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Australian Communications and Media Authority

Communications report 2010–11 series
Report 2—Converging communications channels: Preferences and behaviours of Australian communications users

communicating | facilitating | regulating

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Executive summary

The communications sector in Australia is dynamic, characterised by continual technological and service innovation which is blurring previous clear-cut distinctions between voice-, data- and video-based communications. Within this environment, a number of broad trends dominated the household consumer communications market in Australia during 2010–11.

Fixed-line services continuing downward trend
During this period, the proportion of adult consumers (people aged 18 years and over) without a fixed-line telephone service in the home increased by three percentage points to reach 19 per cent of the total adult population. This was most prevalent for people aged 18–24 years (with 37 per cent not having a home fixed-line telephone service at June 2011).

Mobile phone penetration higher than for fixed-line telephone
Even with the growth in VoIP over fixed-line services, the penetration of fixed-line telephone services among household consumers (81 per cent) was below that of mobile phones at June 2011 (87 per cent). Mobile phone penetration levels among household consumers first exceeded that of fixed-line telephone services during the previous 2009–10 reporting period.

Emergence of smartphones
Higher mobile phone penetration levels reflect increased adoption of 3G handsets and the entry of smartphones (e.g. iPhones and Blackberries) into the Australian market. At April 2011, 89 per cent of adult consumers in fixed-line telephone households used a mobile phone. Smartphones users accounted for 37 per cent of mobile phone users overall, with half of those who have a mobile phone and no fixed-line telephone service in their home having a smartphone.

The majority of consumers combine multiple communications technologies
Rather than replacing one communications form for another, the majority of Australians continued to ‘accrue’ communications technologies to provide maximum communications flexibility, employing each technology according to its ability to serve their perceived communications needs.

Most (57 per cent) adult consumers in fixed-line telephone households used three communications technologies–fixed-line telephone, a mobile phone and the internet–while a further 27 per cent also used VoIP.

The internet facilitating development of alternative communications channels
Steady growth of internet use in the home and the rapid penetration of internet-capable mobile phones are driving the development of online communications channels such as VoIP, social networking and instant messaging.

The proportion of adult consumers using the internet at home increased by two percentage points during 2010–11 to reach 79 per cent of the total population aged 18 years and over. Approximately 60 per cent of adult internet users in Australia were estimated to have undertaken social networking activities online in the six months to April 2011, while 34 per cent of adults in fixed-line telephone households used a VoIP service, a rise of two percentage points since April 2010.

Smartphones are also playing a major role in facilitating the use of converged communications, with these users more likely to use online communications services such as email, social networking and VoIP via their handset than other mobile phone internet users. At April 2011, of adult smartphone users:

> 74 per cent used email and 74 per cent used social networking via their smartphone, compared to 46 per cent and 49 per cent for other mobile phone users
> 72 per cent downloaded applications via their smartphone, compared to 42 per cent of other mobile users
> 13 per cent made VoIP calls via their handset compared to eight per cent of other mobile phone users.

Cloud computing

Web-hosted email accounts (WHEAs) were the dominant cloud computing service used by Australians. In the six months to April 2011, 68 per cent of Australian adults online used email services such as Hotmail, Gmail or Yahoo!Mail.

Introduction

This report is the second in a series of three research reports to be published as part of the ACMA's Communications report 2010–11 series. Other reports in this series include:

> *Report 1—E-commerce marketplace in Australia: Online shopping,* released 16 November 2011

> *Report 3—The emerging mobile telecommunications service market in Australia.*

This suite of reports is designed to complement, but is not a part of, the ACMA *Communications report 2010–11*, which is produced to fulfil reporting obligations under section 105 of the *Telecommunications Act 1997*.

The three reports in the Communications report series seek to better inform ACMA stakeholders about convergence and the digital economy, and their impacts on communications and media services and consumer behaviour. As an evidence-based regulator, the ACMA has an interest in monitoring and understanding the developing digital economy and the role digital communications and media are playing in its development.

This report provides an update on key trends relating to changing household consumer communications preferences, including:

> the ongoing shift from dependence on single service, typically fixed-line telephony

> the development of mobile phones as convergent devices providing internet access

> the integration of the internet into everyday consumer communications choices

> how consumers are combining different communications technologies and services.

This report also includes new material on:

> Australia's 'mobile phone-only' population and its propensity to use other communications channels

> the take-up of cloud computing services by Australian household consumers.

Decline in dominance of the fixed-line telephone

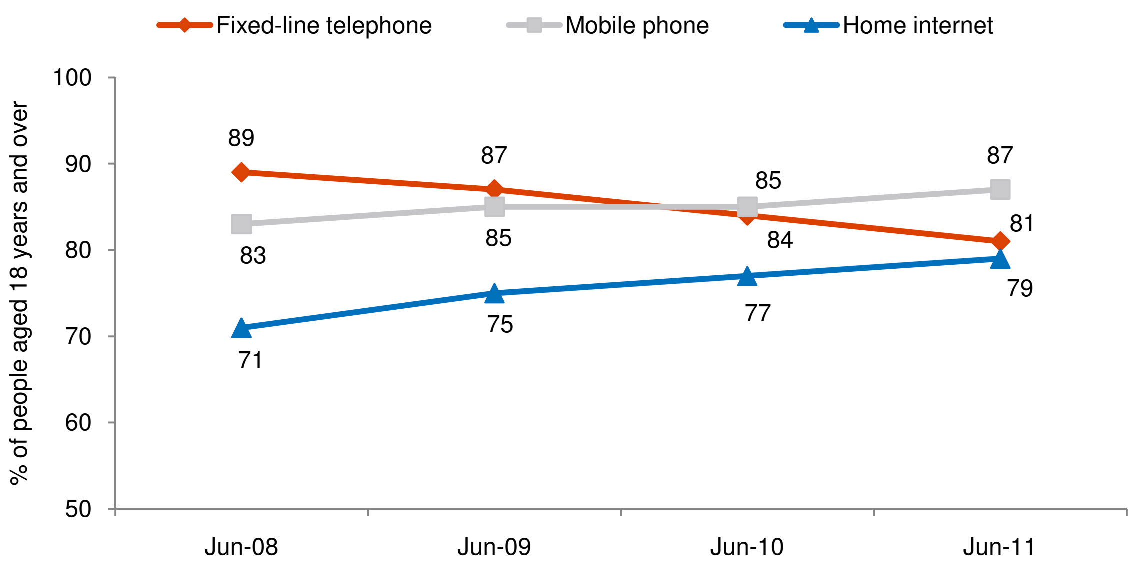
Australians are accessing a wide range of communications services, increasingly moving beyond traditional fixed and mobile voice platforms to online voice and data communications channels.

Rather than replacing legacy communications technology (such as the fixed-line telephone) with newer platforms, the majority of Australian household consumers typically maintain a range of complementary communications options to provide a level of flexibility better suited to their perceived communications needs. However, a significant proportion of the Australian adult population (19 per cent) is now without a fixed-line home telephone.

While fixed-line telephony remains popular among older Australians, younger consumers are most commonly choosing to make calls using their mobile or data connection, or are using non-voice communications tools such as social networking and text. While older consumers are gradually becoming more tech-savvy, young adults are leading the shift to communications technologies that do not include a fixed-line home telephone.

During 2010–11, the proportion of Australia's adult population with a fixed-line home telephone declined by three percentage points, to be 81 per cent of adult consumers at June 2011 (Figure 1).

Figure 1 Take-up and use of select communications services

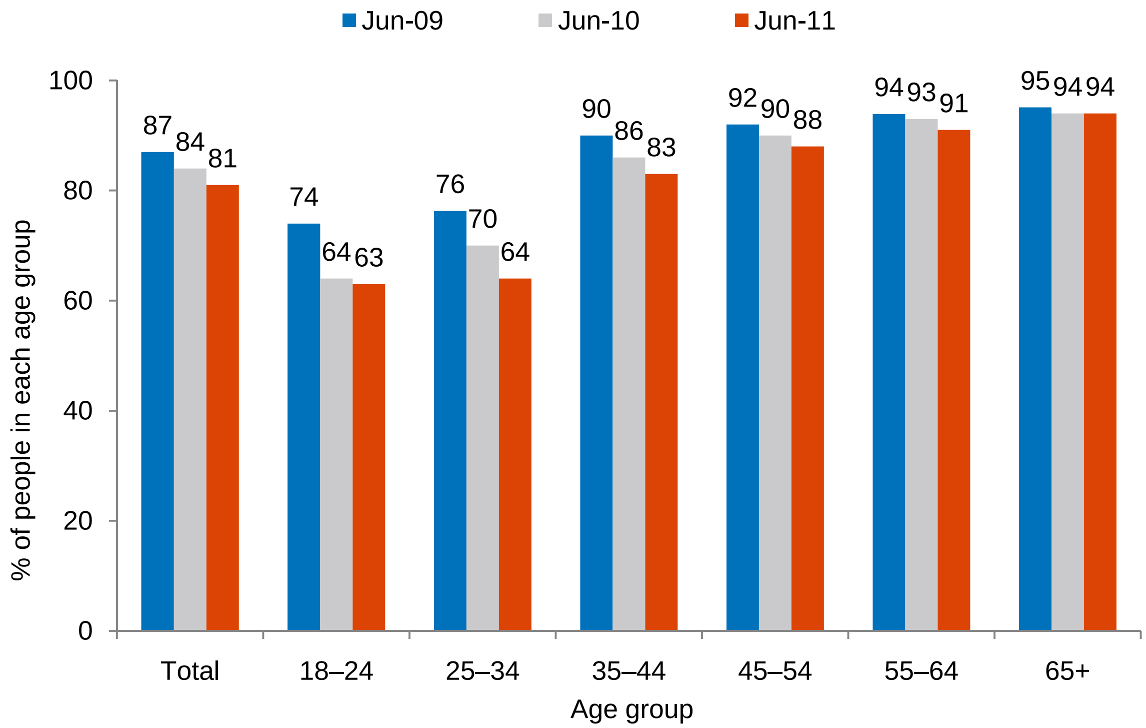


Note: Fixed-line telephone services include VoIP where the service is accessed via a standard handset and excludes services accessed via a computer. Home internet includes all service types except mobile handset internet. Base population also includes consumers in households without a fixed-line telephone and/or no mobile phone.
Source: Roy Morgan Single Source.

The impact of the continued shift from fixed voice to wireless communications is reflected in the financial bottom line of fixed-line service providers. For example, in the year to June 2011, the number of locals calls made by Telstra customers fell by 13.6 per cent, while national long-distance calls dropped by 8.6 per cent.[1] This has translated to a fall in traditional Public Switched Telecommunications Network (PSTN) earnings of nearly eight per cent ($462 million) contributing to the company's overall EBITDA earnings decline of 6.4 per cent for 2010–11.[2]

The decline in fixed-line telephone connections varies by age across the Australian population (Figure 2). Among older Australians—people 65 years and over—fixed-line telephony remains very high (94 per cent), while 37 per cent of people aged 18–24 years and 36 per cent of people aged 25–34 years were estimated to be without a fixed-line telephone in their home at June 2011.

Figure 2 Consumers with a fixed-line telephone connected in the home, by age

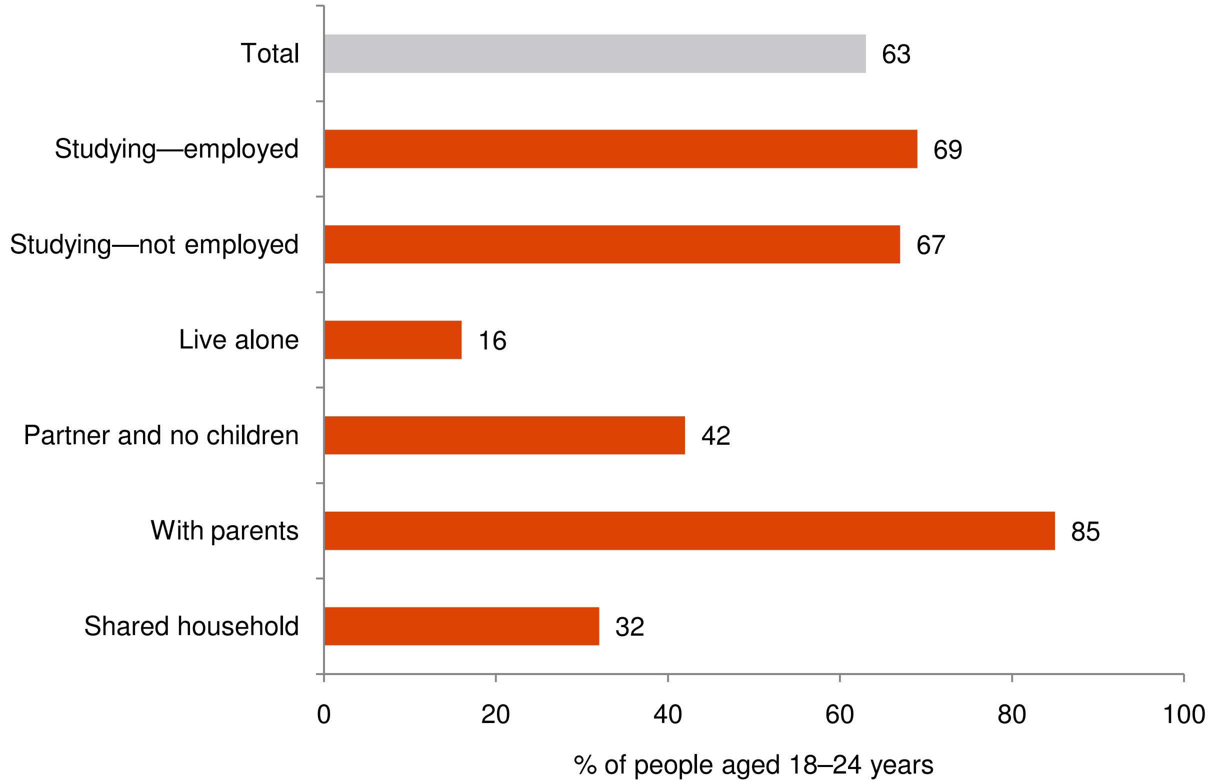


Source: Roy Morgan Single Source.

A closer look at consumers aged between 18 and 24 years reveals that several additional factors may be influencing their communications choices (Figure 3). The highest level of fixed-line retention among those aged 18–24 was for those people living in the parental home (85 per cent), presumably a reflection of their parents' communications choices and funding.

Once members of this group moved out of the parental home and were more likely to make their own financial and communications decisions, this figure declined dramatically. Many favoured alternative communications technologies, most commonly going 'mobile phone-only' and/or VoIP via their computer.

Figure 3 Fixed-line telephone access of those aged 18–24, by employment status and household type



Source: Roy Morgan Single Source, June 2011.

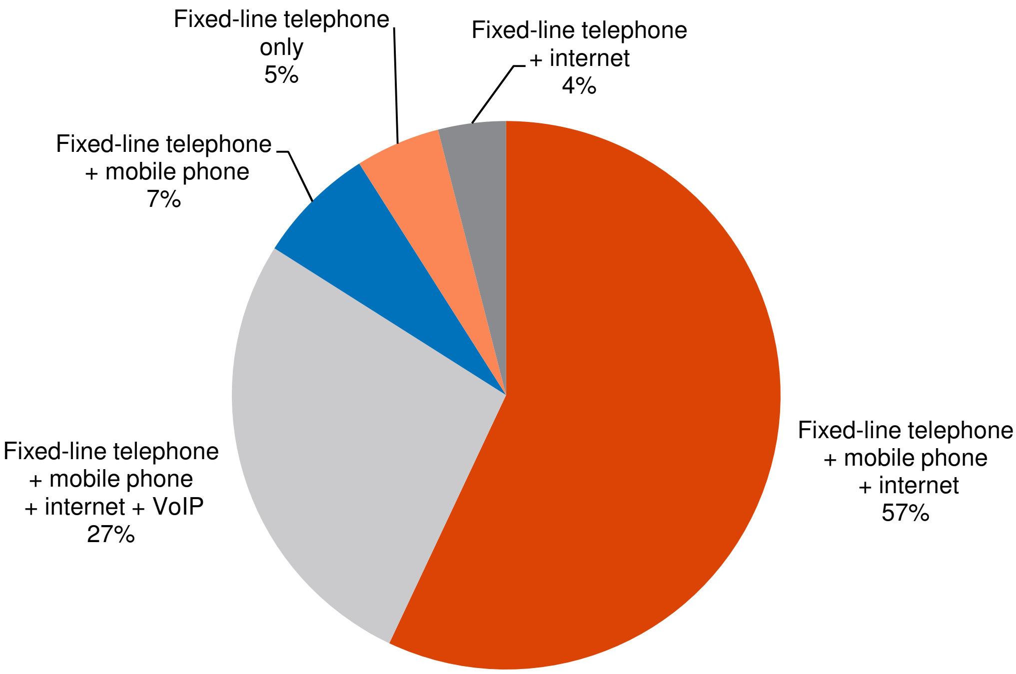
Across the Australian population, other factors influencing the retention of fixed-line telephony include unit call costs (the cost of untimed local calls and calls to mobiles) and the desire for a high-speed internet connection. Previous ACMA research found that the most common reason for consumers considering removing their fixed-line telephone connection was cost, especially fixed-line rental costs.[3]

Even within the majority of Australian households where fixed-line telephones are still present, there is a growing tendency towards less dependency on a single voice service in preference for combining multiple communications such as mobile phones, fixed-line telephone and the internet.

How are Australians combining technologies?

Fifty-seven per cent of Australian adults with a fixed-line telephone used three communications technologies (Figure 4), typically centred on a core of fixed-line and mobile telephony, together with an internet connection. Twenty-seven per cent used four technologies, adding VoIP to their suite of communications. Twelve per cent of household consumers limited their communications choice to a fixed-line telephone or a fixed-line telephone and mobile phone. These consumers are mostly older Australians—62 per cent of people in this category are aged 65 years or older.

Figure 4 Communications technology combinations in fixed-line telephone households, in the six month to April 2011



Note: Relates to people aged 18 years and over.
Source: ACMA-commissioned consumer survey, April 2011.

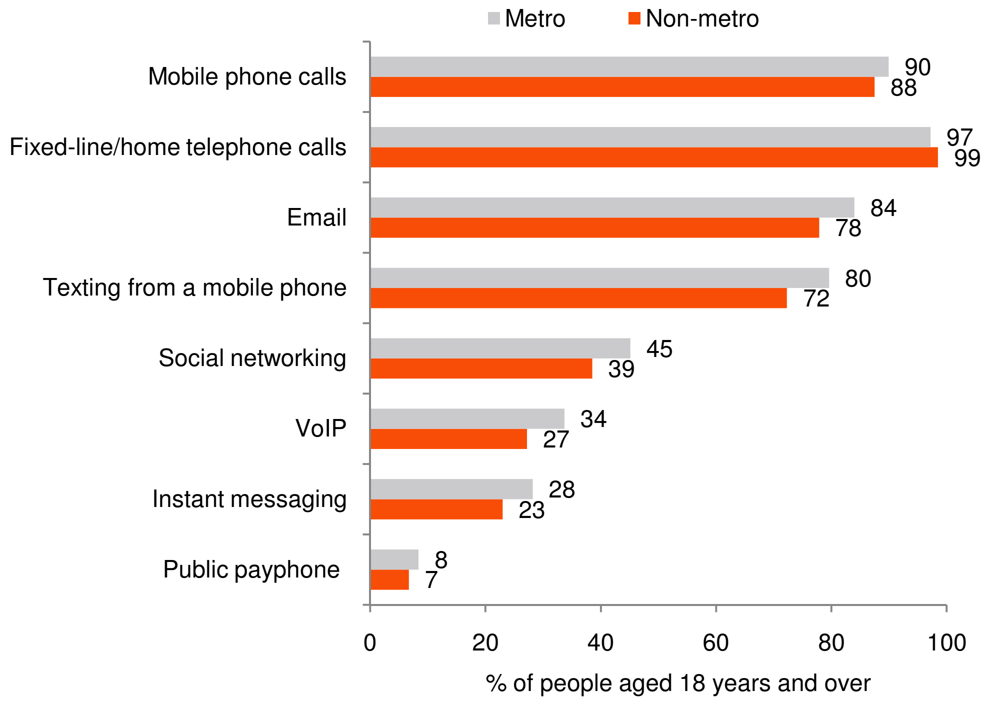
While perceived personal communications needs play an important role in influencing communications choices, industry's bundled service offerings available from carriage service providers (CSPs) are an additional driver of this multiple technology use. Bundling encourages consumers to subscribe to multiple services through the same provider, usually in return for price reduction on one or all of the services. At June 2011, 43 per cent of adult household consumers (3.6 million households) were estimated to have two or more telecommunications services provided via a bundling arrangement with their telecommunications service provider.[4] Ninety-three per cent of these consumers included a fixed-line telephone line as part of their bundling arrangement.

Discounts, value for money and convenience of dealing with a single service provider are the main drivers for consumers when considering bundling telecommunications services. Fifty-three per cent of households with two or more telecommunications services bundled at June 2011 identified financial discounts or free services (such as free local calls) as an important benefit from service bundling, while 48 per cent identified convenience of dealing with a single service provider for billing purposes.[5]

The expansion of internet-based communications

With the development of broadband technologies, the number of communications options available to Australians has soared in recent years, shifting from the relatively simple mobile and fixed-line telephony dichotomy to an entire suite of voice and non-voice options centred on the internet. This includes social networking, instant messaging and internet-based voice calls. Figure 5 indicates that, while fixed-line calls, email, mobile calls and texting remain the most popular ways for Australians to keep in touch, a large section of the population now uses other internet-based communications, such as social networking and VoIP.

Figure 5 Communications services used by household consumers, by location



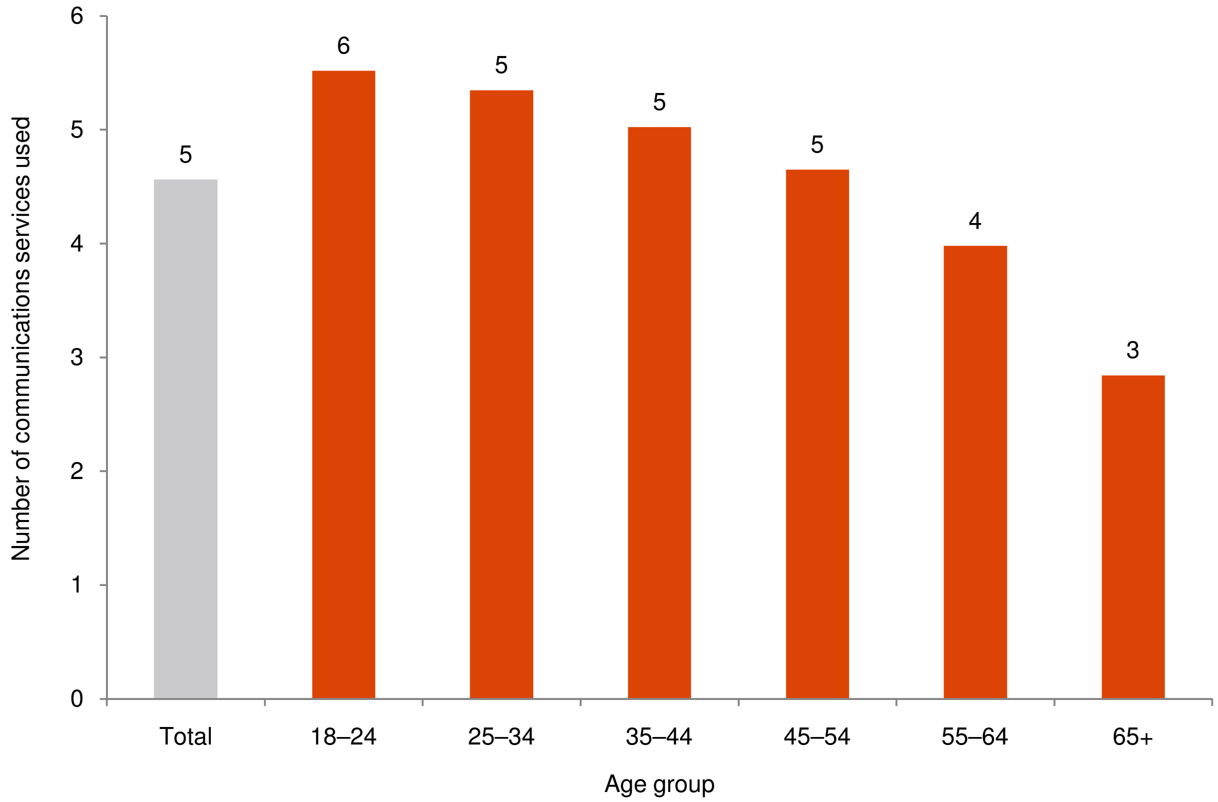
Note: Relates to consumers in households with a fixed-line telephone service.

Source: ACMA-commissioned consumer survey, April 2011.

The development and adoption of communications services in addition to traditional fixed and mobile voice has provided Australian consumers much more flexibility in how they communicate.

Younger Australians (those aged 18–24) appear more likely to use a greater number of communications tools—an average of six services (from the eight listed in Figure 5), with an apparent bias toward using texting and social media. Conversely, on average, those aged 65 years typically employ fewer services to stay in touch, restricting their communications to largely voice and email communication (Figure 6).

Figure 6 Average number of communications services used in the six months to April 2011, by age



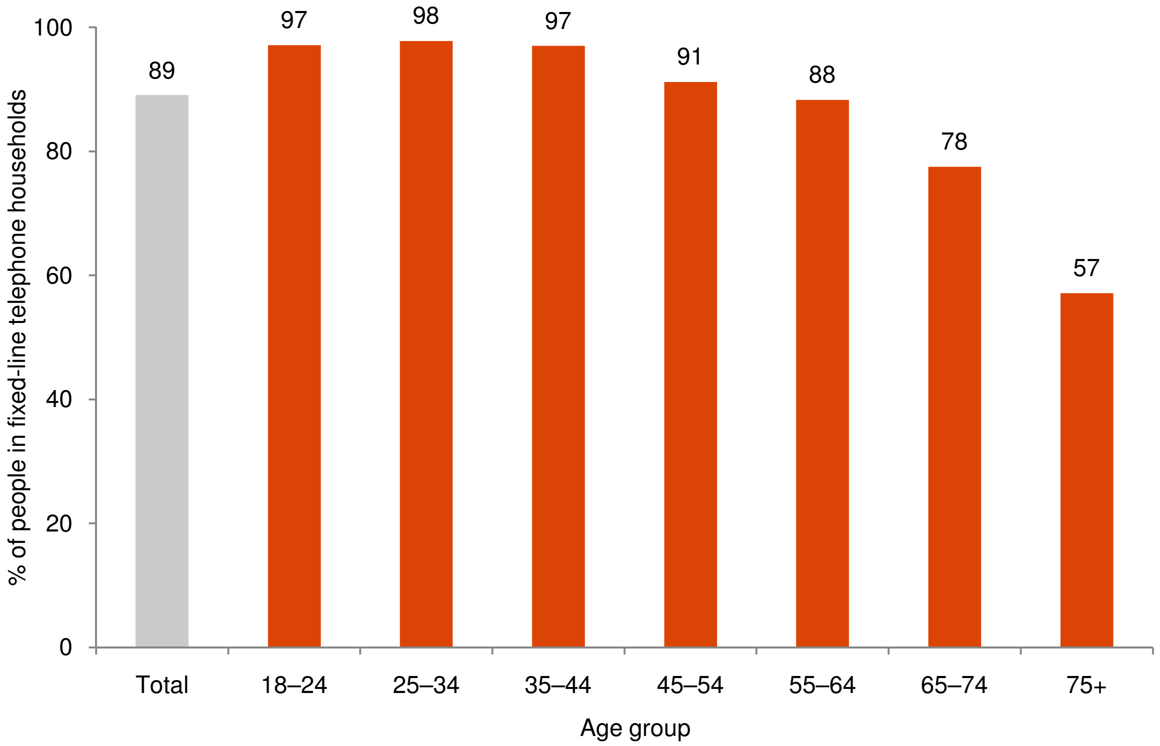
Note: See Figure 5 for services examined. Relates to consumers in households with a fixed-line telephone service.
Source: ACMA-commissioned consumer survey, April 2011.

Mobile handset technology—take-up and use

The majority of the Australian population have a mobile for personal use. At June 2011, an estimated 89 per cent of adult household consumers in fixed-line telephone households used a mobile phone (Figure 7). For Australians without a mobile phone, the main barriers to mobile phone adoption were a lack of need (75 per cent) and cost (12 per cent).[6]

Mobile phone use is close to saturation point for certain segments of the adult population in Australia. Among those aged 18 to 44 years, mobile phone adoption rates have reached 97–98 per cent. For consumers aged 45 years and over, take-up rates appear to be strongly correlated with age, with those over 75 having the lowest level of mobile phone use, at 57 per cent.

Figure 7 Mobile phone take-up, by age

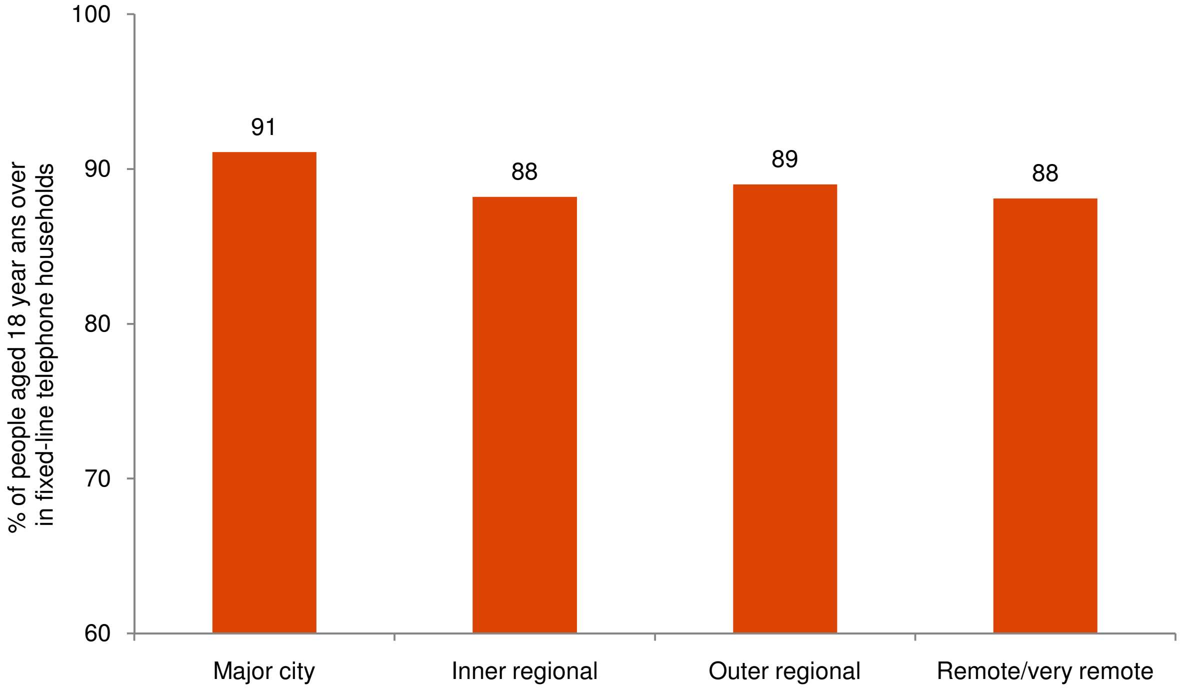


Note: In Figure 7, the mobile phone penetration rate is two percentage points higher than in Figure 1. This is due to the different base populations. Figure 7 excludes consumers in households without a fixed-line telephone, while Figure 1 includes consumers in households without a fixed-line telephone. People can have more than one mobile phone causing the total number of mobile phones to be greater than the total population.

Source: ACMA-commissioned consumer survey, April 2011.

There is no strong relationship apparent between the use of mobile voice services and location, with only three percentage points separating the level of usage in major cities and remote areas (Figure 8). This indicates that, regardless of where Australians live, the majority seek the flexibility of mobile voice communications.

Figure 8 Mobile phone take-up by location



Note: 'Major city' refers to the capital cities (excluding Darwin and Hobart) and includes centres such as Newcastle. 'Inner regional' refers to centres such as Launceston, Hobart, Mandurah and Ballarat. 'Outer regional' refers to centres such as Darwin, Albany and Geraldton. For more information, see http://www.doctorconnect.gov.au/internet/otd/Publishing.nsf/Content/locator.

Source: ACMA-commissioned consumer survey, April 2011.

Non-voice services used via mobiles

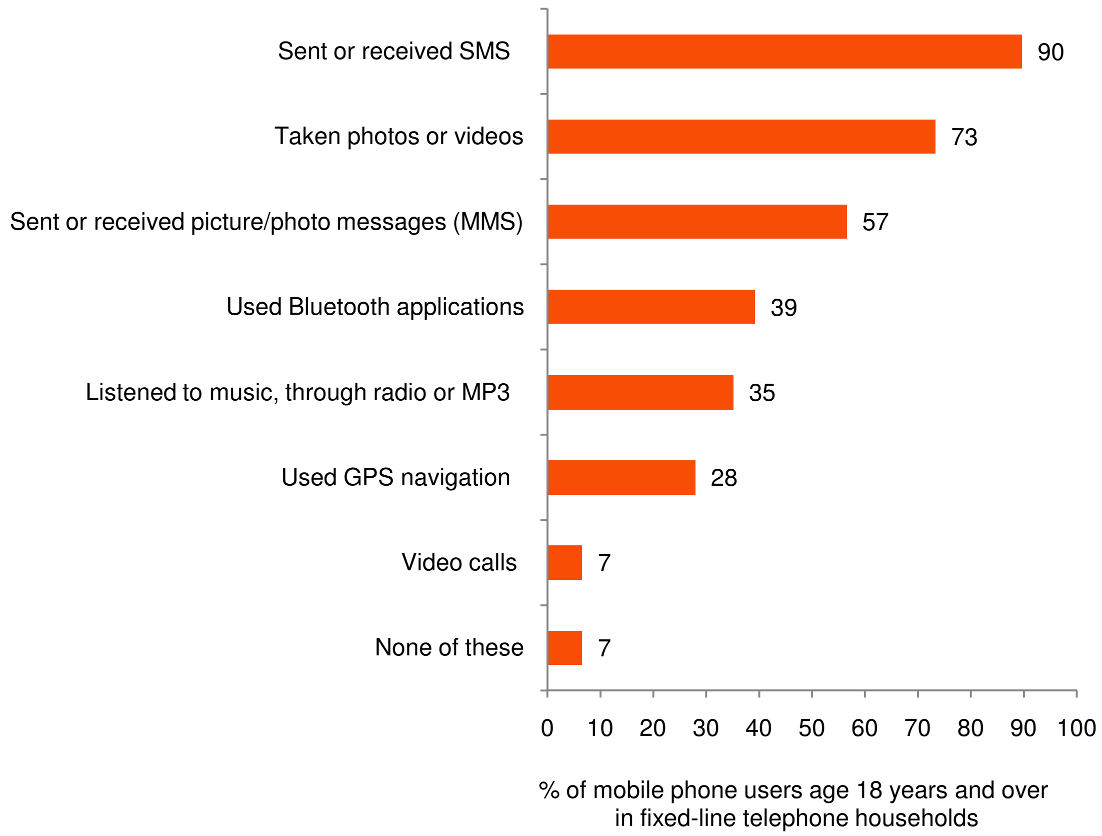
Figure 9 shows that the two main non-voice communications services used by adult mobile phone users in fixed-line telephone households in the six months to April 2011 (excluding online communications) were:

> SMS (90 per cent)

> MMS (57 per cent).

However, with the availability of internet-enabled mobile phones, a significant proportion of mobile phone owners are using internet-based communications such as email, VoIP and social networking (Figure 10).

Figure 9 Non-voice services used via mobile phones in the six months to April 2011



Note: Relates to non-internet activities.

Source: ACMA-commissioned consumer survey, April 2011.

The shift to smartphones

A smartphone is a mobile phone handset that integrates the functionality of a mobile phone with a personal digital assistant (PDA). In addition to internet access, a smartphone may have the ability to synchronise with a computer, create documents and spreadsheets, listen to music and manage social networks through various applications.

The Australian mobile handset market is dominated by internet-enabled phones, with sales of smartphone handsets particularly popular since the release of the iPhone and, more recently, Android phones.[7] Strong competition between mobile service providers has enabled many consumers to adopt new handset technology at a low upfront cost.[8]

According to Morgan Stanley, at the end of 2010 Australia was one of only three countries worldwide where the penetration of 3G handsets exceeded 50 per cent of mobile phone users. Only South Korea (75 per cent) and Japan (90 per cent) had a greater rate of 3G handset penetration.[9]

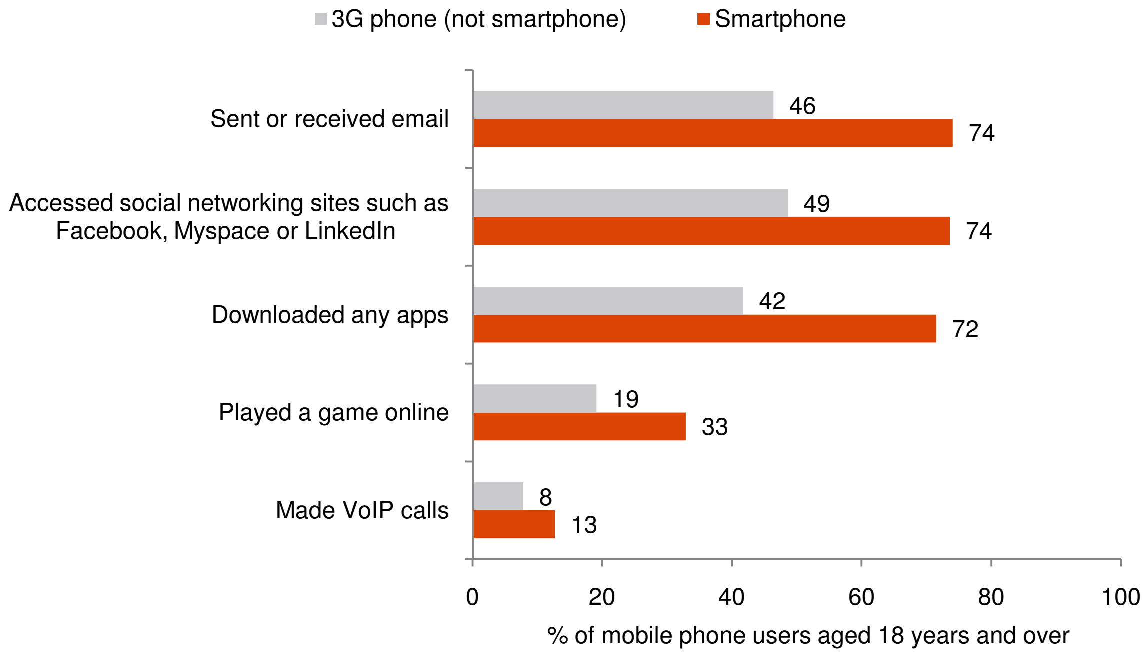
At April 2011, 58 per cent of adult mobile phone users in households with a home fixed-line telephone in Australia owned a 3G handset, an increase of three percentage points on April 2010 figures. Smartphone users accounted for 37 per cent of mobile phone users overall.[10]

Android platforms have increased in popularity among Australian consumers, with 24 per cent of smartphone users at June 2011 owning a phone using the Android operating system, a five-fold increase on the June 2010 figures.[11]

When the online activities of smartphone users are compared to those of other internet-enabled mobile phone users, it is clear that the smartphone is playing a major role in facilitating the use of converged communications (Figure 10).

Users of smartphone handsets were far more likely to have accessed online communications channels in the six months to April 2011 than were non-smartphone, 3G users. This greater frequency of online activities via mobile phone handsets highlights the importance of smartphone features such as the larger screen and easy-to-use interface in encouraging consumer take-up of online applications.

Figure 10 Online activities undertaken via mobile handset type



Note: Relates to mobile phone users with a home fixed-line telephone service.
Source: ACMA-commissioned consumer survey, April 2011.

Mobile applications

The development of mobile applications ready for immediate download by the consumer has further extended the functionality of mobile phone handsets. Mobile handset internet users have embraced mobile applications, with the average user downloading 15 applications in a three-month period.[12] Mobile applications—more commonly abbreviated to 'apps'—are software that, once downloaded to a device, allows users to access content or websites more quickly than using a search engine, typing a URL or storing within a file. With thousands of apps available (approximately 675,000 at August 2011)[13], the majority of Australian users download apps that are recommended by friends, that they find using the app store and, most commonly, that are available free of charge.[14]

The range of apps available for downloaded is diverse and growing, covering functions and services relating to communications (for example, mobile VoIP), m-commerce (banking and shopping), entertainment (streaming television) and social networking. The third report in this series, *The emerging mobile telecommunications service market in Australia,* explores this market in Australia.

The mobile phone-only population in Australia

Increasing numbers of Australians are choosing to live without a fixed-line telephone and instead rely solely on their mobile phone for their communications and, in some cases, their internet access or pay phones. For the purposes of this section, these consumers are referred to as 'mobile phone-only'.

Young adults, those in shared housing and those in low-income households are the most likely sections of the population to live without a fixed-line telephone connection and rely on a mobile phone for voice services.[15] At April 2011, 16 per cent of Australian household consumers aged 18–65 years had a mobile phone only and did not have a fixed-line telephone service.[16]

A demographic analysis of this group (Table 1) reveals that gender; age and location appear to be primary drivers of the shift towards mobile phone-only living, with males, those aged 25–34 years and people residing in metropolitan areas of Australia most likely to not have a fixed-line telephone in the home.

Table 1 Profile of mobile phone-only users

	Socioeconomic descriptor	% of mobile phone-only users
Gender	Male	55
	Female	45
Age	18–24	25
	25–34	40
	35–49	22
	50–65	13
Location	Metropolitan	65
	Non-metropolitan	35

Source: ACMA-commissioned mobile-only consumer survey, April 2011.

Mobile phone-only users are more likely to own a smartphone than are any other group of mobile phone users. Eighty per cent of mobile phone-only consumers used a 3G phone and, of these, almost two-thirds used smartphones at February 2011, a take-up rate higher than in the wider population.[17] Just over 54 per cent of 3G phone users with a fixed-line telephone in the home used a smartphone.[18]

In addition to their mobile handset for voice services, mobile phone-only Australians also used email (72 per cent), social networking (61 per cent), VoIP via a computer (28 per cent) and public payphones (33 per cent) to communicate with others in the six months to April 2011. Use of VoIP and payphones are significantly higher than rates seen among the wider mobile phone population.[19]

Are mobile phone-only users likely to return to fixed-line telephones?

While the shift to mobile phone-only households has been one of the focal points of communications change in Australia, some of these consumers have expressed interest in connecting or reconnecting to a fixed-line telephone service.

Of survey respondents living without a fixed-line in April 2011, 17 per cent reported they were 'somewhat likely' to connect a fixed-line telephone in their home in the next 12 months, while eight per cent were 'very likely'.[20]

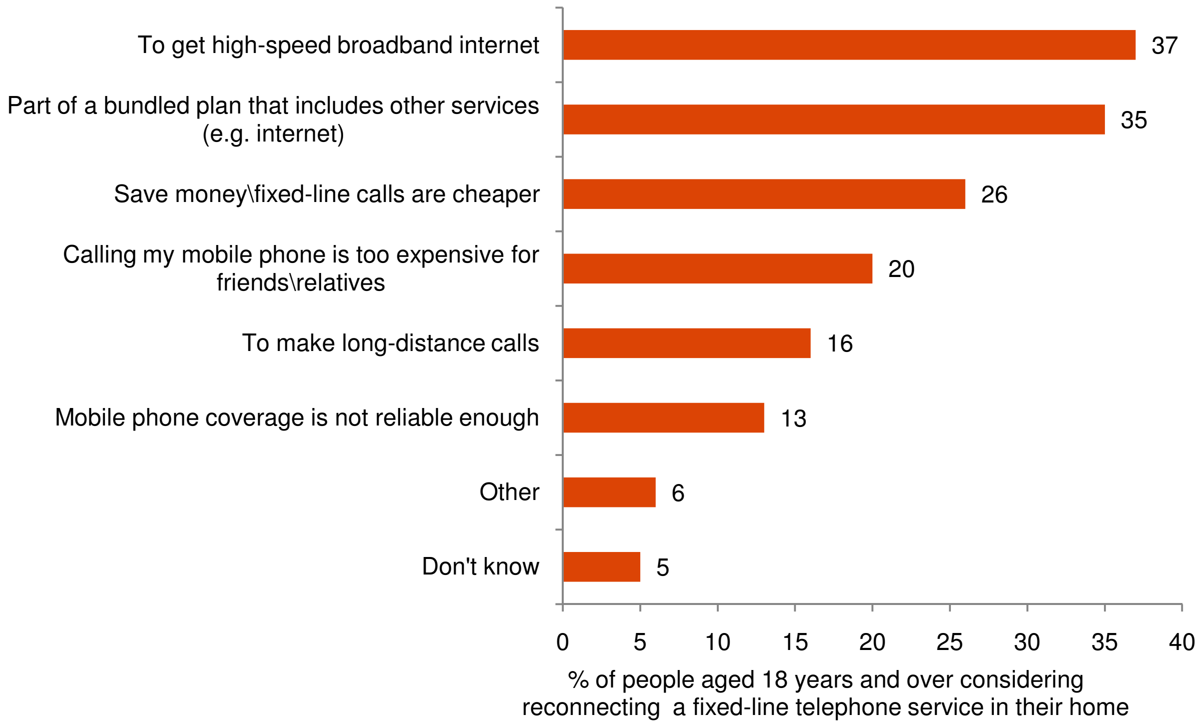
Reasons cited for considering fixed-line telephone adoption in the home in the 12 months to April 2011 included (Figure 11):

> to connect to high-speed internet access (37 per cent)

> to use a fixed-line telephone service included in a bundled plan with other services (35 per cent)

> to save money/fixed-line calls were cheaper (26 per cent).

Figure 11 Reasons for considering reconnecting a fixed-line telephone service in the home



Note: Multiple responses allowed.
Source: ACMA-commissioned mobile-only consumer survey, April 2011.

Mobile phone-only consumers—payphone usage

While mobile phone-only consumers are leaders in terms of adoption of smartphones, this segment of the household consumer communications market has the highest level of use of the traditional payphone.[21]

In the six months to April 2011, 33 per cent of these consumers were estimated to have used a payphone, compared to eight per cent of consumers with a fixed-line telephone in the home.

The higher levels of payphone usage for mobile phone-only consumers during this period may be attributable to two key factors:

> no or low mobile phone credit (38 per cent)

> cost—this segment of the population considered pay phones to be cheaper (23 per cent).

Voice over internet protocol (VoIP)

VoIP services are continuing to gain popularity among the Australian population as consumers become more familiar with the technology and service providers heavily market VoIP products on mainstream media. There are two main types of VoIP services available in Australia:

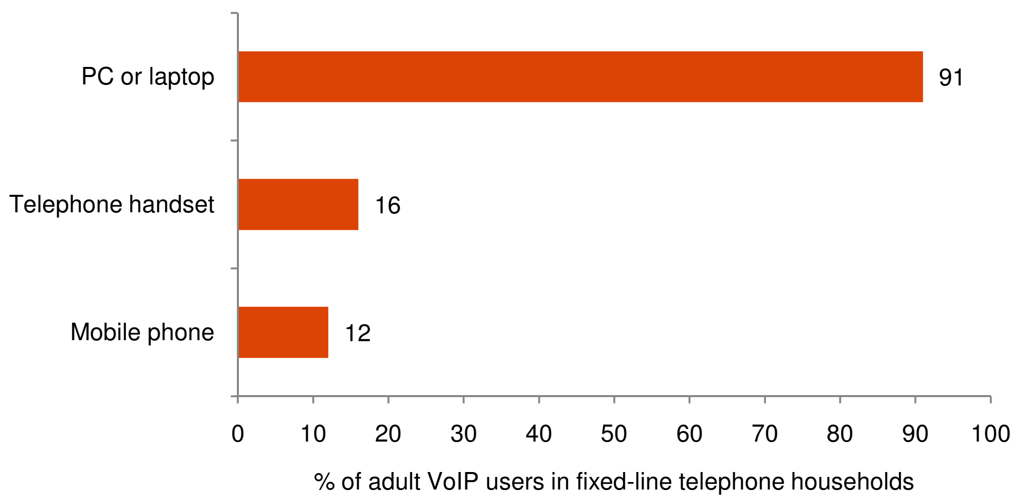
> the standalone VoIP handset, which acts ostensibly like a fixed-line phone and is connected to the internet via an analog telephone adapter

> the PC-based VoIP service, which uses a software application such as Skype to make voice and video calls using a headset and/or webcam—typically, these services are peer-to-peer.

VoIP access devices

At April 2011, 34 per cent of adults in fixed-line telephone households were using VoIP, a rise of two percentage points since April 2010. Ninety-one per cent of VoIP users accessed their service by a PC or laptop, while 16 per cent did so via a telephone handset (Figure 12). The use of mobile handset VoIP is also increasing, rising from nine per cent to 12 per cent of VoIP in the six months to April 2011—concurrent with the increase in take-up of mobile handset internet generally. Mobile VoIP is explored in more detail in the third report of this series, *The emerging mobile telecommunications service market in Australia*.

Figure 12 Access devices used to access a VoIP service



Note: Multiple responses allowed.
Source: ACMA-commissioned consumer survey, April 2011.

Who are Australia's VoIP users?

As shown in Table 2, at June 2011 Australian VoIP users were more likely to be:

> male (52 per cent)

> aged under 45 (56 per cent)

> residing in a metropolitan area (68 per cent).

Table 2 Profile of VoIP users in Australia, June 2011

	Socioeconomic descriptor	% of VoIP users
Gender	Male	52
	Female	48
Age	18–24	11
	25–34	24
	35–44	21
	45–54	19
	55–64	15
	65+	10
Location	Metropolitan	68
	Non-metropolitan	32

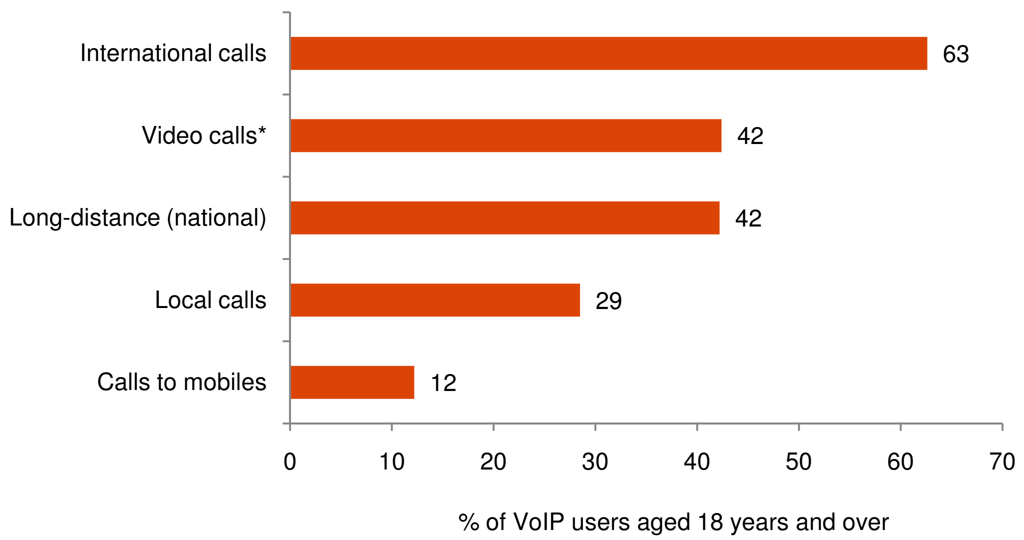
Note: Relates to consumers in households with a fixed-line telephone service.
Source: ACMA-commissioned consumer survey, April 2011.

Type of calls made via VoIP

The primary drivers for VoIP adoption are to reduce the price of long-distance and international calls, and to take advantage of VoIP's video call facility. Approximately 63 per cent of those Australians using VoIP at April 2011 made international calls, while 42 per cent made video calls, 42 per cent long-distance (national) calls, and 29 per cent local calls (Figure 13). The ability to provide video connectivity—a visual, 'real-time' link with friends, family and colleagues—is a distinct advantage of internet VoIP over other channels.

The types of calls consumers made over VoIP varied according to location. People living in metropolitan areas were more likely to make international calls, while those in non-metropolitan areas were more likely to make national calls. The ACMA's research findings showed that survey respondents living in remote areas were more likely to have used video calling than respondents in other regional areas.[22]

Figure 13 Type of calls made via VoIP



**Covering international and national calls.*
Source: ACMA-commissioned consumer survey, April 2011.

Australians online—using the internet to communicate

The way Australians use the internet is dynamic, influenced by continual innovation in internet service provider (ISP) offerings and the arrival of new consumer access devices that encourage participation in the online environment. Portable internet access has revolutionised the way many Australians communicate, enabling go-anywhere email, mobile-VoIP and social networking access. It complements fixed internet services[23] critical for activities that are data-heavy or require high bandwidth.[24]

The growing popularity of internet-enabled phones, particularly smartphones, has created fundamental shifts in how many consumers access the internet and how they communicate more generally. At April 2011, 64 per cent of consumers with a 3G mobile phone were estimated to use the internet via their mobile phone; this rose to 87 per cent of smartphone users.[25]

Email

The majority of consumers have multiple email addresses, often for different purposes—such as an address provided by an employer, an educational institution and their home ISP. ISP-based email addresses remain popular for private use, especially among older consumers. However, as most ISPs do not currently offer email address portability, a change in ISP can result in the loss of a personal email account, potentially deterring ISP churn. While the retention of identity in the digital economy is likely to be an important issue for consumers, the shift to WHEAs has reduced dependence on internet provider-based email addresses.

In recent years, WHEAs such as Gmail and Hotmail have become more popular, with 68 per cent of adult internet users in Australia using these services in the six months to April 2011.[26] With the flexibility of WHEAs—accessible anywhere there is an internet connection, regardless of provider—the take-up of WHEAs is in keeping with the trend toward constant connectivity and access free of geographical and service provider impediments.

Consistent with that pattern, social networking applications such as Facebook are now challenging email's dominance of internet-based communications, especially among young adults. Nielsen Online has found that among 18–24 year olds, 39 per cent of internet users prefer communicating via social networking platforms; among those aged 25–34, the figure is one in four.[27]

Social media

Participation in social media sites is growing in popularity as Australians become more familiar with networking platforms and adopt new web access technologies. Less likely now to be only observers of the internet, many have become active contributors to social media, establishing their own blogs, Twitter accounts and social networking pages.

A study by Nielsen found that the five social media activities with the greatest increases in participation involved activities that had a content creation element, with the top three being:

> discussing or adding comments about brands, products and services online (rising from 31 per cent to 43 per cent)

> tagging content (15 per cent to 25 per cent)

> uploading video content (20 per cent to 26 per cent).[28]

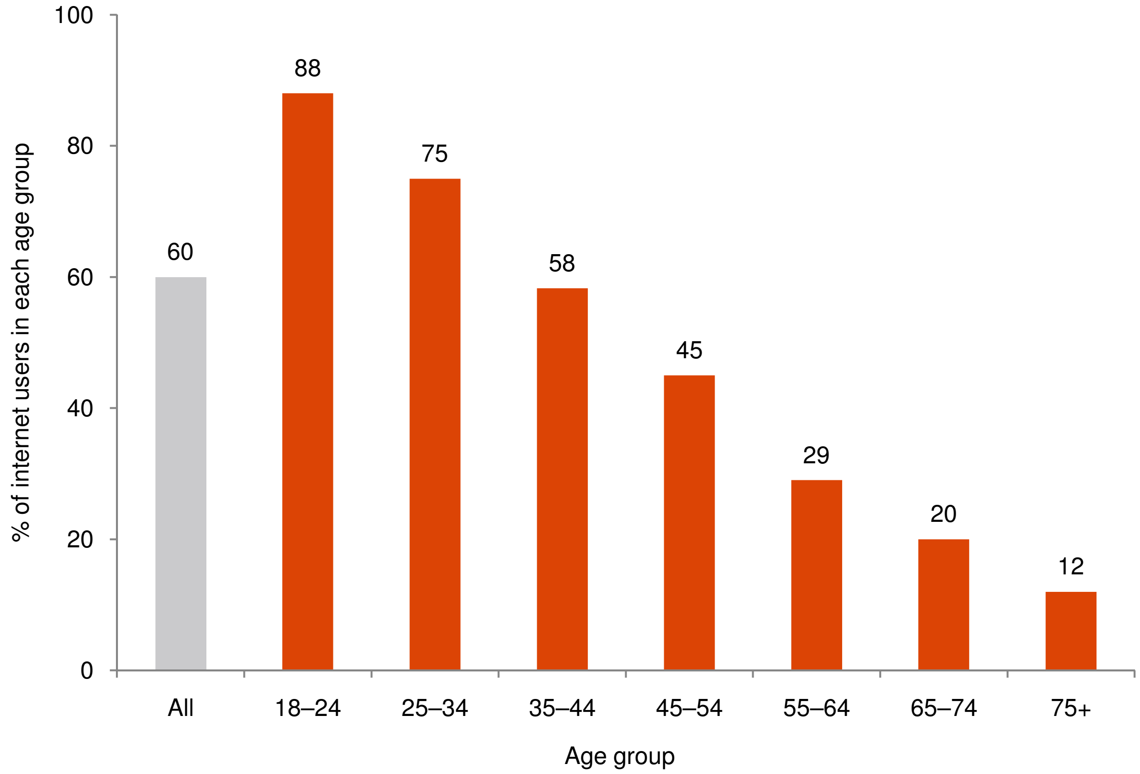
While it is difficult to know the degree to which social media is impacting consumer use of other communications services, initial research indicates that social networking, along with other online communications channels such as instant messaging and VoIP, has replaced at least part of the space previously occupied by traditional online communications channels such as email.

During June 2011, approximately 1.73 million Australians aged 18 years and over used services such as VoIP, instant messaging or social networking to communicate online instead of email—a 35 per cent increase compared to June 2010 figures.[29]

Social networking sites

Approximately 60 per cent of adult internet users in Australia were estimated to have accessed a social networking site in the six months to April 2011. Internet users aged 18–24 years recorded the highest level of social networking usage during this period (Figure 14).

Figure 14 Use of social networking sites in six months to April 2011, by age



Note: Relates to consumers in households with a fixed-line telephone service.
Source: ACMA-commissioned consumer survey, April 2011.

In terms of Australian web traffic to specific social networking sites, Facebook dominates, with 7.6 million people accessing the site from home during June 2011 (Table 3)—comprising 88 per cent of the total number of people accessing social networking sites during June 2011.

YouTube, Wikipedia and blogging sites Blogger, WordPress and Twitter are the next most popular, each accessed by millions of Australians.

Table 3 Australians accessing selected social networking sites from home during June 2011

Social networking site	Number of people accessing site from home ('000s)
Facebook	7,612
YouTube	5,778
Wikipedia	4,395
Blogger	2,700
WordPress.com	1,196
Twitter	1,047
LinkedIn	735
Myspace.com	505

Multiple responses allowed.
Source: Nielsen Online, June 2011.

Microblogging sites such as Twitter continue to grow in popularity, with the number of visitors reaching over one million per month in June 2011, a 41 per cent increase from the previous year. Nielsen figures indicate that 56 per cent of Australian users of Twitter updated their profile ('tweet') on at least a weekly basis.[30]

The transition to mobile internet use—in particular, higher levels of smartphone adoption—has been a major driver of social networking use, allowing users to access their profiles on the go. Nielsen Online has found that daily access of social networking sites on smartphones has increased by almost a third, to 41 per cent of smartphone users.[31]

Given the dynamism of the communications environment, changes in the social networking space are likely to trigger similar shifts in the future. Google's latest venture into social networking and converged communications, Google+, may challenge Facebook's market share of social networking membership.[32] While the number of Australian subscribers to the Google service has not been released, global membership reached over 10 million registrations in its first two weeks of public operation[33], making it the fastest growing social networking site ever.[34]

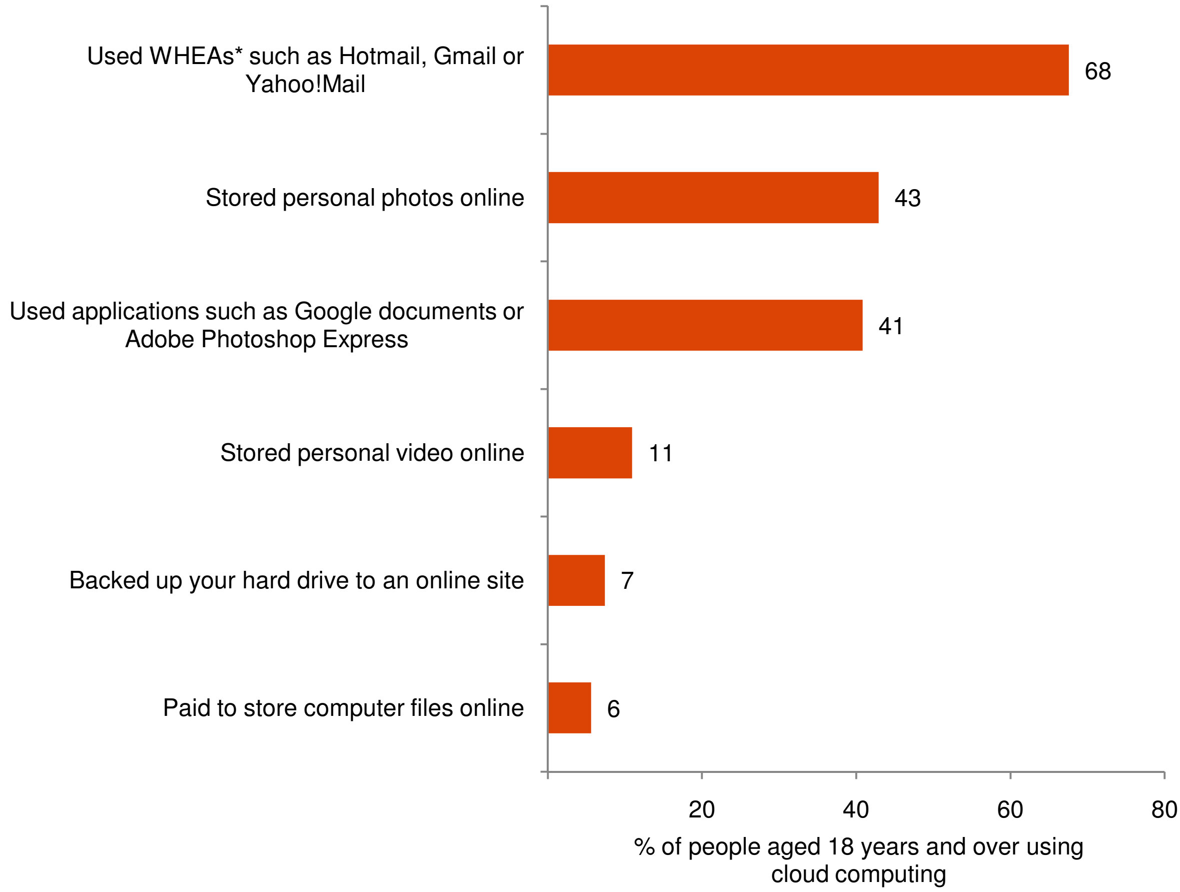
Cloud computing

Internet-accessible shared computing services that can expand and contract on demand topped Gartner's list of the 10 top strategic technologies for 2011.[35]

In its simplest form, cloud computing provides software, storage and other computing resources to subscribers or communities, extending their computer's infrastructure capabilities.[36] Despite the hype around cloud computing, these services have been available for some time. For household consumers, cloud computing most commonly takes the form of online media storage sites, such as Flickr and YouTube, and email storage through accounts such as Google's Gmail and Microsoft's Hotmail, among many others.

WHEAs such as Hotmail, Gmail and Yahoo!Mail were accessed by 68 per cent of internet users in the six months to April 2011—enabling these consumers to retain their email address regardless of their provider. Following email, the most popular uses of cloud computing were to store personal photos online (43 per cent), use applications such as Google documents or Adobe Photoshop Express (41 per cent) and store personal video online (11 per cent)—commonly via sites such as YouTube or social networking sites such as Facebook (Figure 15).

Figure 15 Cloud computing services used in the six months to April 2011



**WHEAs: web-hosted email accounts.*

Note: Relates to consumers in households with a fixed-line telephone service.

Source: ACMA-commissioned consumer survey, April 2011.

The online environment will continue to provide a dynamic setting for voice-, text- and increasingly video-based communications to develop, both in terms of the range of services available and the diversity of service providers.

With the majority of the population now connected to the internet, communications services accessed online, particularly via smartphones, will be an increasingly critical element of Australians' communications choices.[37]

Endnotes

[1] Telstra, *Telstra Corporation Limited Financial Results for the Year ended 30 June 2011*, viewed 11 August 2011.
[2] EBITDA—Earnings before interest, income tax expense, depreciation and amortisation.
[3] ACMA-commissioned research, April 2010.
[4] Roy Morgan Single Source, June 2011.
[5] ibid.
[6] ACMA-commissioned research, April 2011.
[7] An Android phone is a smartphone that runs on Google's Android platform.
[8] ACMA, *The internet service market and Australians in the online environment*, July 2011.
[9] Morgan Stanley presentation, *Internet trends*, 12 April 2010.
[10] ACMA-commissioned research, April 2011 and April 2010.
[11] Telstra, *Telstra Smartphone Index 2011*, 11 July 2011.
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[15] ACMA, Communications report 2009–10 series, *Report 2—Take-up and use of voice services by Australian consumers*, November 2010.
[16] ACMA-commissioned research, February 2011.
[17] ibid.
[18] ACMA-commissioned research, April 2011.
[19] ACMA-commissioned research, February 2011.
[20] ibid.
[21] ibid.
[22] ACMA-commissioned research, April 2011.
[23] Fixed internet services include ADSL and HFC connections.
[24] ACMA, *The internet service market and Australians in the online environment*, July 2011.
[25] ACMA-commissioned research, April 2011.
[26] ibid.
[27] Nielsen, *The online consumer report*, February 2011.
[28] ibid.
[29] Roy Morgan Single Source, June 2011.
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[31] ibid.
[32] S. Machlis, 'Google vs. Facebook by the numbers', *Computerworld*, 7 July 2011.
[33] N. Kobie, 'Google+ tops 10 million users', *PC & Tech Authority*,16 July 2011.
[34] A. Lipsman, 'Google+ Off to a Fast Start with 20 Million Visitors in 21 Days', *comScore*, 22 July 2011.
[35] Gartner, *Gartner Identifies the Top 10 Strategic Technologies for 2011*, 19 October 2011.
[36] ACMA, *Technology developments in the digital economy*, August 2010.
[37] ACMA, *The internet service market and Australians in the online environment*, July 2011.

Appendix—Methodology

Overview of research resources

The data in this report is drawn from a number of sources, including:

> ACMA-commissioned research, in a form of two consumer surveys conducted in April 2011:

> CATI fixed-line survey—2,000 respondents Australia wide, including a 200 person regional boost to enable ARIA38 analysis. Undertaken by Ipsos Eureka; in this report referred to as ACMA-commissioned consumer survey

> Mobile-only internet survey—800 internet users aged 18–64 who do not have a fixed-line voice phone. Undertaken by Newspoll; in this report, referred to as ACMA-commissioned mobile-only consumer survey.

> Roy Morgan Single Source, for estimates relating to online population in Australia 14 years and over, drawn from a large base survey sample (more than 25,000 per year in Australia), June 2011.

> Nielsen Online—web metrics.

An overview of the sample for the main ACMA-commissioned CATI survey (April 2011) is outlined in Table 4.

Table 4 Survey sample breakdown

		Sample size
Gender	Male	995
	Female	1,005
	Total	**2,000**
Age	18–24 years	265
	25–34	368
	35–44	373
	45–54	356
	55–64	293
	65–74	184
	75 and over	161
	Total	**2,000**
State	NSW/ACT	646
	Vic./Tas.	554
	Qld	423
	WA	194
	SA/NT	183
	Total	**2,000**
Location—Accessibility/Remoteness Index of Australia (ARIA)	Major city	1,064
	Inner regional	340
	Outer regional	442
	Remote/very remote	154
	Total	**2,000**

Data analysis

Results from the survey were analysed using descriptive analysis techniques, and by socioeconomic and demographic factors, to identify any areas with significant patterns or differences. Only results with significant differences are reported in this research.

Discrepancies may occur between the sums of the component items and totals due to the effects of rounding.

Previous ACMA research

This report also draws on other ACMA reports, including:

> *The internet service market and Australians in the online environment*, July 2011
> *Technology developments in the digital economy*, August 2010.

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