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World Internet Project
New Zealand

Internet Trends in New Zealand 2007-2015

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MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

InternetNZ

buzzchannel
The Art of Listening - Made Simple

Executive Summary

Since 2007, the World Internet Project New Zealand (WIPNZ) has surveyed New Zealanders every two years to track their usage of the internet and its impact on their lives. Survey responses have been gathered both by telephone interview and online in 2013 and 2015, while the first three waves of the survey used telephone interviews alone. Between 2007 and 2015, over 7000 questionnaires have been completed. This report reviews changes over the period 2007–2015, showing the key trends and investigating how internet usage and its effects vary across major social groupings.

Internet usage

The percentage of internet users in our five WIPNZ surveys has risen steadily from 82% in 2007 to slightly over 90% in 2013 and 2015. The uptake of mobile handheld devices has proceeded at a remarkable pace from low to high usage: from 8% of internet users in 2007 to 87% in 2015. As the internet becomes increasingly ubiquitous its perceived importance has risen. In 2015, 76% of respondents feel that the internet is important or very important to their everyday life, compared to 56% in 2007. Confidence in ability to use the internet has also strengthened dramatically with 72% of respondents rating their online literacy skills as good compared with 48% in 2007.

Comparing the importance of different media

The importance of the internet as a source of information has risen considerably, most dramatically for those aged 65 and over. Starting at 21% of over-65s saying the internet was important for information in 2007, this has risen and then levelled out in 2013 and 2015 at just under 60%. In 2007, 52% of respondents rated newspapers as an important source of entertainment, well above the internet (42%), but that has now reversed. In 2015 the internet supersedes all traditional forms of entertainment media, rising to 68 percent compared to 55% for television. While younger people now value the internet as a source of entertainment most (84% in 2015), the proportion of respondents in the middle age group has also risen steeply in just the last couple of years (66% in 2015).

Relationships and communication

Texting has consistently been the most popular form of daily communication across all waves of the survey, but instant messaging (e.g. through Whatsapp or Snapchat) may now be replacing texts as the number-one conduit for daily communication (75% in 2015). The increasing diversity of social networking sites available in addition to Facebook may also be responsible for the jump in the users who rate these as important in their daily life (from 28% in 2007 to 53% in 2015).

Consumer transactions, public sector interactions, and internet security

Online consumer transactions across the board, including financial interactions with the public sector such as paying for fines, taxes or licences online, have increased steadily since 2007. However this has levelled out in the last two surveys, and we are seeing some behaviours perhaps reaching near-saturation point in 2015. Although rules on young people's internet use such as having a website filter have diminished, restrictions on the amount of time that under-18s spend online and advice about not giving out personal information persist.

Shifting digital divides

All five waves of the survey indicate that there are certain groups that are more engaged with the internet, having a higher percentage of internet users and generally using the internet more widely and more frequently. These groups include those who are younger, more urban, have a higher household income, and are New Zealand European or Asian. There has also been a notable increase in the confidence levels of internet users aged 65 years and older, with those rating themselves as 'good' on the internet up from 25% in 2007 to 60% in 2015.

Many - but not all - of the digital divides that exist on various demographic dimensions have decreased somewhat between 2007 and 2015. There are no significant gender differences in terms of overall access to the internet, however there are differing preferences which have continued in 2015, such as men watching videos online more frequently, and more women than men being involved in playing games online daily. However divides within groups relating to household income, area and ethnicity still exist, indicating the difficulty in establishing a level playing field for all internet users. The risk of people 'missing out' because they lack access and accessibility to the internet for a variety of reasons is still of concern, particularly for basic activities such as banking, finding information or communicating with others.

Contents

Chapter 1
New Zealand and the World Internet Project

Introduction

This introductory chapter provides background on the internet in New Zealand and the research team's our involvement in the World Internet Project (WIP) – a study that surveys people around the world about their internet use. This introduction briefly describes how New Zealanders generally became high adopters of digital technologies to the point that it pervades so much of what we do on a daily basis whether at home, at work or in education, or as part of our leisure activities. Following a roundup of some of the recent legislation introduced by the Government to curb misuse or abuse of the internet, we describe New Zealand's involvement in the WIP surveys that has provided insights into New Zealanders use of and attitudes to the internet over an eight-year period. We describe the methodology behind the collection and analysis of the data. New Zealanders' international positioning as internet users compared with other countries is also discussed briefly in the conclusion of this chapter.

In the subsequent two chapters we present our review of findings from the New Zealand WIP surveys that have been conducted since 2007. Chapter 2 gives the top-level aggregated data across the five surveys in New Zealand, 2007-15, focusing mainly on the different activities that are conducted using the internet. In Chapter 3 we consider a range of variables in our surveys such as household income, ethnicity and age that give an indication of digital inclusion and exclusion – that is, analysis of these variables helps to identify the existence of digital divides when it comes to who is or isn't using the internet, and whether these divides have widened or narrowed during our period of study. Areas that we cover include identifying which groups are more likely to be internet users, how people rate their ability to use the technology and how important it is to them, what are the different ways the internet is accessed, how is it used for information and entertainment, and what is the impact of the internet on people's relationships and communication with others. Only those questions and variables that have been included in previous waves of the WIPNZ surveys are presented. Results relating to newer questions such as the use of the Cloud or online privacy can be found in the individual survey reports available online at www.wipnz.aut.ac.nz.

The internet in New Zealand

Life has become very different for the majority of New Zealanders since the first internet connections in New Zealand. In 1986 Victoria University in Wellington began providing dial-up access to international USENET services and in 1989 Waikato University established a connection to ARPANET via UCLA. Although these two universities acted on behalf of other universities and

third party users (Newman, 2008), it was the establishment of commercially based internet service providers in the 1990s that led to major advances in access and connectivity. This, plus the range of digital devices and software that are now available, makes it difficult for many of us to remember what life was like pre-internet days. Telephone had been the fastest form of communication and postal and courier services were the ways in which documents, letters and parcels were dispatched - taking days or sometimes weeks to be delivered depending on the destination and the method of transport. Shopping and banking were mainly done in person which meant travelling to specific locations during delimited hours of trade. Television, radio and newspapers were the main sources for news, information and entertainment, and books were hard copy items you held in your hands, turning the pages to read.

In those early days of internet connection in New Zealand, very few people owned a computer and the use of the internet was confined to small numbers of people in government, some universities and a few businesses for the purposes of communication or file exchange. Major milestones in internet development have occurred particularly with the country moving from extremely slow dial-up access to broadband connections. The availability of new hardware and wireless and mobile devices has seen the steady growth in laptops, tablets and smartphones, and the range of apps now available has enabled people to conduct a wide range of activities whether online banking, live streaming or downloading music, videos or games, seeking employment, checking the weather forecast, using social media or monitoring their health. Media landscapes have also changed remarkably with the convergence of broadcast media, and news organisations having a much greater online presence. This has changed the ways people seek news and information, or look for entertainment. Both local and national government agencies have increased their engagement with the public through the internet, particularly with their delivery of common transactions online such as paying taxes and rates, obtaining a passport or making a submission.
Perhaps most significant for the country to date has been the New Zealand Government's roll out of ultra-fast broadband (UFB) to supersede the old copper telecommunications network. This has been underway since 2010. The aim is for 75 percent of New Zealanders to access the internet through UFB by the end of 2019. A second stage would enable at least 80 percent of New Zealanders on UFB by 2022. By international standards the growth and use of broadband had been slow in New Zealand prior to the introduction of UFB (only 59.2 per cent of all subscribers used broadband technology in 2008 according to StatisticsNZ). In more recent years there has been a marked change with StatisticsNZ reporting that the number of fibre-optic broadband connections had more than doubled within a year to 100,000 in 2015, and by mid-2015 the number of mobile phone internet connections reached almost 4 million. In addition a Rural Broadband Initiative offered by the Government enables better internet connection for rural New Zealanders - also giving special attention to serving rural state and state integrated schools in New Zealand (Commerce Commission NZ, 2014).

The need for building a digitally inclusive society however has been an ever present concern particularly with a large number of organisations, businesses and educational institutes becoming more active in digital environments. Therefore improving New Zealanders' access and accessibility to the internet has been at the forefront of a number of initiatives which include various programmes to assist specific groups in society. For example, Senior Net helps to train people over the age of 50 in using ICTs, and Computers in Homes run by the 20/20 Charitable Trust, assists in

training, technical support, computers and home internet to students' families in participating low-decile schools. The Aotearoa People's Network Kaharoa – a partnership between public libraries and the National Library of New Zealand – aims to remove barriers such as geography and cost when it comes it internet use. It provides free access to broadband internet services for the public and digital repositories of information unique to New Zealand can also be accessed via the Network available in libraries. Although there have been many advantages in becoming a digital society, there have also been numerous challenges for the nation, which has led to Government intervention.

Legislation on the internet

Situations where people use the internet for negative purposes has led to considerable public debate. While not condoning the misuse of the internet, there has also been criticism of some proposed government legislation for threatening internet freedom and civil rights. Nevertheless a number of laws and actions by Government have been initiated in New Zealand, including the following:

- Anti-spam legislation (the Unsolicited Electronic Messages Act) was passed in 2007. Unsolicited commercial emails were prohibited, while commercial emails required a functional unsubscribe facility along with accurate identification about the person who authorized the sending of the message.

- The Department of Internal Affairs offers a website filtering system to New Zealand internet service providers in 2009 to block websites that host child sexual abuse images. Joining the programme is voluntary for ISPs, but a list of around 7000 objectionable websites compiled by the department and its international law enforcement partners at the time indicated just how serious this problem was.

- The Copyright (Infringing File Sharing) Amendment Act 2011 was introduced in an effort to reduce illegal file sharing. Those people who engaged in online sharing using peer-to-peer protocols could now be fined under this act for infringement of copyright laws.

- The Telecommunications (Interception Capability and Security) Bill was passed in 2013 allowing government surveillance agencies such as the police, the Security Intelligence Service (SIS) and Government Communications Security Bureau (GCSN), to intercept customer communications through telecommunication network operators for the purpose of national security.

- The Harmful Digital Communications Act in 2015 was introduced to address situations where the deliberate sending or posting of material online caused serious emotional distress. This enabled offences such as cyberbullying to be legally punishable to protect New Zealanders from being victims of damaging online communication. Netsafe, the independent non-profit organization concerned with internet safety, was appointed by the government in 2016 as the approved agency tasked with resolving complaints under the Act.

- The government passed legislation late in 2015 requiring a goods and services tax to apply to the supply of 'remote services' by offshore suppliers to New Zealand consumers to protect its local retailers and businesses. This included digital services such as e-books, movies, music and apps.

With further changes on the horizon such as driverless cars, smart cities and the Internet of Things, there is no doubt that the internet revolution will continue to impact society. The continued tracking of internet trends through the World Internet Project surveys provides the opportunity to gain a sense of where we are going and how New Zealand fits in the global arena.

History of the World Internet Project

The WIP project was established by researchers at the UCLA Center for Communication Policy (now at the Annenberg School Center for the Digital Future at the University of Southern California), the Nanyang Technological University School of Communication Studies in Singapore, and the Osservatorio Internet Italia at Bocconi University in Milan, Italy in 1999. The idea to conduct a regular survey of citizens' internet use for international comparison was an example of forward thinking when it comes to tracking the changes that occur in response to the rise of digital technologies. These researchers were aware of an earlier omission with the failure to record the changes that television made in people's lives when it first came into use. The same mistake, they believed, should be avoided with the internet. The World Internet Project was born and now involves up to 40 countries including New Zealand, in surveys that ask common questions on people's attitudes to and their use of the internet.

Professor Allan Bell and Dr Philippa Smith from the Institute of Culture, Discourse & Communication at Auckland University of Technology in New Zealand founded the New Zealand arm of the project following contact with the international director of the WIP, Professor Jeffrey Cole, in 2006. A team of researchers was selected and a pilot of the project conducted to test the questions in a New Zealand setting. With funding from the non-profit organization InternetNZ along with successive partners – the National Library of New Zealand, the Department of Internal Affairs and more recently the Ministry of Business, Innovation and Employment - the survey has been conducted every two years since 2007, providing invaluable information about New Zealanders' internet use over a ten year span. Besides asking the common questions which appear in all of the WIP partners' surveys, we have also included New Zealand-specific questions such as whether respondents planned to connect to ultra-fast broadband, or whether the internet increased their sense of national identity. The five New Zealand surveys conducted in 2007, 2009, 2011, 2013 and 2015 - as well as the comparative reports completed in 2011, 2014 and 2016 – provide a remarkable record of the changes in New Zealanders' use and attitudes towards the internet over time. From 2017, conduct of the World Internet Project NZ passes from AUT's Institute of Culture, Discourse & Communication, where it has been headquartered since 2007. From 2017 the project is to be managed and implemented by the New Zealand Work Research Institute, also at AUT, headed by its Director, Professor Gail Pacheco.

Methodology of WIPNZ

The data presented in this report are based largely on telephone surveys carried out on our behalf by Phoenix Research Ltd in each of the five waves since 2007. The 2013 and 2015 waves included

additional online survey respondents in order to allow the inclusion of those who do not have a landline at home, which is a growing proportion of New Zealanders. These online interviews were administered by BuzzChannel. The 2015 sample also had a small number of face-to-face interviews (n=29) carried out in South Auckland to assess this area's take up of ultra-fast broadband for another smaller study.

The 2007 survey was based on a simple random sample of New Zealanders together with three random booster sub-samples targeting meshblock areas with high proportions of Māori, Pasifika and Asian populations. From 2009 on, the survey design included recontacts from previous waves of WIPNZ in addition to a simple random sample with targeted boosters for under-represented ethnic groups. The first three waves of the survey also included 12–15 year olds, while the 2013 and 2015 surveys sampled only those aged 16 and over. For the purposes of this report, 12–15 year olds have been removed from the data for the first three waves. Having removed the youngest respondents from the first three waves, each year of data was re-weighted according to the principles and formulae used in 2013 (based on Statistics New Zealand estimates relevant to each year) to ensure that the respondents are representative of the New Zealand population in terms of key demographics: age, gender and ethnicity, and correcting for likelihood of selection according to the number of adults in the household.

The final analysed sample, across all years, is based on 7232 completed responses. Despite efforts to create continuity between the samples, the fact remains that the 2013 and 2015 data come from a different sample design from 2007-11. This needs to be taken into account when comparing 2013 and 2015 data to results from previous years. Similarly, the first three waves of the survey should be viewed bearing in mind that they exclude those with no landline. Most graphs present information about all respondents or about internet users only. The full survey and analysis methodology is presented in Appendix A, detailing the shape and treatment of the database from which these results are drawn, as well as giving indicative confidence intervals for the results. For the internet users subset (n=1189, 1033, 1071, 1847, 1258 for each of the five waves, respectively), 95% confidence intervals vary from approximately ±2.0% on percentages under 20% or over 80%, to around ±2.5% on percentages in the 20%–80% range.

Conclusion

As a member country of the World Internet Project, New Zealand can compare itself with the other international project partners as a way to monitor developments and trends in usage from a global perspective based on the common questions that are asked in the survey. These questions cover aspects such as demographic patterns in internet use and non-use, perceptions of the internet and other media, user engagement with e-government and e-commerce, the effects of the internet on social relationships, cultural influence and online content creation.

Internationally, New Zealand has been positioned as a country with a high level of internet diffusion since the first WIP cross country comparison report was published in 2009. More recently in the sixth WIP international report (2014), New Zealand stood alongside countries such as Australia, Sweden, Qatar, Switzerland, Spain, Saudi Arabia and Bahrain, which all have internet penetration of more than 80 percent.

The data collected in the WIPNZ surveys and in the international reports has been invaluable to numerous organisations, government departments, educational institutes, businesses and individuals in New Zealand and around the world. The various surveys have been referenced frequently in documents and other research outputs as the WIP has established itself as a comprehensive and informative baseline in the understanding of the various social, cultural and political impacts of the internet in New Zealand and elsewhere. Such information assists in the planning and decision making of governments and organisations as well as a general understanding by people in general of the changes that are occurring in our lives as a result of technological advancements. More details about global WIP comparisons can be found here: http://www.digitalcenter.org/world-internet-project/

References:

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Chapter 2
Key Findings 2007–2015

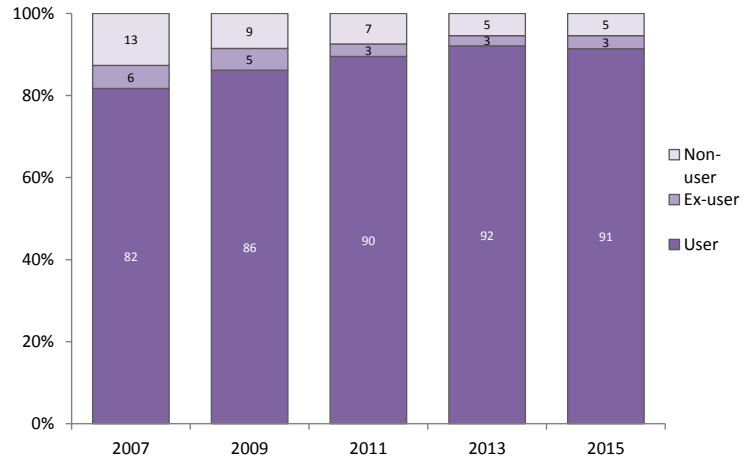
This chapter covers the main top-level trends over time, looking at each year's sample in its entirety. The results are grouped into thematic sections, beginning with a look at overall usage patterns, where we see the steady rise of internet use in general, the decline of dial-up, and the upsurge in mobile use, along with the increasing importance of the internet to the everyday lives of New Zealanders.

Results are presented as percentages. Each result is briefly discussed alongside a graph showing the proportions of respondents in each response category. Presentation of results includes the following details:

- Survey question wording: The full wording of the relevant survey question is given alongside each graph. This allows the presentation of truncated wording to describe questions on the graphs themselves. The number of the question as listed in the WIPNZ 2015 questionnaire is also given. The questionnaire is available online at wipnz.aut.ac.nz. Changes in question wording across the different waves of the survey are also noted.
- Base: A description of the set of respondents of whom the question was asked. Most commonly, this is either all respondents or all internet users. Some questions were asked of different or more restricted groups, depending on the relevance of the question to the group.
- Methodological notes: Underneath certain graphs are notes detailing methodological issues such as wording changes in the survey from year to year. These notes also clarify the presentation of certain graphs and give indications of where caution should be used in interpretation.
- Confidence intervals (with a 95% significance level) for the internet users subset vary from approximately ±2.0% on percentages under 20% or over 80%, to around ±2.5% on percentages in the 20%–80% range.
- Numbers (in %) are rounded to integers, and displayed on graphs for all but the smallest of results.

Usage Patterns

User status



Base: All respondents. (2007 n=1455; 2009 n=1198; 2011 n=1196; 2013 n=2006; 2015 n=1377). Note: A large proportion of the 2013 and 2015 samples conducted the survey online and thus could not have been non-users. The user figure for these years may therefore be slightly overestimated. | Note: The figures for 2007–2011 are based on reweighted samples correcting for age biases (towards older age groups) that existed in previous waves. These reweighted data also exclude respondents aged 12–15 to allow comparison with the 2013 and 2015 samples which did not include under-16s. The figures reported here are therefore somewhat different to those reported in original reports for prior years, though generally within the confidence intervals of those figures.

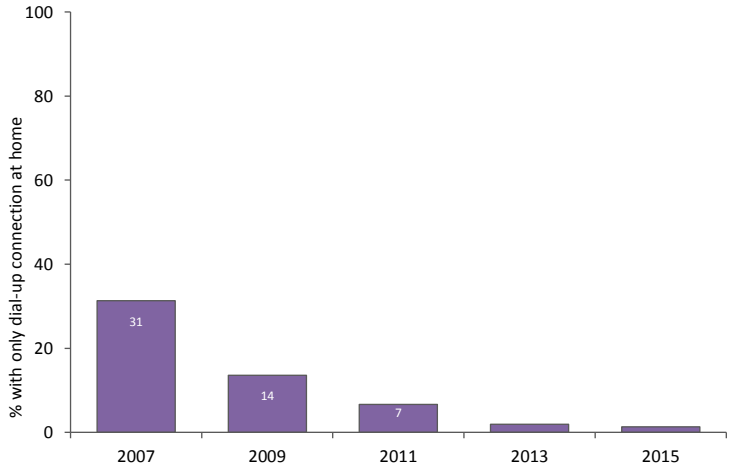
Q1: Do you currently use the internet?

Q1B: Has there ever been a period of time in the past when you have used the internet?

The most basic measure in the WIP survey is that of internet usage. The percentage of internet users in New Zealand has been rising steadily since the first survey in 2007, when 82% of respondents were internet users. By 2011 that had reached 90%, with 92% in 2013 and 91% in 2015. This suggests a levelling effect, with the proportion of users settling at slightly over 90 percent, and non-users totalling under 10 percent.

While over nine out of ten New Zealanders are internet users, it is important to consider whether the impacts of *not* using the internet are increasing. As the internet becomes accessible nearly everywhere, new difficulties may arise for the minority of New Zealanders who are not users. New technology can also create new divides, so that the category of 'users' increasingly needs to become differentiated: some users may be relatively disadvantaged by not using certain devices.

Connection type at home: Dial-up only



Base: Internet users having an internet connection at home | Note: Those that belong to the panel from which online respondents were drawn are highly likely to have broadband access in order to complete surveys, the dial-up only estimates for 2013 and 2015 may therefore be underestimated.

Q5A: What type of internet connection do you have at home?

In 2007, the unavailability of broadband was a hot issue in New Zealand, with nearly a third of users whose home access to the internet was restricted to a dial-up connection.

Eight years on, dial-up has moved towards obsolescence. Many of those who say they have a dial-up connection at home also have the ability to connect through a mobile phone. But the norm for household access is now to have broadband connections of various types.

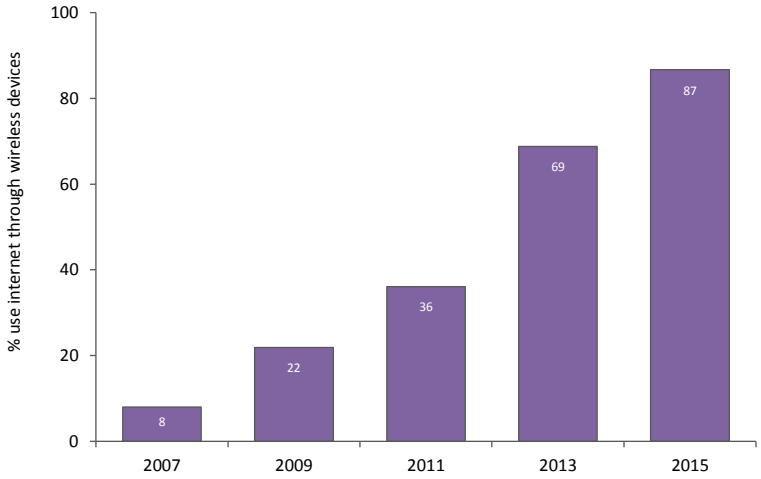
2011 - 2015
Q2: Do you use the internet through wireless hand-held devices, such as a mobile phone or iPad?

2007 & 2009
Q2: Do you use the internet through wireless devices such as a wireless computer or a mobile phone from any location?

To reflect the development and spread of wireless technologies, the wording of this question was changed in 2011 to exclude laptops and focus solely on 'hand-held' devices, such as smartphones and tablets.

The growth in wireless uptake has been steep, particularly given this narrowing definition of devices. It rises from 8% of internet users in 2007 to 87% in 2015. Note that this 2015 figure (87%) is similar to the 2009 figure for all usage (86%: previous page, top). We may anticipate that wireless access will start to level off in future surveys.

Accessing internet through a wireless* device



Base: Users | *Note: different questionnaire wording in different years.

Q3: On an average day, how much time do you spend on the internet in each of the following locations … ?
1. at home
2. at work, not in the home

Q2A: On an average day, how much time do you spend using the internet through wireless hand-held devices such as a mobile phone or a tablet?

Almost all (99%) internet users accessed the internet from home in 2015, and nearly half of users are now online at home for three hours or more on an average day. That is over three times the 2011 figure.

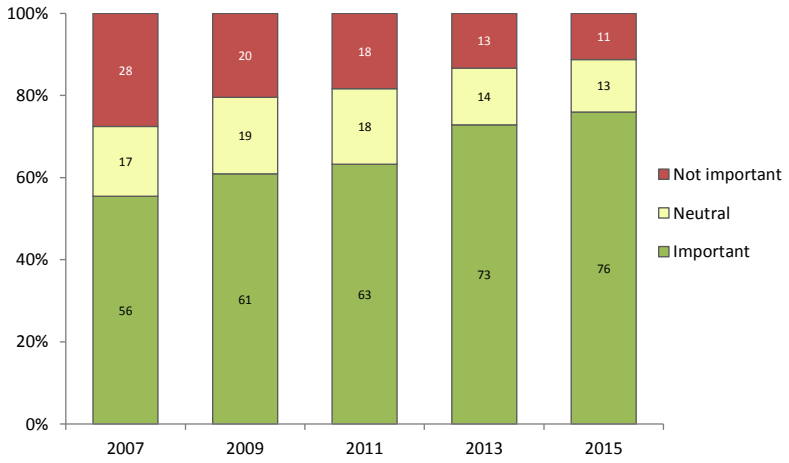
A dwindling percentage of employed internet users (13%) do not go online at work on an average day, compared to 35% in 2011.The proportion using the internet at work for three hours or more has doubled to 40%.

Just as overall use of mobile devices has increased, the amount of time per day people spend online using them is growing dramatically. A third of users now spend three hours or more online using these handheld mobile devices.

Hours online on an average day

Base for use at home: All internet users | Base for use at work: Employed internet users (2011 n=759; 2013 n=1300; 2015 n=866) | Base for use on a mobile handheld device: All internet users | Note: Previous WIPNZ surveys have asked about time spent online in 'a typical week' – the 2013 and 2015 surveys updated this to 'an average day'. Figures from 2011 were divided by 7 for home and mobile, and by 5 for work, to get an estimate of the hours online on an average day.

Importance of internet to everyday life



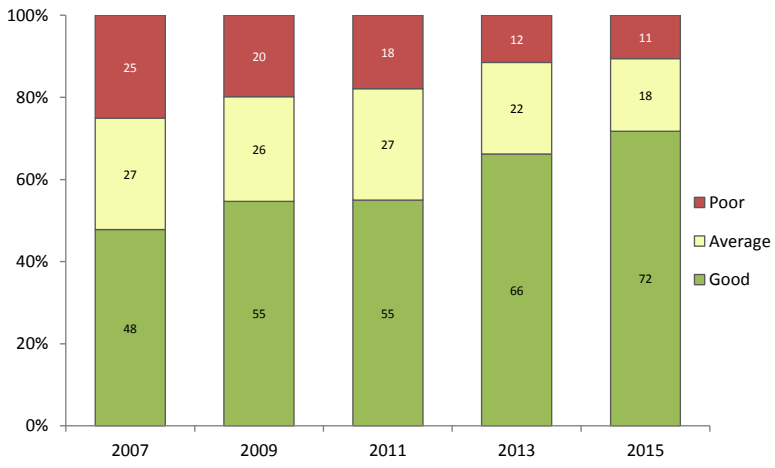
Base: All respondents. Note: On several graphs throughout the report, we represent results from five-point Likert scales in three categories, grouping together responses 1–2 and 4–5. The names given in legends are derived from the wording on the various scales in their original forms which can be found in the WIPNZ 2015 questionnaire.

Q50: Overall, how important is the internet to your everyday life?

As internet access moves towards saturation amongst respondents, its perceived importance continues to rise. In 2015, 76 percent of respondents (including non-users) feel that the internet is important or very important in their everyday life, compared to 56% in 2007.

The responses largely reflect people's user status. In 2015, only four individual non-users said the internet was important to them, while just 4 percent of users said the internet was *not* important to them.

Rating of ability to use internet



Base: All respondents.

Q11: How would you rate your ability to use the internet?

In 2007, one in four New Zealanders rated their ability to use the internet at 1 or 2 on a 5-point scale (shown on the graph as 'poor'). The size of this group has shrunk in each survey, and now only one in nine has low confidence in their online literacy.

Conversely, the proportion (including non-users) who rate their ability to use the internet as good or better has risen substantially, from just under half in 2007, to nearly three quarters in 2015.

Information Seeking

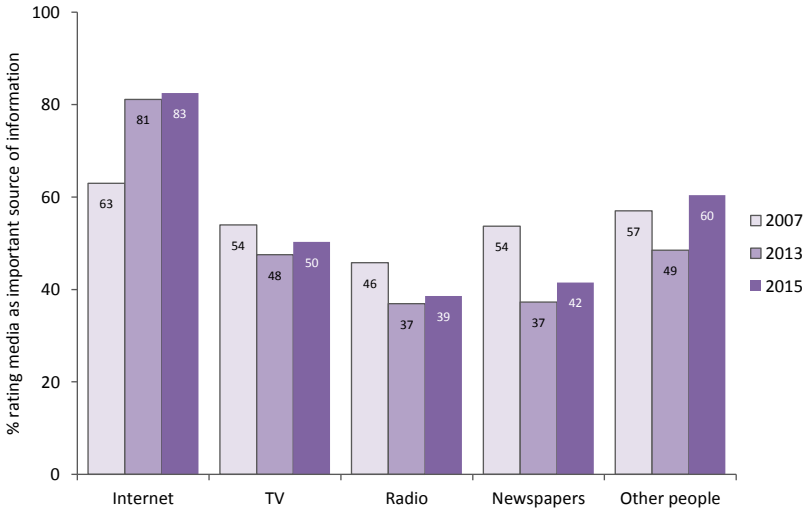
Q18: How important is each of the following to you as a source of information in general?

- *The internet (through any device and including online media)*
- *Television (not online)*
- *Newspapers (not online)*
- *Radio (not online)*
- *Other people such as family and friends*

The graph compares 2007 with 2013 and 2015. The internet was already seen as the most important source of information in 2007 (by 63 percent). This emphasis has increased across surveys to 83% in 2015, while mainline media are seen as decreasingly important. Newspapers that have lost the most ground.

Interestingly the 2013 downwards trend for 'other people' to be cited as an important source of information has been reversed in 2015 to register higher (60%) than in 2007 (57%), and much higher than 2013 (49%). An explanation for this could only be speculative and must await findings from future surveys.

Rating information sources



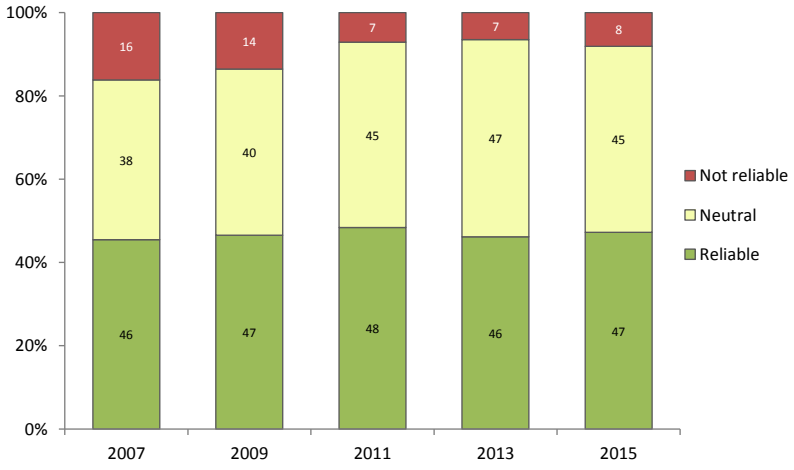
Base: All respondents | Note: Since 2007, television, radio and newspapers have increasingly moved online, as mass media converge. The questionnaire in 2007–2011 did not specify whether respondents were to consider online forms of these media when rating their importance. The 2013 and 2015 surveys clarified that we were interested only in offline TV, radio and newspapers. This graph (and the later graph on the importance of media for entertainment) presents a comparison of 2007 to 2015, based on the assumption that take-up of online media was much lower then, and that responses will have largely related to offline media. Note also, that over 2007–2011, the importance ratings of newspapers and radio did decrease, while the importance of these media online have no doubt increased, therefore we can assume that even with the lack of clarification, most respondents understood the question as referring to offline media. It is likely that the figures for television in 2007 are very reliable, slightly less so for radio (in 2007, 28% of users listened to a radio station online), and least reliable for newspapers, since online newspapers were already fairly popular in 2007.

Q51: In your opinion, how much of the information on the internet overall is generally reliable?

The level of scepticism over the reliability of information online has levelled out over the past three surveys. From 2011-15, only 7-8 percent of people (including many non-users) feel that it is unreliable.

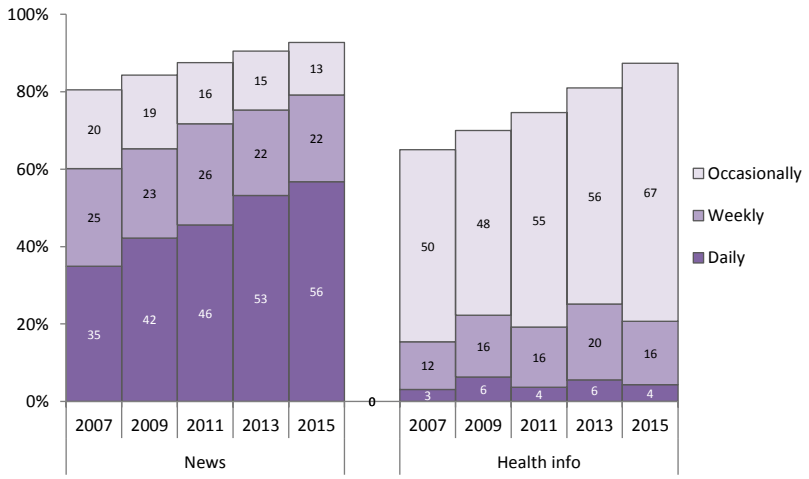
However, this decrease in scepticism compared to 2007-09 is not replaced by trust. The proportion of those who believe internet information is reliable has remained noticeably stable (46-48%) across all surveys. The reduction in scepticism has come from among those who were previously neutral rather than reflecting any negative shift of opinion by those who have accepted the reliability of internet information.

Reliability of information on internet



Base: All respondents | Note: Results are based on a 5-point scale from 'none of the information online is reliable' to 'all of it is reliable'.

Information seeking (1): News and health



Base: Internet users | Note: The data in its original form included the following six categories: 'several times a day', 'daily', 'weekly', 'monthly', 'less than monthly', and 'never'. In many graphs reporting this kind of frequency information throughout the report, 'monthly' and 'less than monthly' are grouped together and represented as 'occasionally', while 'daily' and 'several times a day' are grouped together as 'daily'. The blank space above each bar represents the percentage of users who 'never' do the activity in question.

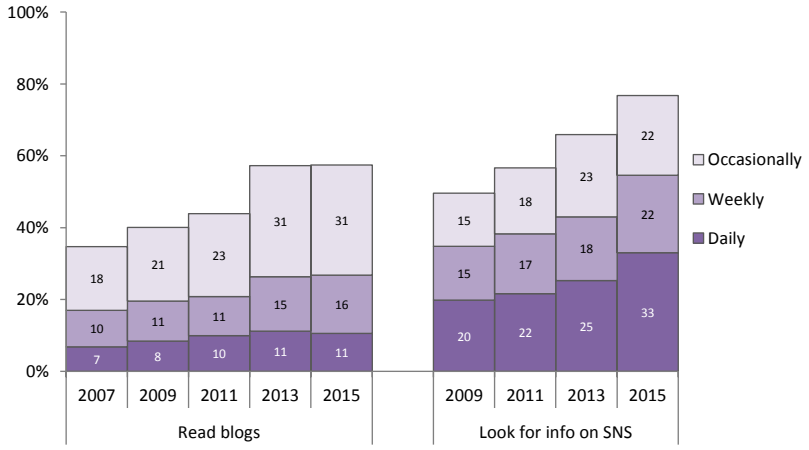
Q21: How often do you use the internet for the following purposes?

- *Look for news – local, national, international*
- *Look for health information*

The total proportion of users looking for news online has continued to increase in small but steady increments. From 80% in 2007 it has risen gradually to 91% in 2015. The proportion looking for news daily or more often has, however, grown substantially larger, from 35% in 2007 to 56% in 2015.

Searching for health information has also grown steadily overall to 87%, but the frequency of looking for such information has not changed greatly.

Information seeking (2): Blogs and SNS



Base: Internet users | Note: Some results showing sudden increases in 2013 and 2015, such as for reading blogs, should be interpreted with some caution. As described earlier in this report, the sample composition in 2013 and 2015 is very different to previous years, including a large component of online respondents, drawn from a panel. These respondents may have certain characteristics and biases that are not representative of the population as a whole. The inclusion of such people in the sample could conceivably inflate results on certain questions.

Q21 (cont.)

- *Read blogs*
- *Look for information on a social networking site*

Internet users have increasingly turned to non-traditional sources of information online such as blogs and social networking sites (SNS).

The use of SNS sites for information shows the typical upward trend from 50% in 2009 to 77% in 2015, with commensurate rises in frequency of use.

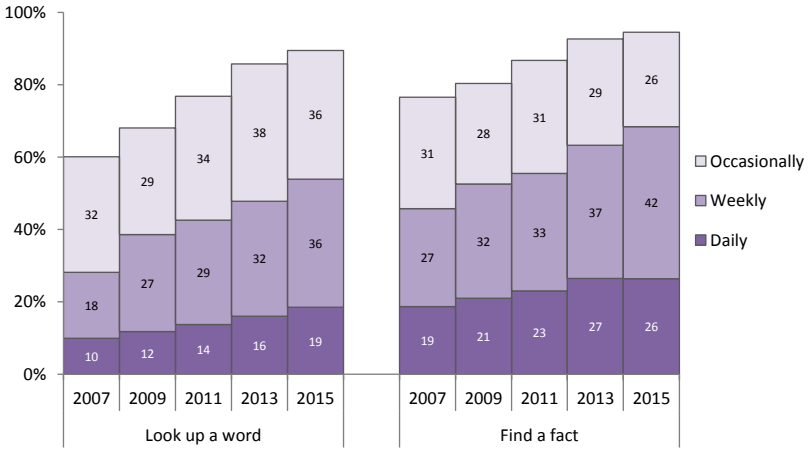
Perhaps more interesting is the absence of growth for reading blogs, with the 2015 figures almost identical to 2013. Users may be being drawn to other, newer formats or genres.

Q38: Some people use the internet for classes or to support their learning, many others do not. How often, if ever, do you use the internet for the following purposes?

- *Look up a definition of a word*
- *Find or check a fact*

There is a steady increase over time in two core information seeking activities online. Looking up the definitions of words online is now something that 91 percent of users do. 94 percent find facts on the internet, and 26 percent say that do that daily

Information seeking (3): Words and facts



Base: Internet users.

Entertainment and Leisure

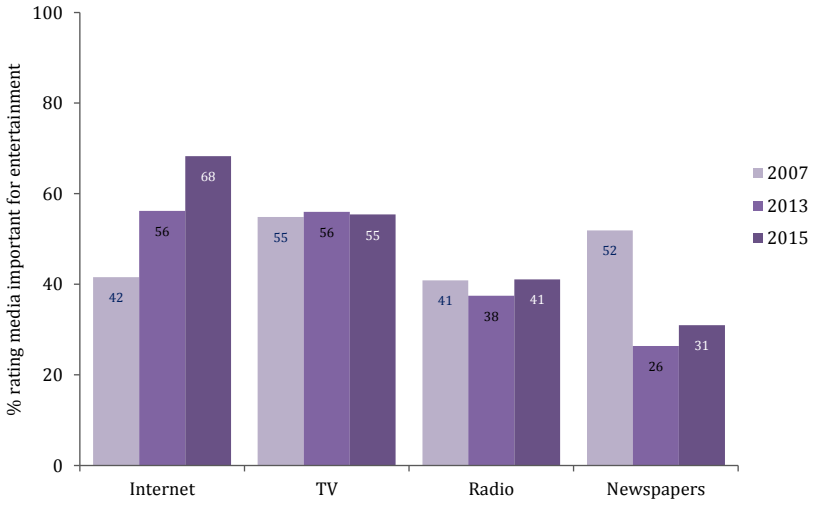
Q17: How important is each of the following media to you as a form of entertainment?

- *The internet (through any device and including online media)*
- *Television (not online)*
- *Newspapers (not online)*
- *Radio (not online)*

There has been a marked shift in preferred entertainment sources over the past eight years. In 2007 the internet was important for entertainment to 42 percent of respondents. 55 percent of respondents rated television important, and 52 percent newspapers.

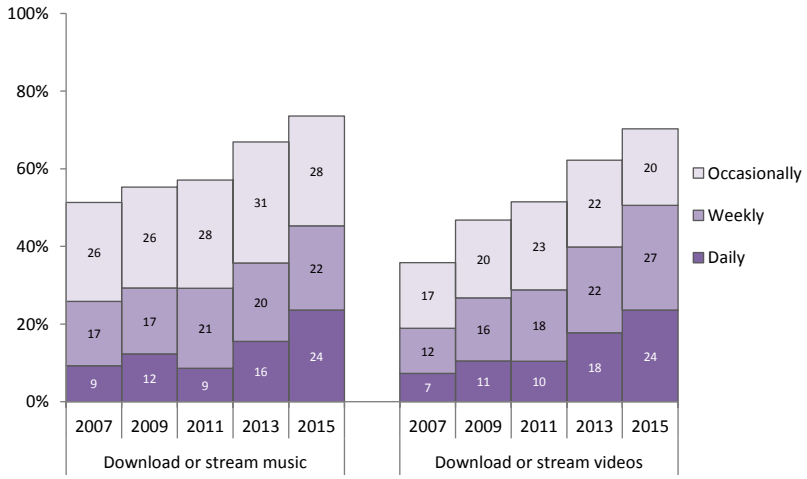
The internet in 2015 is now firmly the leading entertainment source: 68 percent of our sample rate it as important in 2015, compared to television's 55 percent. Radio has held its own at around 40 percent, but the striking 2013 decrease for newspapers has recovered only little in 2015.

Rating entertainment sources



Base: All respondents | Note: The wording of this question was changed in 2013. See the note on the earlier 'Rating information sources' graph for details.

Online entertainment (1): Music and video



Base: Internet users.

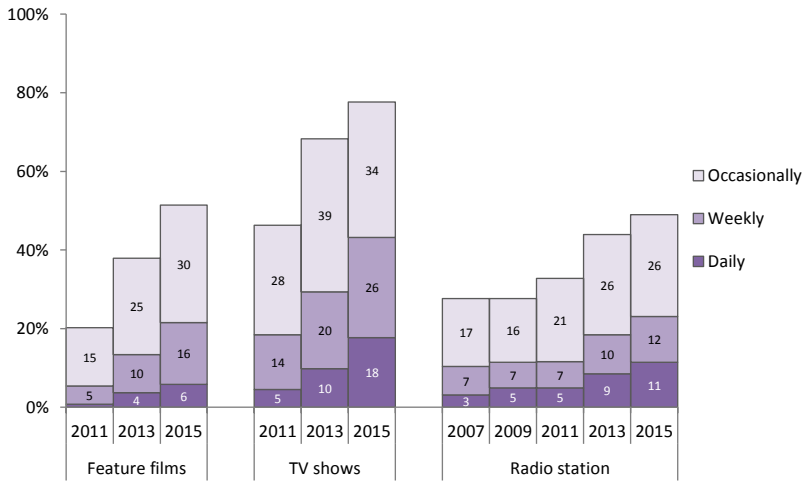
Q19: Now I'd like you to think about the routine things you do for personal entertainment, like playing games or listening to music. How often do you use the internet for the following purposes?

- *Download or listen to music online*
- *Download or watch videos online*

Downloading or streaming video, for example on YouTube, has continued to grow steadily since 2007, both in overall penetration and in frequency. In 2007, 36% of internet users at least occasionally watched videos online, almost doubling to 71% in 2015.

Downloading or streaming music has followed a similarly popular trend to 74 percent. Notably, a quarter of users now say they access music or videos daily.

Online entertainment (2): Films, TV, radio



Base: Internet users.

Q19 (continued):

- *Listen to a radio station online*
- *Watch TV shows online or on demand*
- *Download or watch feature films from the internet*

The converse to the drop in traditional delivery of mass media is an increase in online reception.

78 percent of internet users now watch TV shows online at least occasionally, a rise from 47% in four years. Downloading or streaming feature films depends on a good, fast internet connection: half of users engage in this activity in 2015, up from 21% in 2011. And while in 2007, 27% of internet users listened to radio stations through the internet, that figure has now reached 49%.

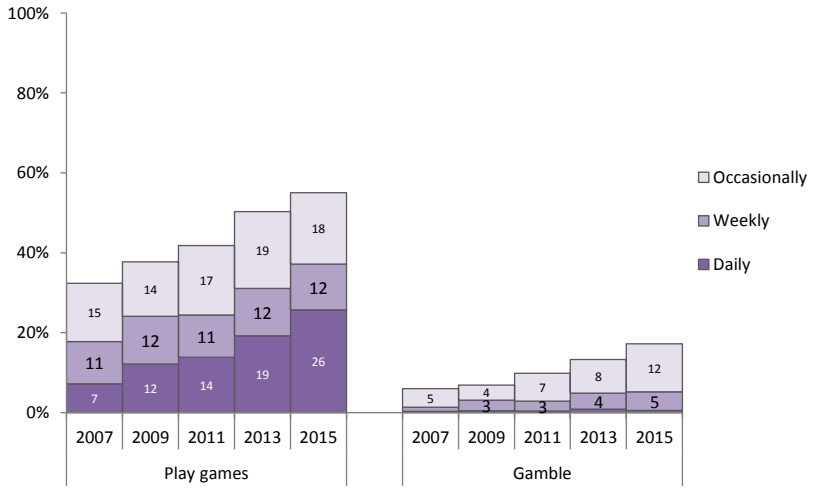
Q19 (cont.):

- *Play games online*
- *Bet, gamble or enter sweepstakes online*

While one in three users played games online in 2007, by 2015 well over half (56%) are doing so. In particular daily game-playing has climbed markedly to attract 26 percent of users in 2015.

Online gambling or betting occurs at a very much lower level, but has increased steadily across the surveys from 6% in 2007 to 17% in 2015.

Online entertainment (3): Games and gambling



Base: Internet users.

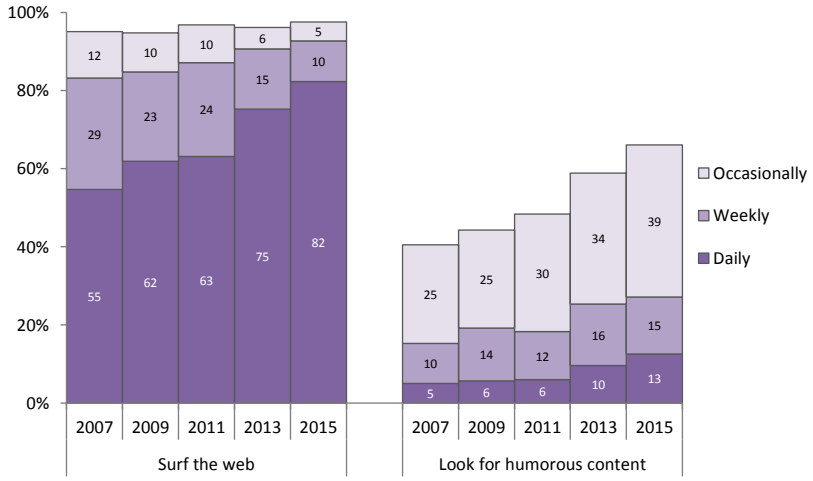
Q19/Q21 (cont.):

- *Surf or browse the web*
- *Look for jokes, cartoons or other humorous content*

Browsing through websites is a basic activity in internet use. Over the five WIP surveys, the total proportion of users doing this has remained constant at some 95–97%. Underneath that, however, there is a continuing increase over time in the proportion of users who do this daily. In 2007 that proportion was 55 percent: eight years later it has reached 82 percent.

The search for humorous content has increased gradually in the eight years, both in absolute terms (40% to 67%) and in daily frequency.

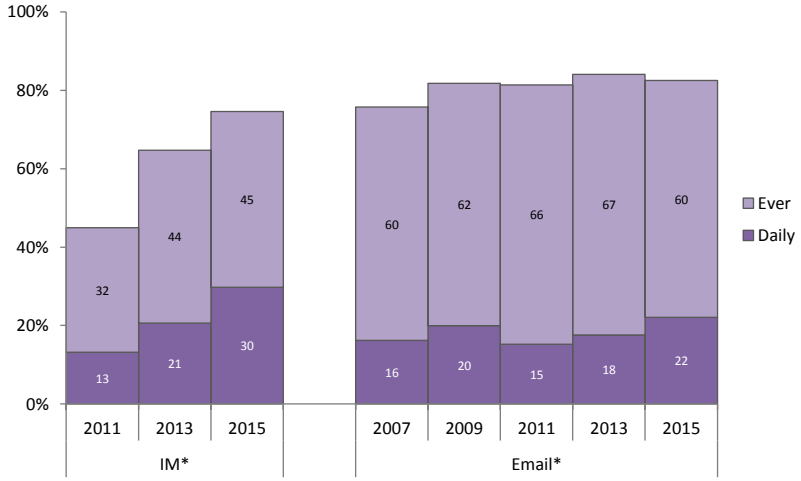
Online entertainment (4): Surf the web, look for humour



Base: Internet users.

Relationships and Communication

Ways of keeping in touch



Base: All respondents | *Note: Questionnaire wording changes from 2013 make these parts of the question less clearly comparable with earlier survey rounds | Note: The use of IM is higher when people living in the same household are included in the question wording, as shown in the results for Q25, below. | Note: In this, and several other graphs throughout the report, the responses 'less than monthly', 'monthly', and 'weekly' have been grouped together and labelled 'ever'.

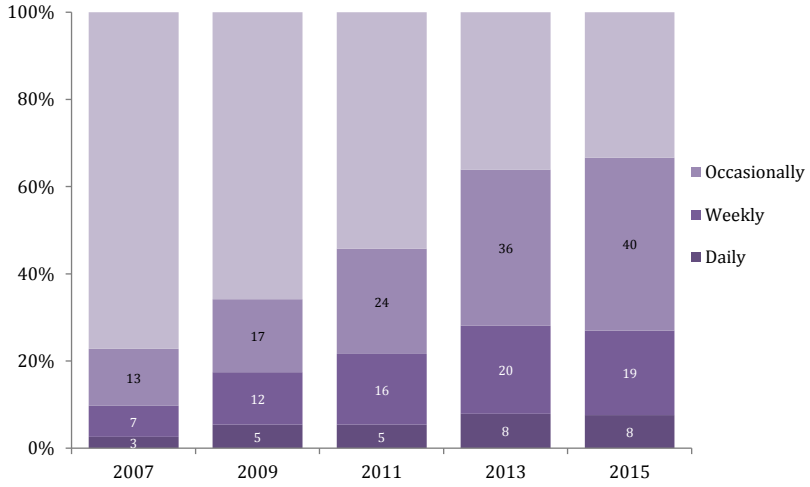
Q30: Thinking of people who do not live in the same household as you, how often do you contact family or friends by... ?

- *2007-2011: Emailing them*
  2013-2015: Emailing them (including sending private messages in a social networking site)
- *2007-2011: Using instant messaging*
  2013-2015: Using any kind of instant messaging (including the chat features offered in Gmail, Facebook or Skype, etc.)

Instant messaging has followed the common trend of a steady rise over time, from 45% in 2011 to 75% of all respondents in 2015.

Email however – the most basic and widespread use of the internet – seems to have already nearly reached saturation in 2007 at 76% of the sample. That plateaued at 82% in 2009, and has stayed at the same level since, except for a slight spike in 2013, which dropped back again in 2015. Daily emailing has fluctuated between 15 and 22 percent, without a consistent trend.

Phone calls over the internet



Base: Internet users.

Q25: Now I'd like you to think about the different ways people keep in touch with each other in their everyday lives. How often do you use the internet for the following purposes?

- *Make or receive phone calls over the internet*

Like emailing, the use of skype or other applications to make or receive phone calls online shows signs of levelling off. After growing steadily from 2007 (23% of users) to 2013 (64%), it moved up only slightly to 67% in 2015. Daily and weekly levels of use have also stabilized.

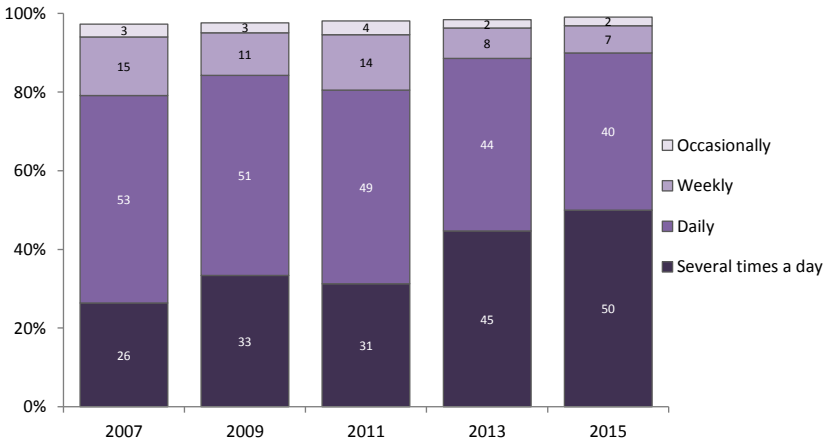
Q25 (cont.):

- *Check your email*

Checking of email has been very high since the first WIP survey, and reached 99% in 2013-15.

Under that, frequency of use has also risen, although not in a straight line. Checking email several times a day has gone from an activity for a quarter in 2007 to half of all users in 2015. But note that a strong age differential is masked by these overall figures, see Chapter 3.

Checking email



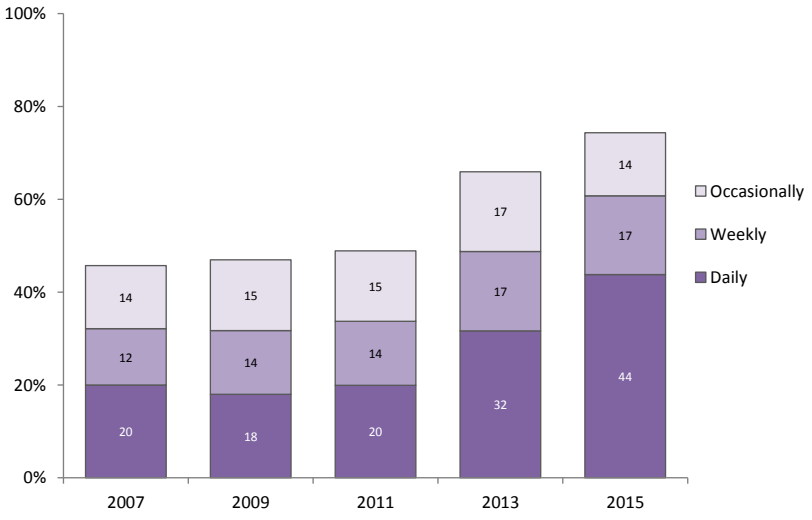
Base: Internet users.

Q25 (cont.):

- *Do instant messaging*

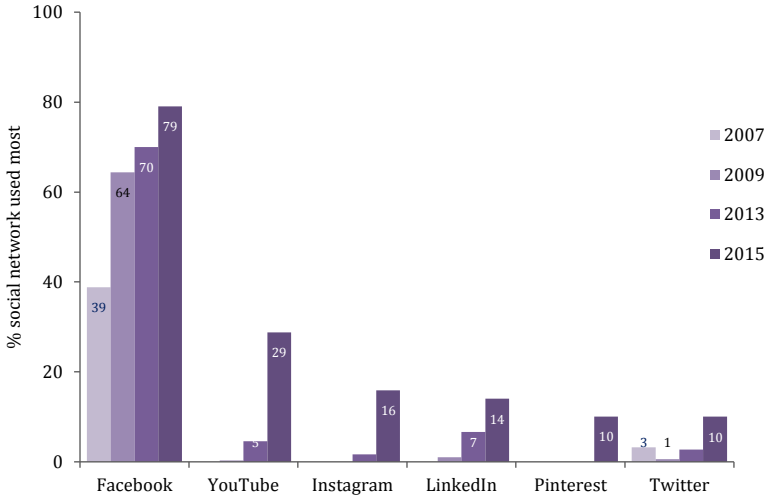
There was a dramatic increase in the reported use of instant messaging (IM) in the 2013 survey, up from unchanging figures across 2007-11. That rise has continued in 2015, both in overall usage and in frequency. 75 percent of users now use IM occasionally, and 44 percent say they do so daily. The increase reflects the spread of smartphone apps such as Snapchat and Whatsapp.

Instant messaging



Base: Internet users | Note: The marked upward trend in 2013 and 2015 relative to previous years could be due to the different sample composition – especially the fact that in 2013 and 2015 a portion of the sample had no landline, while all previous years were based entirely on landline interviews. However, there are also signs that this jump could reflect a genuine change, particularly as there has been a further increase in 2015. There have been reports in the media of IM taking over SMS as the leading form of messaging in the UK since 2013, and the same is likely to be true of NZ.

Social networking site membership



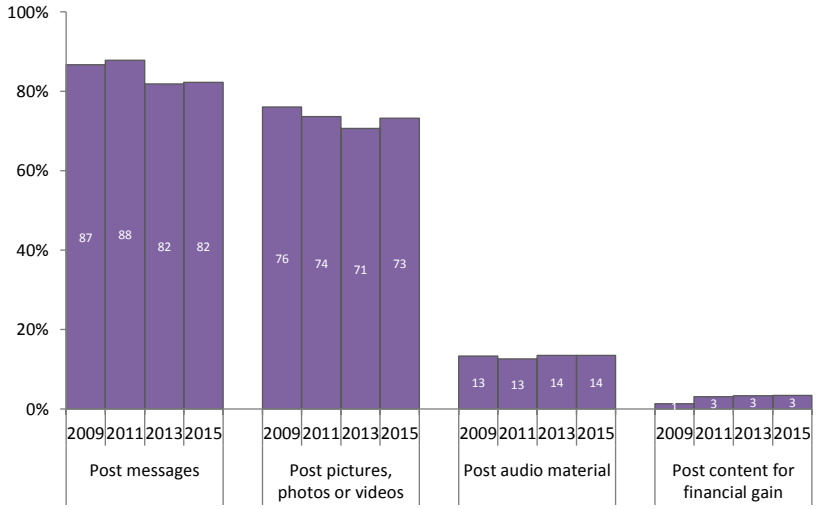
Base: Internet users. | Note: The white space above the bars represents the proportion of users who do not belong to any SNS.

Q23: Are you a member of a social networking site or sites, e.g. Facebook, Google Plus, LinkedIn?

Q24: Which social networking site do you use most often?

Overall social networking site (SNS) membership has grown considerably since 2007. The most salient change in 2015 is the considerable diversification beyond Facebook. Whereas in 2013, Facebook held at least 90% of SNS members, in 2015 membership of sites such as YouTube, Instagram and LinkedIn has climbed dramatically. The combined memberships of the alternative sites is now nearly equal to the membership of Facebook.

Content creation and sharing



Base: Users who are members of a SNS.

Q24A: Thinking about the social networking site or sites you use, do you ... ?

- *post messages*
- *post pictures, photos or videos*
- *post audio material*
- *post content for financial gain*

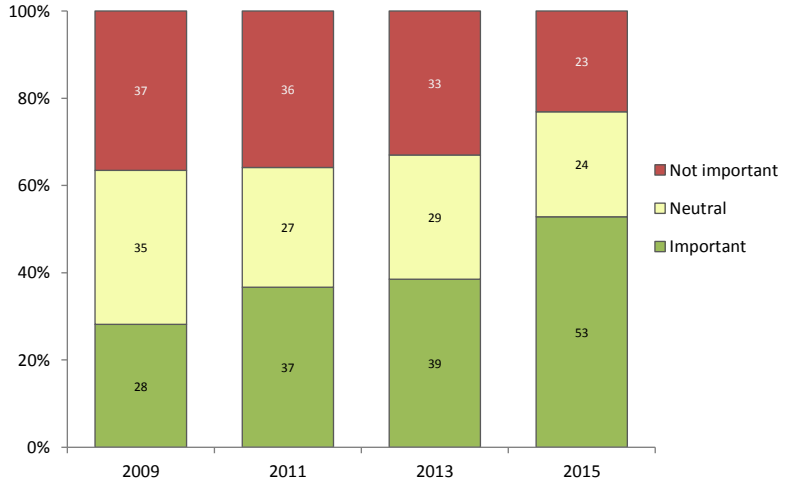
While more and more internet users have SNS memberships, there is a tendency for a minority of them to not actively create content on site. Posting material of various kinds has tended to stabilize (audio) or decrease (messages, pictures/video) over the eight years of the WIP surveys.

Posting content for financial gain remains relatively and consistently rare.

Q26. How important are social networking websites to your everyday life?

The importance of social networking sites to users has increased markedly since 2013. In that survey 33 percent said SNSs were not important, which drops to 23% in 2015. And in 2013, 39 percent rated them important, which has jumped to 53% in 2015. This certainly relates to the increased usasge noted above, and also reflects the proliferation of SNS sites in addition to Facebook, giving users a wider range of choices.

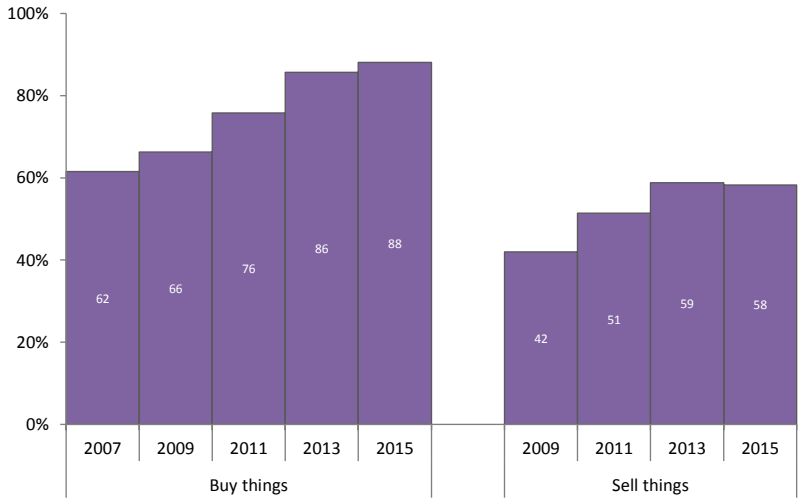
Importance of social networking sites to everyday life



Base: Users who are members of a SNS.

Consumer Transactions

Online consumer transactions (1)



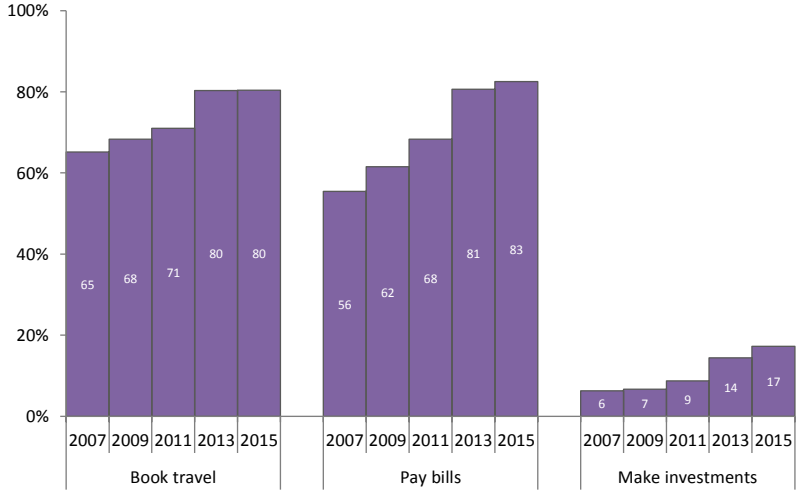
Base: Internet users.

Q31: Now I'd like you to think about different transactions people do in their everyday lives like banking or shopping. How frequently do you use the internet for the following purposes?

- *Buy things online*
- *Sell things online*

The basic online activities of buying and selling goods show signs of levelling out across time. After steady increases since the early WIP surveys, the 2013 and 2015 figures remain much the same for buying and for selling. It will be particularly interesting to see if online selling stays at about the current 58% level in future surveys.

Online consumer transactions (2)



Base: Internet users.

Q31 (cont.):

- *Make travel reservations/bookings online*
- *Pay bills online*
- *Invest in stocks/funds/bonds online*

Similarly to general buying, online transactions for booking travel and paying bills have changed little between 2013 and 2015 after consistently growing before then. Both are at or slightly above 80% in 2015.

Making investments online is not a common activity, but it continues to increase – from just 6% of users in 2007 to 17% in 2015. Now one in six users are making investments through an online facility.

Q31 (cont.):

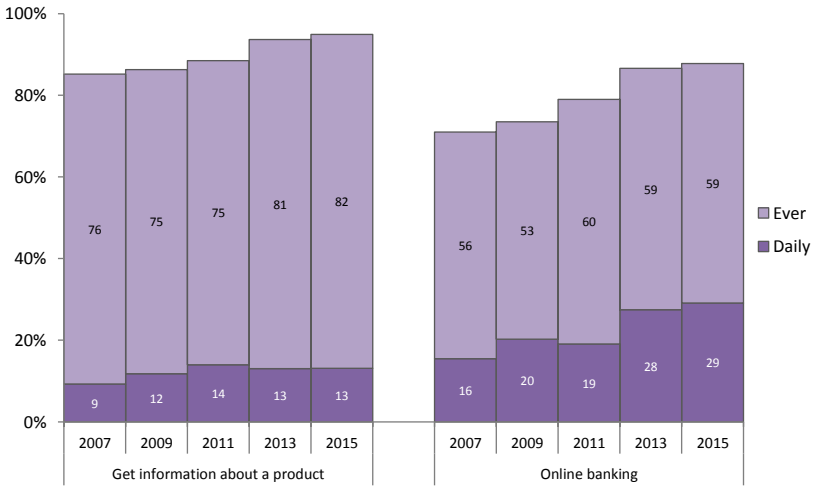
- *Get information about a product online*
- *Use your bank's online services*

Almost all users (95%) search the internet to get product information.

Online banking has reached 88 percent of users, with a notable proportion of 29 percent using their bank's online services every day.

Both these activities may also be levelling out as they approach saturation levels of usage.

Online consumer transactions (3)



Base: Internet users.

Public Sector and Politics

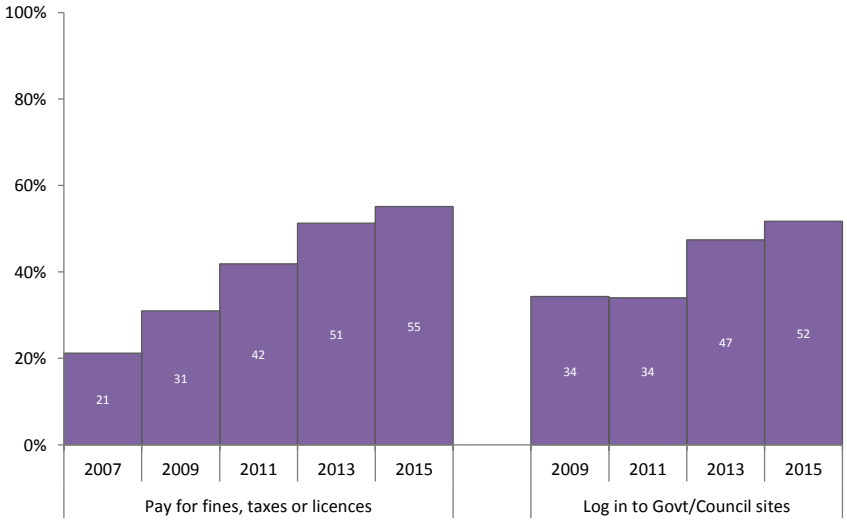
Q34: Talking now about Government information and services, have you used the internet in the past year for the following purposes?

- *To pay for taxes, a fine, or licence online*
- *To log in to secure areas on Government or Council websites*

While in 2007, only one in five internet users had paid for taxes, fines or licences online, by 2013 this proportion had exceeded half of all users. It continues to rise.

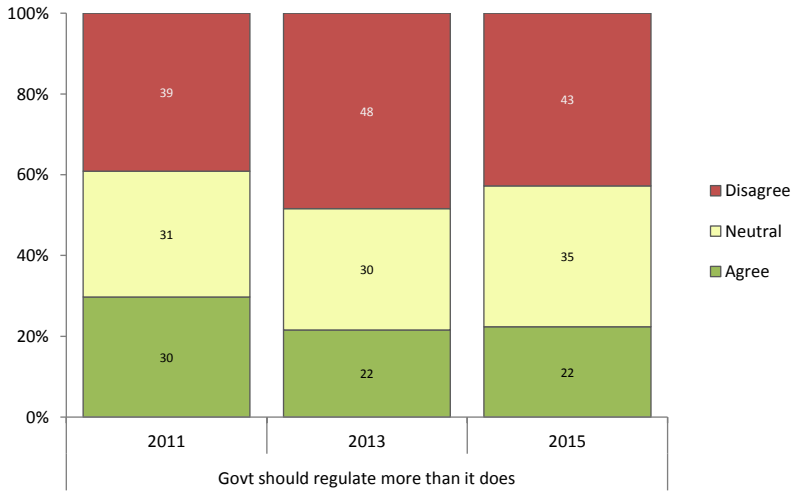
Half (52%) of users in the 2015 survey have also logged on to secure areas on Government or Council websites.

Use internet for public information/services



Base: Internet users.

Opinions about political issues on the internet



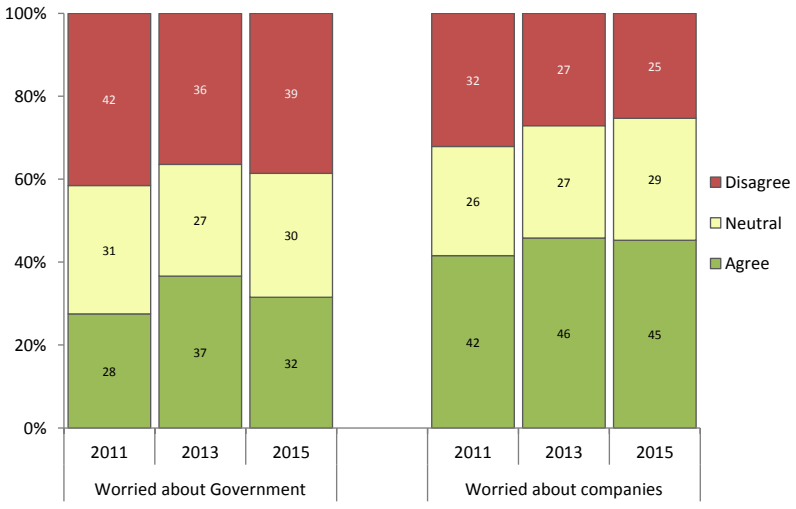
Base: All respondents.

Q37: I'm going to read you a list of statements. Please tell me how much you disagree or agree with each of these statements.

- *The Government should regulate the internet more than it does now*

New Zealanders are consistently sceptical about Government regulation of the internet. In 2013-15, nearly half (43-48%) of the respondents did not agree that the Government should regulate the internet more than it does now. The proportion who endorse more regulation dropped to 22% in 2013 and remains there.

Worried about monitoring of online behaviour



Base: Internet users.

Q37 (cont.):

- *I am worried about the Government checking what I do online*
- *I am worried about companies checking what I do online*

Concern about Government checking up on people's online activity has varied across the three surveys 2011-15, although fewer are worried than not worried in 2015.

There is more concern about companies monitoring online activity, but this is also quite stable across surveys since a rise after 2011.

Internet Security

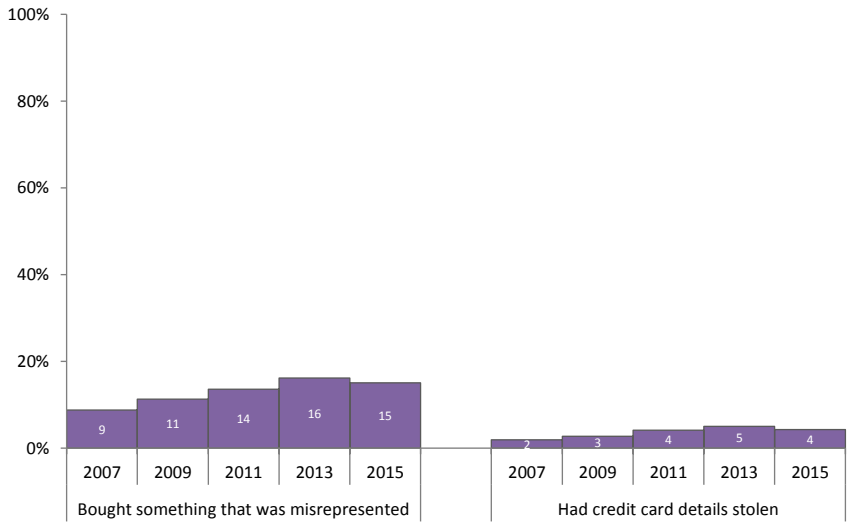
Q48: In the past year have you ...?

- *Bought something which has been misrepresented on a website*
- *Had credit card details stolen via use on the internet*

The internet offers risks as well as opportunities, but users may be perceiving these as levelling out. Purchase of a product that was misrepresented rose from 2007 to 2011, but has evened out since then.

Similarly, theft of credit card details has stabilized at 4-5% in 2011-15 – although that still means one out of every 20-25 users.

Security of buying online



Base: Internet users.

Q46: What rules does your household have regarding use of the internet? Are children guided or told ...?

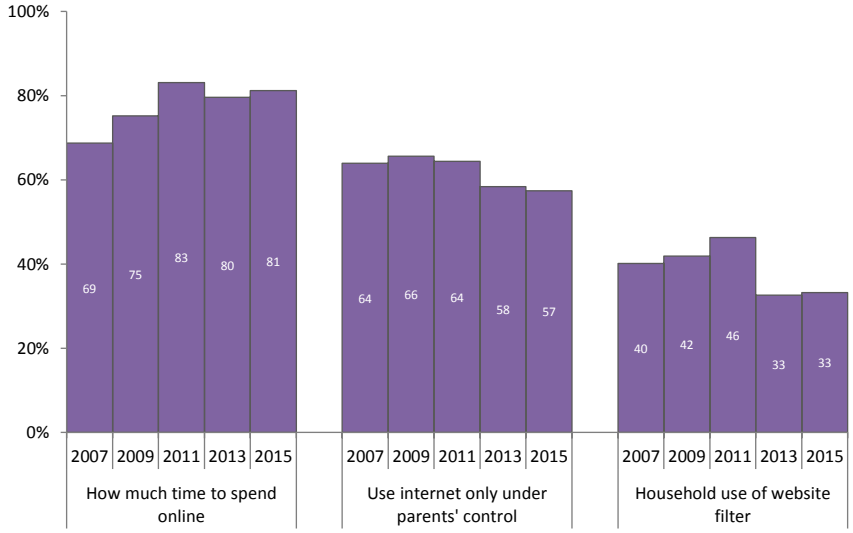
- *How much time to spend online*
- *To use the computer only under parents' control*

Q47: Does your household use a filter that controls or restricts access to certain websites?

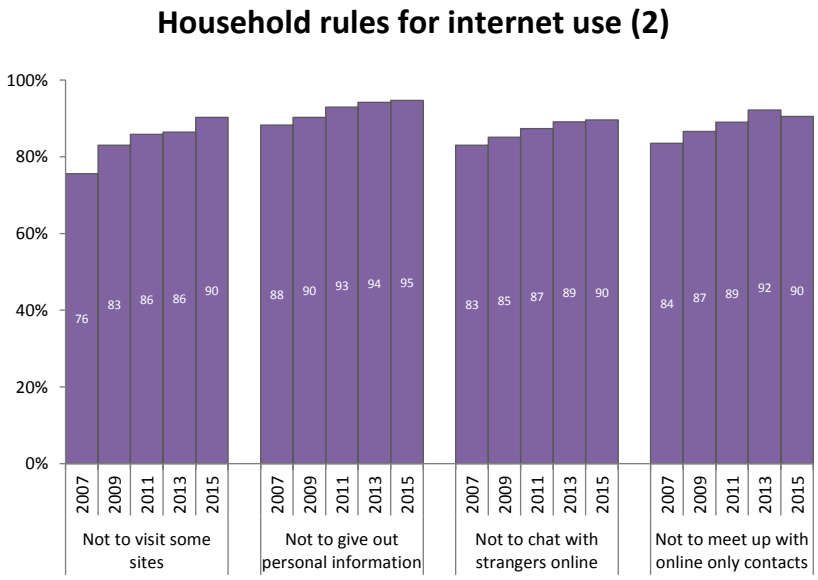
There is a lot of guidance available nowadays for young people concerning internet safety, but it appears that some parents are tending to loosen some restrictions. Both direct monitoring of young people's internet use and the use of a household web filter fell in 2013 and have stayed down in 2015.

Restrictions on the amount of time under-18s may spend on line, however, are being maintained.

Household rules for internet use (1)



Base: Internet users in a household that includes somebody under the age of 18.



Base: Internet users in a household that includes somebody under the age of 18.

Q46 (cont.):

- *Not to visit some sites*
- *Not to give out personal information*
- *Not to chat with strangers online*
- *Not to meet up with someone they've only met online*

The existence of household rules for online behaviours is well embedded in New Zealand society. Slightly more households are applying such rules in each WIP survey since 2007.

Chapter 3
Changing Digital Divides

This chapter highlights some of the most interesting changes over time relating to age group, gender, ethnicity, household income and area (urban–rural). There is evidence that digital divides have lessened over time, though differences still exist, particularly for those who intersect several of the lower access groups, for example, elderly people with a low household income. The chapter begins with a comprehensive look at the proportion of New Zealanders who use the internet in these various groups. One or two variables of interest are then presented from each thematic section of the questionnaire. Each social grouping has tendencies that recur throughout the survey questions. These are briefly summarised here:

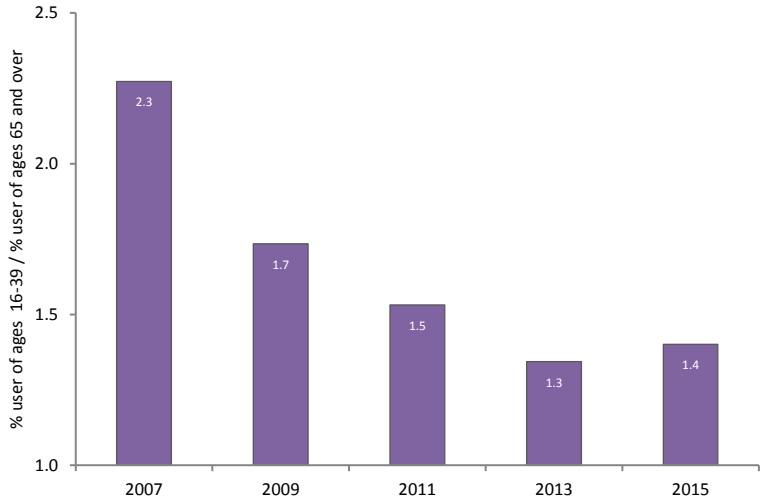
- Age: Internet use decreases as age increases, though the steepness of this trend varies greatly for different online activities. Each activity tends to have its own 'S-curve', with different behaviours being taken on at different times: gradually at first, and then spreading through the population quickly, followed by gradual growth near saturation usage. Different growth rates are seen for different age groups according to how far along they are in their take-up of a given online behaviour. There are also activities which are favoured by certain age groups over others on a more stable basis.
- Gender: Females tend to be higher-end users on social and relational activities, while men are more highly engaged in online entertainment activities. There are, however, no gender differences in terms of overall usage.
- Ethnicity: Asian internet users are more highly engaged across the board, while Pasifika users more often tend to be low-level users.
- Household income: Internet use increases with household income. Higher income households have greater levels of access to multiple devices. However, young people are relatively immune to this effect due to reaching saturation levels of internet access and use.
- Area: Internet use is higher in cities than in towns and rural areas, and this pattern holds true for young people.
- Skill: Aside from the broad social demographic categories listed above, the WIPNZ data can be viewed through other lenses. For example, we include some information about usage patterns according to self-rated ability to use the internet.

As a way of representing changes in the extent of divides between different demographic groups, we present some results in terms of ratios between high-user and low-user groups. This way of viewing the data can capture changing digital divides over time.

Presentation of results includes the following details:

- Base: A description of the set of respondents of whom the question was asked or the group over which percentages are calculated.
- Confidence intervals (with a 95% significance level) are shown as error bars on the simpler graphs in order to give a sense of the margin of error for each population.
- Numbers (in %) are rounded to integers, and displayed on graphs for all but the smallest of results.
- Survey question wording: The full wording of each survey question is not included in this chapter, but can be found in Chapter 2. The questionnaire is also available online at wipnz.aut.ac.nz.
- Graph headings are included above the descriptive text in this chapter rather than over the graphs themselves.
- The graphs on the next page represent the extent of digital divides by calculating the ratio of high-user groups to low-user groups. A higher ratio means there is greater disparity between those groups. For example, when comparing young people (high-user group) to older people (lower-user group), a ratio of 2.0 would mean the young group had twice the percentage of users as the older group. A bar at the very bottom of the chart, at 1.0, would mean the two groups had the same percentage of users. This concept is presented here as a means to capture changes in the extent to which there is a disparity between various groups.

User Status



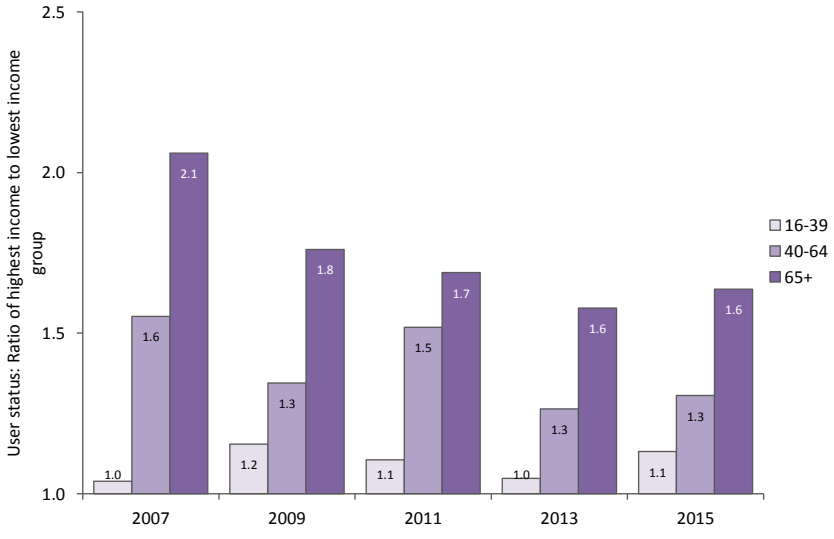
Base: Respondents aged 16–39 and respondents aged 65 or over.

User status: Ratio of young to old

The previous graphs show that use of the internet is still affected by age and income, and other factors such as area and ethnicity also have an impact. However, there are signs of the extent of these divides shrinking since 2007.

This graph shows the reduction of the digital divide for usage of the internet in terms of age, by looking at the ratio of the percentage of users in the younger group (16–39) compared to the percentage in the older group (65+).

In 2007, respondents under 40 were 2.3 times as likely to use the internet as those aged 65 or over. This ratio decreased in each survey until 2013 when it had fallen to a ratio of 1.3. However, it has edged up slightly again in 2015 and sits at 1.4 - meaning the young group were 1.4 times more likely than the older group to use the internet.



Base: Respondents from the lowest and highest household income groups.

User status: Ratio of 'rich' to 'poor' for different age groups

Household income and internet use are strongly related for older people, while young people's usage rates are high independent of income.

The gap in internet usage between 'rich' and 'poor' was very large for those aged 65 and over in 2007. Those with the highest household incomes were more than twice as likely to be internet users than those with a low household income. This divide decreased greatly through to 2013, but appears to have turned up again slightly in 2015. The divide has also decreased, if somewhat erratically, for the middle age group.

Across all five survey rounds, there has been relative equality in internet use for young people in terms of household income.

User status: Age

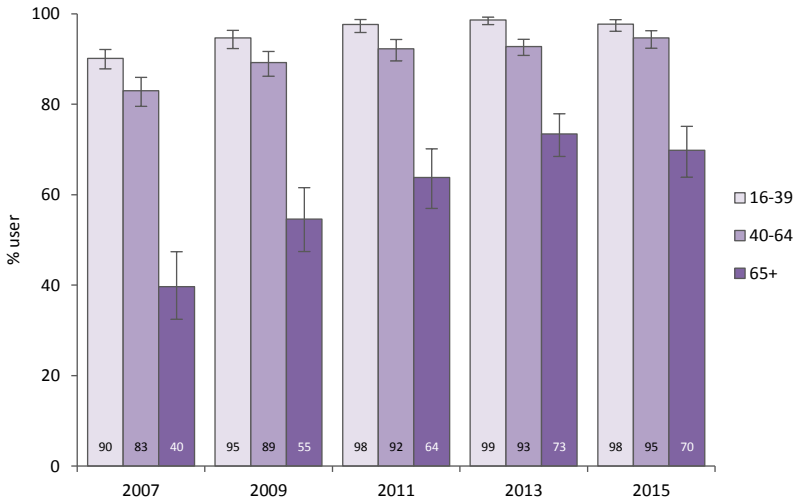
Age remains the main demographic differentiator of internet usage, although the usage has increased significantly over time for all age groups since 2007.

For people under 40, that has stabilized since 2011 at 98-99% of all respondents.

The middle-aged group (40-64 years) continues to show only slight increases from survey to survey since 2009, and now sits at 95% in 2015.

After large increments in each survey, starting at 40% in 2007, the oldest age group (65+ years) peaked at 73% in 2013, and has now eased back again to 70%. That seems likely to pick up growth again in future surveys as internet-using people move up into that age bracket.

The significant difference between age groups may result in digital disadvantage for some older people, although it may also reflect personal choice for others.

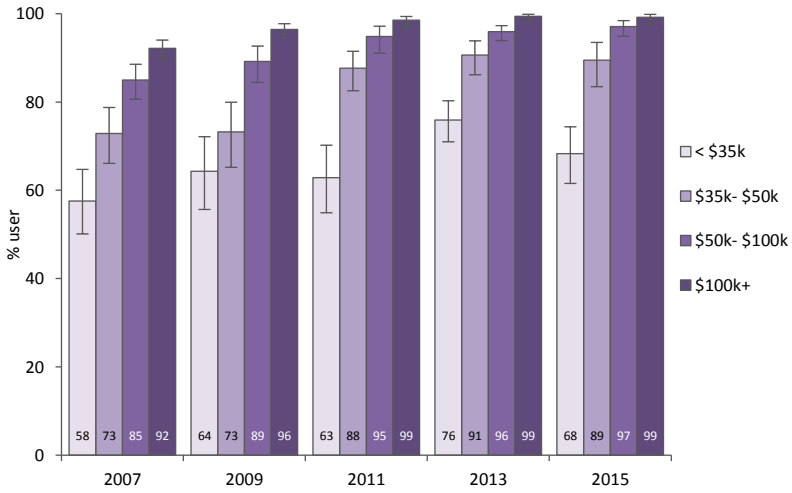


Base: All respondents. | Note: This is the first of many graphs in this chapter to include error bars. These indicate the range in which the true population mean is likely to be. The margin of error is larger when analysing smaller sub-groups of respondents.

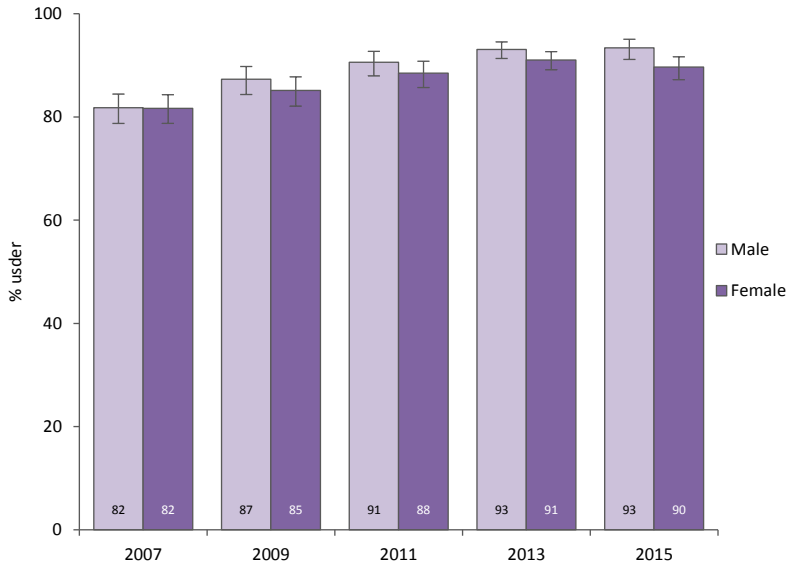
User status: Household income

Income is another key demographic affecting the New Zealand population's access to the internet.

After the gap between the highest and lowest household income groups closed somewhat in 2013 (to 23%), it appears to have widened again to 31% in 2015. This is largely because the lowest-income group (below $35,000) dropped back again compared to its 2013 level of 76%. The change is still well within the margins of error shown on the graph, but may also result from demographic differences in this part of the 2015 sample.



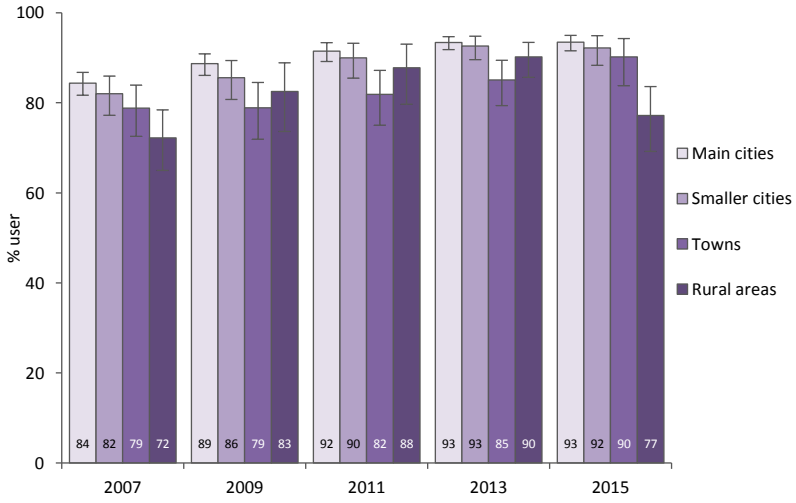
Base: All respondents | Note: The figures for household income categories have changed over time, see reports for each WIPNZ survey year for details.



Base: All respondents.

User status: Gender

The 2007 survey showed exactly equal numbers of women and men to be internet users. Since then a slightly higher proportion of users have been men, but the difference is not statistically significant.



Base: All respondents | Note: The smallest n for any of the 20 cells of data shown here was 97 respondents.

User status: Area

In 2007, there was less internet usage along with decreasing population size of settlements. People in rural areas were significantly less likely to be internet users than those in the main cities (Auckland, Wellington, Christchurch).

From 2009 - 2013, however, rural locations increased greatly in terms of internet access, while it was secondary and minor urban areas (shown here as 'towns') that fell into the lowest usage level position.

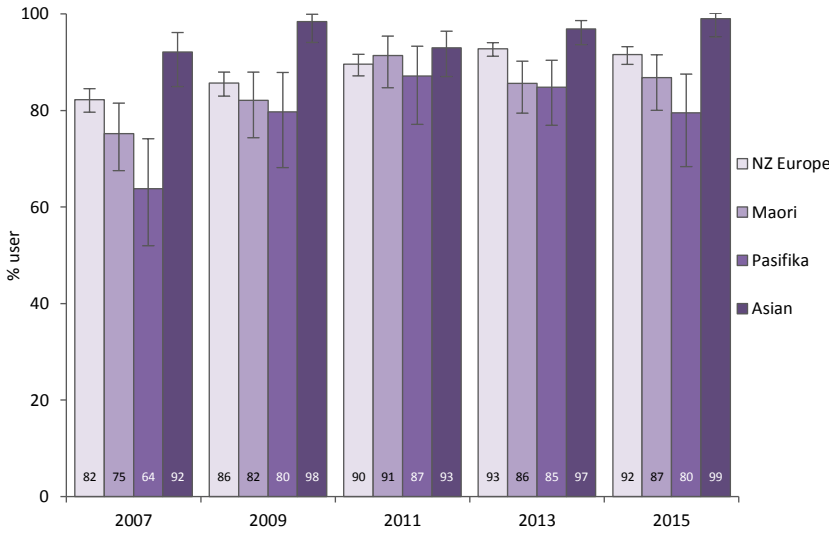
In 2015 the proportion of rural users appears to have dropped back again (although that apparent change is within the error bars shown on the graph).

User status: Ethnicity (whole sample)

Every survey since 2007 has consistently shown Asian respondents as the ethnic group most likely to use the internet, with Pasifika respondents as least likely (although due to the small sample sizes in these groups, many of the differences between ethnicities are not significant – note the width of the error bars, particularly for Pasifika).

In 2015, internet usage by Asians was at 99%, followed by NZ European and Māori. Pasifika have the lowest level of usage at 80%. This would represent a considerable drop since 2011 and 2013, and it is not possible to tell at this point whether that is a genuine – and therefore concerning – decrease, or a result of a smaller Pasifika sample in 2015.

Because there is an interaction here between ethnicity and age, in order to get a better understanding of the results without this age bias, the next graph looks only at those under the age of 50

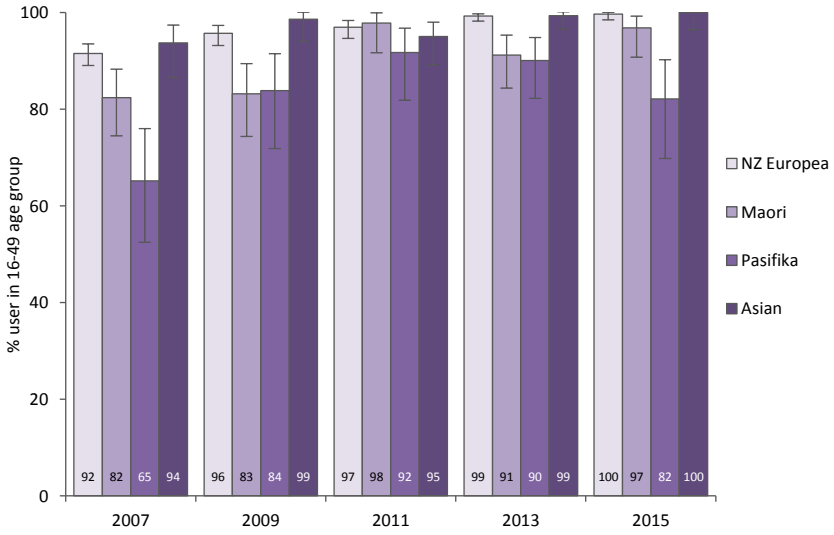


Base: All respondents of the four ethnicities shown. Other ethnicities not included in this graph.

User status: Ethnicity (ages 16–49 only)

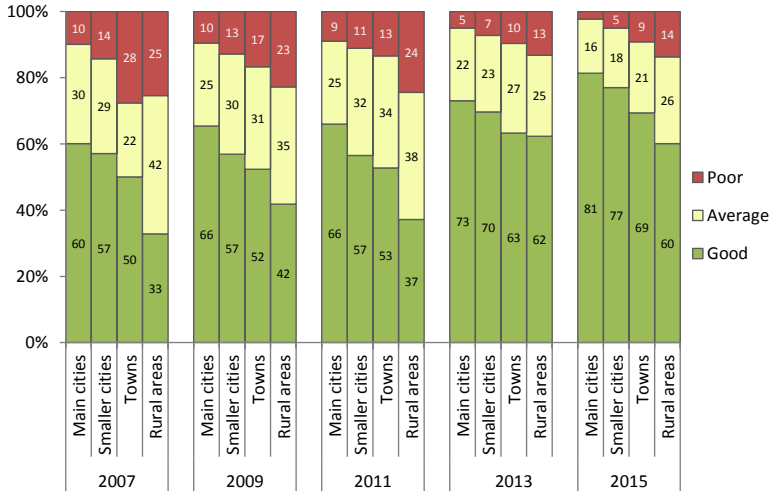
Looking at user status by ethnicity only for those under the age of 50 gives a clearer picture of the digital divide according to ethnicity.

Māori and Pasifika tend to have the most non-users. NZ European and Asian people under the age of 50 have similar high usage rates – reaching 100% in 2015. Note again, the low Pasifika statistic, here 82 percent, but also the width of the error bar..



Base: All respondents of the four ethnicities shown aged 16–49.

Internet Ability and Importance of Internet

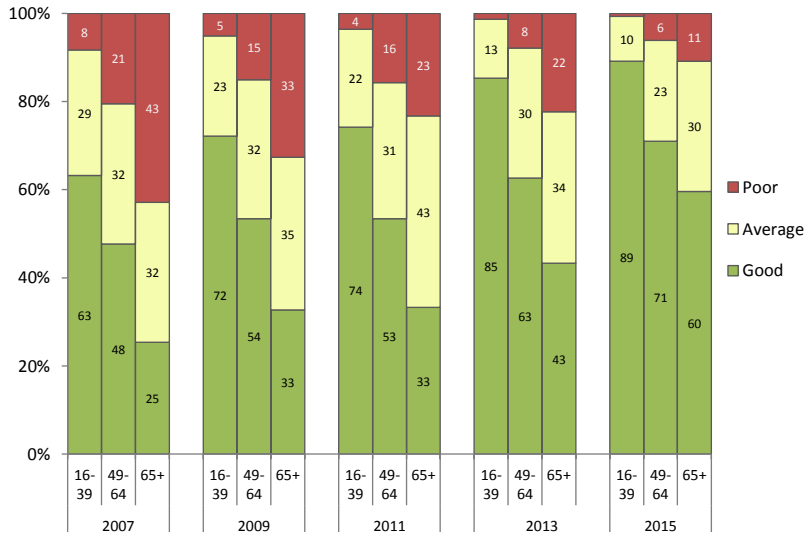


Base: Internet users.

Self-rated internet ability: Area

In 2007, there was considerable disparity between urban and rural areas in self-rated ability to use the internet. Only one in three people in rural areas rated their ability as 'good', compared to nearly double that among main-city dwellers.

Self-rated ability has risen steadily, although there remains a rural/urban divide for internet confidence in 2015 (a divide which has widened again since 2013). Rural residents are now at the level where main-city residents were in 2007 – 60 percent.



Base: Internet users.

Self-rated internet ability: Age

There is a persistent although lessening divide in ability to use the internet according to age, despite overall increases in confidence. The percentage of older internet users with a good level of internet skill has increased from 25% in 2007 to 43% in 2013, and 60% in 2015. This has markedly reduced the differential between the oldest and youngest groups in 2015.

Those under 40 are still much more likely to give themselves a good rating than those in the older group. In 2013 and 2015, only 1% of users under 40 gave themselves a low ability rating.

Overall importance of the internet to everyday life: Ethnicity

Across all the WIP surveys, Asian respondents assign a much higher importance to the internet than all other ethnic groups. Fewer Māori people consider the internet to be important than do the members of other ethnicities. Note the relatively high importance rating for Pasifika despite their tendency to lower usage.

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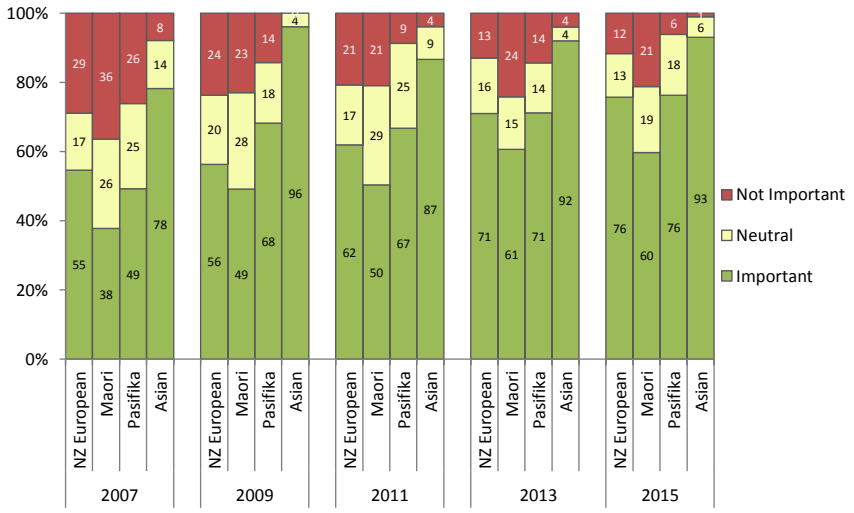
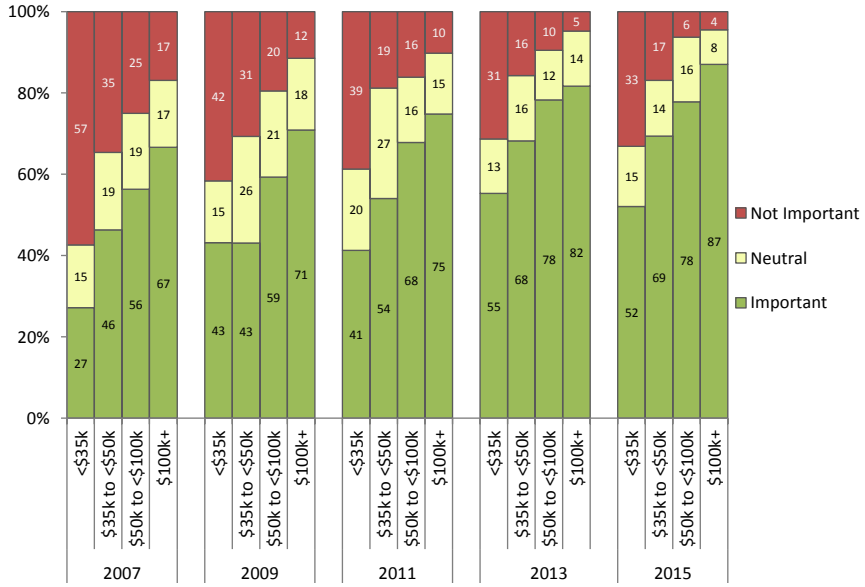


Base: All respondents of the four ethnicities shown.

Overall importance of the internet to everyday life: Household income

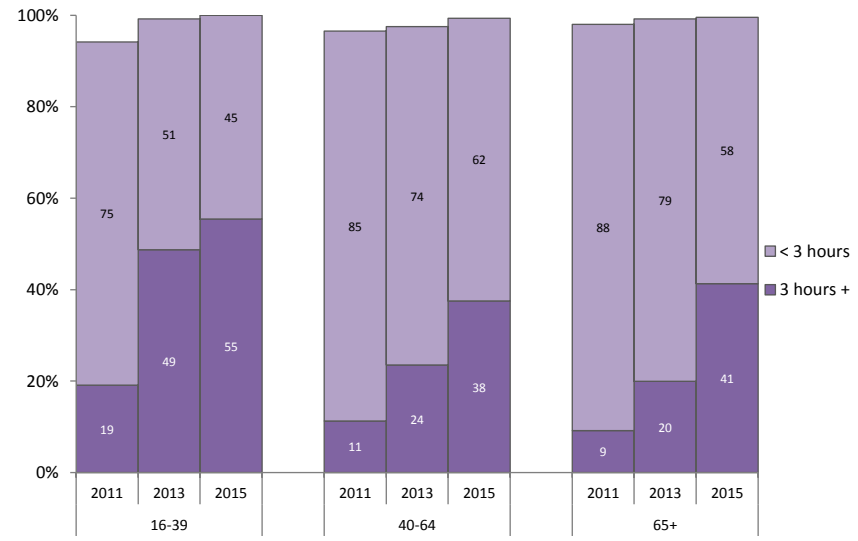
The overall importance of the internet to the lives of New Zealanders depends greatly on their household income, with higher income groups placing more importance on the internet.

This pattern has flattened somewhat over time, with some 2015 figures similar to 2013, but the differentials are still quite evident.



Base: All respondents.

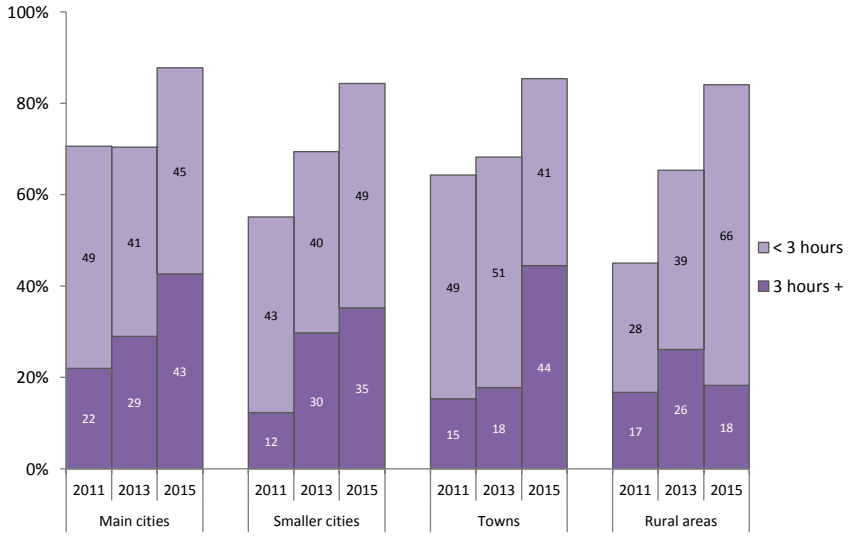
Access and Usage Patterns



Base: Users | Note: 2011 figures have been calculated by dividing the hours online at home during a 'typical week' by seven.

Hours online at home: Age

From 2011 to 2013 there was a big jump in the proportion of young people spending three hours or more online at home on an average day, increasing from 19% to nearly half (49%). It is noticeable that between 2013 and 2015 the oldest group experienced a similar though less extreme jump in hours, from 20% to 41% of the group spending more than three hours online.



Base: Employed internet users | Note: 2011 figures have been calculated by dividing the hours online at work during a 'typical week' by five.

Daily hours online at work: Area

Since 2011 the proportion of employed internet users in rural areas using the internet at work on an average day has increased from 45% to 65% (2013) to 84% (2015).

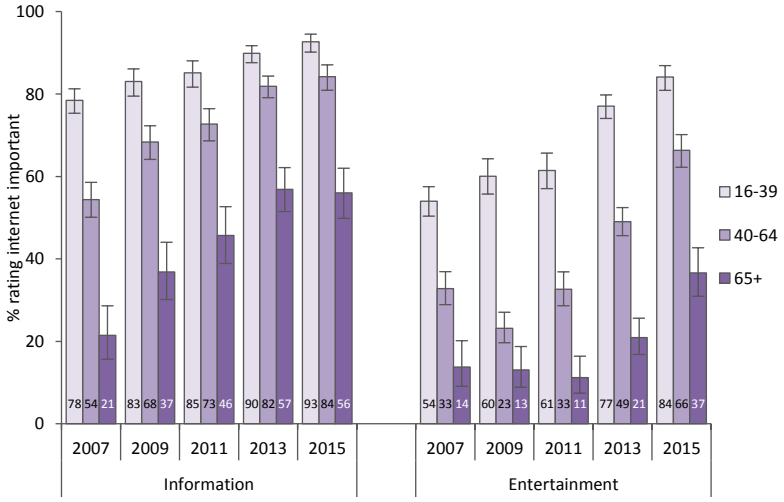
The number of hours online at work has also increased markedly in 2015 in most areas. The exception of an apparent drop in the proportion of rural dwellers who spend over 3 hours on line may result partly from higher unemployment among people in the 2015 rural sample.

Information and Entertainment

Importance of internet for information and entertainment: Age

The importance of the internet as a source of *information* has grown steadily since 2007, although but in 2015 it shows signs of levelling off.

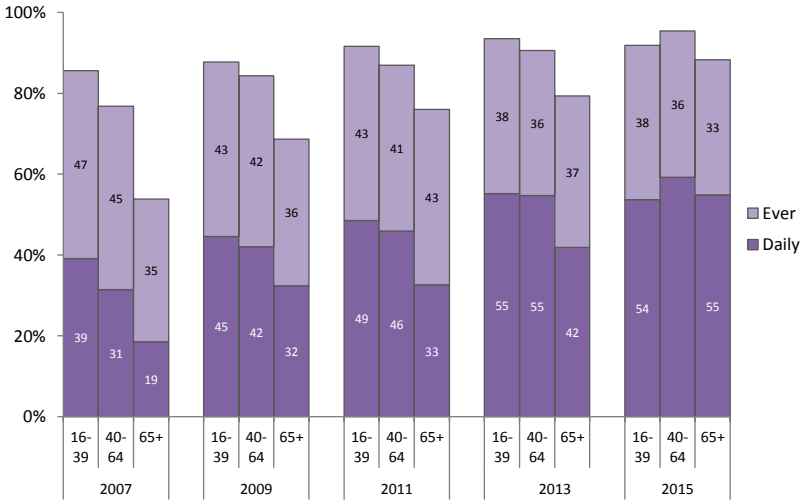
The 2013 and 2015 surveys have seen dramatic rises in all age groups on the value of the internet as an *entertainment* source. The age groups remain graded, but proportions are rising steeply among the middle aged and older respondents.



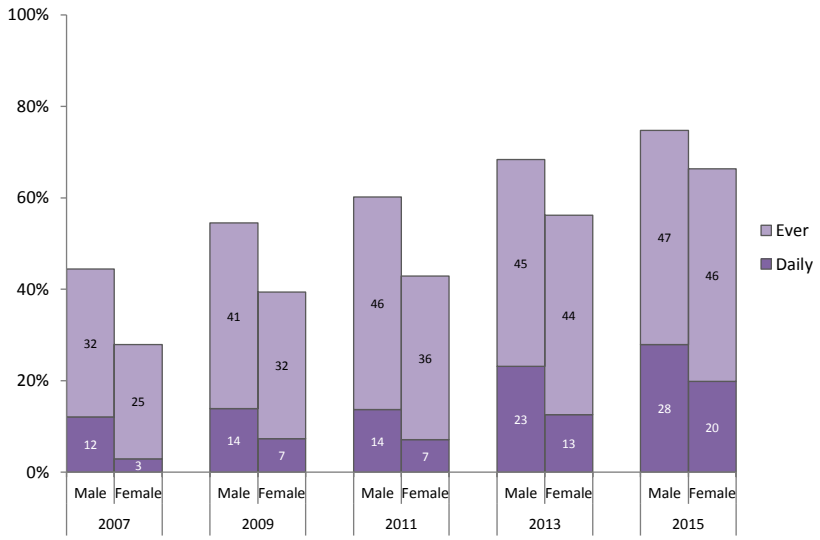
Base: All respondents.

Look for news online: Age

Searching for news online has in general increased steadily for all age groups since 2007. In 2015 this is one activity where the oldest age group catches up with the youngest, with 54-55% looking for news online on a daily basis.



Base: Internet users.

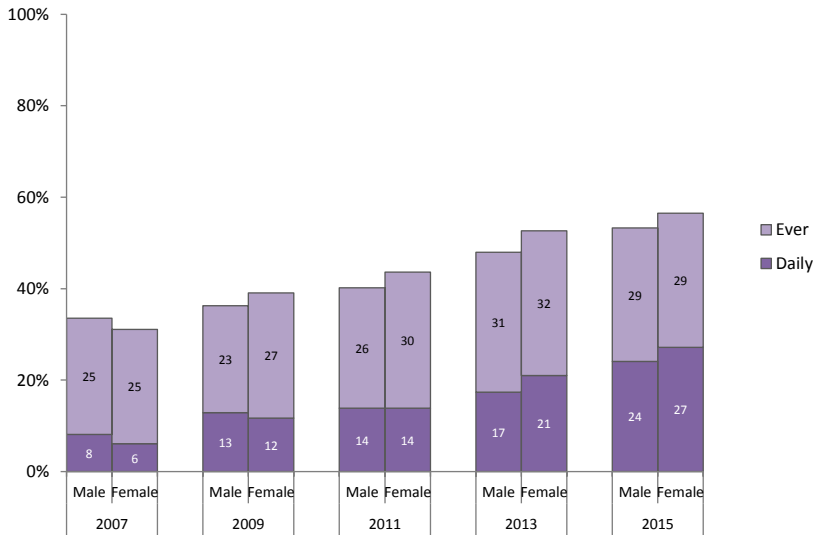


Base: Internet users.

Download or watch videos online: Gender

Since 2007 there has been a steady increase for both the uptake and frequency of downloading videos or watching them online. Equally consistent is the trend for more males than females to consume online videos, including on a daily basis. In 2015 over a quarter of males say they watch or download online videos daily.

A similar pattern exists for listening to music online, listening to a radio station online, and downloading feature films. When it comes to watching TV shows online, however, more women do this at least occasionally than men.



Base: Internet users.

Playing games online: Gender

In 2007, a slightly higher proportion of men played games online than women. Since then the trend has been for more women to play games online than men. Since 2013 more women than men have also played online daily.

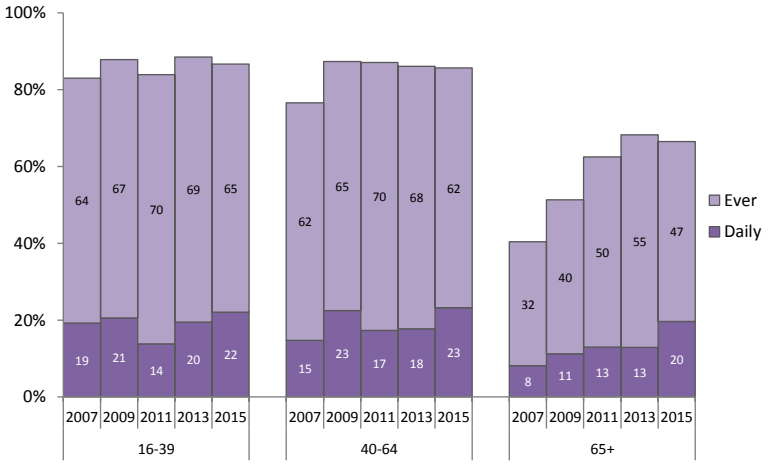
Note that the survey does not specify the *type* of games respondents play online – these are likely to vary greatly by age as well as gender.

Relationships and Communication

Contact by email: Age

There has been little change over time in the popularity of email for those under the age of 65, but the older age group has exhibited increased uptake of email in each survey round until 2015. Now there are signs that this growth is slowing down. This could be due either to a ceiling effect or as email itself is superseded by other ways of communicating such as instant messaging. But note the strong 2015 increase in daily emailing among the over-65s – at 20%, now close to the level for the younger age groups.

Ways of contacting friends and family

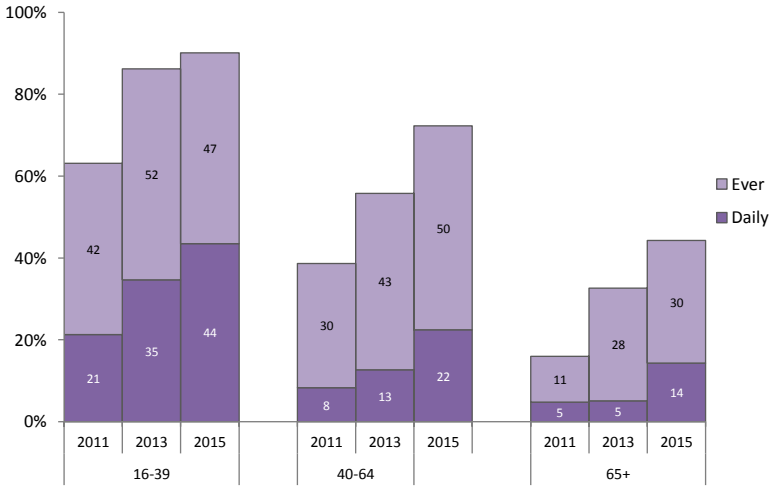


Base: All respondents | *Note: Questionnaire wording changes from 2013 make this part of the question less clearly comparable with earlier survey rounds |

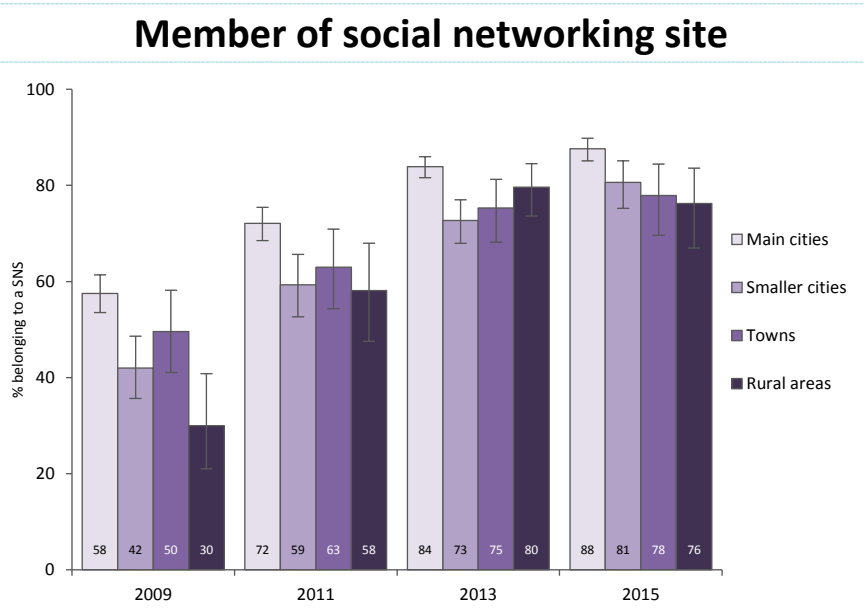
Contact by instant messaging: Age

Instant messaging is one of the oldest uses of the internet, used steadily through fixed internet connections throughout the 1990s and 2000s. Since smartphones have taken over traditional handsets as the norm, however, instant messaging has taken on a whole new significance as a viable replacement for texting.

The increase in all age groups in the uptake of IM between 2011 and 2013 has continued in 2015, although with some levelling out for the under-40s. There is a strong parallel increase in daily IM, which among the youngest age group has now reached 44%.



Base: Internet users.



Base: Internet users.

Member of social networking site: Area

The 2009 survey shows that internet users in the main cities of Auckland, Wellington and Christchurch joined up to social networking sites (SNS) such as Facebook earlier than people in less urban areas.

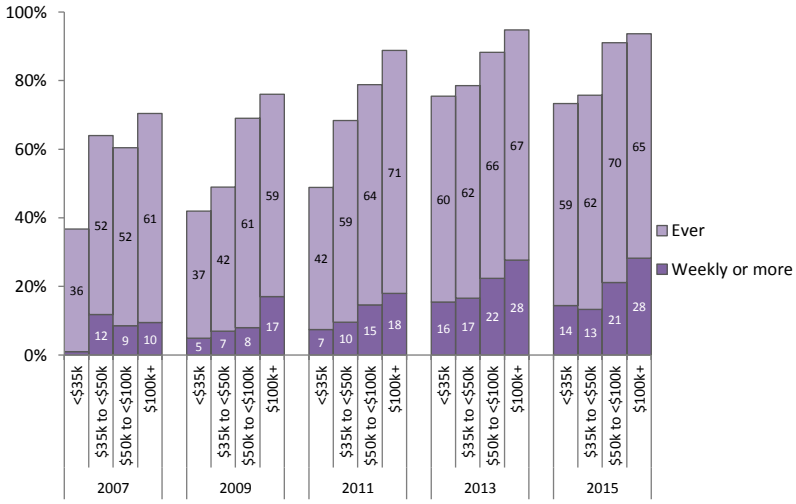
Since 2011 the urban/rural differences have greatly reduced. The last three surveys show quite varied patterns according to area, with 2015 demonstrating a linear relationship between SNS membership and size of settlement.

Consumer Transactions

Buy things online: Household income

The relationship between household income and the likelihood of someone making online purchases is historically evident from the WIP surveys.

This divide was steep until 2011, but has eased somewhat since then and flattened out. The 2015 pattern is little different from that in 2013.



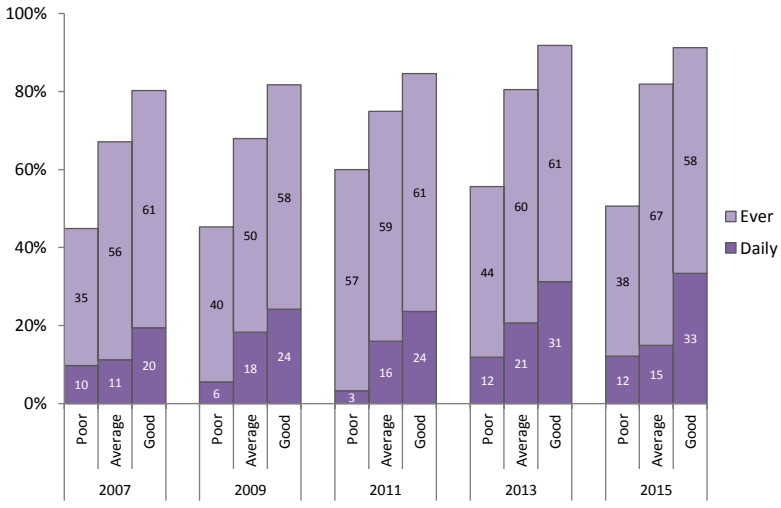
Base: Internet users.

Online banking: Self-rated internet ability

It is no surprise that the higher a person's self-rated ability to use the internet, the more likely they are to do their banking online.

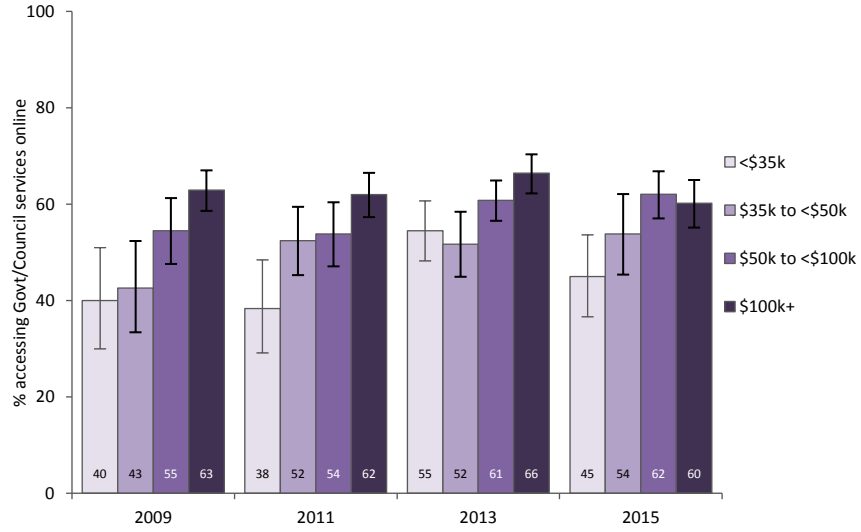
This pattern does not appear to be changing much across the WIP surveys. In 2007, 45% of those who rated their internet ability as 'poor' used their bank's online services at least occasionally. By 2013, this figure increased to 56%, although it fell back again to 50% in 2015.

Overall the relationship between internet self-rated ability and use of online banking has settled in 2015 to much the same as in the previous survey.



Base: Internet users.

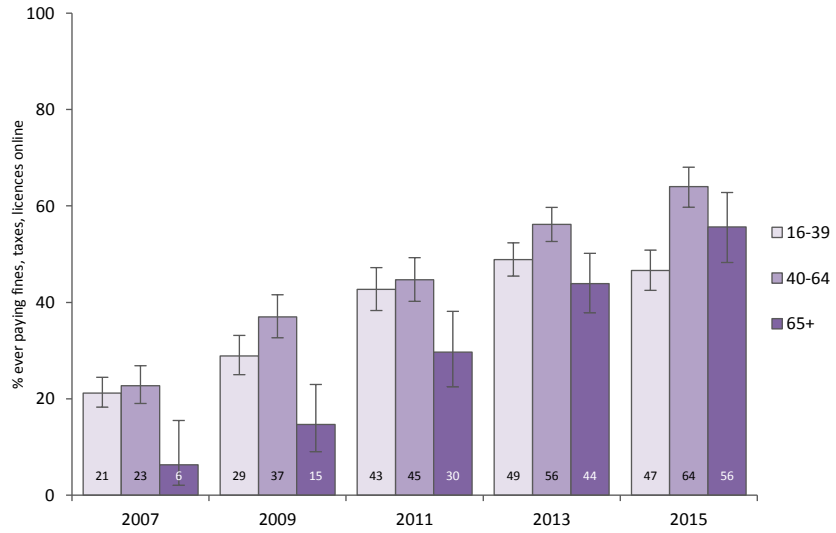
Engagement with E-Government



Base: Internet users

Use Government or Council services online: Household income

In 2009, the use of Government or Council services online was strongly stratified by household income. This divide appears to have lessened by 2013, although it has stretched out again slightly in 2015. Now 60% of those with high household incomes used public services online, compared to 45% of those with low household incomes. The highest-income group appears to have dropped back somewhat (from 66% in 2013 to 60% two years later) in its use of these online services.



Base: Internet users

Paying for fines, taxes, licences online: Age

Making payments to Government or Council for fines, taxes, licences, etc. has been a very fast growing online activity, and one which the over-65s have adopted strongly.

In 2007, only 6% of senior users had made a payment to a public body online. That rose steadily at each survey, and in 2015 has reached 56%. Interestingly this makes this a more widespread activity for the over-65s than for the under-40s.

Appendix A
Methodology

The specific methodological details of each wave of the WIPNZ survey can be found at the back of the main report for each of the five survey years, 2007-15. These reports are freely available at wipnz.aut.ac.nz. Details of the 2015 survey are included below.

Sample design

The 2015 sample design aimed at achieving a representative sample of 1300-1400 people, aged 16 and up, across New Zealand. Early waves of the survey were undertaken using CATI telephone interviewing carried out by Phoenix Research. However, from 2013 a new sampling design was implemented where part of the sample was achieved through online survey methods using an online panel provided by BuzzChannel (in addition to the telephone interviews). The purpose of this mixed methodology approach was to balance out the sample more effectively and also to include people without landlines, an increasingly large proportion of New Zealand households.

The sample design involved the following strata:

1. Recontact of those in the 2013 (and earlier) samples who had indicated that they were prepared to consider answering a further round of the WIP study. Of these, the people who had provided an email address in a previous sample were invited to complete the survey online; the remainder were contacted using CATI telephone interviewing.
2. A fresh sample of households which are likely to be connected to the internet through Ultra-fast Broadband (for a sub-project undertaken for the Ministry of Business, Innovation and Employmnet). A fresh simple random sample of phone numbers was used.
3. An online panel sample drawn to provide adequate coverage (in conjunction with the recontact and fresh telephone components) of the New Zealand population.
4. An online sample of people without landlines, also members of the same panel.
5. Some face-to-face interviews.

The sampling frames for the CATI telephone fresh simple random sample were developed using telephone directories. Representative coverage of geographic areas and gender was ensured by the setting of quota based on census data. Exclusions were non-English speakers; those refusing.

Achieved sample and weighting

The achieved sample for 2015 was 1377. The weighted sample for the 2007-13 surveys used in this comparative longitudinal report includes 5855 responses, giving a total weighted sample of 7232. These responses include a cohort of individuals who have completed the survey in more than one round.

The data from the five waves of the survey were combined, including only those questions which are comparable over time, taking into account changes in the questionnaire wording over the years. In cases where wording has changed, but comparison was deemed valid, the changes in wording are clearly marked in notes under the relevant graphs or in the question wording shown alongside. The resulting combined dataset was weighted taking into account the survey design, incorporating probabilities of selection for each cell in the sample design, and correcting for departures from Statistics New Zealand estimated proportions on several important parameters: age (grouped); gender; and ethnicity. Each of the years' data was weighted according to the Statistics New Zealand estimates for that year. The primary stage of the weighting was for interlocked age by gender cells, so that the weighted data would closely match census proportions for age. Weighting techniques used on data in WIPNZ reports prior to 2013 did not prioritise age in this way, and tended to be biased towards older respondents.

In addition, the reweighting of data from earlier waves included a slight boosting of weights for individuals accessing the internet through a mobile device, using these individuals as a proxy for the non-landline population excluded in those landline based samples. This boosting was incrementally stronger in each wave (with no boosting for 2007), in line with the increasing proportion of non-landline households. NB: these adjustments assume high ICT-usage for households that *do* have telecommunications devices but *do not* have a landline. The less than 2% of New Zealand households who have no telecommunications at all are a genuine and unfortunate exclusion from the sample, across all five waves. Having thus reweighted the data for the

first surveys, figures reported here may vary slightly as compared to original reports on each of the earlier surveys.

Since the samples for the 2013 and 2015 waves have a different design from prior years, including online respondents, certain participants in the earlier waves of the survey have been given higher weights to create greater continuity across the datasets. The reweighting of data from earlier waves included a slight boosting of weights for individuals accessing the internet through a mobile device, using these individuals as a proxy for the non-landline population excluded in those landline based samples. This boosting was incrementally stronger in each wave (with no boosting for 2007), in line with the increasing proportion of non-landline households. The rationale for this was that those in households with no landline, but with internet access, are more likely to access the internet through a mobile device. In 2007, the proportion of no-landline households was lower, and mobile internet connections were still extremely rare, so it was decided that the simple random sample in 2007 was satisfactory as a base from which to compare later years.

For weighting purposes, ethnicity was coded in such a way as to match census data, which allows for multiple ethnicities to be reported by an individual. The ethnicity variable used for the cross-tabulations reported in Chapter 3 of the report, however, is based on the ethnicity with which respondents 'most strongly identify'.

Despite efforts to create continuity between the samples, the fact remains that the 2013 and 2015 data come from a different sample design from 2007-11. This needs to be taken into account when comparing 2013 and 2015 data to results from previous years. Similarly, the first three waves of the survey should be viewed bearing in mind that they exclude those with no landline.

Confidence intervals

The precision of estimated weighted proportions varies greatly according to the sample size for a given result. In this report, 95% Wald confidence intervals were calculated and are displayed as error bars on many of the graphs. As an indication, when presenting results for all respondents for 2015 data (n=1377), 95% confidence intervals varied from approximately ±1.8% on percentages under 20% or over 80%, to around ±2.3% on percentages in the 20%–80% range. For the internet users subset (n=1258), 95% confidence intervals varied from approximately ±2.0% on percentages under 20% or over 80%, to around ±2.5% on percentages in the 20%–80% range. In sections where cross-tabulation of results by demographics leads to smaller numbers of respondents in each reported cell, the confidence intervals increase.

Appendix B
WIPNZ Reports and Publications

Below are listed key WIPNZ reports, including international reports. Links to PDF files are at wipnz.aut.ac.nz.

Pilot Survey:

Bell, A., Crothers, C., Gibson, A., Goodwin, I., Sherman, K., & Smith, P. (2007). *Pilot Project 2007 Full Report.* Auckland, : Institute of Culture, Discourse and Communication, Auckland University of Technology.

2007 Survey:

Bell, A., Crothers, C., Goodwin, I., Kripalani, K., Sherman, K., & Smith, P. (2008). *The Internet in New Zealand 2007. Final Report.* Auckland: Institute of Culture, Discourse and Communication, Auckland University of Technology.

USC Annenberg School Center for the Digital Future. (2008). *The World Internet Project International Report (first edition).*

2009 Survey:

Smith, P., Smith, N., Sherman, K., Goodwin, I., Crothers, C., Billot, J., & Bell, A. (2010). *The Internet in New Zealand 2009.* Auckland: Institute of Culture, Discourse and Communication, Auckland University of Technology.

Bell, A., Billot, J., Crothers, C., Gibson, A., Goodwin, I., Sherman, K., Smith, N., & Smith, P. (2010). *The Internet in New Zealand 2007–2009.* Auckland: Institute of Culture, Discourse and Communication, Auckland University of Technology.

USC Annenberg School Center for the Digital Future. (2012). *The World Internet Project International Report (third edition).*

2011 Survey:

Smith, P., Gibson, A., Crothers, C., Billot, J., & Bell, A. (2011). *The Internet in New Zealand 2011.* Auckland: Institute of Culture, Discourse and Communication, Auckland University of Technology.

Gibson, A., Crothers, C., Smith, P., Aguirre, A., & Bell, A. (2012). *Online Engagement with Government: Insights from the World Internet Project NZ.* Auckland: Institute of Culture, Discourse and Communication, Auckland University of Technology.

USC Annenberg School Center for the Digital Future. (2012). *The World Internet Project International Report (fourth edition).*

2013 Survey:

Gibson, A., Miller, M., Smith, P., Bell, A., & Crothers, C. (2013). *The Internet in New Zealand 2013.* Auckland: Institute of Culture, Discourse and Communication, Auckland University of Technology.

Crothers, C., Gibson, A., Smith, P., Bell, A., Miller, M. (2014). *Internet trends in New Zealand 2007–2013*. Auckland: Institute of Culture, Discourse & Communication, Auckland University of Technology.

USC Annenberg School Center for the Digital Future. (Forthcoming). *The World Internet Project International Report (6th ed.).*

2015 Survey:

Crothers, C., Smith, P., Urale, P.W.B. & Bell, A. (2016). *The Internet in New Zealand 2015.* Auckland: Institute of Culture, Discourse and Communication, Auckland University of Technology.

Smith, P., Bell, A., Miller, M. & Crothers, C. (2016). *Internet trends in New Zealand 2007–2015* Auckland: Institute of Culture, Discourse & Communication, Auckland University of Technology.

Other Publications

Smith, P., Smith, N., Sherman, K., Kripalani, K., Goodwin, I., Bell, A., & Crothers, C. (2008). The Internet: Social and demographic impacts in Aotearoa. New Zealand Observatorio (OBS), 2(3), 307–330.

Crothers, C., & Billot, J. (2010). The New Zealand World Internet Project: marrying a global survey with local funding. *New Zealand Sociology, 25*(2), 150–158.

Billot, J., & Crothers, C. (2011). *Internet and Society Panel Project: The impact of participation and use of social networking sites on well-being and life satisfaction*. Auckland: Institute of Culture, Discourse & Communication, Auckland University of Technology.

Crothers, C., Urale, T., Smith, P. and Bell, A. (2016). *The Roll-out of Ultra-Fast Broadband (UFB) in New Zealand, 2015: A Report to the Ministry of Business, Innovation and Employment (MBIE).* Auckland: Institute of Culture, Discourse and Communication, Auckland University of Technology.

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