



The digital economy: Developments in participation and productivity

Speech by Chris Chapman, ACMA Chairman, to
the *Digital Economy Forum*

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Melbourne

Introduction

Thank you Dr Bronte Adams

For me, the breadth of participation in and the scope of this series of workshops and this Forum are at long last a really important recognition that all of us have a stake in Australia's successful development of and engagement with the digital economy; with 'successfulness measured by sustainability'.

In today's presentation, I want to do 3 things:

- provide you with a snapshot of Australians' participation in the emerging digital economy;
- touch on some of the challenges to that participation; and
- leave you with some thoughts on the collaborative, multi-layered approach that the ACMA sees as necessary in the changing media landscape.

Both common sense and social equity tells you that the development of the digital economy will be dependent on all Australians being able to participate so that they can share in the benefits as citizens, producers and consumers. We need to ensure that all challenges (and there will be many) are only road bumps and not barriers to a wider participation in this digital economy.

The National Broadband Network will quite obviously, quite intentionally increase the high speed connections of Australians; but people will also need the skills, the understandings and the confidence to ensure that they can engage effectively—however, whenever, wherever they want or need to.

As the media and communications regulator, the ACMA has a number of significant responsibilities that will underpin the development of and engagement with the digital economy. These range from managing spectrum (and, on this aspect, a much underestimated challenge is the extrapolation of the nascent RFID phenomena – the “Internet of things”), managing numbering, to online safeguards, consumer protection and citizen and consumer education. ACMA is also operating in an environment in which existing media and communications regulation is subject to a variety of pressures which are causing the foundations of past legislative and regulatory approaches to begin to melt... but I won't go there today!

ACMA currently has registered and oversees 38 co-regulatory codes (28 of which are grounded in either the telco or internet space). Therefore, I want to emphasize how our co-regulatory system is well placed to involve industry itself in crafting solutions to the various challenges that are being thrown up by the evolution of the digital economy.

By touching on some of these headline trends drawn from the ACMA's growing research and evidence base, I will illustrate some of the current and future challenges. This should help us to identify the respective contributions of government, business and users in making the digital economy work, and work for the betterment of Australia's national interests.

So what are some of the headline trends?

The digital economy: Developments in participation and productivity

We know from past studies that effective use of broadband can deliver some real economic benefits to national and local economies.

For example, ACMA's own 2006-07 study of the benefits flowing from developments in the telecommunications sector estimated the net benefits to small businesses as \$176 million, while total production in the Australian economy in 2006-07 was estimated to have grown by an additional \$1.2 billion due to price and service competition in the telecommunications sector¹.

More recently and moving from the macro to an illuminating micro illustration, ACMA jointly funded a study into the impacts of broadband in South Australia's Yorke Peninsula with the Information Economy Directorate of a relevant South Australian Department. Local benefits due to cost reductions for business and real income effect, consumer surplus and general increases in economic activity were estimated at \$11 million annually, with further impacts state-wide. In its context, that's impressive.

[Slide: Outline]

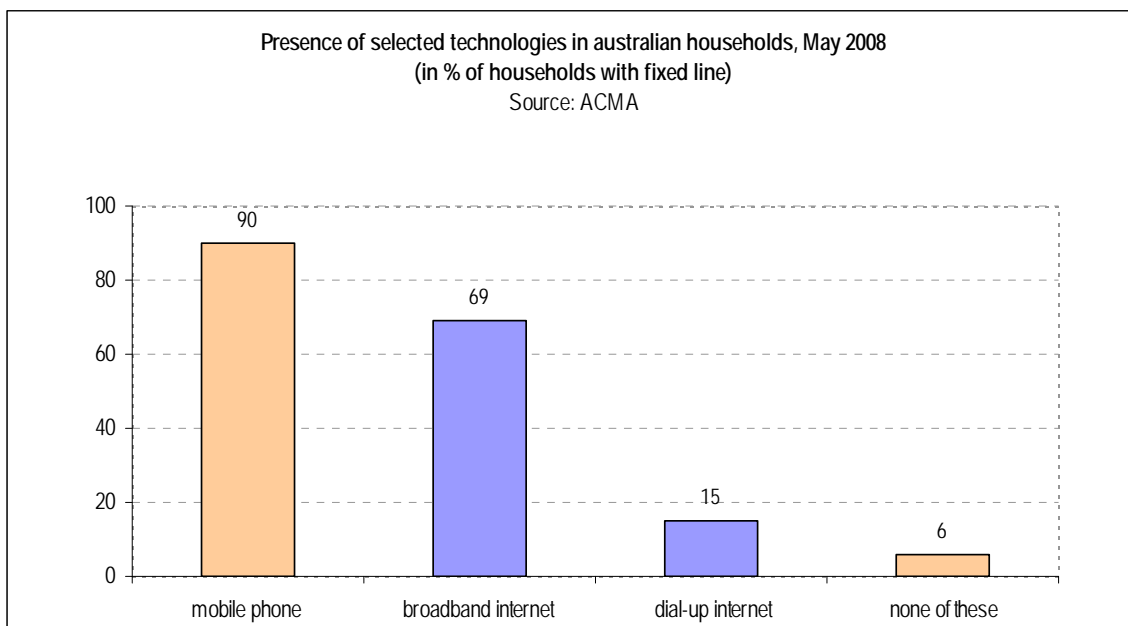


Australians' participation in the digital economy

Let me remind you of some of the bleeding obvious – some further framing statistics:
Individual Australians see benefits for themselves and have embraced digital technologies.

¹ (ACMA commissioned report from ACIL Tasman and Gibson Quai-AAS).

[Slide: The internet is part of our lives]



The internet is today part of our lives:

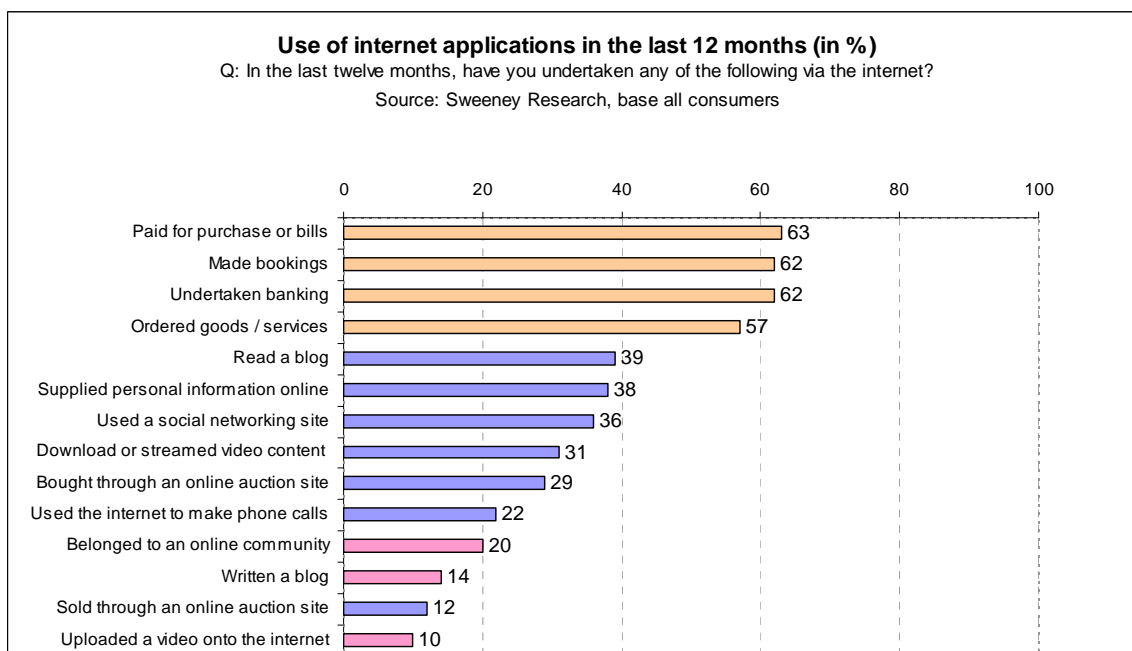
85% of Australians have internet connections; 70% have broadband.

Broadband internet is supporting the development of the online information society and creating opportunities for business and consumers. Communication and transactional activities—e-mail, shopping, banking—dominate Australians’ activities online, but the use of online services to access entertainment—such as social networking sites, downloading and the watching of audio and video content—is increasing.

It follows that use of mobile devices to access the internet will also increase. 27 per cent of Australian adults (aged 16 plus), who have an internet enabled device, have accessed the internet through a mobile phone.²

² (Source: Nielsen Online, *Australian Internet and Technology Report*, February 2008)

[Slide: What Australians use the internet for]



Australians are using the internet for a range of activities.

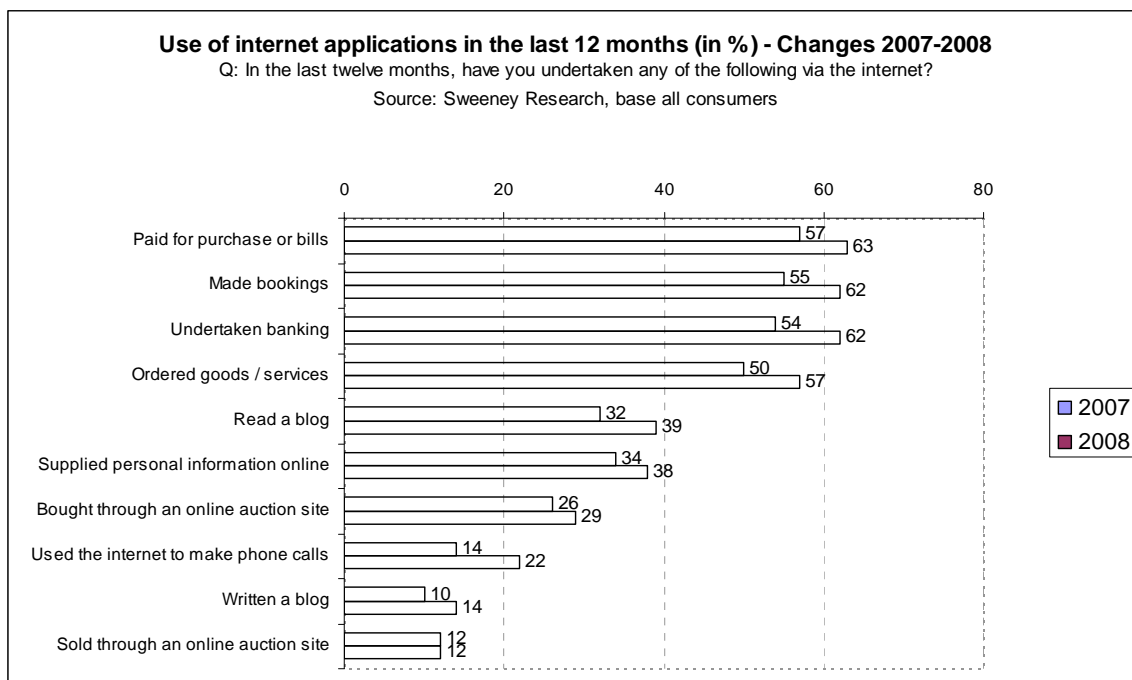
The top online activities are transactional activities (the top 4 bars in the graph). The most common reasons Australian use the internet is to pay for purchases or to pay bills.

6 in 10 Australians (aged over 14) use the internet to pay for purchases and bills, to do banking and make bookings. This encouragingly suggests that consumers are moving on from seeing the internet primarily as a source of information, and have embraced the e-commerce possibilities it offers—another important building block for the digital economy.

Similarly, SMEs, and especially medium sized businesses, are increasingly their use of websites to improve the effectiveness of their business and e-commerce to buy and sell goods and services online.³

³ (source: Sensis e-business survey 2008, Sweeney Research 2008)

[Slide: Development of new online activities]



Individuals’ use of the Net continues to grow. This slide shows changes since 2007, with the use of the internet for participative non-transactional activities importantly also increasing.

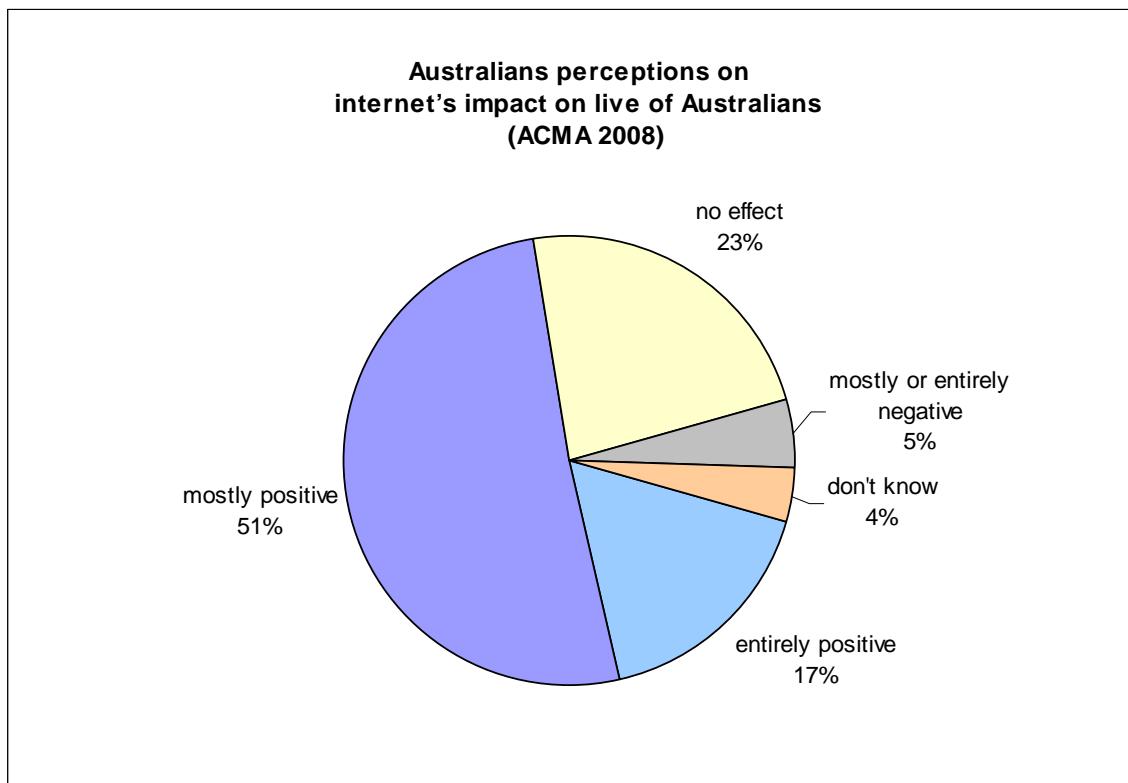
The new applications (‘blogging’ and ‘use of social networking sites’) emerge at the top of online non-transactional activities. In 2008, 4 in 10 Australians used the internet to read a blog or used a social networking website.

Drilling down a little further, however, the levels of ‘active participation’ and content creation remain comparatively low. 2 in 10 Australians (aged 14 plus) report belonging to an online community; and only 1 in 10 had written a blog or uploaded content.

But internationally, user generated content is on the increase, and of course the trend is reflected amongst young Australians. Drilling down further again, ACMA’s 2007 research shows that 42 per cent of 8 to 17 year olds had authored online content – clearly reflective of generational differences (or, perhaps even more accurately, ‘age of life stage’ differences).

More than 2 in 10 Australians report using the internet to make VoIP phone calls in the past year, an 8 per cent increase in a year.

[Slide: Australians are positive about the internet]



More encouragingly, recent ACMA research shows that Australians are positive about the internet. That's a good springboard.

So 7 in 10 Australians think internet has a positive impact on their lives.

Only 5 per cent of Australians think the internet has had a mostly or entirely negative impact on lives of Australians.

Really encouragingly, this positive attitude is very strong in parents: 96 per cent of those with the internet identify its benefits (mainly education and learning), while still acknowledging it is the most difficult communications media for families to manage.

And finally on a slightly sobering note, a quarter of Australians perceive the internet to have had no impact on their life – perhaps the 'digital refuseniks'!?

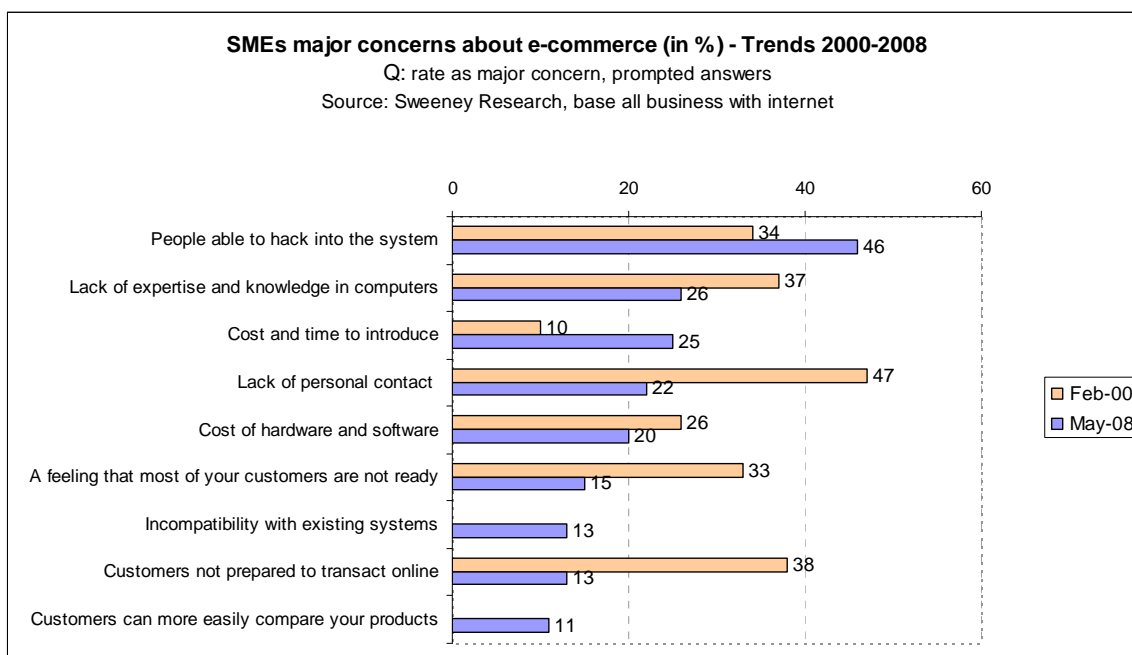
However, I think we should adopt a glass quarter-full attitude here - there is a real opportunity to engage this group.

[Slide: Challenges]



But with opportunities come challenges, and certainly the growing importance of the internet for commerce, communications and entertainment is raising new issues in areas such as e-security and privacy, online safety—especially children’s safety—and protection issues, and competencies and skills issues.

[Slide: Concerns in terms of security and competencies]

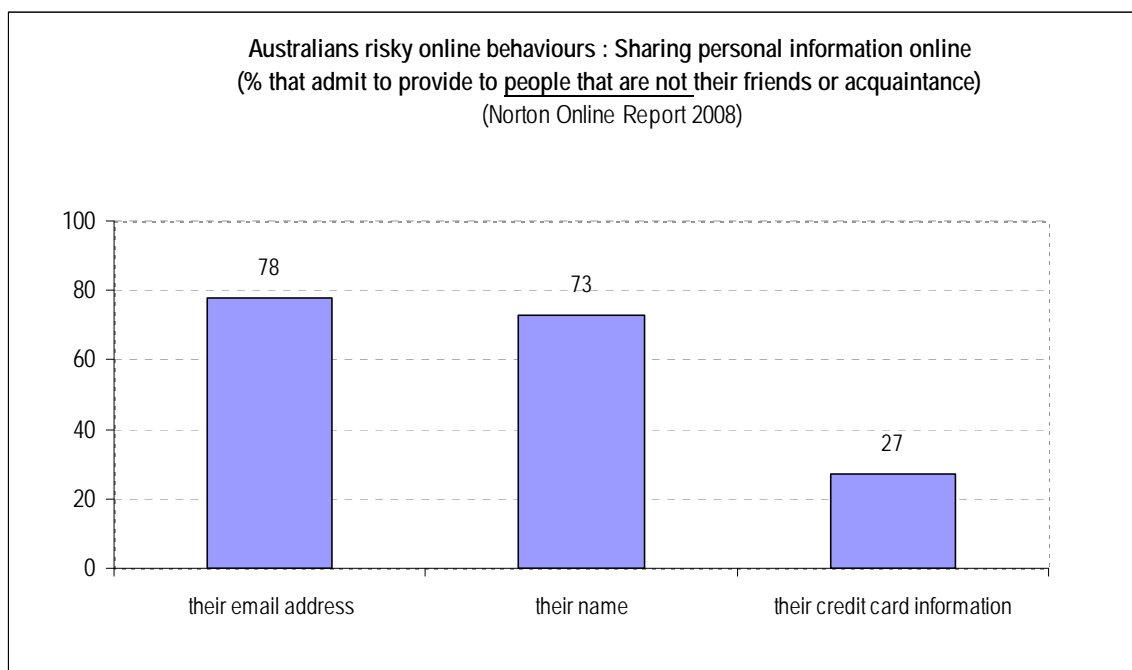


This slide is laden with many, many messages but, in the interests of time, I’ll highlight one: that security has become a major concern and is a real potential barrier, particularly for business gaining benefits from online business. Half of small and medium businesses consider it to be their major concern in relation to e-commerce... and this will continue to be a concern as cyber-crime becomes more sophisticated.

In 2008, lack of expertise and knowledge in computers remain a major concern for a quarter of small and medium businesses in Australians.

As we think about capabilities needed for engagement in the digital economy, we need to go beyond the professional ICT workforce and address the broader skills needs of the SME market and other users.

[Slide: Australians' risky practices online]

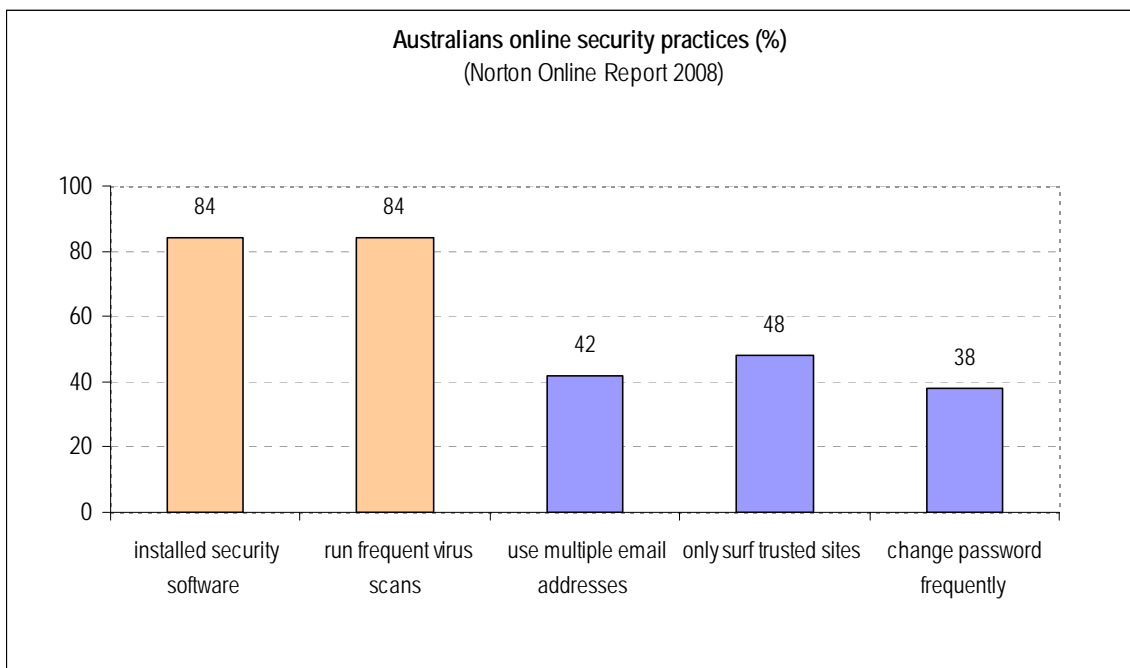


Publicly available commercial research provides interesting findings about Australians practices online, which was drawn from the Norton Online Living Report 2008. The survey was conducted in eight countries: Australia, Brazil, China, France, Germany, Japan, the UK, and the US.

It indicates that Australian adults are more confident about e-mailing than in the other countries that I've just mentioned.

But with confidence comes some risky practices, such as 3 in 10 have shared credit card information with people that are not friends or acquaintances.

[Slide: Australians' security practices online]

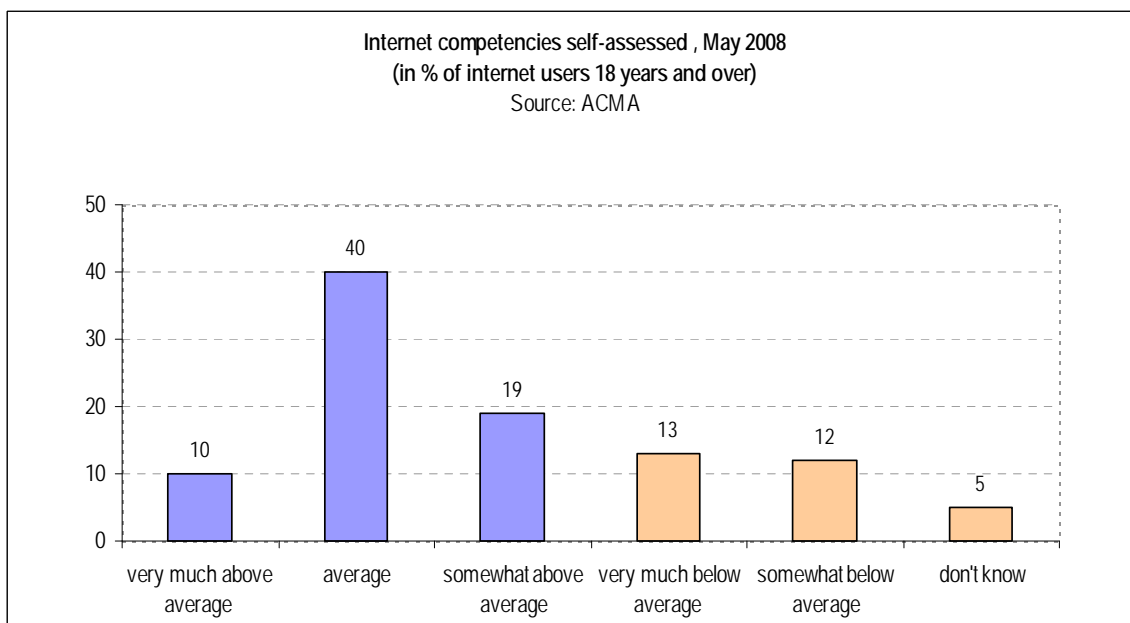


Having done so, Australians do not take multiple steps to minimise risks.

They rely mostly on commercial security solutions:

- 8 in 10 have installed security software and run frequent virus scans. and rely less on ‘safe security’ practices:
- for example, only 4 in 10 use multiple e-mail addresses and change passwords frequently.

[Slide: Australians' internet competency]

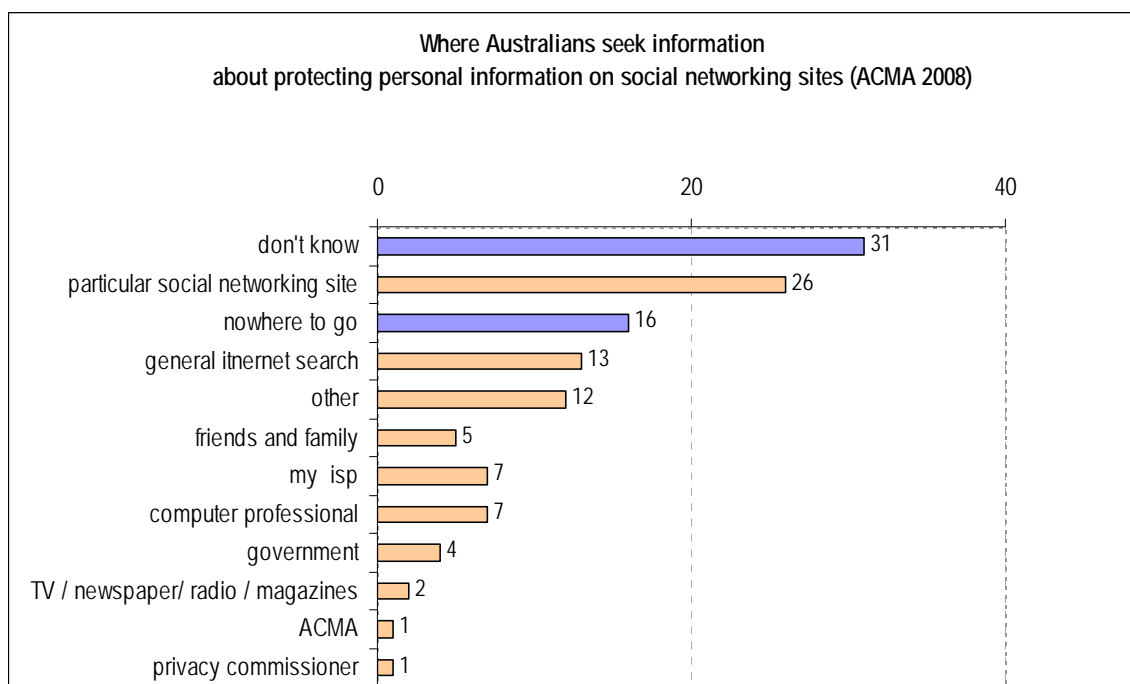


ACMA research indicates that:

The digital economy: Developments in participation and productivity

- While only 1 in 10 Australians consider their level of internet competency as ‘very much above average’.
- 6 in 10 Australians see their level of internet competency as ‘above average’ or ‘somewhat above average’.
- However, a quarter of Australians assess their level of internet competency as insufficient (self assessed as either ‘somewhat below’ or ‘very much below’ average).

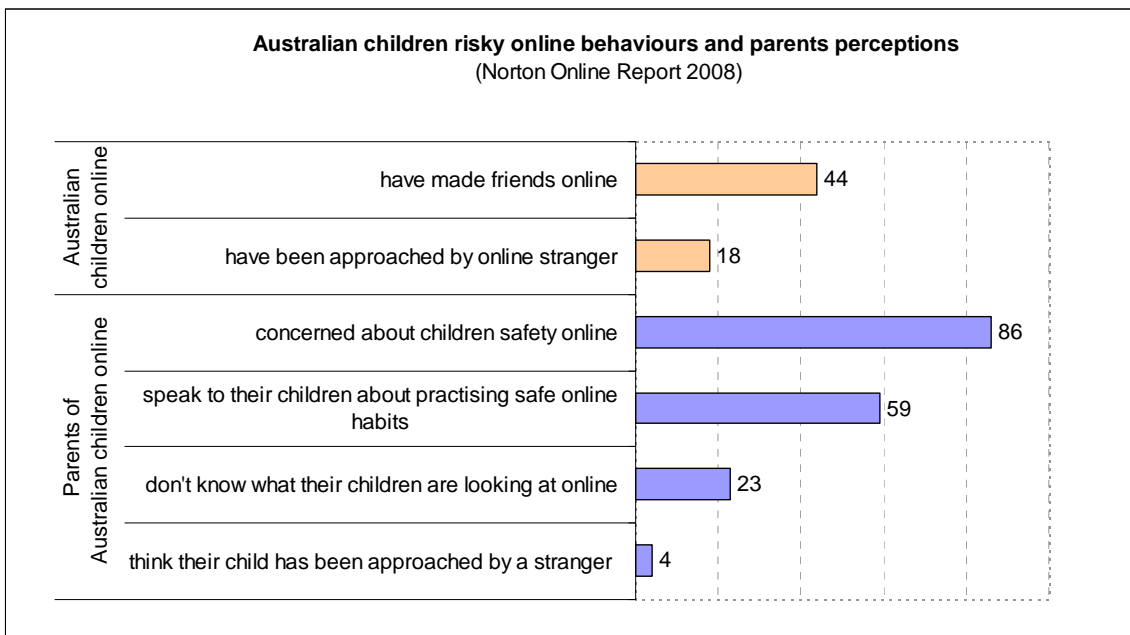
[Slide: Australians and safety information]



- Almost half of Australians do not know where to get information about online safety on social networking sites;
- Of these, 3 in 10 do not know where to get information;
- While nearly 2 in 10 think there is nowhere to go to find this safety information.

First principles’ customer acquisition, satisfaction and retention’ thinking would surely suggest that there is a real opportunity/incentive here for business in filling this information gap for their customers.

[Slide: Australian children and risky behaviour]



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Australian children admit conducting activities online that their parents would not approve of, such as:

- interacting with strangers; and
- giving out personal or financial information.
- 44% of Australian children have made friends online.
- 18% report they have been approached by an online stranger. (Adults think only 4 per cent of children have been approached by an online stranger, whereas adults only think 4% of children have been approached by an online stranger.)

[Slide: Further challenges—social disparities]



Further challenges : social disparities

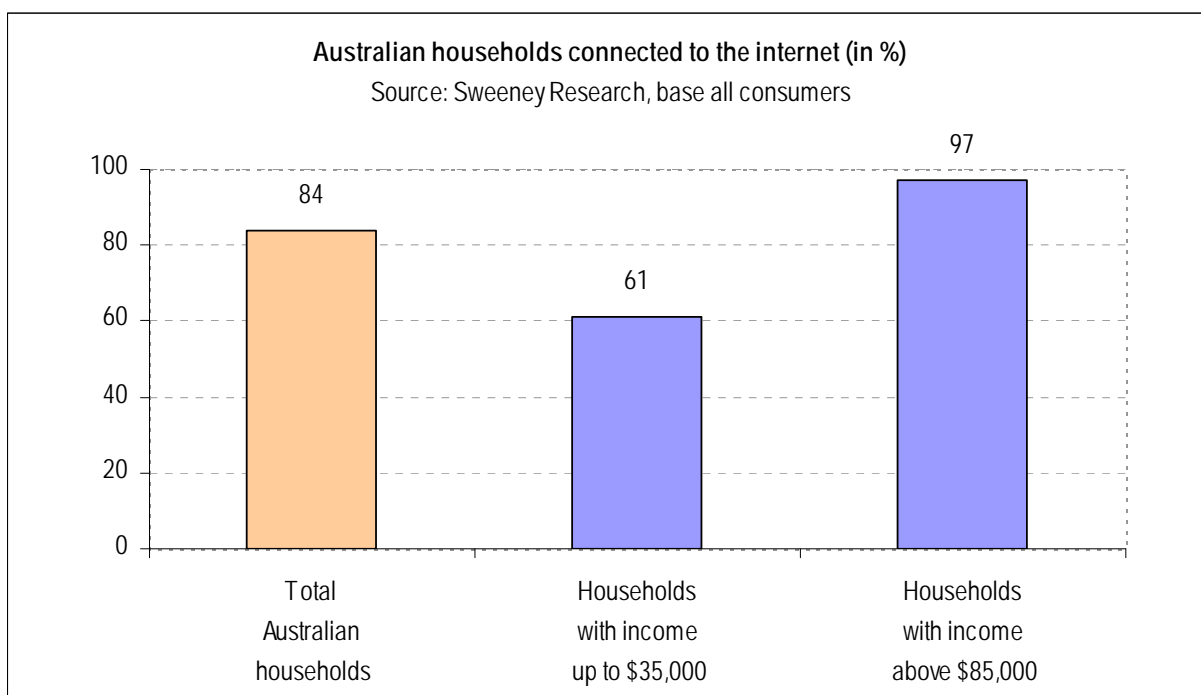
The digital economy: Developments in participation and productivity

Now, this is where it starts to get really interesting: we also need to understand that there are challenges related to differences in the way different groups in society participate in the digital economy.

ACMA analysis of research undertaken in this area points to a number of possible ‘divides’ for Australia, for example:

- a digital divide
- a generational divide

[Slide: Differences in connectivity⁴]

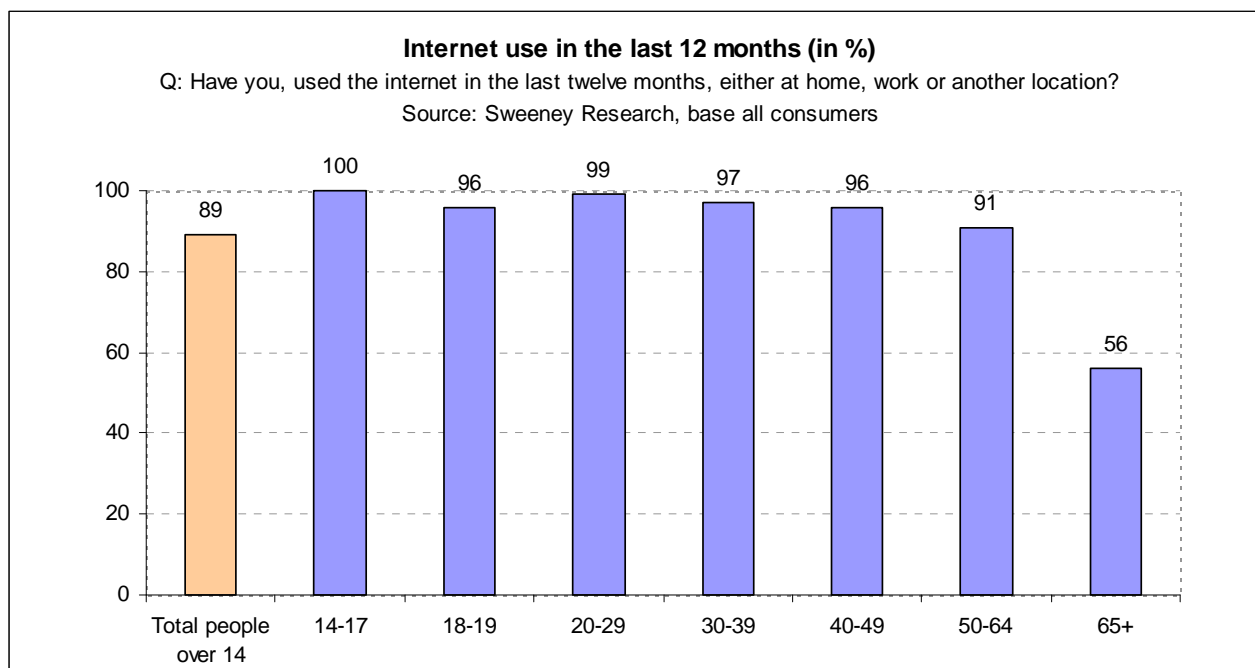


On the ‘digital divide’, preliminary research undertaken by ACMA indicates strong differences in the levels of connectedness among Australian households

Only 61 per cent of Australians with a household income of up to \$35,000 are connected to the internet. This compares with 97 per cent of households with an income of over \$85,000.

⁴ **Source: Sensis e-business Report, 2008**

[Slide: differences in level & nature of use of the internet by age⁵]



Turning to the ‘generational divide’, older Australians are more likely to report below average usage of the internet:

While more than half (56 per cent) of Australians aged over 65 have used the internet in the past 12 months, compared to the average of 89% (which average arises out of a much higher level of reported use for younger age groups).

So older age groups are more likely to be light users of the internet:

43 per cent of Australians aged 65+ report using the internet less than 9 hours per week⁶.

In contrast, young people age 18-24 are most likely to be heavy users of the internet:

42 per cent of 18-24 declare using the internet more than 21 hours a week⁷.

Let’s turn to new strategies to deal with ongoing changes

We have looked at some of the current risks and challenges, and patterns of usage. But with the unrelenting pace of change, Australia needs to be looking forward, anticipating future challenges as well as the opportunities change will bring.

In the period leading up to 2013, ACMA expects developments to continue in four broad areas:

- **Technological developments** that will continue to provide new ways of accessing and distributing content and services.
- **Market developments** with changing business models and industry structures.

⁵ Source: Panorama Survey 2008

⁶ (which is defined as being light use of the internet)

⁷ (definition of heavy use of the internet)

The digital economy: Developments in participation and productivity

- **Changing consumer expectations and behaviour**, perhaps further testing community standards.
- **The global reach of the internet**, which will enable businesses to further extend their reach from the local to the global.

Multi-layered regulation

Why do I touch on these various developments in play? Because all our observations suggest that to maximise the benefits from the digital economy, some new approaches to regulation are going to be required.

A continuing objective for regulation is to ensure adequate safeguards to protect consumers and to provide secure, trustworthy environments for commercial transactions, entertainment and general pursuit of their interests.

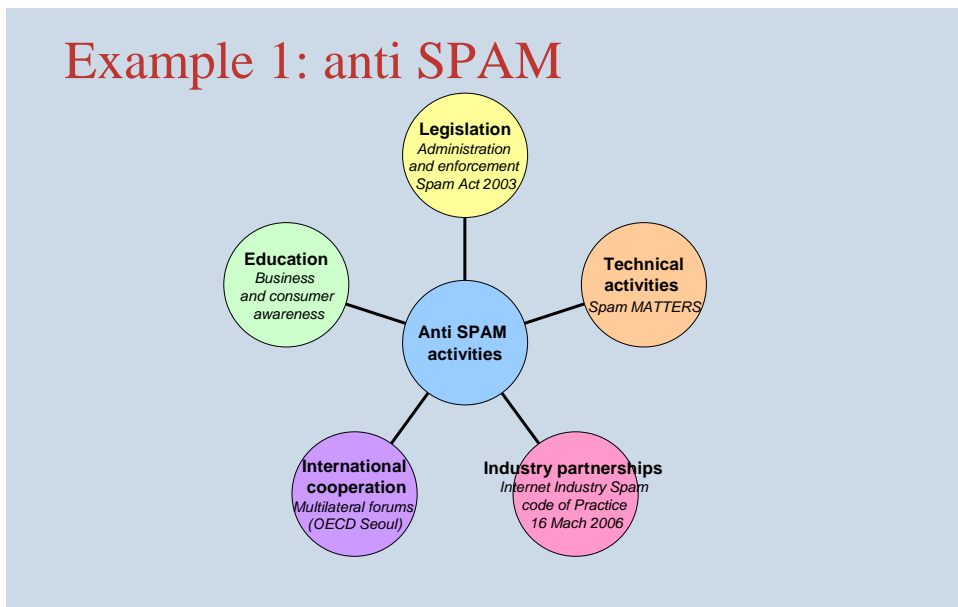
This was more straightforward when national governments regulated services provided by local providers on single technology-specific platforms. New, more flexible, more multi-layered approaches are required when we are dealing with globally connected communications... and in ACMA's case, for example, with a greater emphasis on "soft approaches" rather than the traditional "harder powers".

Two really good illustrations of Australia's capacity to make such a flexible response is shown in the multi-layered approach taken with anti-spam and cyber-safety regulation. Both involve a mix of:

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

I should emphasise that, in ACMA's view, a critical element in the success of such an approach is the co-regulatory framework: the involvement of industry, fitting the regulatory solution to the marketplace by partnering in the development of codes and standards which address community standards and expectations as well as in ensuring compliance and delivery of well crafted consumer messages.

[Slide: Anti-spam activities]



The anti-spam strategy emphasises legislation and specific penalties. ACMA has responsibility for the administration and enforcement of the Spam Act.

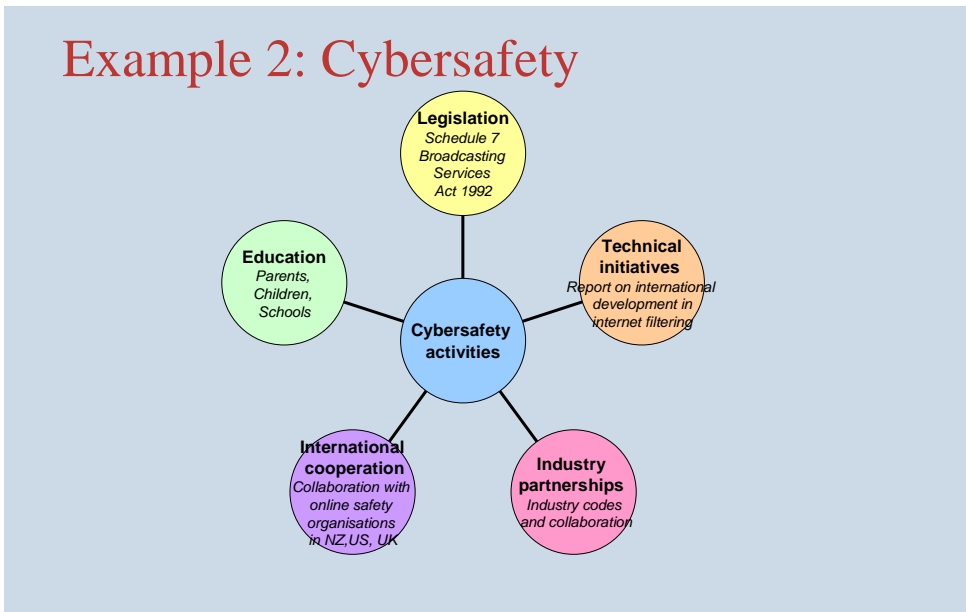
The technical initiative of the strategy driven by ACMA, SpamMATTERS, allows users to report and delete spam with a click of a mouse, and the Australian Internet Security Initiative provides daily reports to ISPs identifying ‘compromised’ IP addresses.

The Internet Industry Spam Code of Practice, developed by the IIA (with representatives from peak industry associations, consumer groups, message service providers, government regulatory agencies and corporate business) requires ISPs to provide information to their customers on means to reduce spam and enhance technical initiatives to deal with, and prevent, spam.

The e-Marketing code, developed by industry, consumer groups, and message service providers, established ‘safe harbour’ rules about how to successfully operate commercially in the Spam Act environment.

Australia’s strategy to tackle e-mail spam has been remarkably successful: Australia has fallen from around 10th in Sophos’ list of spam-relaying countries in 2004 to the mid-30s in calendar year 2007.

[Slide: Cyber-safety]



ACMA’s 5-pronged approach to cyber-safety has a greater emphasis on consumer awareness and education than is the case with anti-spam; since it is heavily reliant on the digital literacy of parents, children and schools.

ACMA collaborates very successfully and actively with local partners, including federal police forces, and key international agencies involved in the area of online safety. The industry is also required to develop enforceable codes of practice embedded with community protections.

ACMA’s cybersafety awareness program provides information to children, parents and teachers about cybersafety risks and how to manage them.

[Slide: Sharing of responsibility]



Sharing of responsibility

- Government
- Service & content providers within co & self-regulatory frameworks
- Organisations involved in providing education, information & advocacy
- Individuals & families

The sharing of responsibility – it's a real, socio-technical concern; a meta concept so much in debate in today's society.

A key feature of both our anti-spam and cybersafety regulation is the engagement with and reliance on an expanded range of stakeholders to ensure effective outcomes:

Government is the co-ordinator and remains responsible for ensuring appropriate levels of regulation; it and is the ultimate 'guarantor' for the integrity of the legislative and regulatory framework.

Service and content providers within the co-regulatory frameworks will need to take greater responsibility for providing accessible, 'digestible' information to consumers, audiences and users about content and how different media environments work.

Organisations involved in providing education, information and advocacy about media and related issues are likely to assume a greater role in providing education, assistance and advice in the future.

Most importantly, individuals and families will also need to take more responsibility for aspects of their relationship with media and communications more generally. In particular, individuals and families will need to increase their awareness and understanding of the nature of different types of media and how they should deal with media content that they find challenging, confronting, dangerous or illegal.

Digitally literacy to drive participation and productivity

[Slide: digital literacy]



Digital literacy

- The skills, knowledge & understanding needed to access & use digital communications & media effectively

Here's my punchline: if individuals are to assume a greater level of responsibility for their own and their families' protection in the digital media and communications environment, digital literacy will be essential.

What do we mean by the term 'digital literacy'?

While there is no clear, single definition of digital literacy—which is also sometimes referred to as 'media literacy' or 'e-literacy'—there is broad agreement that digital literacy refers to the skills, knowledge and understanding needed by people to access and use digital communications and media effectively.

A digitally literate person should be able to:

- understand the nature of different types of digital services and the content they provide;
- have basic capacity and competence to get connected, to operate and access various digital technologies and services;
- participate confidently in the services provided by digital technologies;
- exercise informed choices in online and digital media and communications environments; and
- have an adequate level of knowledge and skills to be able to protect themselves and their families from unwanted, inappropriate or unsafe content.

It follows that individuals or groups without those adequate digital literacy skills knowledge and understandings will find that their ability to share in opportunities and benefits provided through digital technology is limited; it will lead to digital exclusion, not inclusion.

The importance of digital literacy has been recognised in other jurisdictions, in particular the UK, the European Union and New Zealand, all of which are moving to put policies in place to help their citizens have at least basic technical and intellectual digital literacy skills.

The OECD Ministerial Meeting on the Future of the internet Economy has also recognised the importance of delivering on such outcomes.

I'd like to tell you how ACMA is thinking about digital literacy

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

It is clear from research conducted both in Australian and overseas (examples of which I cited earlier) that different segments of a country's population have different levels of access to and participation in digital media services, and different levels of skill, knowledge and confidence about using digital media. In our view, ongoing research is vital to ensure any new policies are grounded in a sound understanding of literacy needs and what enables enhanced literacy levels.

ACMA has already undertaken research that has provided valuable information about the take-up and use of digital media, particularly by children and young people; and we aim to sustain our momentum on this important aspect of the evolution of the digital economy in Australia.

ACMA recognises the involvement of many government and non-government organisations in providing a wide range of digital and media literacy related information and education. We think 'joining-up' stakeholders to encourage co-ordinated approaches to digital literacy is important. So we are committed to facilitating and promoting co-operation between stakeholders, particularly where there are gaps in knowledge, information or action.

In recognition of ACMA's extensive research activities relevant to media/digital literacy, Ofcom invited Australia to be 1 of 5 international founding members of their Media Literacy Forum, with the other organisations being –

- **Canada** - Canadian Association of Media Education Organisations (CAMEO)
- **Ireland** - Dublin Institute of Technology (DIT)
- **New Zealand** - Broadcasting Standards Authority (BSA)
- **United Kingdom** - Office of Communication (Ofcom)
- **United States** - National Association for Media Literacy Education (NAMLE formerly AMLA)

The forum was held in London in May this year.

One of the outcomes of this meeting of researchers and policymakers was the encouragement of 'local chapters' for promoting media literacy. ACMA's first initiative here is a forum on Families and Media Literacy Research, to be held in Sydney on September 23.

Wrap-up/conclusions

[Slide: The Future]



The future

- Ensuring Australians have the skills, confidence & capacity to participate productively in the digital economy

The key message that I want to highlight today is the goal for Australia and Australians to maximise the benefits of involvement in a global digital economy. Digital literacy is important in ensuring that Australians as users (both commercial and consumer) of digital technology and services have the skills, confidence and capacity to participate productively. Really importantly but so often overlooked, with these skills and confidence, Australians can also fully participate as engaged citizens.

There is a great opportunity to build on the positive ways that Australians have embraced new technologies but, without wide and deep participation, we will not maximise the benefits of engagement with the digital economy; we will not be ensuring social equity to our fellow citizens; we won't be acting in our nation's interest.

I'm delighted that the Minister has provided real leadership in this space – it behoves us to capitalise on the momentum he has created.

And I think the ACMA has a strong contribution to make.

Thank you.