THE CURRENT STATE OF PLAY
Online Participation and Activities

2003

Australian Government

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The Chief Executive Officer
National Office for the Information Economy
GPO Box 390
Canberra ACT 2601
Australia

Telephone: 02 6271 1073
Facsimile : 02 6271 1098
Website: www.noie.gov.au

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Executive summary

Characteristics of Australians accessing the Internet

A growing majority of Australians use the Internet.

The number of Internet subscribers rose to just over five million in the first quarter of 2003, an increase of 28% on the same period for 2001. Subscribers were made up of about 4.4 million private households and 659,000 businesses and government organisations.

In the second quarter of 2003, 55% of households had Internet access, up from 50% in the same period of 2001.

Fifty eight percent of the Australian population had immediate access to the Internet during June 2003.

Fifty nine percent of Australians aged 14 years and over used the Internet from any location (home, work or other location) at June 2003.

At June 2002, in excess of 70% of businesses with employees were online, while Internet connectivity jumped to above 80% for businesses with five or more employees and above 90% for businesses with 20 or more employees.

While Internet participation has increased across all socio-economic groups and business categories, certain groups within Australian society are still more likely to have significantly higher levels of Internet use than other socio-economic groupings.

Australians in general

Amongst Australians aged 14 years and over, during June 2003:

- Internet use generally declined with age. Eight two per cent of persons aged 14-17 years reported using the Internet compared to 79% for 18-24 year olds, 71% of 25-39 year olds, 65% of 40-54 year olds and 29% of persons aged 55 years or over. However, the highest proportional increase in online participation was recorded by persons aged 55 years and over (an increase of 61% since June 2001)
- Internet participation increased with levels of educational attainment. About 85% of those with a university degree accessed the Internet compared to 64% of persons with a certificate, 61% of those with upper secondary, and 40% of those with mainly primary school education.
- Internet participation increased with personal incomes. About 36% of those earning between $10,000 and $14,999 used the Internet compared to 72% of those earning between $40,000 and $49,999 and 90% of those on incomes of $119,999 or above.
- Persons in older families had the highest participation rate (75%) followed by young families (66%), couples (48%) and singles (34%).
- 62% of persons in metropolitan areas accessed the Internet compared to 53% in non-metropolitan areas, however, the highest proportional increase in online participation was recorded in non-metropolitan areas (up by 26% since June 2001).

Australian business

While the use of technologies such as computers and the Internet by businesses is wide spread, business operating characteristics, such as firm size and industry of operation, still had a significant influence on levels of technology usage, particularly in relation to the adoption of web sites.

Amongst Australian businesses with employees at June 2002:
- 65% of businesses employing less than 5 persons were online, compared to 80% of businesses with 5-19 employees, 93% for businesses with 20-99 employees and 99% of businesses with 100 or employees compared to 50%, 66%, 83% and 99% respectively at June 2000.
- Industry sectors such as *electricity, gas & water, property and business services, finance and insurance, cultural & recreational services and mining* had higher levels of Internet connectivity compared to sectors such as *personal & other services* and *accommodation, cafes & restaurants.*
- An estimated 24% of businesses with employees were estimated to have a web site, however, this increased dramatically with the size of the business. Fifteen per cent of online businesses with less than 5 employees had a web site, compared to 34% of businesses with 5-19 employees, 55% of businesses with 20-99 employees and 81% of business with 100 or more employees.
- At a broad regional level there was only a very small difference in levels of technology adoption (computers, the Internet and web sites) between metropolitan and non-metropolitan businesses.

E-service capability and online activities

Australians and Australian businesses in general increasingly used the Internet for a broad range of activities. However, for both groups, communication and information gathering were core to activities undertaken online.

Australians in general

During June 2003, amongst Australian Internet users aged 14 years and over:
- the top online activities were closely related to communication and information needs. The one exception is the increasing popularity of Internet banking and financial activities which ranked third with a patronage of 37% of the Internet population 14 years and over at June 2003.
- Communication (covering activities such as electronic mail, Internet telephony, use of chat rooms, etc), was the most prolific Internet activity. Seventy-five per cent of monthly Internet users 14 years and over reported the use of e-mail or other interactive and non-interactive communications in the past seven days. The lead ranking of communication activities has been evident since December 2000.
- About 28% of Internet users engaged in online buying or selling related activities.
- Entertainment and education related activities trailed the other main activities identified, with a following of 24% and 18% respectively.

The popularity and appeal of online government services is evident given that 36% of Internet users 18 years and over accessed such services in 2002.

Home broadband Internet users undertook similar activities online in comparison to home Internet users in general. However, initial research shows that there are certain web site categories, which attracted a significantly higher proportion of broadband users in comparison to the general Internet population. Web sites relating to videos /movies, maps/travel information, web hosting, special interest news, and directories or local guides were examples of such sites.

As the summary diagrams show, there was little difference in the activities undertaken online between metropolitan and non-metropolitan Internet users during this period.

However, while a higher proportion of Internet users in metropolitan areas undertook a particular activity online, the difference was only marginal and has steadily declined as a result of the higher compound annual average growth rates recorded by Internet users in non-metropolitan areas.

Diagram 1: Activities undertaken online - Australia June 2003

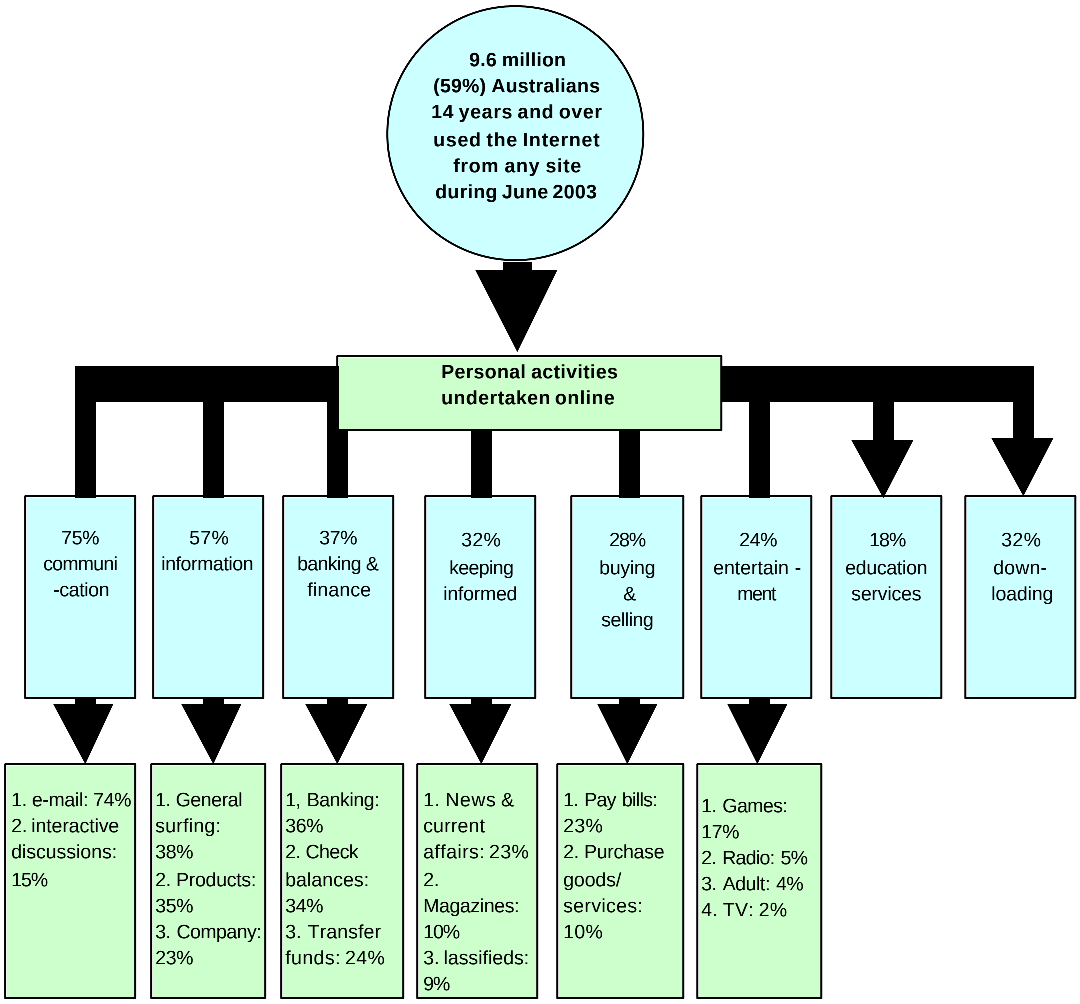


Diagram 2: Activities undertaken online in Australian capital cities - June 2003

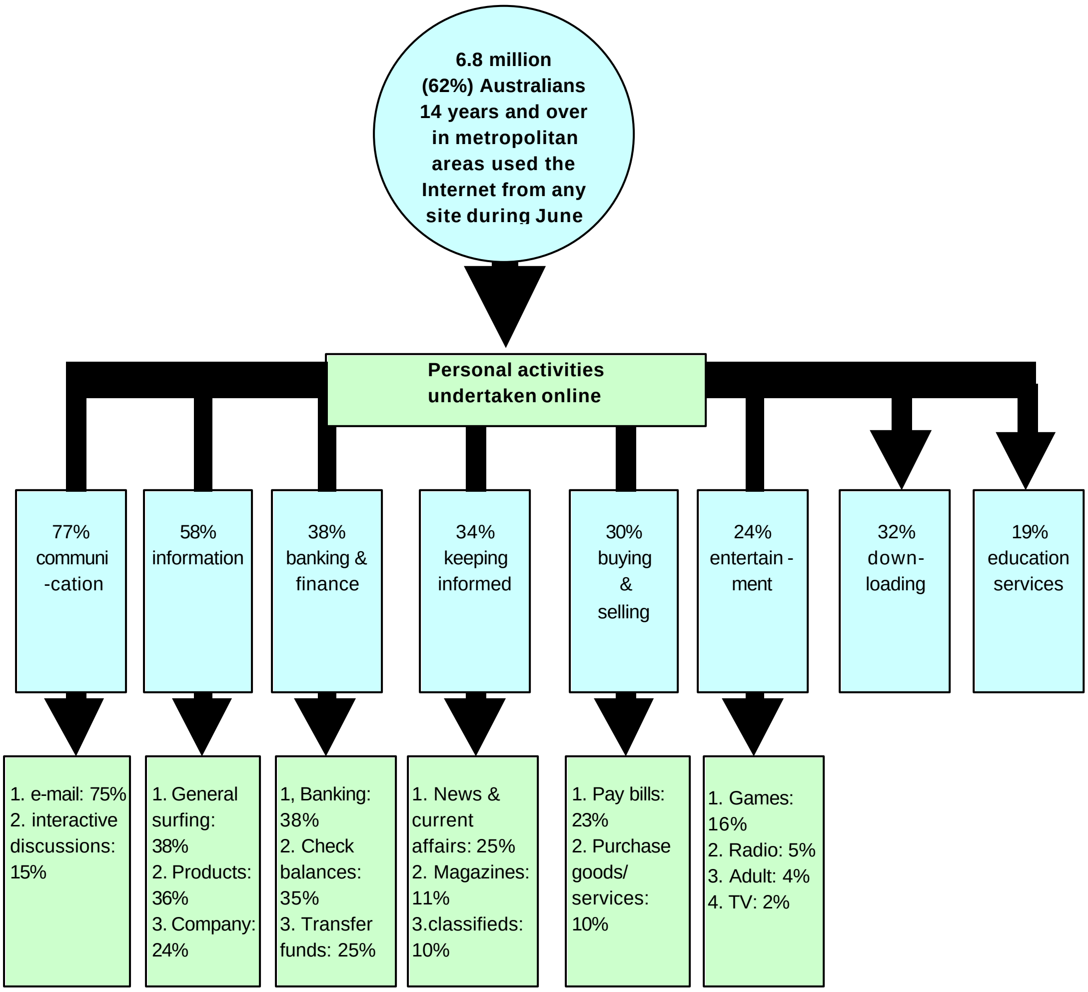
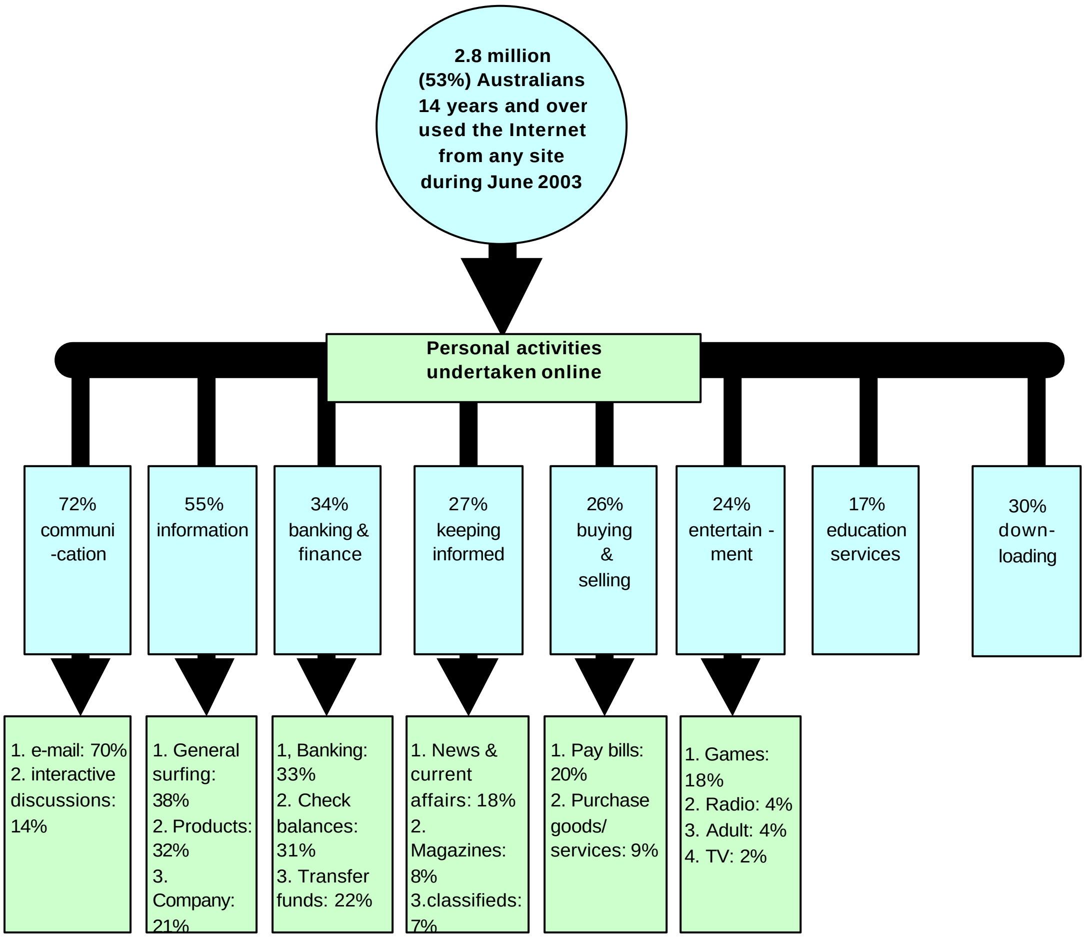


Diagram 3: Activities undertaken online in non-metropolitan areas in Australia- June 2003



Australian business

Australian businesses predominantly used the Internet for communication and the management of inter-business and business to government commerce. The main activities undertaken online by businesses at June 2002 were:

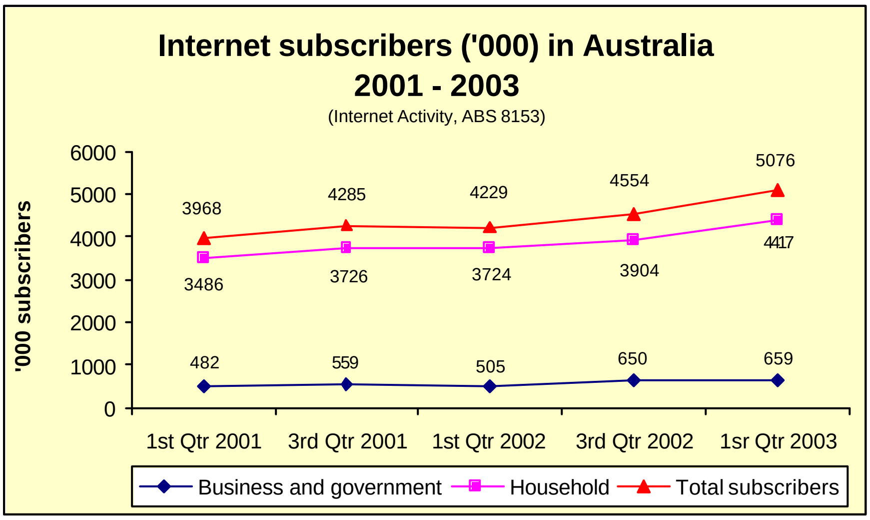
- correspondence, 94% of online businesses;
- information searches, 88% of online businesses; and
- banking, 69% of online businesses.

Potential for delivery of e-services

The ABS reported that at June 2002, 24% of businesses had a web site or web presence, and were therefore capable of delivering services electronically to customers. Eighty one per cent of these businesses were small or micro businesses with less than 20 employees. Fifty five per cent of businesses with web sites were in the wholesale / retail sectors (28%) or the property and businesses services sector (28%).

CHARACTERISTICS OF AUSTRALIANS ACCESSING THE INTERNET

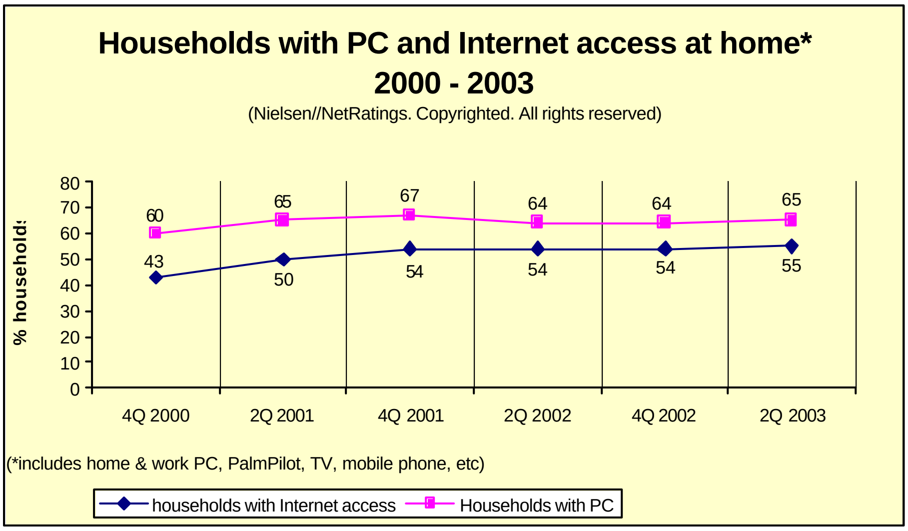
Internet subscribers



According to the Australian Bureau of Statistics (ABS), in the 1st Quarter of 2003, Australia had approximately 5,076,000 Internet subscribers (4.4 million households, 659,000 businesses and government agencies), an increase of 28% since the 1st Quarter of 2001. The number of household subscribers increased by 27% compared to 37% for business/government subscribers.

However, as subscriptions are accounting or billing points rather than individual users, subscriber metrics provide only a limited picture of Internet take up. The following set of data provides an overview of participation rates and the characteristics of Internet connectivity across Australia's household and business sectors. No public sector data is presented in this report, but we can assume that the majority of these agencies are already online as a result of government initiatives to deliver services online.

Households with PC and Internet access at home

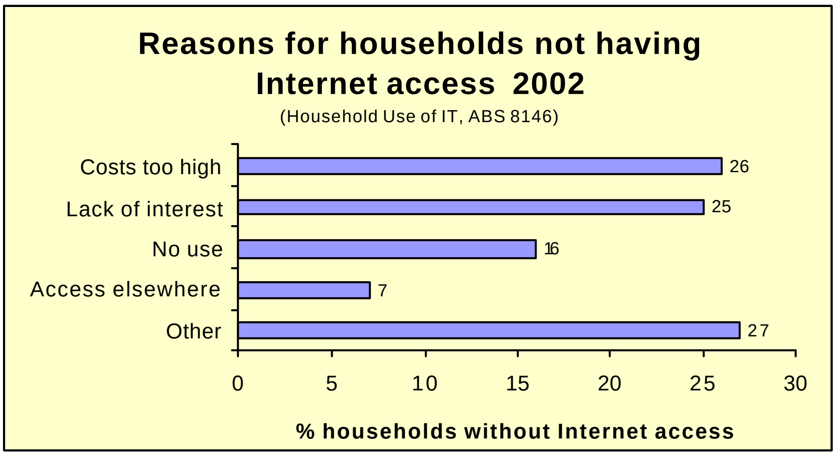


The percentage of households that owned or leased a PC in Australia increased from 60% in the 4th Quarter of 2000 to 65% in the 2nd Quarter of 2003. A high level of PC ownership in the community is instrumental in promoting greater participation in the information economy, as PCs still remain the most common technology used for Internet access.

The percentage of households with Internet access at home in Australia has stabilised in the last two years, showing a marginal increase in the 2nd Quarter of 2003 (from 54% to 55% or approximately 4 million households). Internet access at home, in this case, includes access through devices such as home and work computers, Palm Pilot technology, TV and mobile phone. The gap between PC households and Internet households has remained persistently around 10 percentage points for much of 2002 and 2003.

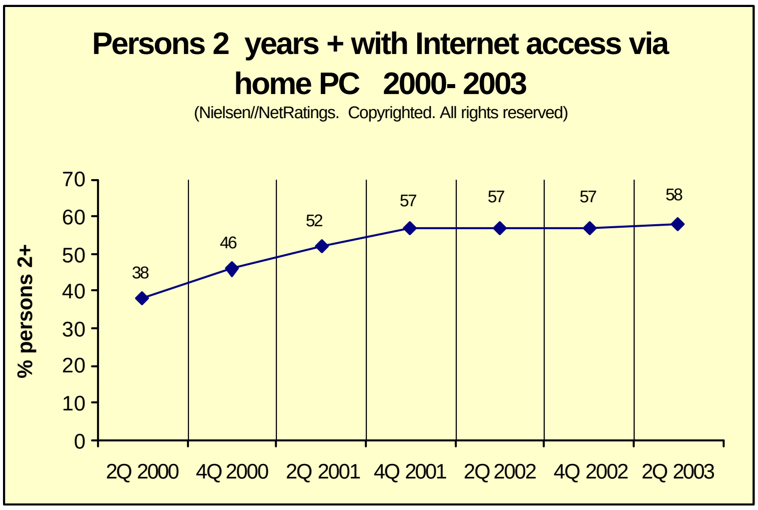
Reasons for households not having Internet access

High costs (26%) and lack of interest (25%) were the most frequently reported reasons for households not being connected to the Internet in Australia in 2002. 16% of these households had no use for the Internet, while a further 7% had Internet access elsewhere (work, school, etc).

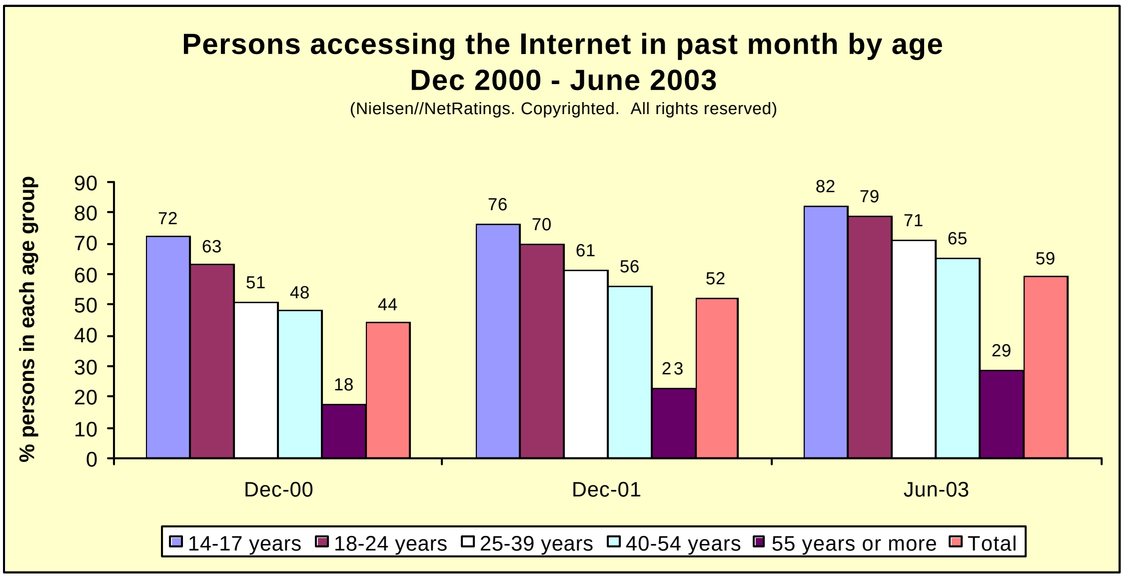


Persons 2 years + accessing the Internet via home PC

The percentage of persons aged 2 years or more accessing the Internet via a home computer in Australia has remained relatively high from the 4th Quarter 2001 (57%) through to the 2nd Quarter 2003 (58%). This trend seems to indicate that Australia has reached a level of maturity in home Internet access, a situation experienced by most industrialised economies following the strong rates of growth typical of early stages of technology adoption.



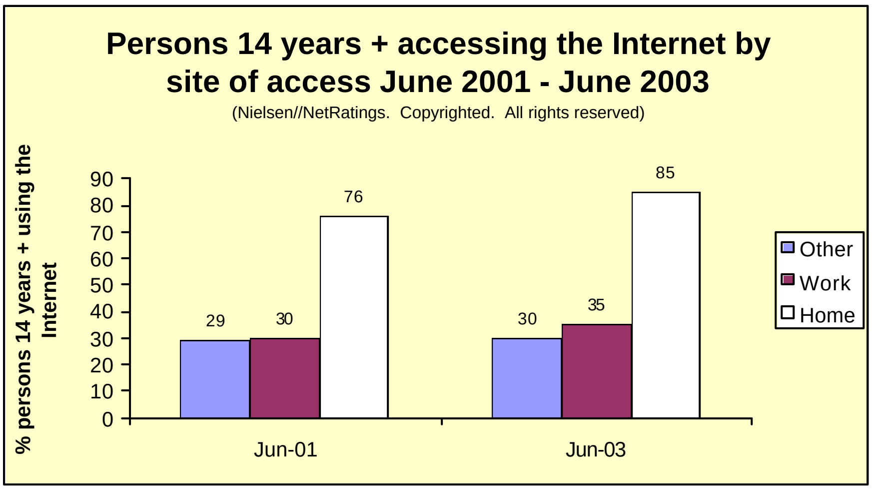
Persons accessing the Internet in the past month by age group



The 3 reference periods considered in the graph above are December 2000, December 2001 and June 2003. During these periods the proportion of Australians aged 14 years and over who used the Internet from any site increased from 44% in December 2000 to 52% in December 2001, finally reaching 59% in June 2003, equal to a increase of 34% over the entire period. All age groups experienced increasing levels of online participation, with persons aged 55 years or more years recording the highest proportional increase in Internet use (61%).

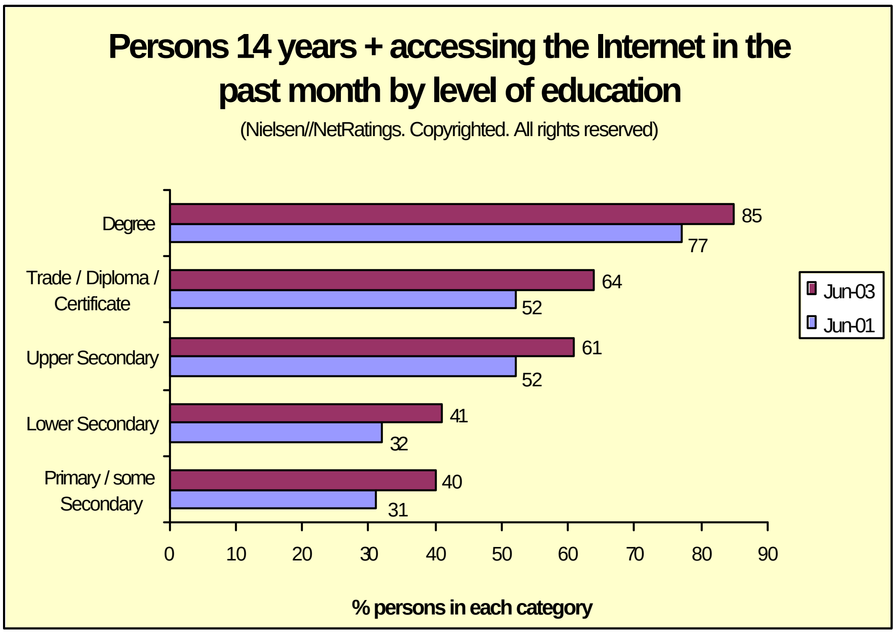
Persons 14 years + with Internet access by site of access

Home is the preferred point of Internet access for the majority of Internet users aged 14 years or more in Australia (76% of users in 2001 and 85% in 2003), more than twice the proportion of persons accessing the Internet from work or other sites.



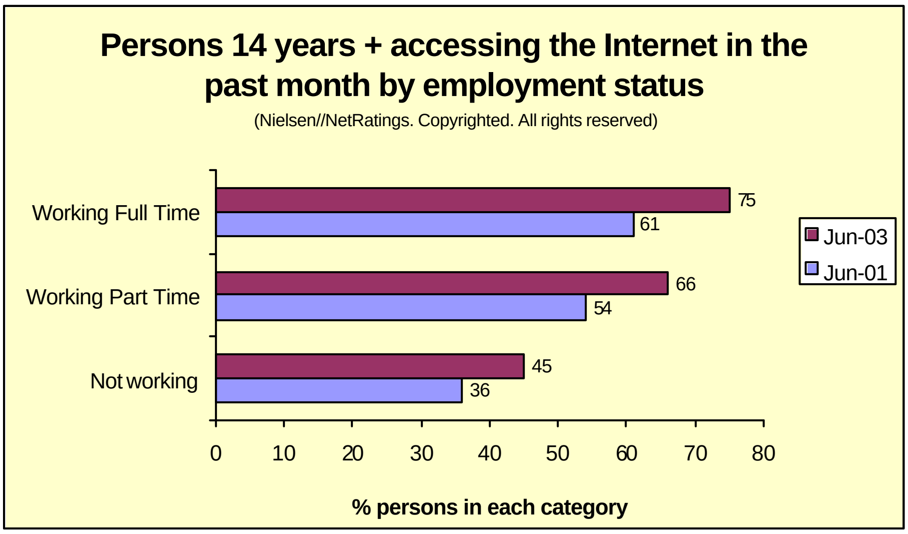
Persons 14 years + accessing the Internet by level of education

From June 2001 to June 2003, the level of Internet use increased significantly irrespective of educational attainment. However, higher educational levels equate with higher rates of Internet access. The highest level of Internet use was recorded amongst persons with tertiary qualifications (85% for June 2003 and 77% for June 2001.



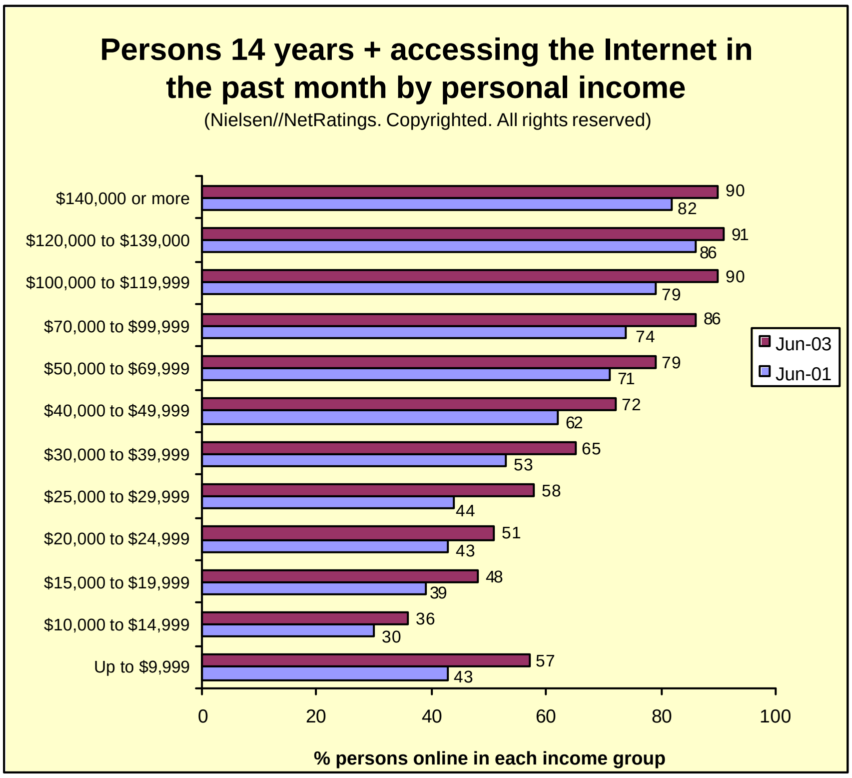
Persons 14 years + accessing the Internet by employment status

Just as for level of education, work force status also impacts levels of Internet use. For both periods, persons in full-time employment had significantly higher levels of Internet use (75% and 61% respectively) than part-time workers (66% and 54% respectively) and persons not working (45% and 36% respectively).



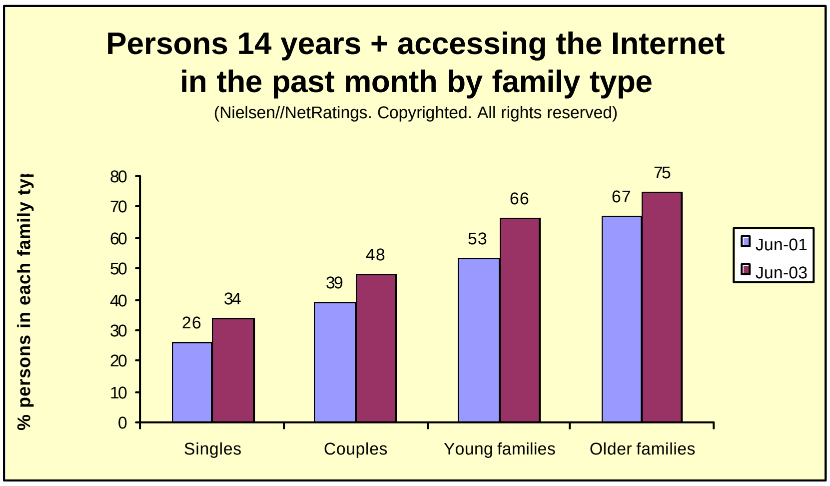
Persons 14 years + online in the past month by personal income level

Analysis of personal income data confirms that Internet use is highly correlated to levels of disposable income.
In June 2003, more than 90% of persons earning in excess of $100,000 used the Internet, while only 36% of persons with a personal income from $10,000 to $14,999 used the Internet.



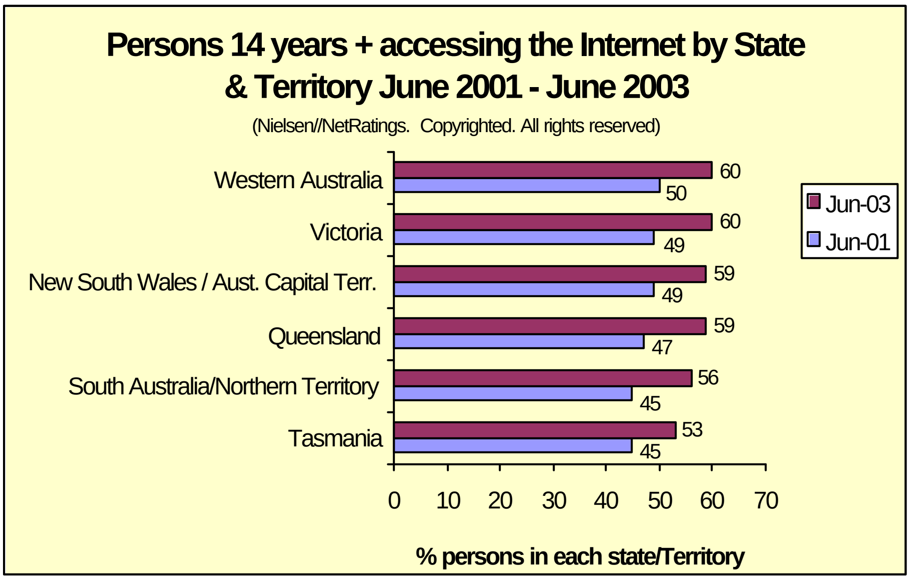
Persons 14 years + accessing the Internet by family type

In Australia, persons who are members of younger or older families access the Internet more than persons in other family types. This may be the result of a number of factors, including the presence of school age or older children attending post secondary education in these families. In general terms, persons in older families are also likely to have higher levels of disposable income than persons in young families.



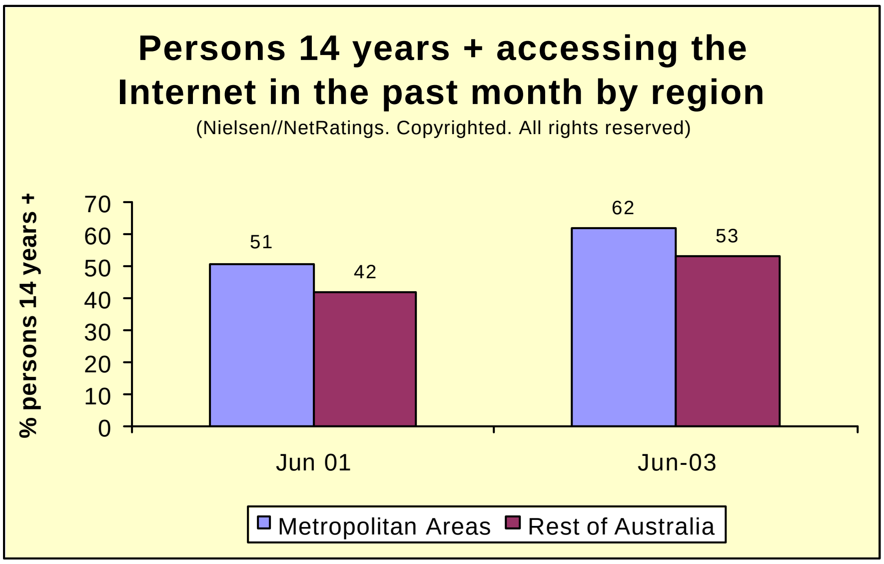
Persons 14 years + accessing the Internet by State / Territory

In June 2003, Western Australia and Victoria (60% each) had the highest percentage of Internet users amongst Australian States and Territories. Increases in Internet use in all States and Territories in the period considered ranged from 18% in Tasmania to 26% in Queensland.



Persons 14 years + accessing the Internet by region

In June 2003, 62% of persons aged 14 years + in metropolitan areas in Australia used the Internet compared to 51% in June 2001. This represented an increase of 22%. In the rest of Australia, the percentage of persons using the Internet also increased from 42% in June 2001 to 53% in June 2003, an increase of 26%.

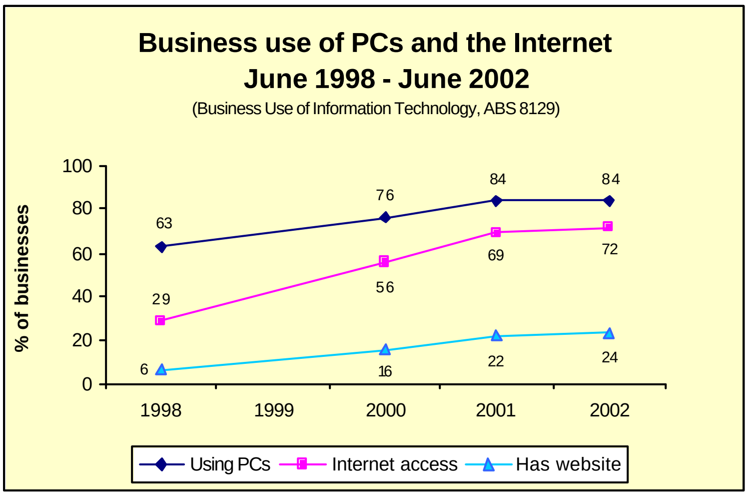


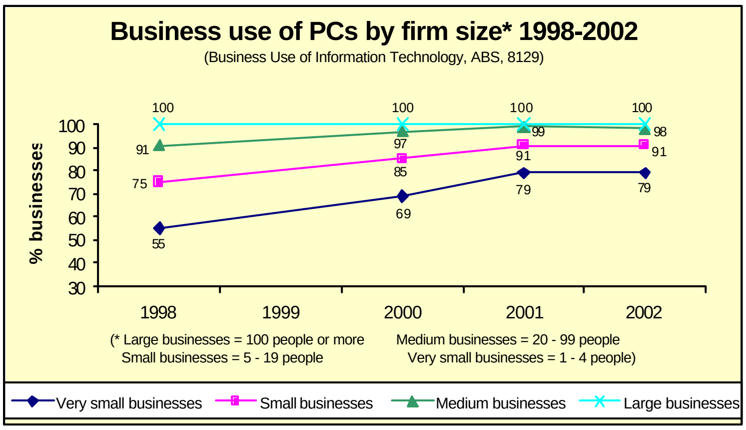
Business readiness and use of the Internet: Australia

Australian businesses are playing a critical role in the development of the information economy through the strategic application of Information and Communication Technologies (ICTs) to core business activities such as supply-chain management and customer service delivery. While both areas have significant potential for sustained productivity growth and ultimately, return on investment, it is in the area of electronic service delivery that the greatest potential exists for facilitating widespread and intensive use of the Internet amongst Australians in general.

The emergence of web based electronic service delivery in areas such as e-government, banking and finance, bill payment, general retail, entertainment, education and general information, is shaping Internet use and influencing more Australians to go online. Electronic service delivery is now a key component of organisational business plans, providing opportunities to reach out to markets not normally accessible through traditional communication channels which are unable to offer the convenience of twenty four hour service or the visual sophistication of the World Wide Web.

If a certain level of technological sophistication is a necessity in terms of participating in the information economy, then the following section on technology use by Australian businesses will provide some insight into their preparedness to deliver services online. The metrics presented relate to the adoption and application of core ICTs such as computers, the Internet and web sites.

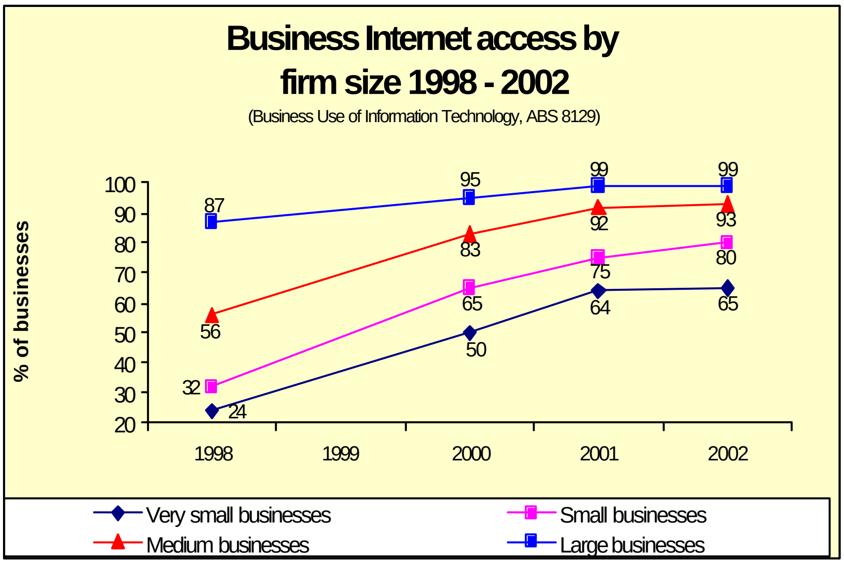




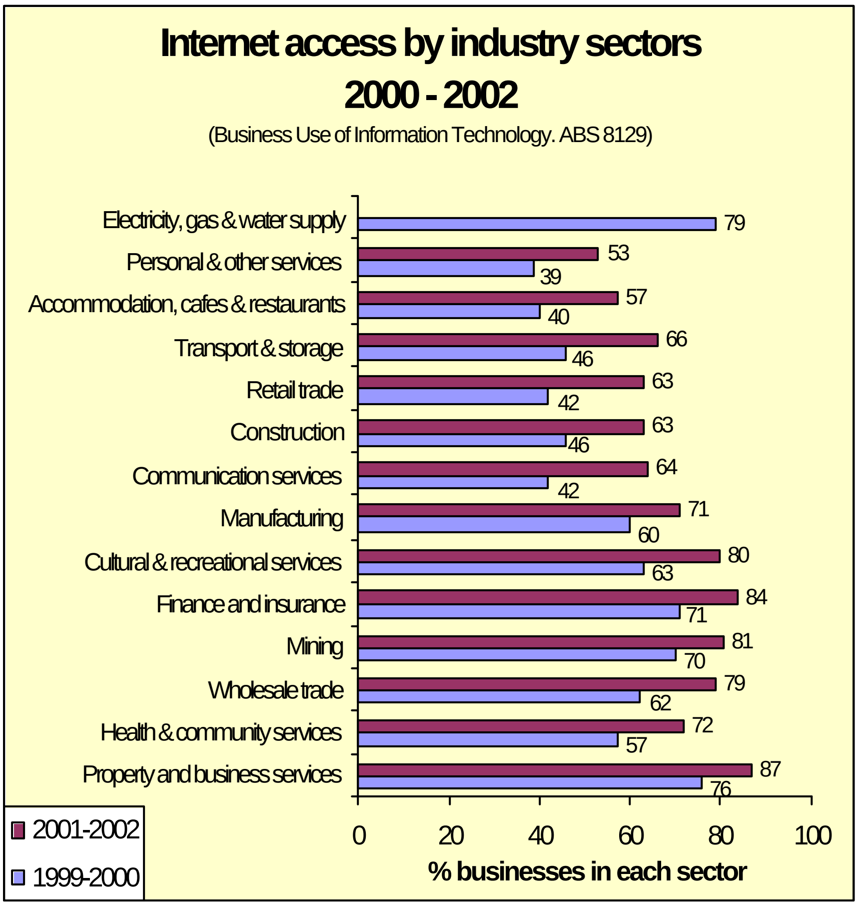
On the basis of available ABS data, business use of computers and the Internet was already very high at June 2002, in excess of 80% and 70% of businesses respectively. However, as with technology adoption in the household sector, levels of technology usage varied on the basis of the operating characteristics of businesses (ie employer size and industry of operation).

For businesses with more than 19 employees, the ABS found that PC and Internet penetration levels were already in excess of 90% while for businesses with 5-19 employees, computer and Internet use was above 90% and 80% respectively.

While technology usage amongst micro businesses (less than 5 employees) was at least 12 percentage points behind other businesses, PC and Internet usage amongst these businesses was still high, nearly 80% in terms of computer usage and 65% in terms of Internet use.

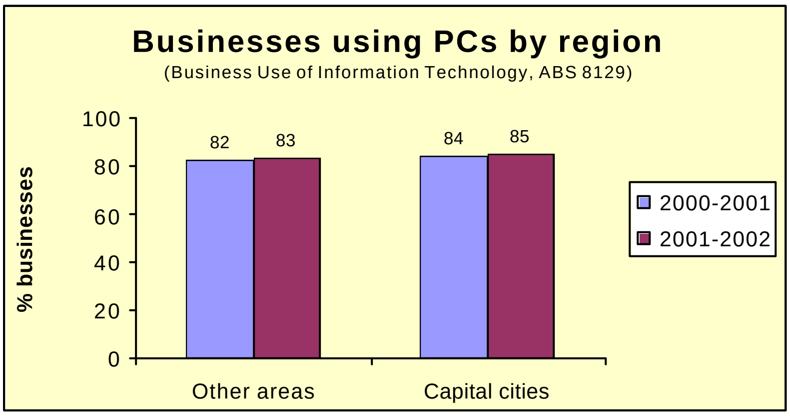


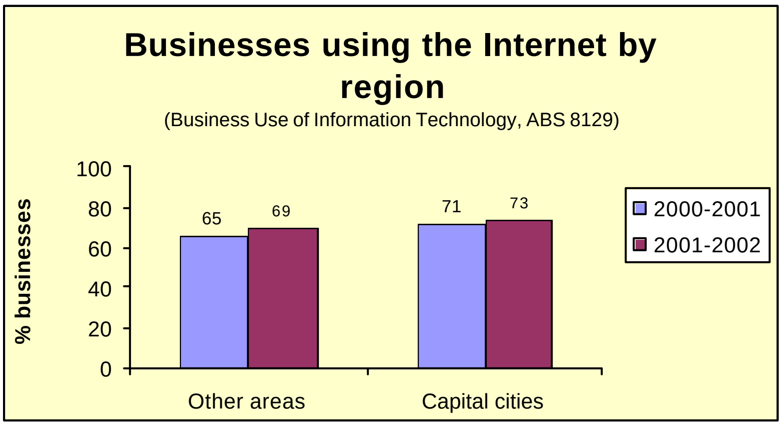
Industry sectors such as property & business services (87%), finance and insurance (84%), mining (81%) and cultural and recreational services (80%) had the highest level of Internet use compared to personal & other services (53%), accommodation, cafes & restaurants (57%), which had the lowest levels of Internet use.

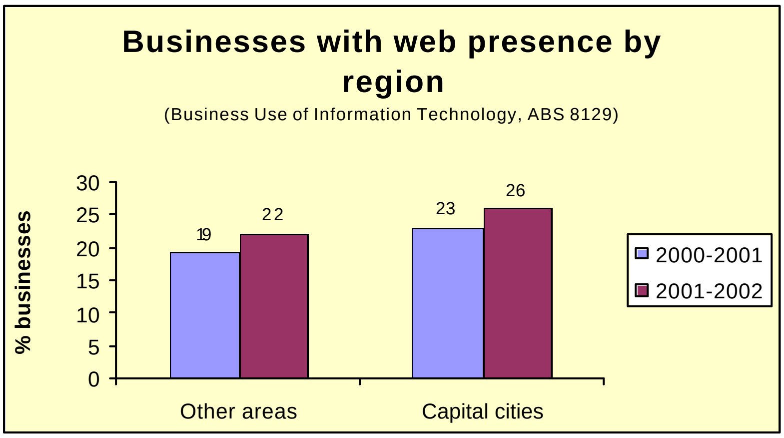


Business use of PCs and the Internet by region

Characteristics such as firm size and industry of operation seemed to be more important in terms of technology usage levels than factors such as region. In fact there is little or marginal difference between businesses located in metropolitan or non-metropolitan areas in terms of the usage of main stream ICTs such as computers or the Internet. While some variation exists on the basis of the number of persons employed by a business, it is clear that the majority of businesses already regard these technologies as essential, complementing technologies such as the telephone or fax.

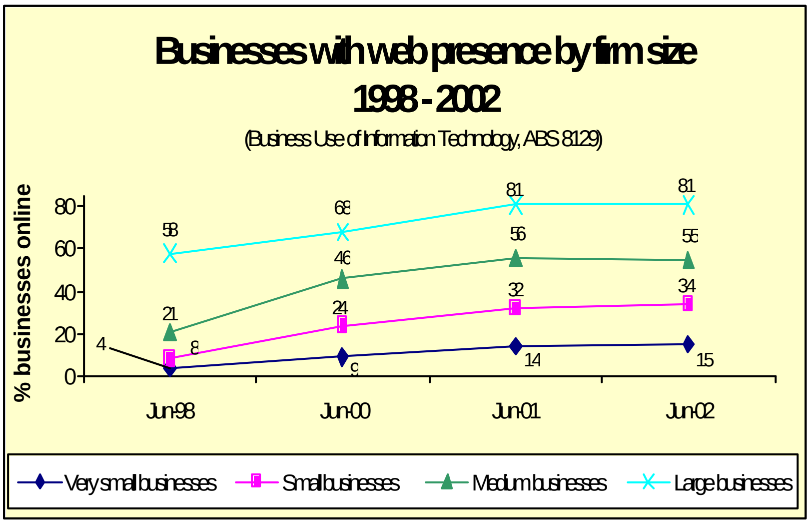






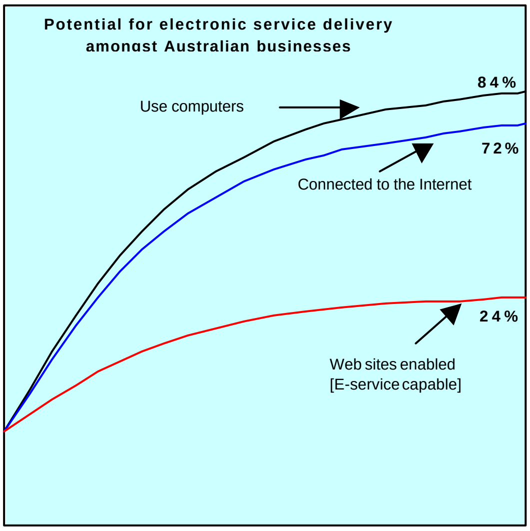
E-SERVICE CAPABILITY & ONLINE ACTIVITIES

E-service delivery

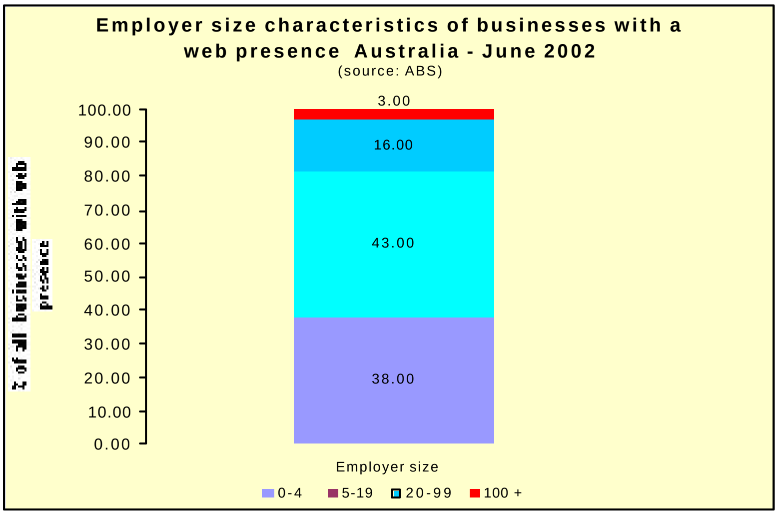


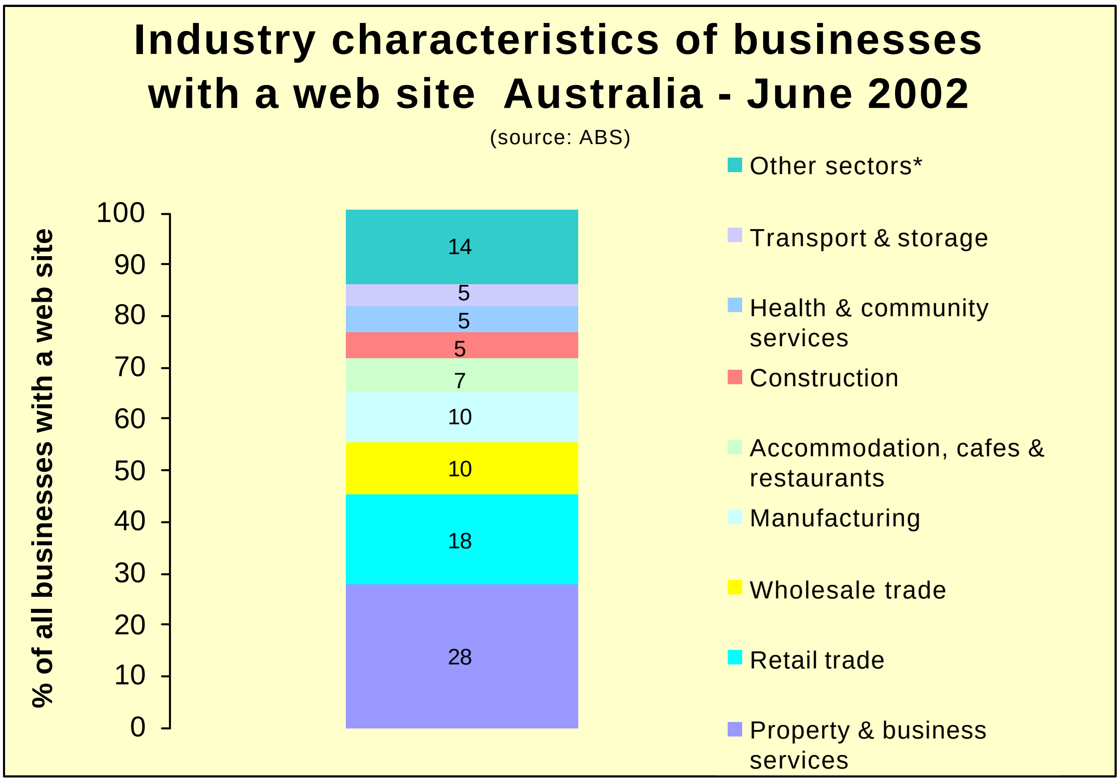
The level of web site deployment will largely indicate the current ability of Australian businesses to adopt electronic customer service delivery.

Overall, the level of web site adoption amongst businesses was considerably lower than computer and Internet usage, indicating that while the use of electronic services amongst Australians in general has grown considerably, the supply of these services was still largely concentrated amongst certain businesses and sectors of the economy. At June 2002, approximately 24% of Australian businesses were estimated to have a web site. This was nearly 50 percentage points below levels of Internet use and 60 percentage points below levels of computer usage.



Due to their numerical superiority, 81% of businesses with a web site were businesses with less than 20 employees. Fifty five per cent of businesses with a web site were in the 'wholesale / retail sector' (28%), or property & business services sector (28%).

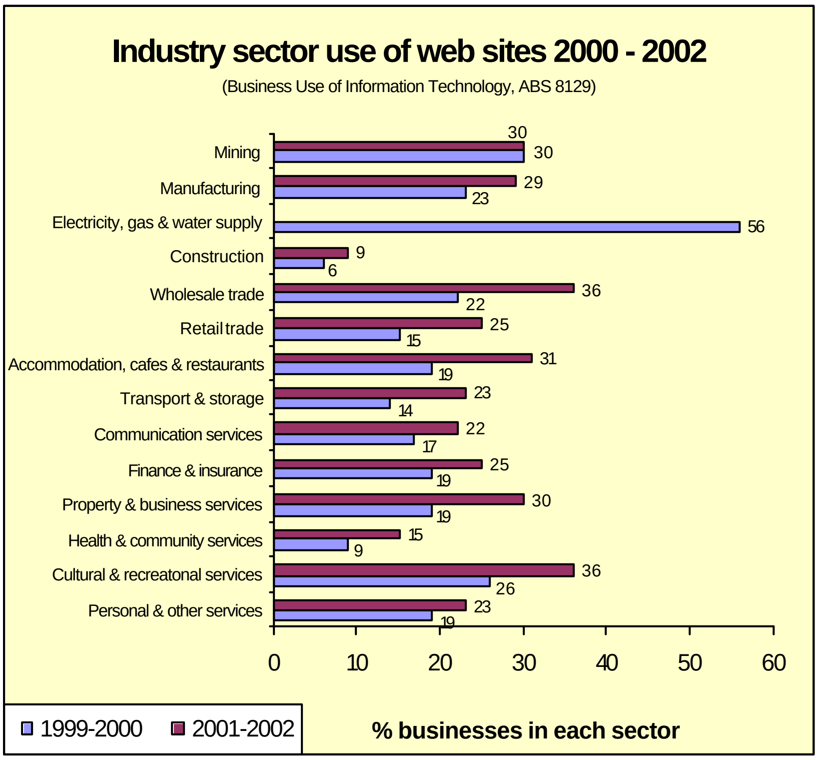




As with other technologies, the operating characteristics of businesses, whether employer size or industry sector of operation, have a strong influence on web site outcomes, even more so than was evident in the case of computer and Internet usage.

The likelihood of businesses having a web site or web presence increased significantly with the size of the business or in this case, the number of persons employed by the business. While 81% of businesses with 100 or employees and 55% of businesses with 20-99 employees were estimated to have a web site, only 34% of businesses with 5-19 employees and 15% of business with less than five employees had a web site at June 2002.

The significance of business size on web site usage is further demonstrated by ABS data relating to business income. Approximately 69% of businesses with gross incomes of $5 million or more had a web site, compared to 45% of businesses earning $1 million-$4.9 million, 22% of businesses earning $100,000-$999,999 and 11% of businesses earning less than $100,000.



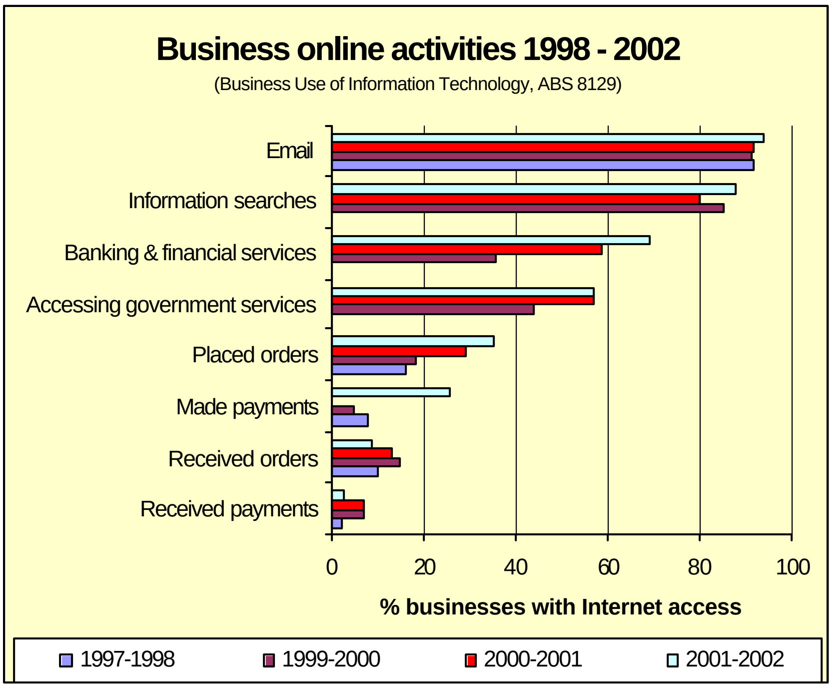
Businesses in the *Electricity, gas & water supply* sector are estimated to have the highest levels of website usage, reflecting the concentration of large public and private utilities in this industry. The *construction industry* recorded the lowest level of web site usage, only 9% of businesses in this industry reporting having a web site at June 2002.

Business online activities

While levels of technology adoption are an important part in assessing the e-readiness of business, how business are applying key technologies such as the Internet, is critical to understanding how these technologies are underpinning the process of organisational transformation which is changing traditional business practices in Australia.

On the basis of ABS data, businesses mostly used the Internet for correspondence, and to manage inter-business commerce. ABS data showed that at June 2002, of the 474,000 businesses online:

- 94% used the Internet for correspondence;
- 88% for information searches;
- 69% accessed banking and financial services;
- 57% accessed e-government;
- 35% placed orders for goods and services; and
- only 9% received orders for goods and services online.

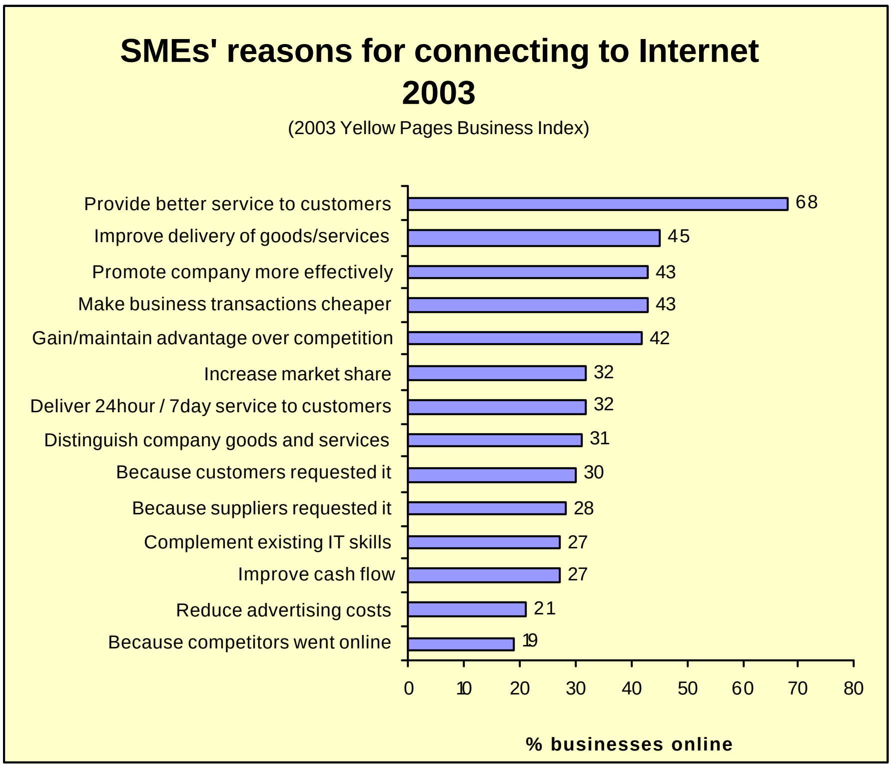


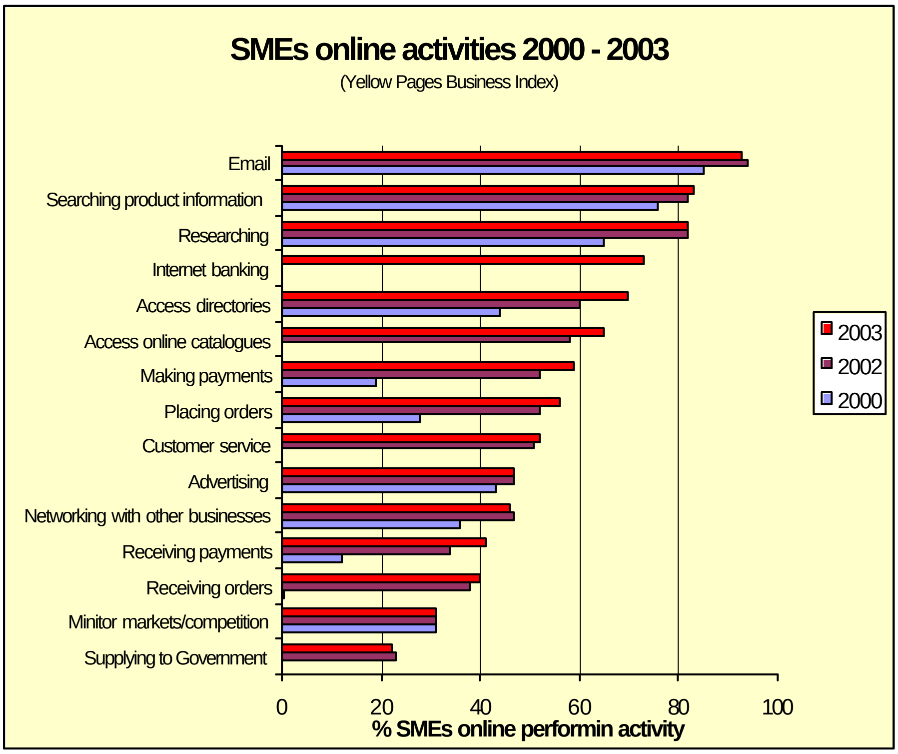
Small and Medium Enterprises (SMEs) use of the Internet

ABS findings were further corroborated by the findings of the Yellow Pages Index, which surveyed Internet use amongst Australian small and medium enterprises (SMEs). Yellow pages data for 2003 showed that the main reasons for SMEs connecting to the Internet were to provide better customer service (68%), to improve the delivery of goods and services (45%), to promote the company more effectively and to make business transactions cheaper (43% each).

The top five online activities undertaken by SMEs were:

- email correspondence, 93% of SMEs online;
- searching for product information, 83%;
- researching, 82%;
- Internet banking, 73%; and
- accessing directories, 70%.





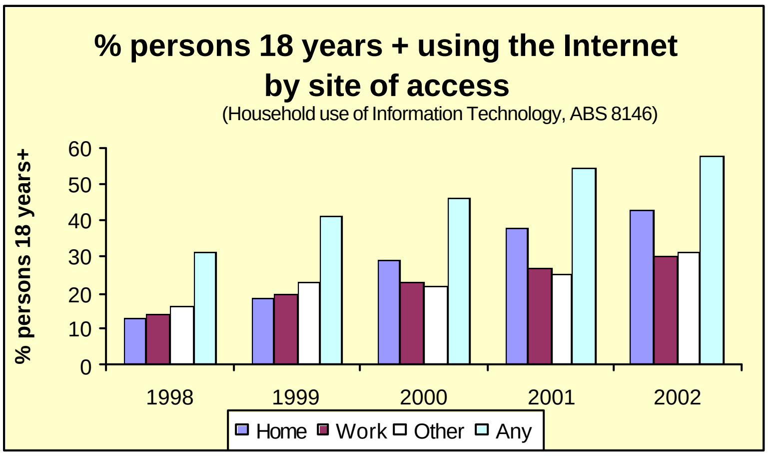
Trends in online activities in Australia

This section examines trends in private online activities, whether they are undertaken from home, work or other sites of access.

By all accounts, private access to the Internet has shown comparatively rapid growth with some estimates putting the current active Internet population in excess of 10 million. Data provided by Nielsen//NetRatings indicates there were approximately 9.6 million persons aged 14 years and over online in the past month from any site (ie at home, work or elsewhere) as at June 2003. This represents change over the period of 38.5% or a compound annual growth rate (CAGR) of 13.9% in the number of monthly Internet users. On a percentage basis, the data shows that monthly Internet use from any site has grown from about 44% of persons aged 14 years and over at December 2000 to nearly 59% at June 2003. These results are reasonably consistent with the latest official statistics from the Australian Bureau of Statistics (ABS) which indicate that in 2002 about 58% of adults 18 years and over used the Internet from any site.

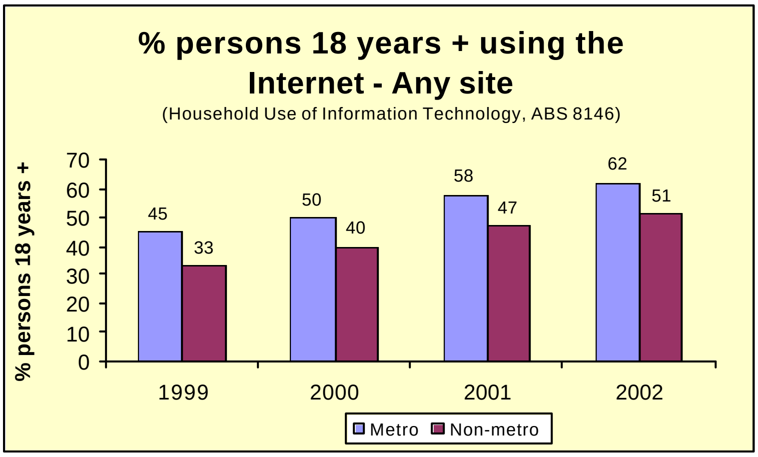
Dec-00	*Jun-01*	*Dec-01*	*Feb-02*	*Jun-03*
44	48	52	52	59

ABS figures confirm that the growth rate for personal Internet take-up is beginning to slow. On the basis of Internet use at any site, the approximate change in the number of Internet users is shown below.



	1998 to 1999	*1999 to 2000*	*2000 to 2001*	*2001 to 2002*
Change in Number	+1446	+788	+1225	+711
% change	+34%	+14	+19%	+9%

As can be seen from the above figures, the percentage change from year to year appears to be diminishing over time. Proportional Internet usage outside capital cities is typically about 10% less than in metropolitan areas. However, growth in personal Internet use at any site follows a similar



pattern as demonstrated in the accompanying chart. The CAGR for metropolitan Internet users was 13.4% over the period December 2000 to June 2003 and total change over the period was 36.8%. For regional Australia, the CAGR was marginally higher at 15.4%, with total change over the period of 43.1%.

As roughly half the Australian adult population now uses the Internet from some location, it seems important for content creators, service providers and policy makers to have an understanding of the activities undertaken online, the socioeconomic characteristics of users and how this picture is changing over time. There is also interest in whether people in non-metropolitan regions demonstrate a different emphasis in their choice of online activities.

Online activities

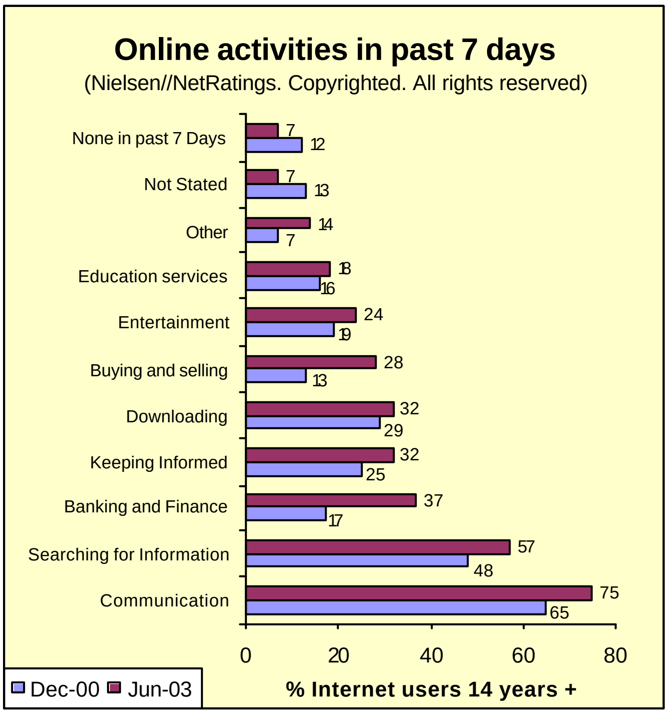
Nielsen//NetRatings provides in the order of forty online activities that can be tracked over time. The top 20 Nielsen activities are shown in the table below.

Top 20 online activities*

In the year to ….	*Dec-00*	*Jun-01*	*Dec-01*	*Feb-02*	*Jun-03*
	%	%	%	%	%
Electronic mail	63	67	70	70	74
General 'surfing'	33	36	40	40	38
Internet Banking	15	21	26	27	36
Searching for information on products	29	30	32	33	35
Check account balance	14	19	24	25	34
eGovernment services**	n.a.	n.a.	n.a.	32	33
Downloading software/files	29	30	32	32	32
Transfer funds btwn accounts	9	12	16	17	24
Accessing News and Current Affairs	17	18	21	21	23
Searching for information on a company	20	21	22	22	23
Pay bills online	8	11	15	16	23
Accessing education services	16	17	18	17	18
Playing games	13	14	16	16	17
Participate in an interactive discussion	14	14	15	15	15
Other	7	8	10	11	14
Purchase of goods/services	5	6	6	6	10
Reading electronic magazines	10	10	11	11	10
Accessing Classified Advertising	7	8	9	9	9
Review mortgage/loan status	3	4	7	7	8
Participate in a non interactive discussion	5	5	6	6	6
Listening to Radio	5	6	6	6	5

*The figures shown are annualised by Nielsen//NetRatings using a concatenated series of monthly surveys. Note: the base for percentages is Internet users in the past month, 14 years and over.
** Sourced from Nielsen//NetRatings Interactive Media Service. The base for percentages is Internet users @ home aged 2 years and over.

Given that a good number of the online activities compiled by Nielsen//NetRatings are small in size, NOIE has devised its own summary classification which reduces the almost 40 categories of activities into the more generic structure shown in the chart beside.



This broad view demonstrates that communication and searching for information are the top online activities and have been since December 2000. Banking and finance related activities have grown vigorously since December 2000, rising to third place as at June 2003. “Banking and finance” along with “buying and selling” activities show the largest degree of change over the period December 2000 to June 2003.

While generic categories provide a useful high level summary, a good deal of the interest is nevertheless at the detailed level. Below are a selected number of activities with a substantial user base for further examination. Government services are also discussed using the latest statistics from the ABS.

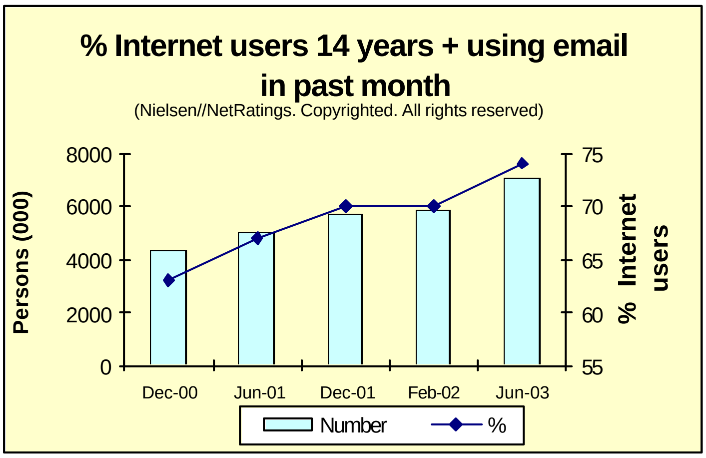
Communication

The category “communication” encompasses four detailed activities:

- Electronic mail (74% at June 2003)
- Interactive discussion (15% at June 2003)
- Non-interactive discussion (6% at June 2003), and
- Phone via Internet (2% at June 2003)

Email:

At a national level electronic mail appears to be the most prevalent Internet application, used by 74% of those online in the past month.

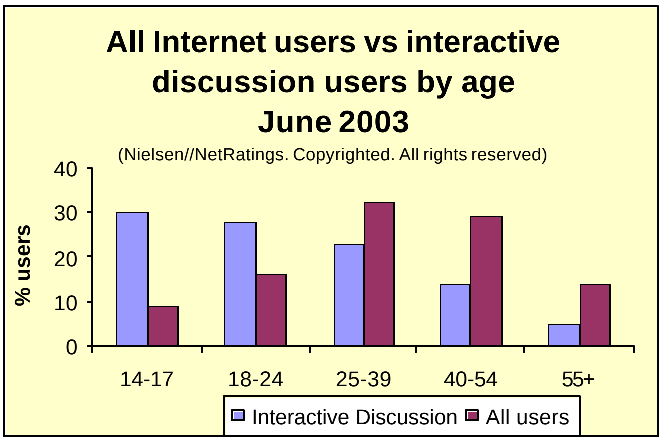


While the figures show a slight difference in the use of email between metropolitan and non-metropolitan communities, there has been little change in relativities since December 2000. Non-metropolitan email use lags by about five percentage points at June 2003 when compared to capital city residents. A difference of roughly this order of magnitude is evident over time. The compound annual growth rate in the number of email users was 20.7% for metropolitan and 22.4% for regional Australia. Total change over the period was 60.1% for metropolitan and 65.9% for regional Australia. This suggests that the difference in email usage between capital cities and regional Australia is reducing over time. As email is used by about three quarters of the Internet population, the socioeconomic characteristics of email users would be quite similar to the Internet population in total.

			Email		
	Dec-00	***Jun-01***	***Dec-01***	***Feb-02***	***Jun-03***
	%	%	%	%	%
Metro	64	68	71	71	75
Non-metro	61	63	67	68	70

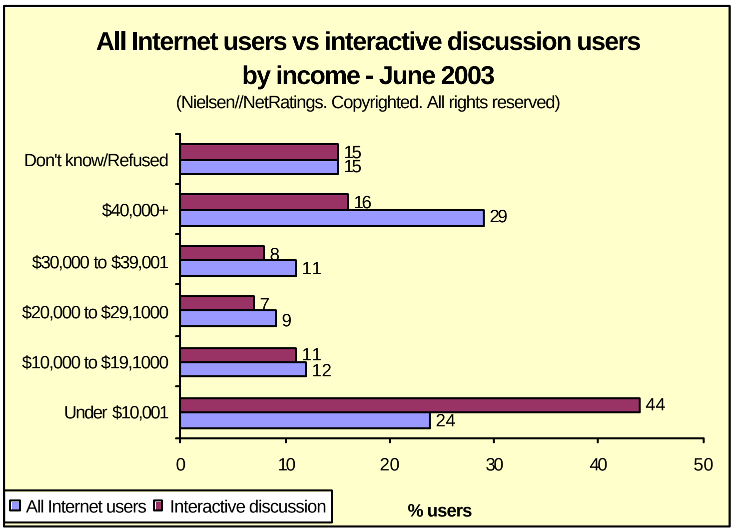
Interactive discussion

In addition to email usage, interactive discussion is the only other substantial activity rolled into the communications category. The most obvious form of interactive discussion would involve the use of chat sites and similar forums.



At June 2003, approximately 1.4 million persons aged 14 years and over (15% of those who had used the Internet in the past month) had engaged in an interactive discussion. The June figure compares with about 947,000 persons (14%) in December 2000. Total change over the period was 48.8% and the compound annual growth rate was 17.2%.

Usage patterns were similar for both city and country residents. By number, usage by city residents grew by about 47% over the period December 2000 to June 2003, reaching 15% of the population 14 years and over, while for country residents usage grew by about 54%, reaching 14% at June 2003. This translates to a CAGR of 16.6% for metropolitan and 19% for regional Australia.



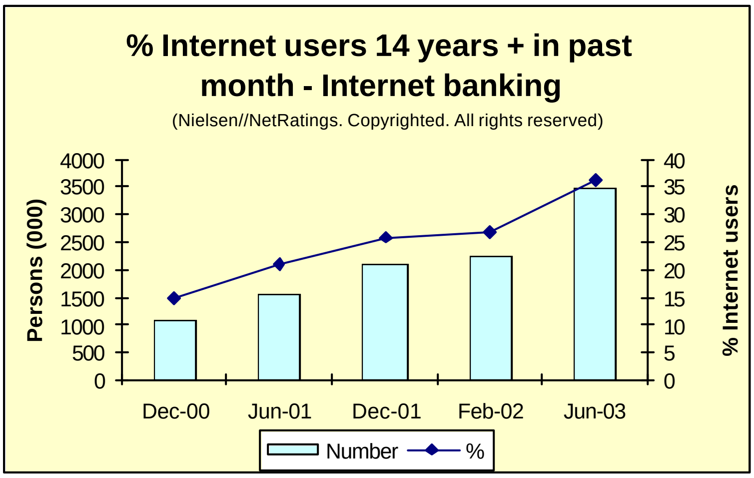
By comparing the age profiles of all Internet users to those who engaged in interactive discussion we can see that the distribution of interactive discussants is skewed heavily to the younger age groups.

This is also born out by the income profiles of both groups. That is, the largest single group engaging in interactive discussion is made up of individuals earning less than $10,000 per year. This group has a significant over-representation in interactive discussion compared to all other income groups.

Banking and finance

The banking and finance category encompasses six detailed level activities:

- Internet banking (36% at June 2003)
- Check account balance (34% at June 2003)
- Transfer funds between accounts (24% at June 2003)
- Review mortgage/loan status (8% at June 2003)
- Apply for credit online (1% at June 2003)
- Other financial services (3% at June 2003)



Internet banking and the related activities "transfer funds between accounts" and "check account balance" have shown the largest growth of any of the online activities measured by Nielsen//NetRatings since December 2000.

At June 2003, "Internet banking" had grown by 226% on the December 2000 figure (ie from about 1 million to 3.5 million users). This translates to a compound annual growth rate of 60.5%.

	Internet banking				
	Dec-00	***Jun-01***	***Dec-01***	***Feb-02***	***Jun-03***
Metro	16	22	27	28	38
Non-metro	13	18	22	23	33

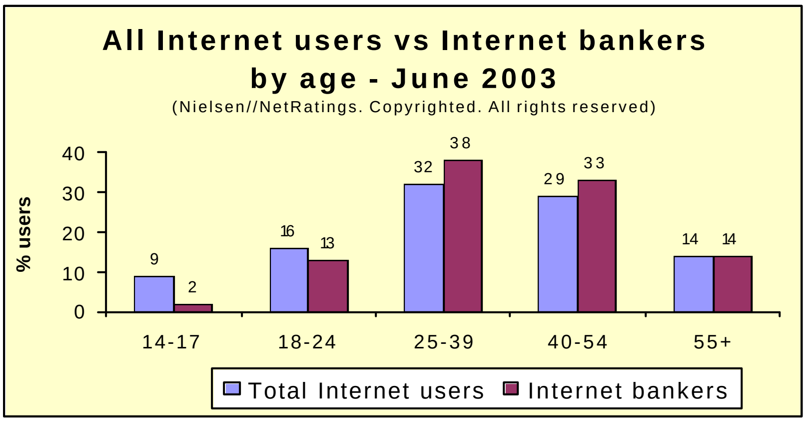
As with the use of email, people in non-metropolitan areas were about 5% less likely to engage in Internet banking. At June 2003 about 38% of monthly Internet users in capital cities engaged in Internet banking compared to about 33% in non-metropolitan regions. A similar difference is evident over time. On a CAGR basis, the number of metropolitan Internet bankers grew by 58.8% annually compared to the slightly higher rate of 65.7% for regional Australia. Total change over the period was 217.6% for metropolitan and 253.3% for regional Australia.

Account balance checking has grown from about 14% of monthly Internet users in December 2000 to 34% in June 2003. Metropolitan users had a slightly higher propensity than their regional counterparts (35% compared to 31% at June 2003).

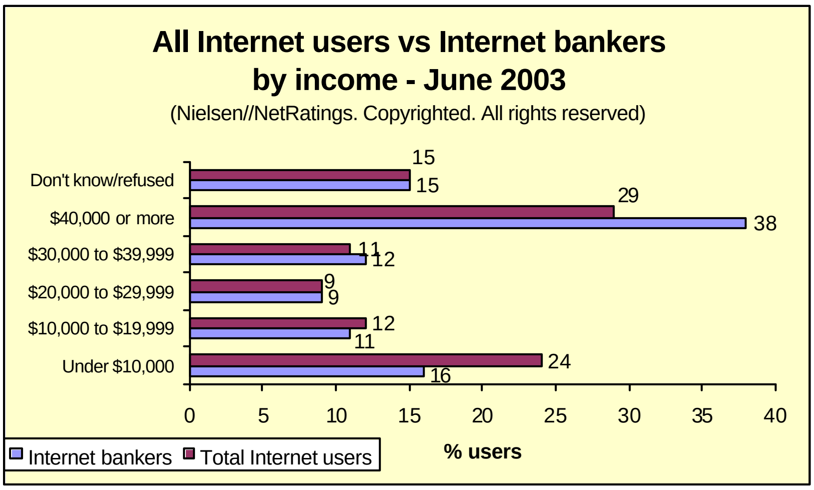
However, as for Internet banking, regional Australia's compound annual growth rate for account balance checking was a little higher over the period (68.5% for regional Australia and 61.4% for metropolitan areas as a group).

The activity 'transferring funds between account' has grown from about 9% of monthly Internet users in December 2000 to about 24% in June 2003. Metropolitan users had a slightly higher propensity than their regional counterparts (25% compared to 22% at June 2003). Again, regional Australia has shown a slightly higher annual average growth rate at 83.9% compared to 69.3% for metropolitan.

The age distribution opposite shows that Internet banking activities are skewed towards the older age groups. The Internet banking population contains proportionally less people under 24 years of age and more between the ages of 25 to 54 years than does the Internet population overall.



On an income basis, the distribution of Internet bankers shows that, of any of the income groups, people on incomes of $40,000 and over had the highest representation in the Internet banking population. This group had 38% of all online bankers.

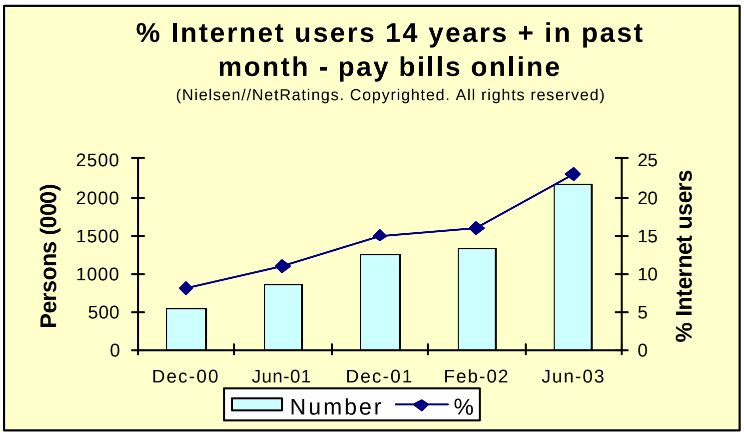


Buying and selling

The category "buying and selling" is made up of thirteen detailed activities:

- Pay bills online (23% at June 2003)
- Purchase of goods and services (10% at June 2003)
- Book holidays (3% at June 2003)
- Travel plus related (3% at June 2003)
- Buy and sell stocks online (2% at June 2003)
- Purchase computer software (1% at June 2003)
- Books (2% at June 2003)
- Recorded music/videos (1% at June 2003)
- Purchase tickets (1% at June 2003)
- Food and grocery items (1% at June 2003)
- Computer hardware (1% at June 2003)

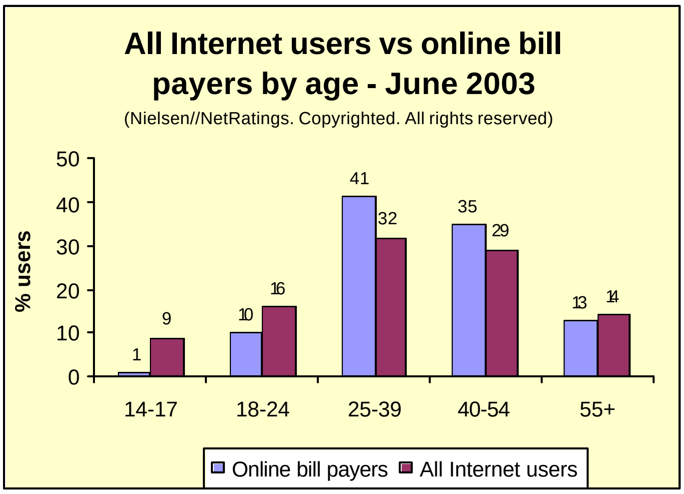
- Clothing (1% at June 2003)
- Purchase of all other items (2% at June 2003)



While Internet banking is emerging as a major Internet activity, significantly less Internet users are engaging in online transactions, whether for payment of regular bills (including Government accounts) or for the purchase of other goods and services. Nevertheless, online bill payment grew by a substantial 303% between December 2000 and June 2003. This represents an approximate increase of 1.6 million persons engaging in this activity over the period, giving a compound annual growth rate of 74.6%.

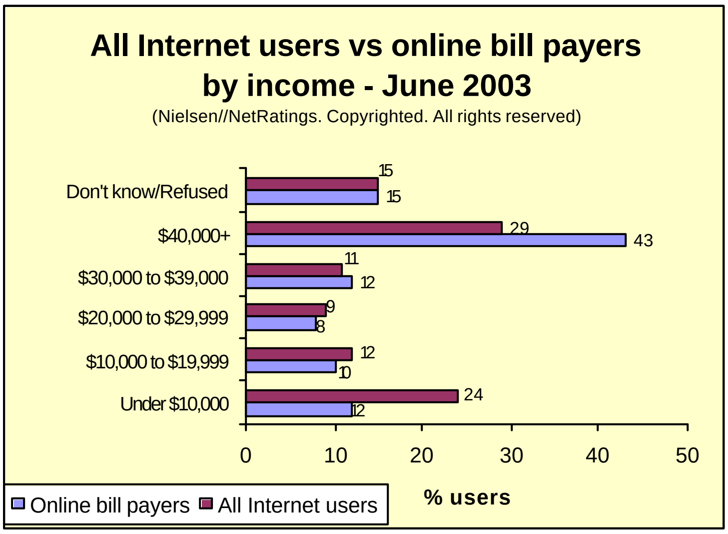
	Pay bills online				
	Dec-00	***Jun-01***	***Dec-01***	***Feb-02***	***Jun-03***
	%	%	%	%	%
Metro	9	12	16	17	23
Non-metro	6	9	13	13	20

At a broad regional level, there is little appreciable difference in the proportion of users engaging in online bill payment. At June 2003 about 23% of metropolitan and about 20% of non-metropolitan users paid bills online. The growth rate was stronger in regional Australia, which had a CAGR of 93.2% compared to 69.5% in metropolitan areas.

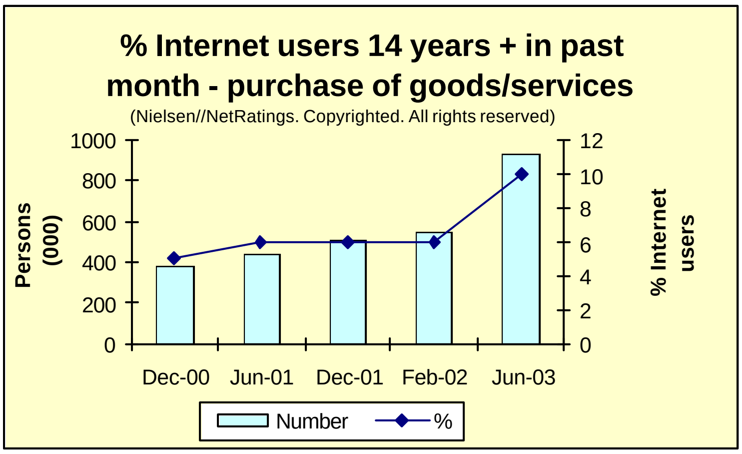


In other research it has been demonstrated that the greatest number of Internet users are from households consisting of a couple with children. In such households it would be expected generally that one or other of the parents would mainly pay the bills (online or offline). This being the case, it may not be surprising to learn that online bill payments are predominantly made by mature age groups (ie those over 25 years of age). The chart opposite shows that online bill payers are significantly under-represented in ages 17 to 24 years and over-represented in the 25 to 39 and 40 to 54 year age groups.

An income profile of online bill payers compared to all Internet users shows quite starkly that about 43% of online bill payers have a personal income of $40,000 or over compared to 29% of the Internet population. A person is therefore more likely to pay bills online if they are in a higher income bracket. Lower income groups are under-represented in the online bill payment population. This skewing towards the higher income groups is consistent with the mature age predominance observed earlier in the age profiles.



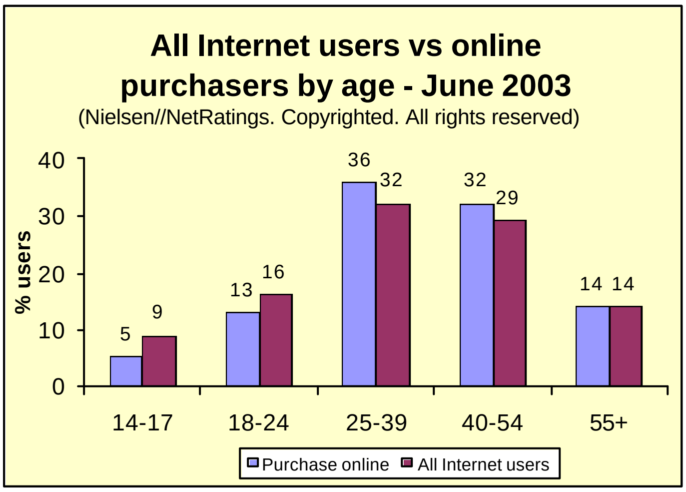
While the Internet has been a means for many to avoid queues or travel when paying regular bills, its has been shown to be less alluring in relation to the more optional items of personal or household expenditure.



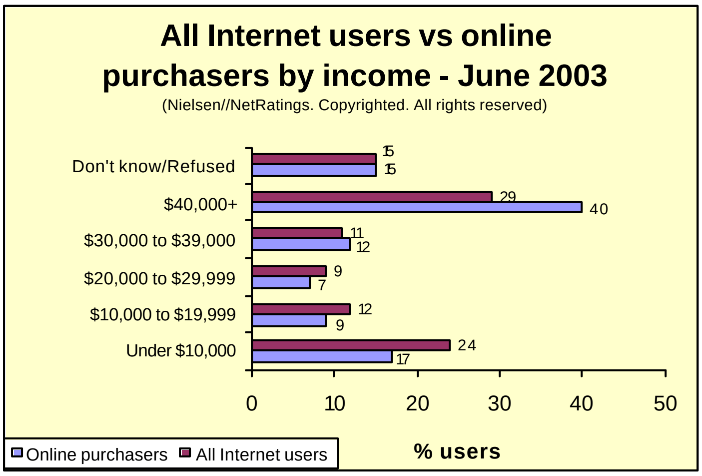
The number of Internet users who purchased goods and services online has increased by about 147% since December 2000, involving about 10% of Internet users 14 years and over at June 2003. While the compound annual growth rate over the period was 43.5%, the bulk of the overall increase occurred between February 2002 and June 2003.

At a broad regional level there is no significant difference in the proportion of users engaging in this online activity. At June 2003 about 10% of Internet users in capital cities and about 9% in regional areas, purchased goods and services online. Metropolitan and non-metropolitan user communities both display a strong growth pattern over time in their engagement of online purchasing of goods and services. The growth rate for regional Australia was a little stronger than for metropolitan areas. Total growth over the period was 136% for metropolitan (a CAGR of 41%) and 178.5% for regional Australia (a CAGR of 50.6%).

	Purchase of goods and services				
	Dec-00	***Jun-01***	***Dec-01***	***Feb-02***	***Jun-03***
Metro	6	6	6	7	10
Non-metro	5	5	6	6	9



An age profile of the population of online purchasers compared to the population of all Internet users 14 years and over shows that the vast majority of online purchasing activity is done by the more mature age groups. More than 80% of the population who purchase online are over the age of 25 years and about 46% are over the age of 40 years. While online purchasing occurs across all age groups, the activity is under-represented in the population under the age of 24 years and over-represented in the population aged between 25 and 54 years.



As with the online payment of bills, the purchasing of goods and services online is weighted towards the higher income groups. After allowing for 15% of the purchasing population who did not know or refused to state their income, 40% (or just under half of the remainder) were in the $40,000 and over income group. The remaining 45% of the purchasing population are distributed across the lower income groups.

Nielsen//NetRatings figures appear to be consistent with ABS statistics after allowing for differences in methodologies. For the year 2002, ABS estimated there were 2.2 million persons 18 years and over who purchased goods and services compared to the Nielsen figure of 2.6 million persons 14 years and over at February 2002. The difference is mainly due to the inclusion of 14 to 17 year olds in the Nielsen count and a difference in the recall period.

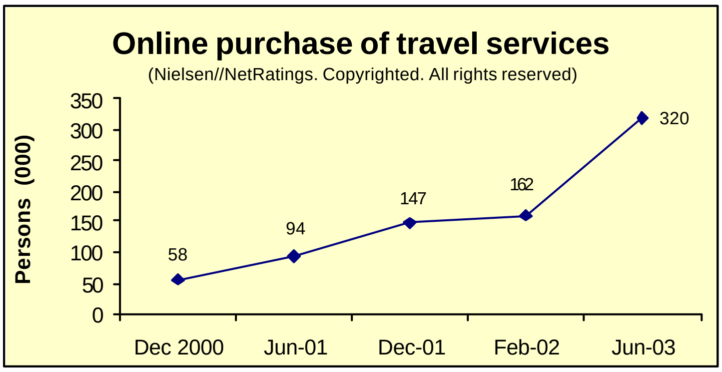
If ranked according to the number of people purchasing any particular item, the top items recorded by Nielsen//NetRatings at June 2003 were:

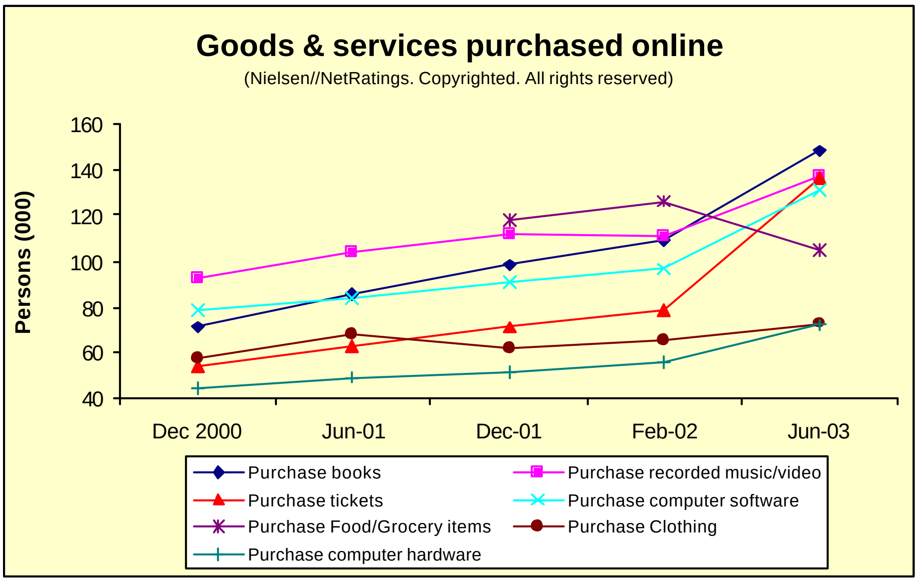
1.Travel plus related	5. Software
2. Books	6. Food/groceries
3. Recorded music/video	7. Clothing
4. Tickets	8. Hardware

This is not dissimilar to ABS figures for 2002, which ranked purchasing activity as follows:

1. Travel or accommodation	5. Music or CDs
2. Books or magazines	6. Food and groceries
3. Tickets to entertainment/cinema	7. Videos or DVDs
4. Software	8. Clothing or shoes, etc

While more Internet users purchased “travel plus related” than any of the other items listed, it should be emphasised that this item was patronised by only about 3% of the online population 14 years and over (ie in the order of 320,000 persons). Its growth over time however suggests it may be an emerging success story. As the charts beside demonstrate, “travel plus related” has grown substantially ahead of other goods or services in the period between February 2002 and June 2003.





As the estimates for any of these individual purchase activities are reasonably small, NOIE recommends that the figures be treated with caution. In addition, while it would be of interest to look at the age and income dimensions of this data, NOIE considers the size of the estimates at this stage would not support such dissections; standard errors would be unacceptably high and the results may therefore be misleading.

Searching for information

Under this category, NOIE has aggregated the following four detailed activities:
- General 'surfing' (38% at June 2003)
- Searching for information on a product (35% at June 2003)
- Searching for information on a company (23% at June 2003)
- Searching for information on a car (4% at June 2003)

While only about 10% of the Internet population 14 years and over actually purchased goods and services online in the period to June 2003, a far greater number (35%) used the Internet to search for information on products. As an activity, searching for product information has been a high use category over time. In the period to December 2000 about 29% of the Internet population 14 years and over conducted product searches. This rose to 30% at June 2001, 32% at December 2001 and 33% at February 2002. Measured over the whole period from December 2000, the activity grew by 68.9% and had a compound annual growth rate of 23.3%.

Similarly, the activity "searching for information on a company" has had a consistently high incidence of use although somewhat less than "searching for information on products". Company searches were conducted by about 20% cent of the online population at December 2000, rising marginally to 23% in the period to June 2003. This represents a CAGR of 19.8% and overall growth of 57.2% on the December 2000 figure. While this may appear to be a substantial growth rate it should be seen in the context of overall growth in the Internet community which was an underlying CAGR of 13.9%.

While the source data makes a distinction between company searches and product searches, it is by no means clear that these activities are separate and distinct. The main reason for both types of searches may be to locate a source of goods or services. After all, only about 2% of the Internet population indicate they follow the stock market. This suggests that most people who conduct such searches have reasons other than private investment in mind.

Given the indefinite nature of searching activities, whether for company or product information, NOIE considers that little would be gained from age and income analysis of these activities. Greater interest would appear to be in understanding the characteristics of those who actually purchased online (as presented earlier in this section).

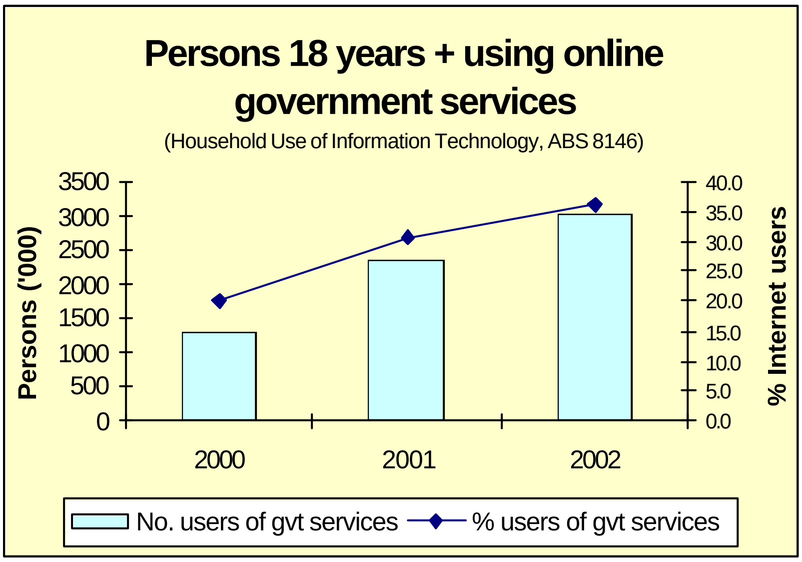
There may be a number of reasons why searches for product information do not culminate in an online purchase. An insight into this is given in ABS household statistics for 2002 which indicate that:

- 33% of the online population "have no need or haven't bothered" purchasing online,
- a further 21% "prefer to shop in person" and,
- the reason stated by 29% of adult Internet users was "security concerns".

It is apparent that people have a clear preference to shop in person (rather than online) for the majority of their household or personal goods and services. More than 50% of adults online either prefer to shop in person or see no need for change.

Government services

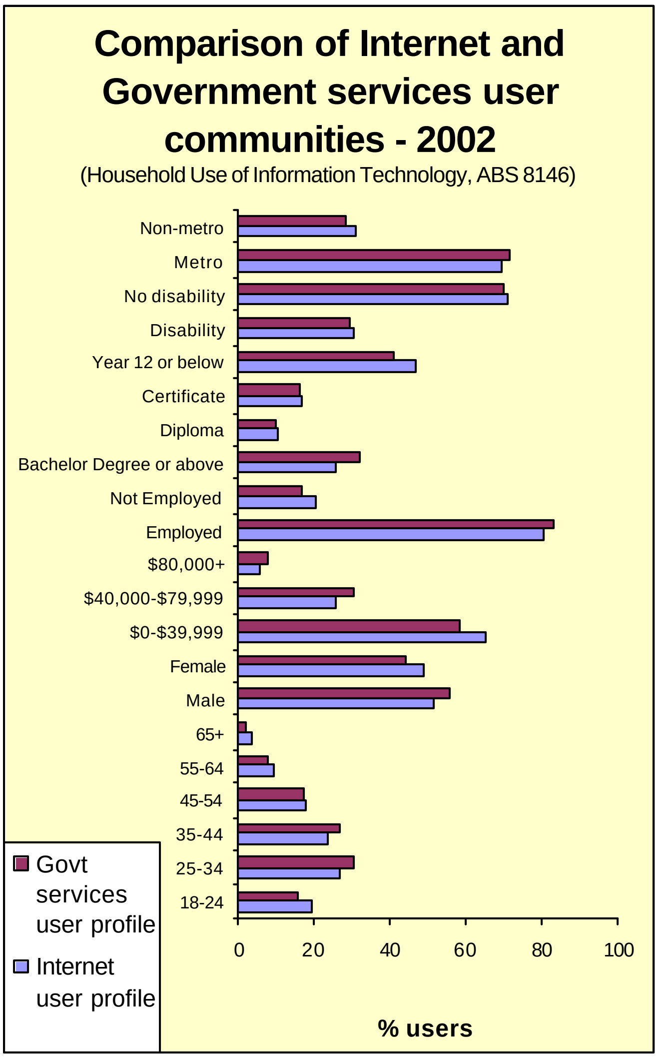
Over the past few years, Governments at all levels have moved to provide an extensive range of services online. This followed commitments made by the Federal Government to have all appropriate government services online by 2001. As can be seen from the chart beside, there has been quite a rapid and significant response to these government initiatives. The use of online government services has grown from about 20% of adult Internet users in 2000 to about 36% in 2002 (or a growth in numbers of 133% on 2000 figures).



Of the three million users of online government services in 2002, approximately 49% made government bill payments (eg rates, vehicle registration), 20% lodged tax returns and about 8% lodged applications for permits etc. In addition to these payments and lodgements, approximately 20% sought information or services relating to taxation, 20% relating to employment/unemployment and about 6% relating to pensions or other benefits.

Of the 3 million who accessed government services online in 2002, approximately 71% resided in metropolitan areas (capital cities) and about 29% in regional areas.

Of the 5.8 million Internet users residing in capital cities, 2.2 million (36.8%) accessed government services online. By comparison, of the 2.5 million Internet users residing in regional areas, about 863,000 (33.6%) accessed government services online in 2002. The general appeal of online government services can be assessed from the chart beside which compares the general Internet community profile against the profile of users of online government services. The chart demonstrates that:

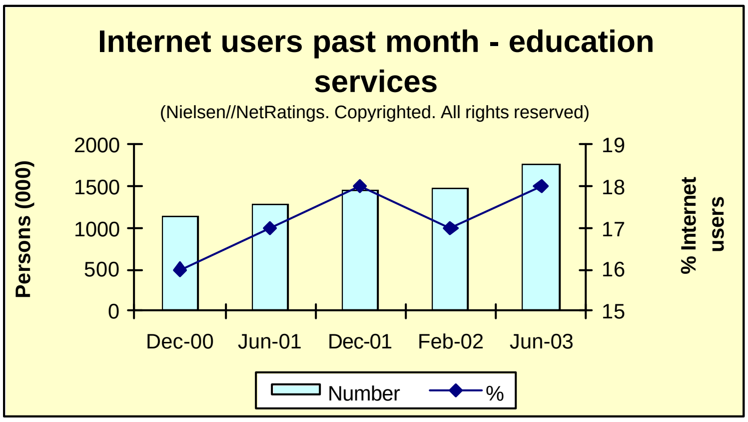


- overall, the profile of the online government services user community differs only slightly from the general Internet community. This implies that online government services are diverse, have wide appeal to the Internet community and are readily accessible.
- Internet users aged between 25 and 44 years have a slightly higher tendency to use online government services compared to other age groups.
- Male Internet users have a slightly higher tendency to use online government services than female users.
- Internet users on higher incomes have a slightly greater tendency to use online government services.
- Internet users with degree qualifications or higher had a higher tendency to use online services.
- For Internet users with a disability, a similar proportion used government services as were represented in the Internet community overall.

Education services online

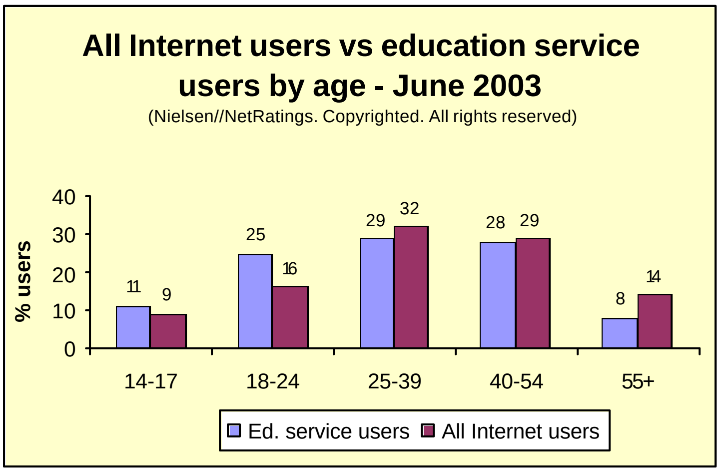
The category ‘education services’ is a single detailed item, not combined with any other activity in the summary NOIE classification.

According to Nielsen//NetRatings, about one third of the online population (ie about 3 million persons) were current students at June 2003. For the same period there were an estimated 1.75 million persons engaging online education services. While this represents only about 18% of all Internet users, it represents 56% of Internet users who are current students.



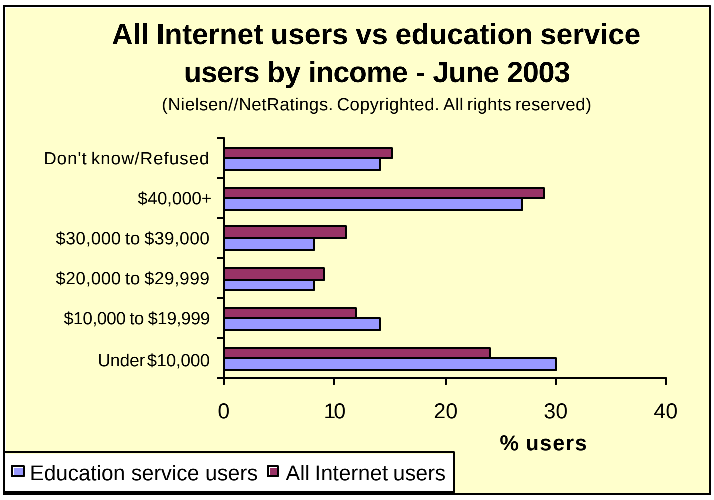
	Education services				
	Dec-00	***Jun-01***	***Dec-01***	***Feb-02***	***Jun-03***
Metro	16	17	18	18	19
Non-metro	17	17	17	17	17

Over time, there has been little appreciable change in the proportion of Internet users who access online education services. This applies to both metropolitan populations as well as to residents in regional areas. At a national level, overall growth from December 2000 to June 2003 was 54% or alternatively a compound annual growth rate of 18.9%. This CAGR is only 5% higher than the underlying growth in the Internet population of 13.9%. Metropolitan users account for nearly all of the ‘real’ increase with a CAGR of 20.1% compared to 15.6% for regional Australia. Underlying growth in the Internet population for regional Australia was 15.4%.



An age profile of those engaging in online education at June 2003 shows that the greatest proportion of users are adults between 18 and 54 years. The chart opposite also shows a significant over-representation of education service users in the 18 to 24 year age group. While the figures are not robust enough to publish, a distribution of online education service users according to their type of work organisation (ie industry) shows that they come from a wide cross section of industry.

An income comparison of education service users and all Internet users 14 years and over shows a number of minor differences that could be described as a skewing towards the lower income groups. The most significant difference is in the 'under $10,000' group, which shows a proportional over-representation of education service users relative to the income profile of all Internet users.



Keeping informed

This category was composed from the following detailed online activities:

- Accessing news and current affairs (23% at June 2003)
- Reading electronic magazines (10% at June 2003)
- Accessing classified advertising (9% at June 2003)
- Follow stock market (2% at June 2003)

NOIE acknowledges that there is a lot more to keeping informed than may be implied by the inclusion of these four detailed items. A number of other items could also have been combined under this category, such as email usage, interactive and non-interactive discussion, general surfing, etc. The Internet is after all an information rich environment. In this category NOIE distinguishes the more passive online activities, with the more proactive online activities designated to "communication". Information searches including general surfing were allocated to the category "searching for information".

News and current affairs:

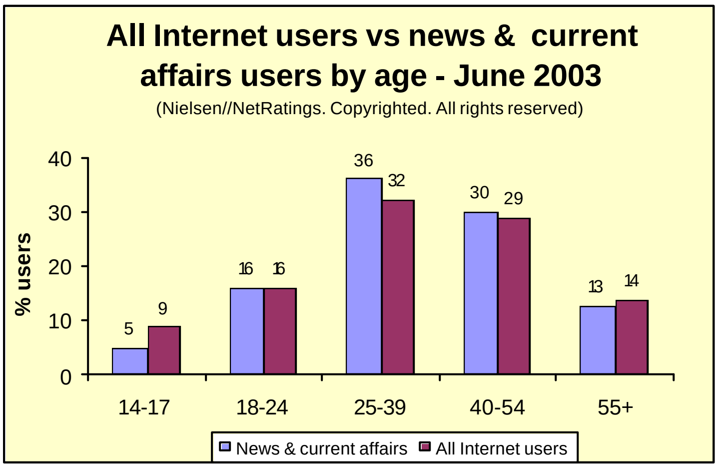
The activity with the largest following at June 2003 was "accessing news and current affairs". This activity has grown from 17% of the online population 14 years and over at December 2000 to 23% at June 2003 - an increase of around one million Internet users and a compound annual growth rate of 30%.

Capital city residents' access to online news and current affairs grew from 17% at December 2000 to 25% of the online population 14 years and over at June 2003. Over the period the total number of users grew by 96%, a compound annual growth rate of 30.9%.

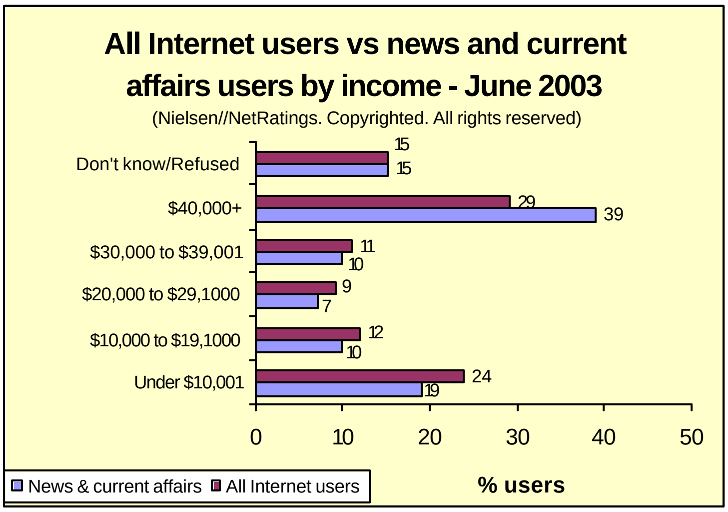
	News and current affairs				
	Dec-00	***Jun-01***	***Dec-01***	***Feb-02***	***Jun-03***
Metro	17	19	22	23	25
Non-metro	14	15	18	18	18

Regional residents' access to news and current affairs online grew from 14% at December 2000 to 18% at June 2003. The total number of users grew by 83.2% over the period representing a compound annual growth rate of 27.4%.

A comparison of the ages of all Internet users against users of online news and current affairs shows that both groups have a similar age distribution with a couple of exceptions.



Users of online news and current affairs were significantly under-represented in the 14 to 18 year age group and slightly over-represented in the 25 to 40 year age group.



A comparison of the income characteristics of all Internet users against users of news and current affairs shows that both groups have a similar profile with only a couple of differences. Users of news and current affairs were under-represented in the 'under $10,000' income bracket and significantly over-represented in the '$40,000 and over' bracket.

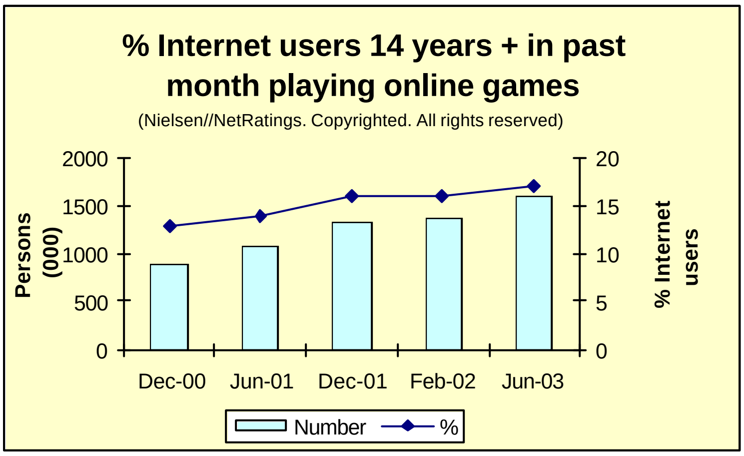
As the other activities in this category represent 10% or less of Internet users, NOIE considers that detailed analysis of these activities is inadvisable at this stage due to high standard errors associated with finer level estimates. In all probability, the characteristics of persons accessing electronic magazines and classified ads will not differ significantly to those accessing news and current affairs. The remaining activity 'follow stock market' is insubstantial at one per cent of the Internet population and would not support dissection.

Entertainment

This category is made up from the following detailed online activities:

- Betting (1% at June 2003)
- Playing casino games (1% at June 2003)
- Playing games (17% at June 2003)
- Listening to radio (5% at June 2003)
- Watching TV (2% at June 2003)
- View adult entertainment (4% at June 2003).

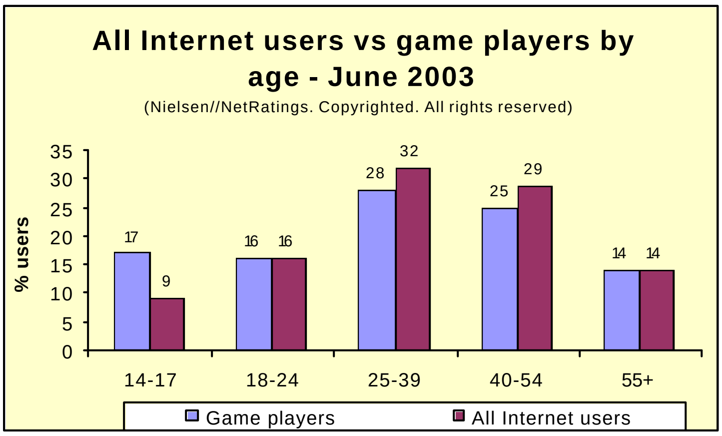
As ‘playing games’ is the only substantial online activity in this group, analysis has been restricted to that activity.



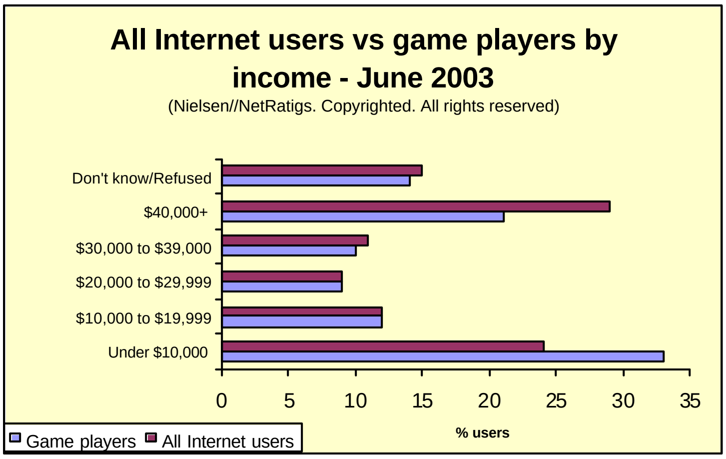
Game playing has been a popular activity from the time that video games first appeared on the market. Their appeal in the online environment is demonstrated in the chart opposite. This shows that at June 2003 about 17% of the Internet population 14 years and over (1.6 million persons) played games online. The activity has grown from 13% of the online population (880,000 persons) at December 2000 – a compound annual growth rate of 27% or an overall increase of 81.9% on December 2000.

	Playing games				
	Dec-00	***Jun-01***	***Dec-01***	***Feb-02***	***Jun-03***
Metro	13	14	17	17	16
Non-metro	12	13	15	15	18

Online game playing has a similar following in capital cities (metro) and regional areas (non-metro). At June 2003, about 16% of metropolitan Internet users and about 18% of regional Internet users played games online. Overall growth in the number of players was 73% for metropolitan and 107.8% for regional Australia representing a CAGR of 25.5% and 34% respectively.



Game players are significantly over-represented in the 14-18 year age group and slightly under-represented in age groups 25-40 and 40-55. Nevertheless, the majority of game players (67%) are over the age of 25. Games players are over-represented in the ‘under $10,000’ income category but under-represented in the ‘$40,000 and over’ category. All other income groups were equally represented by games players.



The Impact of Broadband on Online Activities

The previous section showed that Australians undertake a growing range of activities online with e-commerce, communication and information based services central to the future growth of the Internet economy. This section will examine the emergence of broadband use in Australian homes and the type of online content accessed by this rapidly growing segment of Internet users. The analysis will seek to shed some light on a number of questions relating to home broadband use in Australia, in particular:

- How has the rate of broadband adoption in homes changed over time?
- What activities do home broadband users undertake online?
- How do the online activities of home broadband users differ in comparison to activities undertaken by home Internet users in general?

Benefits of broadband Internet

Broadband is increasingly a requirement for efficient use of the Internet as online services become more sophisticated. For individual Australian consumers, broadband Internet technologies offer many benefits. As discussed in the 2003 NOIE Index:

> "The ability to facilitate greater access and download speeds within an "always on" operating environment (http://www.nap.edu/html/broadband/ch2.html) is perhaps the most important difference between broadband and narrow band Internet services. This difference has allowed providers and users of online services the opportunity to build and participate in a far more dynamic interactive online experience.
>
> The emerging *family* of broadband technologies is enabling Internet users to access rich content media such as digital radio and TV, as well as a variety of interactive services from online games to education, while at the same time facilitating faster e-commerce transactions such as online shopping and banking. For public and private sector organisations, broadband technologies have enabled the development of more dynamic and innovative e-service delivery models previously unsustainable under narrow band technology regimes." http://www.noie.gov.au/publications/NOIE/NOIE_index/Aug03/index.htm :

Growth of broadband usage in Australian homes

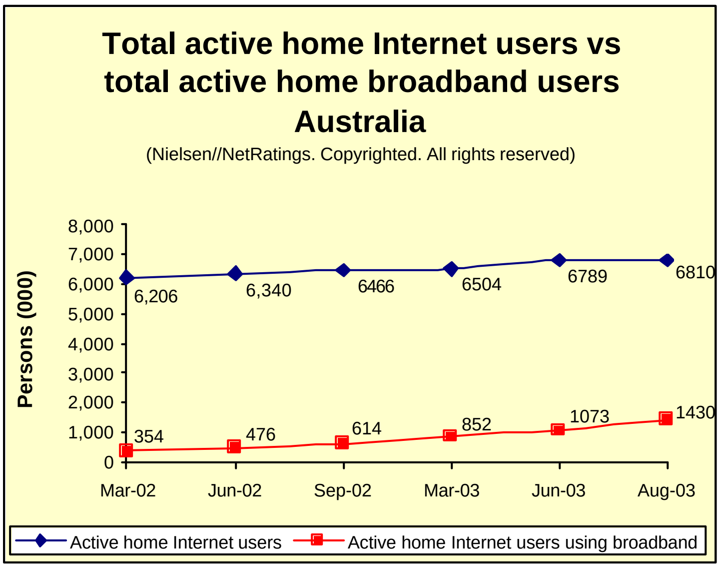
Chart 1 shows that since early 2002 the number of home broadband users in Australia has increased four fold. While the majority of the growth in home broadband usage has come from persons previously not using the Internet, an increasing proportion of this growth can be attributed to pre-existing home Internet users transferring from narrowband to broadband services. The rapid increase in home broadband usage and, in particular, the growing shift from narrowband to broadband access, is a result of a number of factors acting in concert, including:

- rollout of broadband infrastructure into areas not previously covered;
- the growing affordability of broadband Internet access and delivery mediums;

- Internet Service Providers (ISPs) offering package deals incorporating value-added services such as telephony, Internet access and pay TV;
- growing awareness of the opportunities offered by broadband Internet access; and
- medium to long-term Internet users finding narrowband services inadequate for the demands of their existing and/or increasingly intensive levels of Internet usage.

Narrowband - Broadband Substitution

For the past five years Australia has experienced comparatively high levels of home Internet connectivity[1] that has resulted in the emergence of a sizeable population of home Internet users with a growing level of online experience[2]. Fifty eight per cent of Australians (some 10.8 million persons) are estimated to now have access to the Internet in their homes via a computer, while 7 million of these, 65%, are considered to actively use their home Internet access during any one month[3]. These active home Internet users are increasingly aware of the opportunities and benefits the Internet offers in terms of information resources and online services. The increasing importance of pre-existing narrowband Internet users to future home broadband adoption levels in Australia is demonstrated in the chart below.



Since March 2002, the active home Internet population has grown by nearly 600,000 individuals or 10%. By comparison, during the same period, the population of active home broadband users has increased by 1,076,000 persons or just over 303%. In effect, 44% of the increase in home broadband usage during the period March 2002 to August 2003 is the result of pre-existing home Internet users substituting broadband for narrowband Internet access. More recently, in the period from March to August 2003, this substitution effect accounted for approximately 47% of the growth in home broadband usage. During this period the total number of home Internet users increased by 306,000 persons or approximately 5%, while the number of home broadband users increased by 578,000 or 68%.

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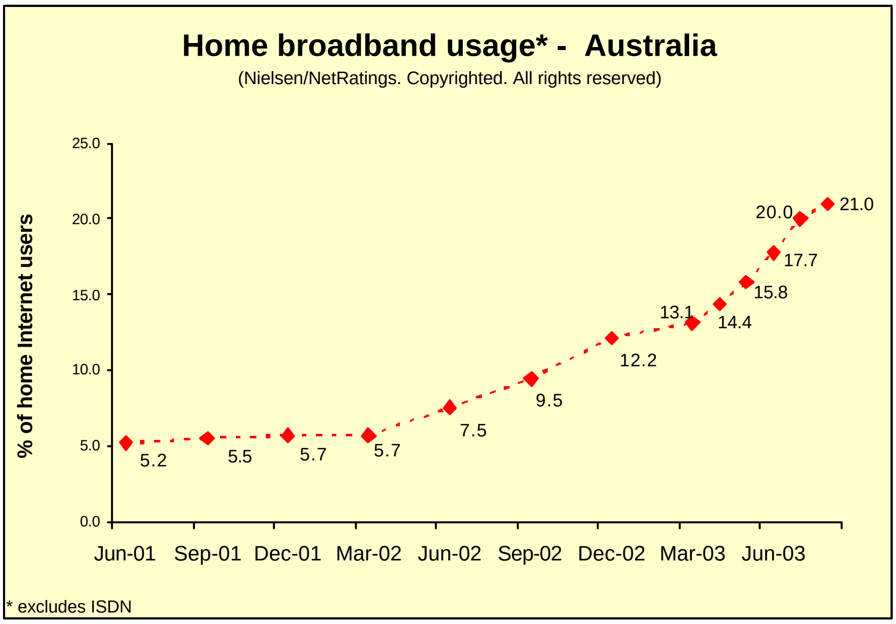
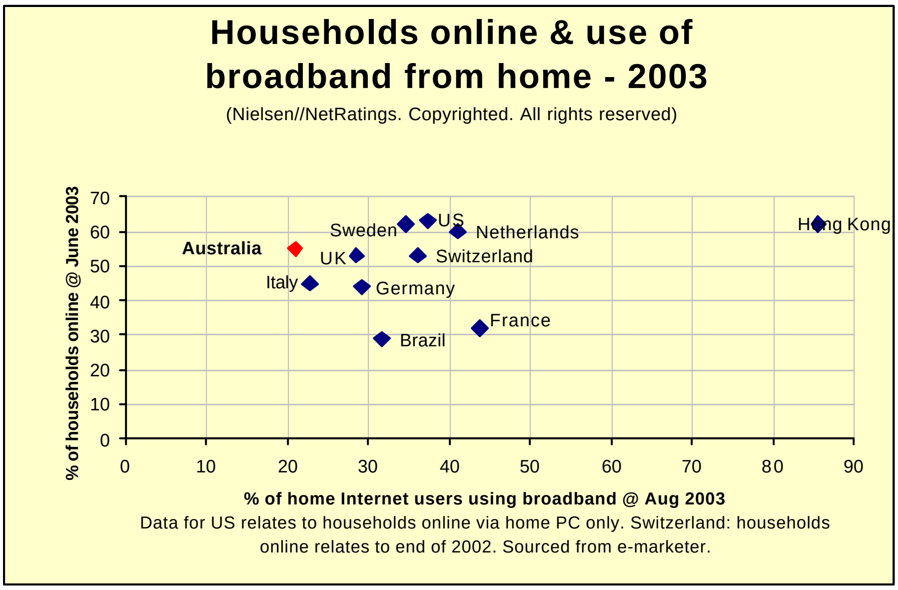
[1] See http://www.noie.gov.au/publications/NOIE/NOIE_index/Aug03/ready.htm#3
[2] According to Red Sheriff http://www.redsheriff.com/au/news/news_3_92.html the majority of Internet users (84%) have now been using the Internet for over two years, with almost half having used the Internet for over 5 years.
[3] Nielsen//NetRatings, Q1 2003.

The chart beside shows that currently home broadband users accounted for in excess of 21% of all active home Internet users compared to an estimated 5% of active home Internet users during June 2001.



International comparisons

In comparison to some other countries, Australia has relatively low levels of broadband adoption in the home. However, the recent surge in broadband take up rates, fuelled increasingly by the migration from narrowband to broadband, in combination with Australia's already high levels of household connectivity, demonstrate that there is significant potential for Australia's position to change, visa vis other countries, in the coming few years.



Drivers of broadband adoption

Outside of declining costs and increased infrastructure accessibility, two factors are emerging as key drivers of home broadband adoption in Australia. These are:

1. a growing desire by pre-existing narrowband users to increase the 'efficiency,' ie online response times, of their online activities, particularly in relation to e-commerce transactions, communication and information gathering activities;[4] and
2. increased public awareness resulting in Internet and non-Internet users seeking to take advantage of the opportunities presented by broadband in terms of both creating and accessing a broader variety of interactive content and services.

In terms of increasing the efficiency of current Internet usage, research[5] undertaken in Australia and overseas cites that *freeing up telephone lines* and *faster access speeds* are two main reasons why former narrowband users have shifted to broadband Internet access. However, in many ways the desire for increased speed and the desire to access a greater range of interactive content are interconnected, with web sites increasingly characterised by richness of interactive media, transaction and information services ie high volume transmissions.

On the issue of emerging broadband content, however, the question remains, does using broadband at home lead to changes in the type of activities undertaken online? The growing body of metrics relating to broadband usage shows that in terms of time spent online and web pages viewed, broadband users are more intensive users than narrowband Internet users in general[6]. Australian data is also supported by findings from studies conducted in the US and Europe that show that broadband users are more likely to spend more time online and view more pages online than their narrowband counterparts[7] However, this does not necessarily mean broadband users access specific types of online content in comparison to narrowband users. The final section of this analysis will examine the type of sites accessed by home broadband users and home Internet users in general to ascertain if broadband users seek out specific forms of online content and services.

Online activities of home broadband users

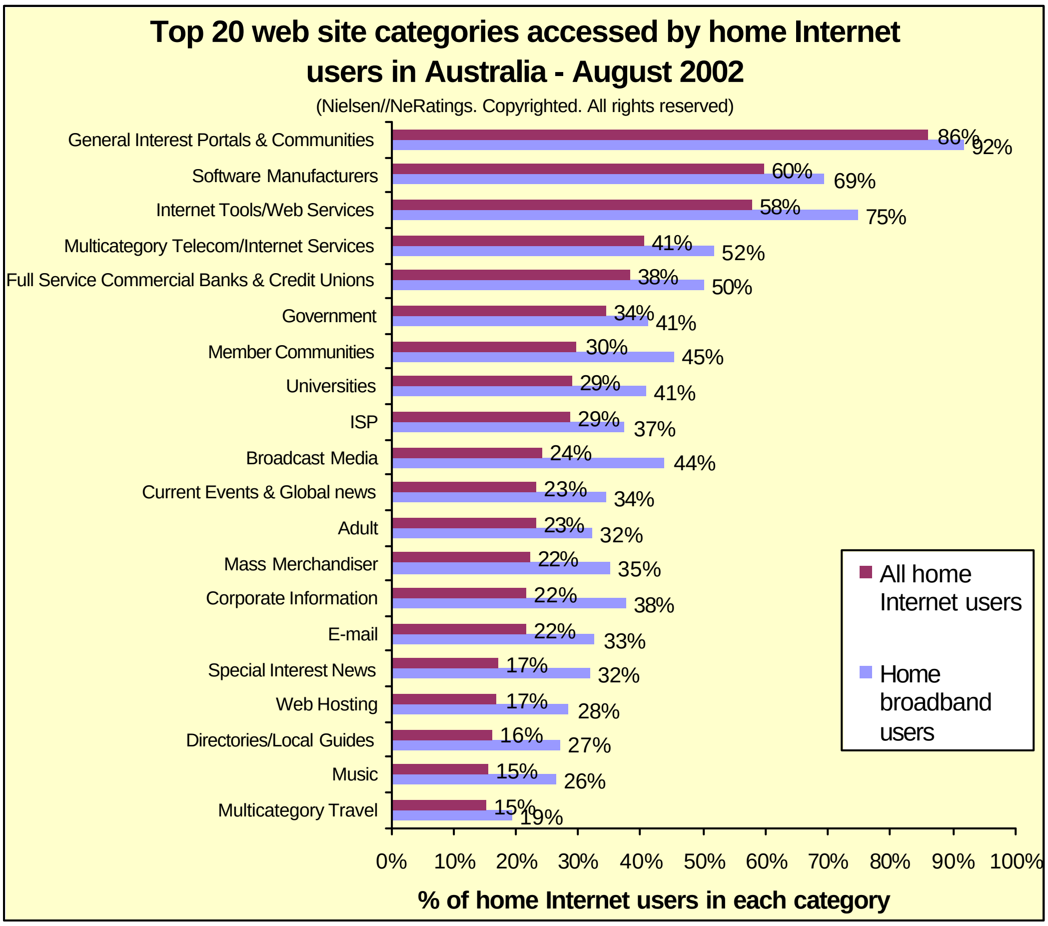
The following two charts present data relating to the top 20 categories of web sites accessed by home Internet users in Australia during August 2002 and August 2003. For August 2003, the top 21 web sites are presented as a result of minor changes in the

[4] http://www.acnielsen.com.au/news.asp?newsID**=231**
[5] http://www.nua.ie/surveys/analysis/weekly_editorial/archives/issue1no201.html. AC Nielsen also reported that during July-September 2003, 86% and 59% of Australians using broadband at home reporting *faster download speeds* and *freeing up telephone line* as the major reason for adopting broadband.
[6] AC Nielsen reported that during August 2003, broadband users in Australia viewed on average 1,230 pages compared to 530 pages for users of narrowband[6].
[7] Yankee Group, April 2003 reported that broadband users in Europe (cable modem, ADSL users) spent on average 14.9 and 18.7 hours online per week respectively compared to 8.7 hours online and 10.5 hours online for dial-up or ISDN users. Pew Internet & American Life Project in June 2002 reported that 43% of home broadband users in the US accessed the Internet several times a day compared to 19% for dial-up users. Oftel research shows that broadband users in the UK spend almost twice as long online than the average Internet user – an average of 17 hours per week, compared to 9 hours per week by all Internet users. http://www.oftel.gov.uk/publications/news/on59/broadband0303.htm

rankings of two web site categories (*Sport* and *Targeted Portals and Communities*) for broadband users and Internet users in general. For both data sets, home broadband users are identified as a separate sub-group of active home Internet users.
Overall, the data for both August 2002 and August 2003 demonstrate that home broadband users and home Internet users in general have similar content preferences in terms of the top 20 categories of web sites accessed from home.

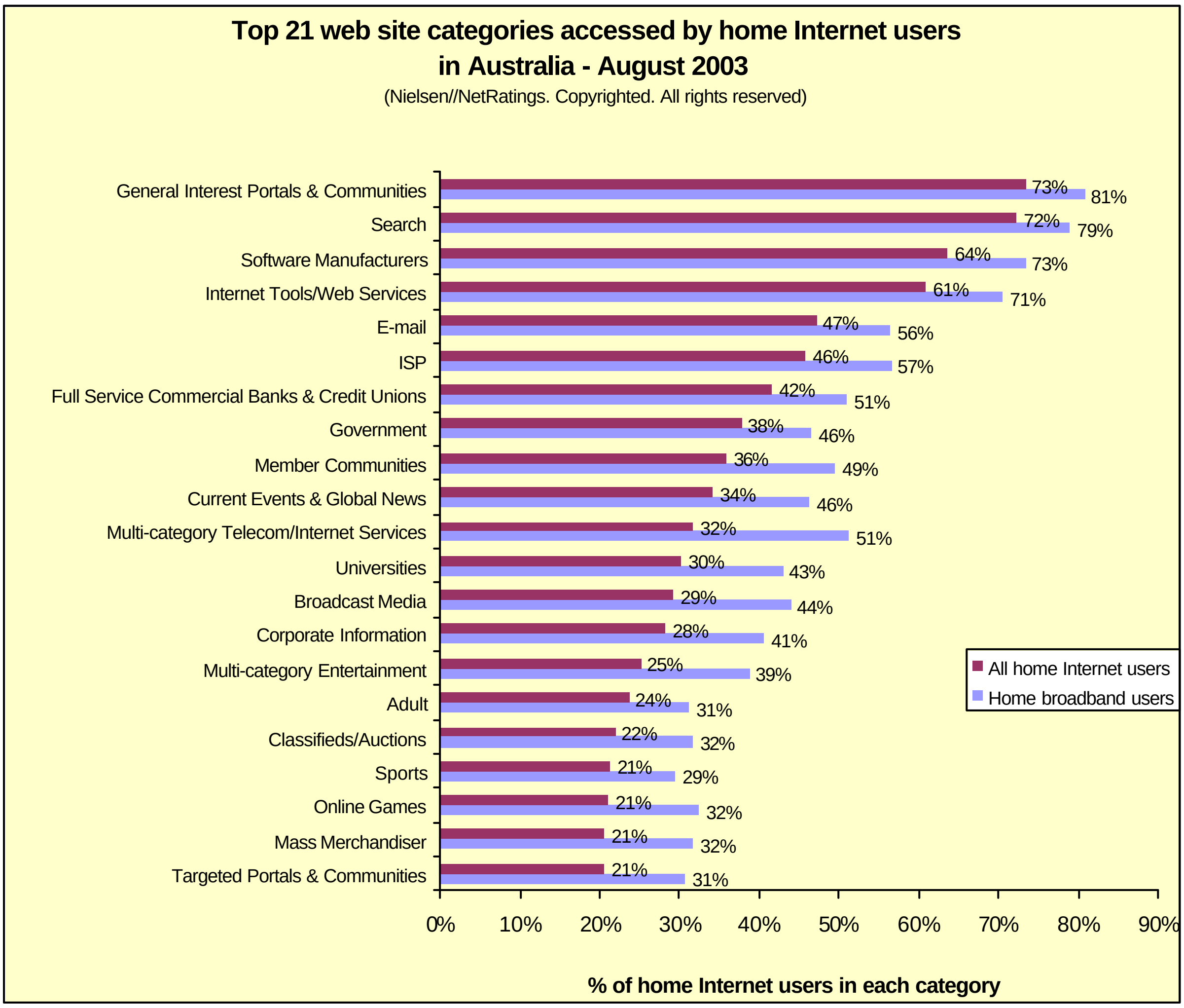
During August 2002, the top 10 web site categories accessed by both groups included:

1. general interest portals & communities (eg Yahoo and Excite);
2. software manufacturers [eg microsoft.com, adobe.com];
3. multi-category telecom/Internet services (sites covering multiple telecom services);
4. full service commercial banks & credit unions;
5. government sites;
6. member communities (sites featuring content mostly from its membership);
7. universities;
8. ISP;
9. broadcast media [includes offline broadband media regardless of whether they stream on site]; and
10. current events & global news.



Twelve months later, seven of these web site categories were again identified in the top ten for August 2003. During this period, the top 10 web site categories accessed by home broadband users and home Internet users in general were:

1. general interest portals & communities;
2. search;
3. software manufacturers;
4. Internet tools/web services;
5. e-mail (sites whose primary purpose is to provide e-mail eg hotmail.com);
6. ISP;
7. full service commercial banks & credit unions;
8. government sites;
9. member communities; and
10. current events & global news.



During August 2002 and August 2003, a significantly higher proportion of home broadband users accessed all categories of web sites identified than home Internet users in general, further demonstrating that, on average, broadband users access a higher number of web sites and view a higher number of web pages than their narrowband counterparts.

Divergence in online content accessed from home

The previous analysis showed that all categories of home Internet users had similar online content preferences, as measured by the top 20 categories of online content accessed. However, a large number of web site categories attract a significantly higher proportion of home broadband users than home Internet users in general.

The following table identifies areas of online content (ie categories of web site) accessed by a significantly higher proportion of broadband users than Internet users in general from home during August 2003. In this case, a significantly higher proportion of usage is assessed as 50% or more. Furthermore, for the purposes of the statistical significance of this analysis, only content categories attracting more than 10 per cent of home broadband users in Australia were considered for analysis in the following section.

AC Nielsen data shows that in addition to being more intensive users of the Internet, a significantly higher proportion of broadband users seek out particular web sites than home Internet users in general. Home broadband access does in fact change Internet usage not only in terms of the traditional metrics used to indicate growing intensity of Internet use, ie time spent online and number of web pages viewed, but also in terms of the type of online content and services accessed.

Per cent (%) of home Internet users accessing web site category during August 2003, Australia (Source: Nielsen//NetRatings)

	Home broadand users	All home Internet users	Relative percentage (%) difference*
Multi-category Computers & Consumer Electronics	23.2	12.6	84
Hardware Manufacturers	24.2	13.6	78
Videos/Movies	27.8	15.7	77
Maps/Travel Info	18.2	10.4	75
Music	28.3	16.5	71
Computer & Consumer Electronics News	23.3	13.6	71
Web Hosting	26.6	15.7	70
Events	13.6	8.1	69
Online Trading	12.1	7.2	67
Special Interest News	24.8	14.8	67
Directories/Local Guides	29	17.4	66
Coupons/Rewards	15.6	9.4	66
Photography	12.4	7.5	65
Research Tools	19.1	11.6	65
Non-Profit	12.6	7.7	65
Shopping Directories & Guides	17.3	10.6	63
Humor	14.8	9.1	62
Multi-category Telecom/Internet Services	51.3	31.7	62
Cellular/Paging	17.9	11.1	61
Books	15.3	9.5	60
Financial News & Information	18.6	11.6	60
Kids, Games, Toys	17.2	11	56
Multi-category News & Information	22.5	14.4	56
Personals	16.2	10.4	55
Career Development	18.4	11.9	55
Multi-category Entertainment	38.7	25.1	54
Online Games	32.4	21.1	54
Mass Merchandiser	31.6	20.6	54
Gambling/Sweepstakes	21.8	14.5	51
Broadcast Media	43.9	29.3	50

* Difference as a proportion of all Internet users.

In summarising the data in the previous table a number of observations stand out:

- ✓ The web site categories entitled, ‘Multi-category Computers & Consumer Electronics,’ ‘Hardware Manufacturers,’ ‘Videos/Movies,’ ‘Maps/Travel Info,’ ‘Music,’ ‘Computer & Consumer Electronics News,’ and ‘Web Hosting,” had the highest level of divergence between home broadband and home Internet users in general. The proportion of home broadband users accessing these sites was 70-84% higher than the proportion of home Internet users in general.

- ✓ For categories entitled; ‘Events,’ “Online Trading,’ ‘Special Internet News,’ ‘Directories/Local Guides,’ ‘Coupons/Rewards,’ ‘Photograph,’ ‘Research Tools,’ ‘Non-Profit,’ ‘Shopping Directories & Guides,’ ‘Humor,’ ‘Multi-category Telecom/Internet Services,’ ‘Cellular Paging,’ ‘Books,’ and ‘Financial News & Information,’ the proportion of home broadband users visiting these sites was 60-69% higher than the proportion for home Internet users in general.

- ✓ For categories entitled; ‘Kids, Games, Toys,’ ‘Multi-category News & Information,’ ‘Personals,’ ‘Career Development,’ ‘Multi-category Entertainment,’ ‘Online Games,’ ‘Mass Merchandiser,’ ‘Gambling Sweepstakes’and ‘Broadcast Media,’ the proportion of home broadband users accessing these categories of web sites were 50-56% higher than the proportion for home Internet users in general.

- ✓ Only three (3) of the categories of websites identified as having been accessed by a significantly higher proportion of home broadband users than the proportion of home Internet users in general, ie 50% or more, during August 2003, were listed in the top 20 web site categories accessed (charts 3 & 4). These were ‘Multi-category Telecom/Internet Services,’(also listed in the top 10) ‘Broadcast Media,’ and ‘Multi-category Entertainment.’

With the exception of the three categories mentioned immediately above, most of the web site categories listed in the table attracted between 8-21% of total home Internet users and 12-32% of home broadband users during the month of August 2003. This suggests that the bulk of these sites are still in the process of developing a broader mainstream following in terms of the seven million Australians actively online at home during any one month.

Contact Details

JOSEPH DI GREGORIO
NATIONAL OFFICE FOR THE INFORMATION ECONOMY
RESEARCH AND ANALYSIS SECTION
(02) 6271 1073
joseph.digregorio@noie.gov.au
www.noie.gov.au

DAVID MCGEACHIE
NATIONAL OFFICE FOR THE INFORMATION ECONOMY
RESEARCH AND ANALYSIS SECTION
(02) 6271 1198
david.mcgheachie@noie.gov.au
www.noie.gov.au

FRANK DE MONTIS
NATIONAL OFFICE FOR THE INFORMATION ECONOMY
RESEARCH AND ANALYSIS SECTION
(02) 6271 1061
frank.demontis@noie.gov.au
www.noie.gov.au