests, attitudes and available resources.



*Figure 7*

Five attitudinal segments in relation to wanting to use digital communications and become more digital media literate were identified by the research consultants based on people's recognition of their own level of competencies and motivation and are shown in Figure 7: 'Resistors', 'Defensive', 'Thirsty', 'Potential Transitioners' and 'Economisers'.

It's hard to tell how many of our participants were making an active choice not to use digital media. For example, the 'Resistors' and 'Defensive', and to some degree the 'Potential Transitioners', who seemed to be rationalising a lack of understanding and skill.

The 'Thirsty' were open to admitting they face barriers, which included their lack of competence, fears and insecurities which were preventing usage. While some lived in households with the internet, the 'Economisers' identified connection or data costs as the major barrier to digital media usage.

This framework has potential implications for policy makers and practitioners responsible for promoting use of ICTs and digital media. It highlights that a "one size fits all" approach is not adequate, as it wouldn't take into account the different circumstances and barriers faced by the various segments. It also points to the importance of being able to have convenient access to the technology to enable exploration and experimentation. Certain segments may also prove easier to target others, such as the thirsty and potential transitioners.

## **Qualitative research into attitudes towards the use of personal information**

The level of confidence about security issues, including providing financial and personal information online, was found in the non-user and limited users study to be a factor limiting both uptake of digital communications by non-users and more confident use of a wider range of services by limited users. Previous quantitative research had also indicated that these security concerns are shared by many regular users and can be a barrier to greater participation online.

In March 2009, the ACMA commissioned qualitative research to improve understanding of attitudes towards disclosure of personal information when using digital media and communications, awareness of and perceived severity of risks, and risk mitigation strategies. The research was comprised of eight group discussions consisting of adult users of digital media and was commissioned with TNS.

The findings of this research revealed high awareness among adult Australians that any disclosure of personal information carries an inherent risk of that information being used in a way that was unintended and results in an adverse outcome. The level of concern raised by these risks is assessed taking in consideration perceived likelihood of the information being misused and the severity of consequences.

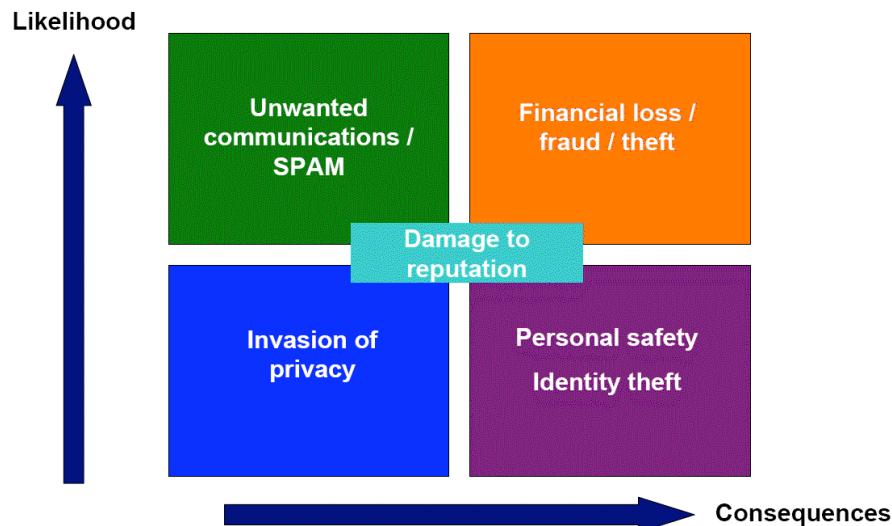


Figure 8

As Figure 8 shows:

- Unwanted communications is considered as most likely to occur but with least severe consequences. Key concerns being inconvenience and annoyance.
- Invasion of privacy is perceived as relatively unlikely with minor consequences. Typical issues considered needed to remain private were income and medical information.
- Personal safety and wellbeing are considered the most severe risk that can arise from a breach in protecting personal information. Bullying, cyber stalking, physical harassment and physical violence are examples.
- Identity theft is perceived as very severe risk due to the possible on-going nature of its consequences. There was some lack of clear understanding as to what identity theft exactly entails.
- Financial loss is seen as a major risk for transactional exchange online and although they judge the consequences as severe they are aware that much of this cost can be recovered from the banks.
- Damage to reputation is mainly linked to provision of information on social networking sites. It is perceived as having possible severe consequences, especially in relation to employment.

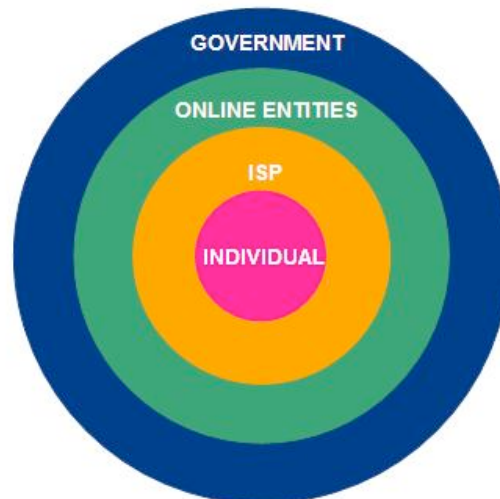
Users express interest in knowing more about protecting one's computer and oneself when using the internet.

In terms of sources of information to protect oneself against these risks:

- family and friends (informal sources) play a key role for learning possible risk minimisation strategies;
- work and formal education (through children) are indirect providers of information / skills in relation to risks and risk minimisation strategies. This indicates that there is a possible skill and information gap for those who are not in the workplace or don't have children in schools to bring them information and assist with necessary skills for dealing with security issues.

In terms of responsibilities (figure 9 below):

- individuals regard themselves as having primary responsibility for protecting their personal information online.
- respondents considered the role of internet service providers is to provide connectivity and solutions to protect against spam and viruses, and they can have an educational role for novice users. The research also found that users felt they had the right to expect their ISP not to use their personal details or surfing behaviour for commercial applications.
- in terms of online entities, respondents saw a distinction depending on nature of information users are providing. In the case of information provided in the course of transactions, a service provider such as a bank was expected to provide good security, whereas on social networking sites where the service provider is merely hosting the content, security breaches are more accepted.
- respondents' views on the role of government pointed to a distinction between government's regulatory role (which they saw as being limited to setting ground rules) and an education role, where government is perceived to have a responsibility for educating Australians about risks and how to mitigate them.



*Figure 9*

## **Implications**

Individual users' attitudes reflect an expectation of shared responsibility for protection of personal information online, including an assumption of an active role for individual users. To a large extent this aligns with a multi-layered approach to regulation of e-security, of which personal information protection is part. The approach involves legislation, technical

initiatives, industry partnerships, international co-operation and education and awareness activities.

The research highlighted the perceived role of government and industry in educating Australians about online risks and how to mitigate them. The ACMA takes its role very seriously and currently undertakes a number of e-security initiatives including:

- Provision of information on the ACMA's website about internet security and safety, including tips for protecting your computer and personal information and advice for online social networking.
- Protecting Australians from spam, including providing practical information on how to reduce spam, enforcing the Spam Act and providing the ACMA's SpamMATTERS reporting tool which is used to track spammers and take action against them.
- Gathering evidence and assisting in protecting Australians from computer fraud and identity theft.

As part of this last point, the ACMA is working closely with industry to develop a voluntary E-Security Code of Practice – currently in draft form.

The ACMA provides daily reports of computer compromises to participating ISPs through the Australian Internet Security Initiative (AISI). The AISI collects data on compromised computers residing on Australian networks from a number of sources, and provides daily notifications to ISPs of compromises reported. For many ISPs, the AISI is their main source of such data. The ACMA cannot identify a customer associated with a compromise; only ISPs can.

The E-Security Code of Practice will provide guidelines for ISPs to deliver consistent messages to their customers when they receive AISI compromise reports from the ACMA, and consistent approaches to customers who do not take remedial action when they are notified of a compromise.

Obviously, the effectiveness of this scheme also depends on the skills and ability of end users to play their part.

An industry regulator can bring particular expertise to the promotion of digital literacy, and in the ACMA has concentrated on consumer education and awareness with programs to ensure community protection objectives are met in relation to e-security and cyber-safety, and that codes of practice operate effectively. This is consistent with our legislative obligations.

However there is a broader interest in digital media literacy, as increasingly it is via digital communications that much of what we know, how we are entertained, how we relate to others, and purchase goods and services is mediated or undertaken. This underscores the need for ongoing research to understand media literacy needs and how literacy levels can be enhanced, either as the outcome of formal education for children and young people, and of life long learning for the rest of us.

It is clear that different segments of the population have different levels of access to and participation in digital media and communications, and different levels of skill, knowledge and confidence about using digital media. The ACMA's qualitative study amongst limited and non users highlighted the importance of attitudinal factors in encouraging digital participation.

Overseas research on ‘e-literacy’ e.g. amongst disadvantaged adults in London<sup>1</sup>, and adult learners in Wales made similar findings – in particular the importance of learner’s personal goals in developing ICT curricula for adults so as to encourage digital inclusion. We hope that the ACMA’s research on barriers to use of digital media will assist those policy and program makers responsible for promoting digital media literacy amongst Australians more broadly. To this end, we disseminate our research, as part of our commitment to facilitating and promoting co-operation between stakeholders, particularly where there are gaps in knowledge, information or action.

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<sup>1</sup> Pencil project at [www.pencil.lse.ac.uk](http://www.pencil.lse.ac.uk)