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CULTURE DISCOURSE & COMMUNICATION
AUCKLAND UNIVERSITY OF TECHNOLOGY

World Internet Project
New Zealand

The Internet in New Zealand 2015

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Acknowledgements

Numerous people have contributed to the 2015 World Internet Project New Zealand survey and to this report. We extend our thanks to David Fougere and Jeanette McKee at Phoenix Research, to Vanessa Simpson and Mary Wignall at Infield, and their team, for conducting the telephone and face-to-face surveys, and to Ben Parsons, Grace Meikle, and Katrina Van Loon at BuzzChannel for their generosity in supporting and administering the online component of the survey. Thanks to Susan Shaw and Andy Gibson for their checking and proofreading of this report, and also to Esther Puru and the production team at Printsprint.

At the Ministry of Business, Innovation and Employment (MBIE) Nadia Jones and Paul Alexander steered their aspects of the project, while at Crown Fibre, Rohan MacMahon provided helpful advice, and at Chorus, Liam Gunson and, at Ultrafast, Fibre, Peter Glensor were notably helpful. Thank you to disability consultants Sacha Dylan and Kevin Prince for their involvement. We also gratefully acknowledge the ongoing support of Auckland University of Technology, especially its Faculty of Culture & Society.

Past members of the WIPNZ team whose contributions to the project have remained particularly important for this report are Andy Gibson (data analyst/report writer) and Melissa Miller (data analyst). In addition we acknowledge Jennie Billot, Nigel Smith, Ian Goodwin, Kevin Sherman, and Karishma Kripalani.

Other individuals who have supported the WIPNZ project over the years include Winston Roberts (Senior Advisor, National Library of New Zealand), Jordan Carter (CE of InternetNZ), Ellen Strickland (Collaboration and Community Lead, InternetNZ) and Vikram Kumar (former CE of InternetNZ).

Our thanks finally to Professor Jeff Cole, International Director of the World Internet Project, at the Center for the Digital Future at the University of Southern California, for his ongoing encouragement and support, and for his frequent visits to New Zealand which have helped raise awareness of the project.

This report is available online: wipnz.aut.ac.nz

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Original document published 15 April 2016.

Updated on 6 May 2016.

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Please cite as:

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

ISBN: 978-1-927184-38-7

This project was funded by the Government through the Ministry of Business, Innovation and Employment (Mbie), and by InternetNZ. Auckland Council funded a small enhancement of the survey to The Southern Initiative area. Additional support was provided by BuzzChannel, and by the Faculty of Culture & Society, Auckland University of Technology.



Executive Summary

The fifth two-yearly survey of the World Internet Project New Zealand (WIPNZ) was conducted between September and November 2015, using both telephone and online platforms. The survey questionnaire has undergone substantial updating since the 2013 survey to keep pace with changing digital technologies and question changes agreed with our international partners, which in particular extended coverage of the areas of security and privacy. This report presents an analysis of the usage of and attitudes towards the internet of the resulting sample of 1377 New Zealanders.

Usage

The sample divides into five usage categories: never-users (5% of sample), ex-users (3%), low level users (11%), first generation users (9%) and next generation users (71%). Most users in our survey (76%) regarded the internet as 'important' or 'very important' in their everyday life. The leading devices used to access the internet were laptop/netbooks (75%), mobile phones (74%) and desktop computers (70%). Over half of the users surveyed (59%) had accessed the internet through a tablet, up by 11% from 2013. Only 19% of users had a connection to ultra-fast/fibre broadband.

Activities

Most internet users say they surf or browse the web (95%) or visit social networking sites (85%). Some 49% of users now report that they use the cloud, up 15% on 2013. Over half of our users (52%) have logged in to secure areas on Government or Council websites, and 55% have paid taxes, fines or licences online in the past year – steady increases since 2013. Other common internet behaviours continue to spread and increase across the population. For entertainment purposes, 81% surfed the web daily (up from 75% in 2013), and 66% visited social network sites daily (up from 59% in our last survey). Daily Instant Messaging is increasing apace, now 43% compared to 32% in 2013. In comparison, other internet activities are stabilizing in 2015 across the population. Commercial activities like online seeking of product information, buying, banking and paying bills are similar to 2013. Those checking email daily amount to 89%, identical to 2013, indicating that this behaviour is now close to saturation level. The main activities on social networking sites like Facebook, YouTube, Instagram and LinkedIn, involve content creation such as the posting of messages or comments (82%) and the posting of pictures, photos or videos (73%).

Attitudes

Nearly half of respondents (45%) agree that there is no such thing as privacy online, and they accept that situation. However, a majority (68%) are active in trying to protect their online privacy. Nearly three quarters (73%) have updated their internet security in the past year to protect their computer from viruses and malware. More respondents are concerned about companies checking on their personal online activity than about government checking. Comparing the importance of various forms of media as information sources, online information sources now rate very much higher than offline media. More than half of our respondents (56%) rate the internet very important, compared to 16% for television, 12% for radio, and 11% for newspapers.

Diversity and Divides

Being a former user is directly related to economic factors. For people younger than 65, 14% of the under-\$35K household income bracket are ex-users, and 4% of the \$35-50K bracket, but there are no ex-users at all in households above \$50K. Men aged 16-44 are slightly more likely to go on social network sites than women of the same age. For those under 45, more than 90% rate the internet important or very important as an information source.

Contents

Executive Summary	i
Contents	iii
Introduction	v
Section 1 Key Findings	1
Usage Patterns.....	2
Information Seeking.....	7
Entertainment and Leisure.....	9
Relationships and Communication	11
Commerce.....	14
Public Sector and Politics	15
Internet Security.....	16
Section 2 The Diversity of Internet Users	20
Age.....	21
Gender.....	24
Ethnicity.....	27
Household Income	29
Area: Urban to Rural.....	31
People with Disabilities and Their Internet Use	32
Section 3 Digital Disadvantage in 2015	33
The Persistence of the Digital Divide.....	35
Focus on Non-Users	37
General and Specialist Internet Activities.....	38
Appendix 1: Ranking of Online Activities.....	41
Appendix 2: Definition of Usage Index and User Types.....	42
Appendix 3: Methodology.....	43

Introduction

The fifth World Internet Project New Zealand (WIPNZ) survey continues our biennial analysis of New Zealanders' usage of, and attitudes towards, the internet. It follows on from the surveys undertaken in 2007, 2009, 2011 and 2013. In this report, we present top-level analysis of data from the survey carried out between September and November 2015. Both telephone and online interviews were conducted, together with a small sample of face-to-face interviews, and extensive material on the use of and attitudes towards Ultra-fast broadband (UFB) was collected. The inclusion, again, of online interviews has resulted in what we believe to be a more representative sample, since some of the growing group of New Zealanders who do not have landlines are now covered in the sample. The face-to-face interviewing tapped the views of otherwise difficult-to-interview groupings. Comparative findings with our earlier surveys will be presented in a later report.

The report is divided into three sections:

- Section 1: Key Findings shows selected results from the survey for the full sample and is structured according to the various themes of the questionnaire.
- Section 2: The Diversity of Internet Users looks in more detail at how responses to the survey differ according to age, gender, ethnicity, household income and area, and is structured in terms of these social groupings. For the first time in the survey, we include people with disabilities to illustrate further the diversity of internet users.
- Section 3: Digital Disadvantage in 2015 looks at the sample from the perspective of different types of user – from the highly engaged to the low-level user. Section 3 also presents, in more detail, the characteristics and opinions of internet non-users in parameters such as age and gender.

Methodology

The data used in this report are based on telephone and internet surveys carried out on our behalf by Phoenix Research Limited, subcontracting to Infield (telephone) and Buzz Channel (online). The survey includes recontacts from previous rounds of WIPNZ, a further simple random sample of New Zealand adults and a panel of online respondents, which includes a sub-sample of individuals who do not have landlines. Also, a small sub-sample of respondents was interviewed face-to-face in South Auckland.

The dataset was weighted to take into account the characteristics of the New Zealand population. The analysed sample comprises 1377 respondents aged 16 years and older. Most graphs present information about all respondents or about internet users only. The full survey and analysis methodology are presented in Appendix 3 at the end of this report; this appendix details the shape and treatment of the database from which these results are drawn, and gives indicative confidence intervals for the results. For the internet users subset (n=1258), 95% confidence intervals vary from approximately $\pm 2.0\%$ on percentages under 20% or over 80%, to around $\pm 2.5\%$ on percentages in the 20%–80% range.

New Zealand in an international context

This New Zealand survey contributes to a larger international collaborative project, the World Internet Project (WIP), which compares the social, political and economic impact of the internet and other new technologies in more than 30 countries. The data that is gathered from a set of questions common to all WIP partners enables a greater understanding of developments and trends in internet usage both locally and internationally. A report including international comparisons of the 2013 WIPNZ data is available at <http://www.digitalcenter.org/world-internet-project/>. In addition, the WIPNZ survey includes a further set of questions designed specifically for New Zealand. It is intended that the WIPNZ findings provide the country with information that assists in decision-making and planning around government policy and industry in New Zealand. Our 2015 New Zealand findings will be included in a later international report.

Glossary of acronyms

NGU	Next Generation User
FGU	First Generation User
LLU	Low Level User
SNS	Social Networking Site
UFB	Ultra-fast Broadband

Section 1

Key Findings

Presentation of the main findings of the survey starts with a section on 'Usage Patterns'. We categorise the sample into five subgroups: those who have never used the internet (Never-users); those who have used the internet in the past but are not current users (Ex-users); those who use the internet but at a relatively low level (Low Level Users); internet users who tend to connect through fewer, or more traditional, devices (First Generation Users); and internet users who are highly connected – using multiple, and more mobile, devices to go online (Next Generation Users). The sub-section on general usage patterns goes on to describe internet use/non-use from various locations and through various devices, and looks at some key attitudes and opinions about the internet overall.

The other themes in this section move from information-seeking activities and opinions about online and offline sources of information, to entertainment and leisure activities, both online and offline. The 'Relationships and Communication' section looks at online communication and the sharing of information. This is particularly relevant with the increased use of social networking as a platform where people can keep in touch with family and friends. The other areas that are covered include 'Commerce' and 'Public Sector and Politics'. Under 'Internet Security', we include information on people's experiences relating to security issues and what household rules they have in place regarding internet use. This section also provides responses to a new question in this survey on privacy.

Results are presented as percentages throughout this first section. Each result is discussed briefly 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 in relation to each graph. The number of the question as listed in the WIPNZ 2015 questionnaire is also given.
- 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.
- Number of respondents: The first presentation of a result for a particular base includes the weighted number of respondents for that sample or sub-sample. This information is also shown below for the bases that occur more than once. Cases where a respondent declined to answer a question, or gave a 'don't know' response, are treated as missing values in almost all questions. As a result, the actual sample sizes of the data, as shown in the graphs, are often slightly below then shown in the base.
 - All respondents: n = 1377
 - Internet users: n = 1258
 - Internet users with an internet connection at home: n = 1220
 - Non-users (ex-users and never-users combined): n = 119
 - Students: n = 224
 - Internet users in a household that includes somebody under the age of 18: n = 516
- See Appendix 3 for a description of indicative confidence intervals.
- Numbers (in %) are rounded to integers, and displayed on graphs for all but the smallest of results.

Usage Patterns

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?

Of the 1377 participants surveyed, 91% declared themselves to be active internet users. The remainder are split into two groups: Never-users (5 %), who say they have never used the internet; and Ex-users (3%), who have used the internet formerly but are not doing so currently.

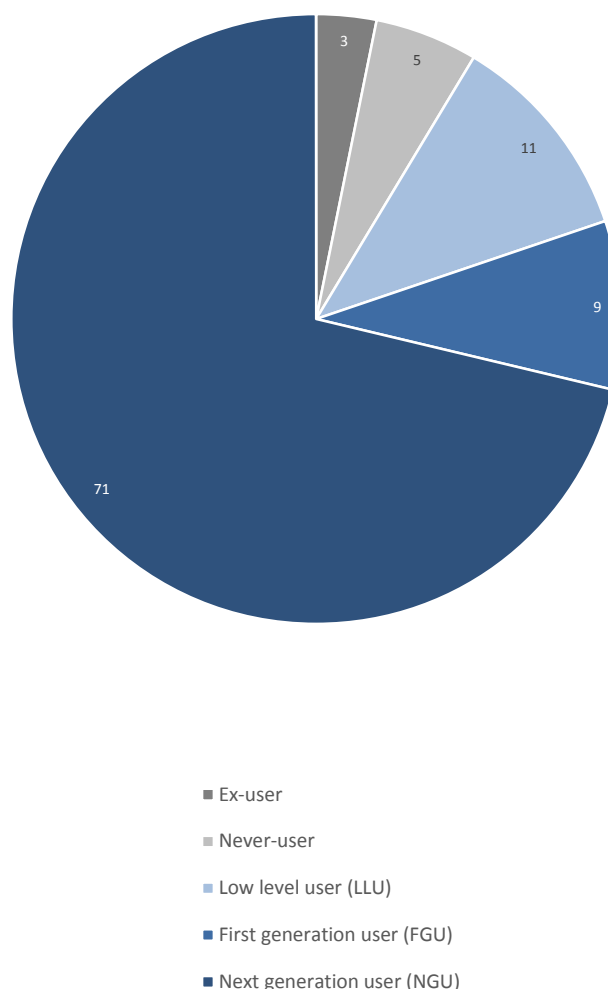
We distinguish between five categories in our sample. Technically, 'Low Level Users' (LLUs) use the internet but they do so very rarely and employ only a limited range of devices and activities. 'First Generation Users' (FGUs) make use of fewer, more-traditional devices for internet use. 'Next Generation Users' (NGUs) are defined by criteria such as use of the internet on mobile devices and have at least a moderate usage level across a range of criteria. See Appendix 2 for full criteria for each category.

Of note is that, in the 2013 WIPNZ report, FGUs and NGUs each made up some 40% of the sample. These numbers have changed markedly since: FGUs now make up around 9% of the sample while NGUs account for 71%.

Evidently, the use of the internet across multiple devices for a range of activities is increasing rapidly.

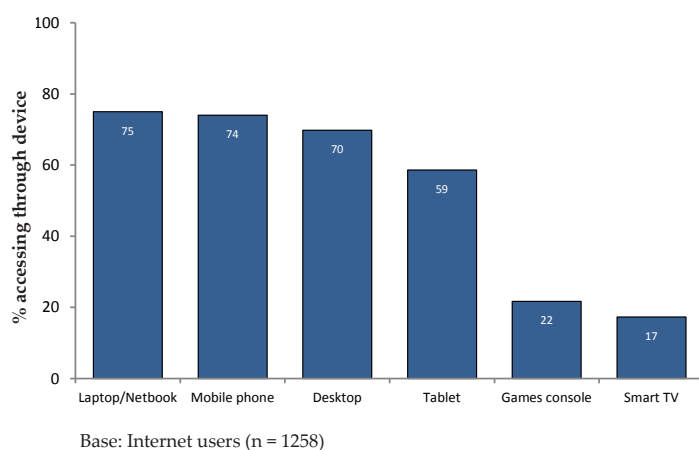
Never-users and Ex-users (119 respondents) were asked to give the main reason why they do not use the internet. Twenty percent of this number said they do not use the internet because they do not know how to use or are confused by technology, and 18% said that they do not own a device capable of accessing the web. Thirteen percent had no internet connection, 11% did not use the internet because it was too expensive, and 5% do not have enough time to access the internet. The remaining (33%) answered **"Do not know" or gave no answer.**

User status



Base: All respondents (n = 1377) | The WIPNZ sample contained both a landline and internet sample. Because all internet-based respondents are invariably internet-users, the numbers here may underestimate the percentage of non-users in the population. This issue was addressed to an extent in the weighting procedure. Numbers in the graph indicate percentages.

Internet access through various devices

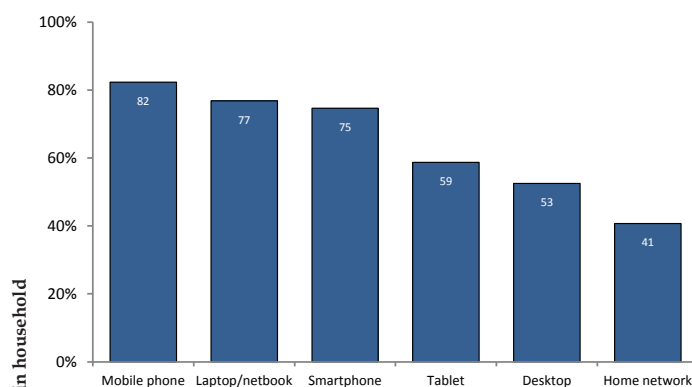


Q8: In the past year have you connected to the internet, from any location, from ... ?

1. a desktop computer
2. a laptop
3. a mobile phone
4. a tablet, e.g. iPad
5. any other device (e.g. smart TV, game console)

In our sample, the internet was reported to be accessed mainly through four devices: laptops/netbooks, mobile phones, desktops and tablets. Each of the first three of these is used by at least 70% of all internet users. Laptops and netbooks are the most popular option, followed by mobile phones and desktops. Notably, access to the internet via tablets is 59%, compared to 48% in the 2013 report.

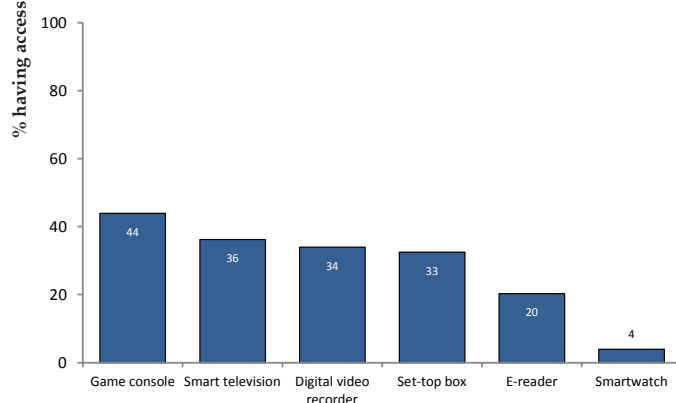
Household access to devices (1)



Q2B: Which of the following devices, if any, do you have access to in your household?

1. a desktop computer
2. a laptop computer (or notebook)
3. a mobile phone (of any kind)
4. a smartphone
5. a tablet (e.g. iPad or an Android tablet)
6. an e-reader (e.g. Kindle, NOOK, Kobi)
7. a smart television (i.e. an internet capable television that can connect directly to a broadband connection)
8. a digital video recorder
9. a home network
10. a game console (e.g. Xbox or PlayStation)
11. a smartwatch
12. a set-top box such as Freeview that allows on-demand content to be streamed directly to a television

Household access to devices (2)



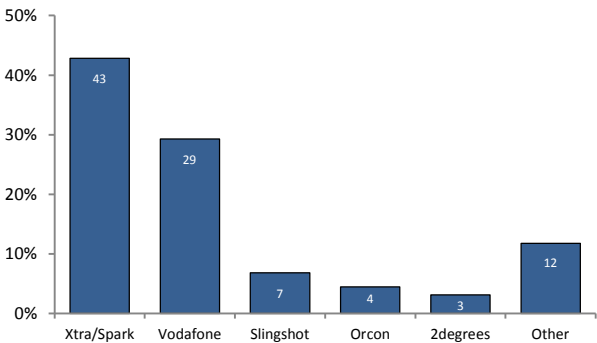
Base: All respondents (n = 1377)

Recently released devices such as smartwatches are accessible in the households of only a small percentage (4 %) of all respondents. By comparison, mobile phones of any kind (82%), laptops/netbooks (77%) and smartphones (75%) are available in most households. It is likely that only a very small proportion of mobile phones currently in use are not smartphones.

Q7: Which internet provider are you currently using?

While the range of different devices that access the internet has changed markedly in recent years, uptake of internet service providers (ISPs) has remained relatively stable. The two predominant ISPs are Xtra/Spark (43%) and Vodafone/Telstra (29%), followed by a handful of other ISPs such as Slingshot and Orcon.

Internet service provider

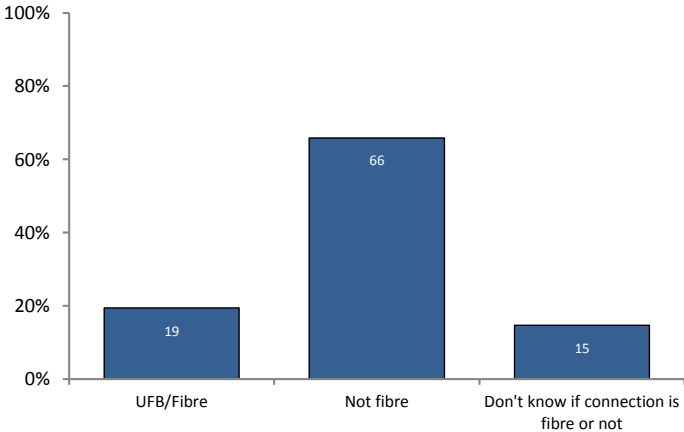


Base: Internet users (n = 1258) | This number includes those who reported multiple ISPs | y-axis values range from 0% to 50%

Q5A2: Is your household connected to fibre optic broadband, such as Ultra-fast broadband/UFB or do you have an ADSL or VDSL connection?

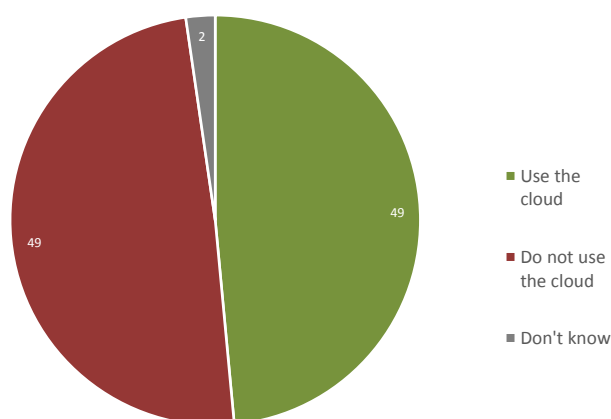
Nineteen percent of internet users in our sample are currently connected to ultra-fast/ fibre broadband. The majority (66%) of users do not have ultra-fast/ fibre broadband.

Ultra-fast broadband/fibre broadband status



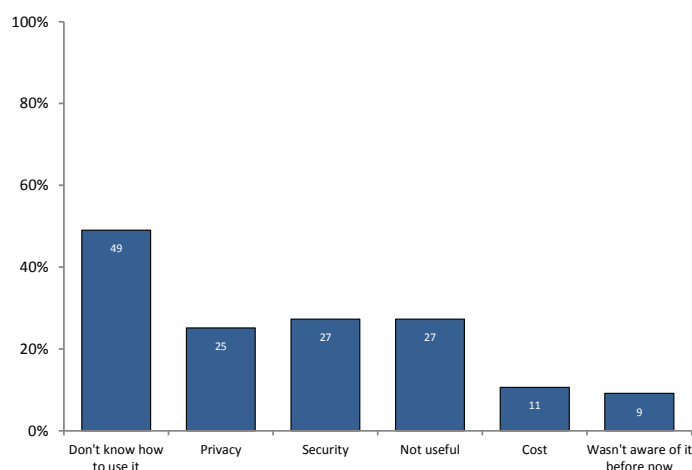
Base: users who have a broadband connection at home' (n = 1154).

Usage of cloud computing



Base: Internet users (n = 1258)

Reasons for not using the cloud



Base: Cloud non-users (n= 619)

Q2E: Do you use the cloud?

Nearly half (49%) of internet users use cloud computing, which involves storing data and using applications run on a third-party server. Examples of cloud computing include Google Cloud, Dropbox, and GitHub.

Q2F: Which, if any, of the following are reasons you don't use the cloud?

1. Don't know how to use it
2. Privacy reasons
3. Security reasons
4. It isn't useful
5. Cost
6. Wasn't aware of it before now

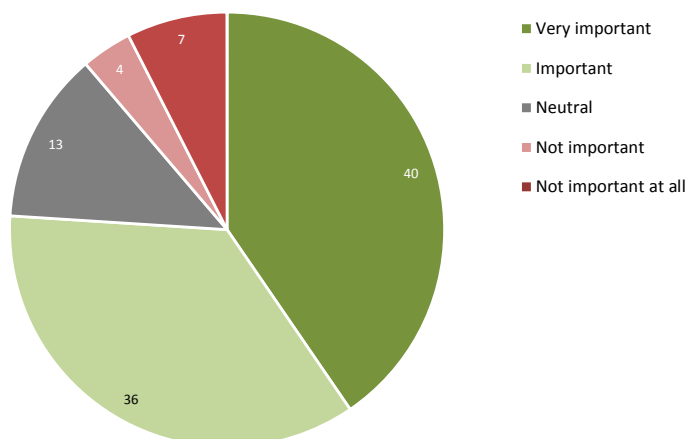
The majority of those who do not use the cloud reported their reason for non-use as lack of knowledge (49%). Other reasons given include: privacy (25%) and security concerns (27%), and lack of usefulness (27%). Because cloud computing occurs on a third-party server, some view it as having an elevated risk compared to that of storing data on personal devices.

The small proportion of respondents indicating 'cost' as a reason for not using the cloud points to the relatively inexpensive nature of cloud computing while only a very small percentage of users had never heard of cloud computing.

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

More than 76% of all respondents said that the internet is 'Important' or 'Very Important' in their everyday lives, while 11% said it is either 'Not important' or 'Not important at all'. A further 13% of responses were neutral. These categories largely overlap with internet user and non-user classifications, as only four non-user participants indicated 'Important' or 'Very important'. Moreover, only 4% of internet users answered Not important at all' or 'Not important'.

Importance of the internet to everyday life

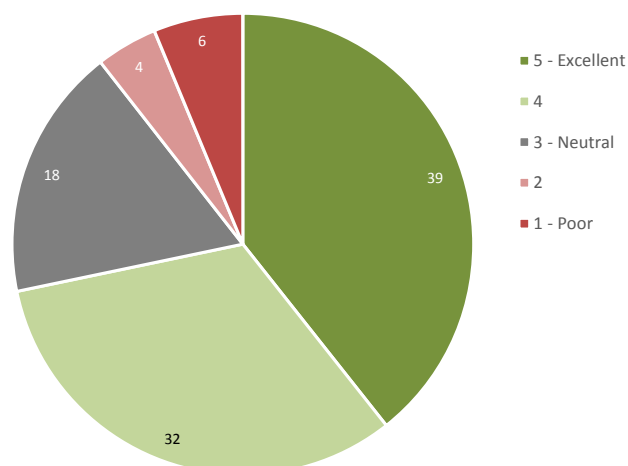


Base: All respondents (n = 1377)

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

On a scale from 1 to 5, 71% of respondents rated their ability to use the internet as either 'Excellent' (39%) or '4' (32%). Eleven percent have less confidence in their ability, rating themselves as either '2' (4%) or 'Poor' (6). Taken as a whole, the sample shows high confidence in using the internet.

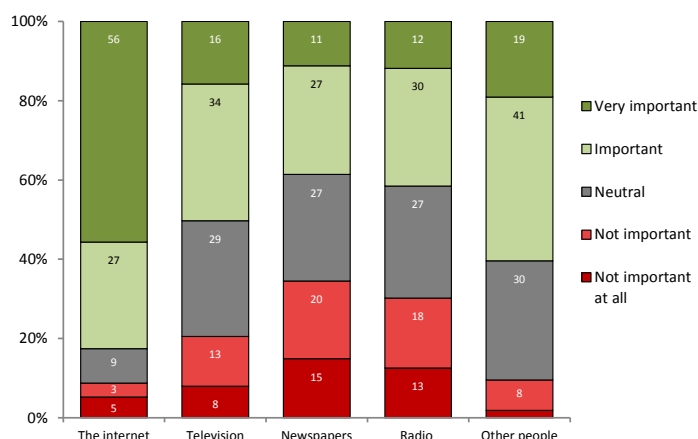
Self-rating of ability to use the internet



Base: Internet users (n = 1258)

Information Seeking

Rating importance of information sources



Base: All respondents (n = 1377) | Except for "The internet", all categories refer to their non-internet equivalent.

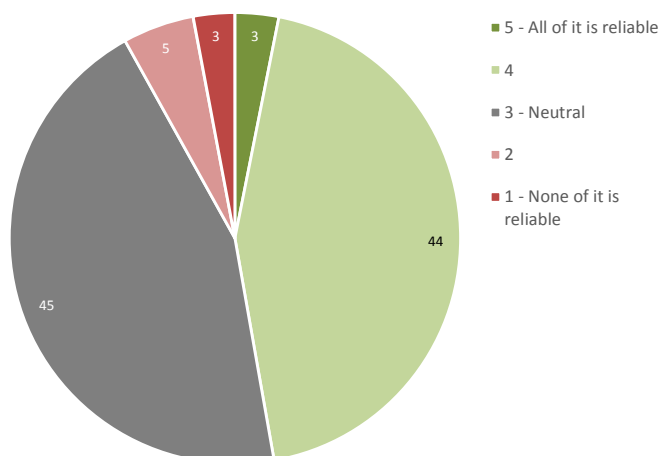
Q18: How important is each of the following to you as a source of information in general?

1. The internet (through any device and including online media)
2. Television (not online)
3. Newspapers (not online)
4. Radio (not online)
5. Other people such as family and friends

The internet, in all its forms, seems for many to be the predominant source of information, with 83% of respondents rating it as either 'Important' or 'Very important'. That percentage can be compared to 38% for non-internet newspapers, which are the least-favoured source of information.

Non-internet radio remains for some (42%) an important source of information, despite most radio stations also being available online. Other people as sources of information were still deemed 'Important' or 'Very important' by 60% of respondents; this is an increase of almost 10% from the 2013 findings.

Reliability of information on the internet



Base: All respondents (n = 1377)

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

Part of experienced contemporary internet usage is discerning which sources are reliable and which are not. Very few people rated reliability of information as low, while almost half (47 %) rated it at a level of '4' or '5'. A similar proportion (45%) gave it a '3' rating. It is possible that this response reflects the belief of respondents that the internet contains a mixture of both reliable and unreliable information.

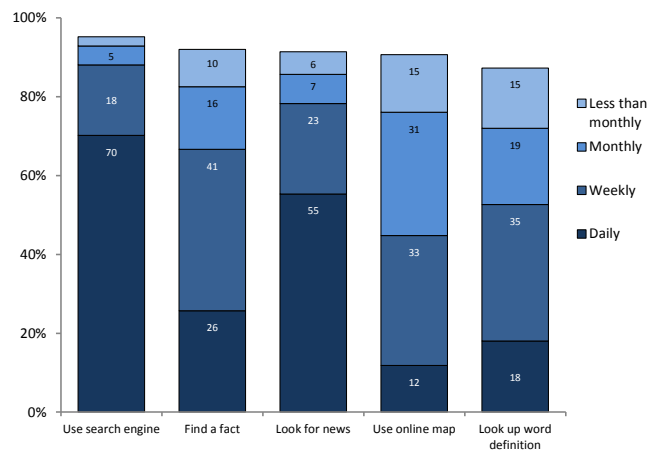
Q21/Q38: How often do you use the internet for the following purposes?

1. Look for news - local, national, international
2. Look for jobs/work
3. Read blogs
4. Look for jokes, cartoons, or other humorous content
5. Look for images and content for re-use
6. Use a search engine to locate information
7. Use an online map or an app for navigation
8. Look up a definition of a word
9. Find or check a fact
10. Get information for school or university related work

The majority of participants access the internet to use search engines (95%), and most of those people do so daily. Similarly, looking for news is popular (91%) and frequent, with over half of users reading news on the internet daily.

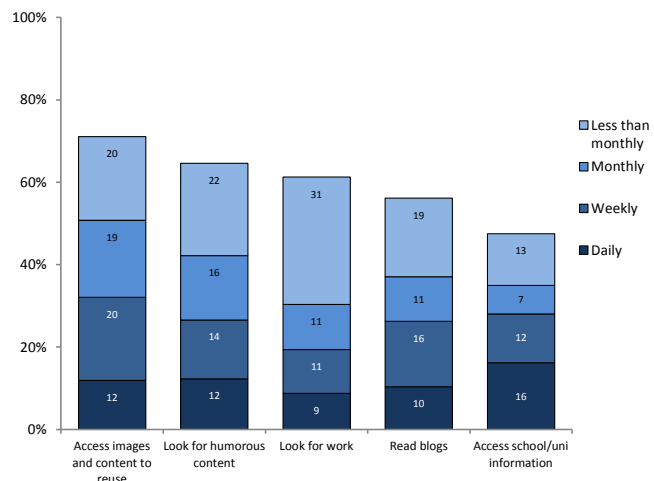
Overall, these results seem to reflect the relative (irrespective of internet use) frequency for all of these activities. News is accessed most often because it is refreshed each day while looking for work is a less-frequent activity. Most users need to look up word definitions sometimes but most do not do so daily. Forty-eight percent of users have used the internet to access school or work information; again, this is most likely to reflect disparities between age and vocational groups.

Online information seeking (1)



Base: Internet users (n = 1258) | The original available answers to this question included 'Daily' and 'Several times daily'. For parsimony, these two categories were merged for the above graph. The same applies for all forthcoming graphs representing similar data

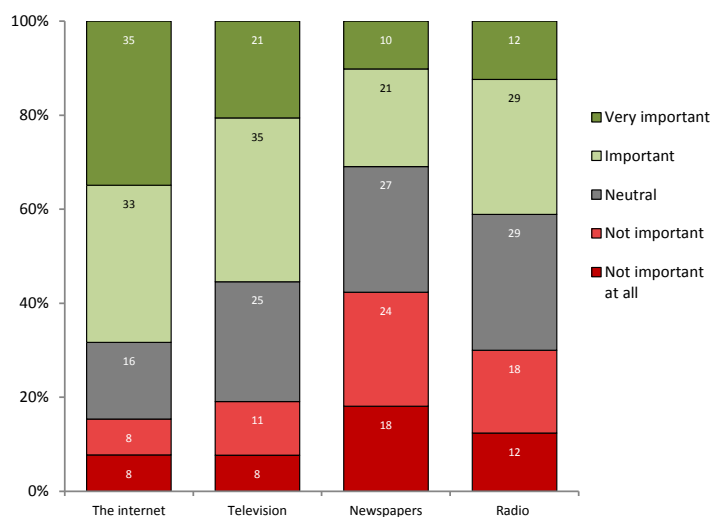
Online information seeking (2)



Base: Internet users (n = 1258)

Entertainment and Leisure

Rating importance of entertainment sources



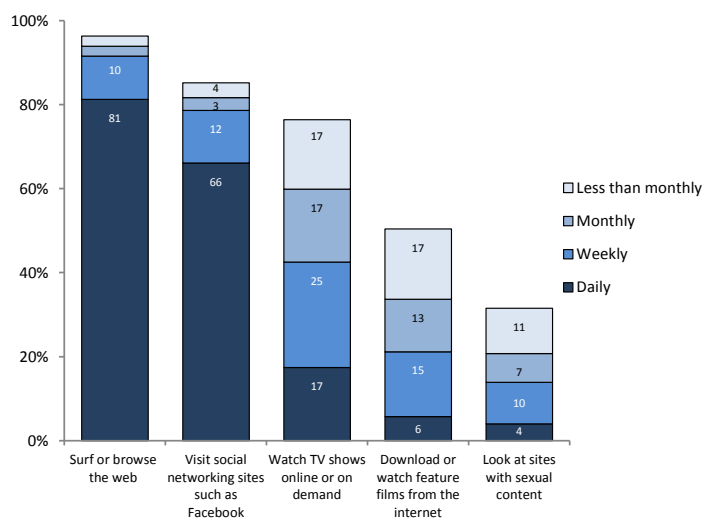
Base: All respondents (n = 1377) | 'Television', 'Newspapers', and 'Radio' all refer to those media when they are not accessed through the internet.

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

1. The internet (through any device and including online media)
2. Television (not online)
3. Newspapers (not online)
4. Radio (not online)

The internet and TV were rated by our respondents as 'Very important' or 'Important' media for entertainment (68% and 56% respectively). Traditional broadcast radio is important for 41% of all respondents, compared to 31% for newspapers in hard-copy form.

Online entertainment (1)



Base: Internet users (n = 1258)

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?

1. Surf or browse the web
2. Visit SNSs such as Facebook
3. Watch TV shows online or on demand
4. Download or watch feature films from the internet
5. Look at sites with sexual content

Simply surfing sites on the internet remains the most popular form of entertainment: 95% of all users stated that they do this at least monthly. Of that number, more than 80% surf or browse either daily or several times each day.

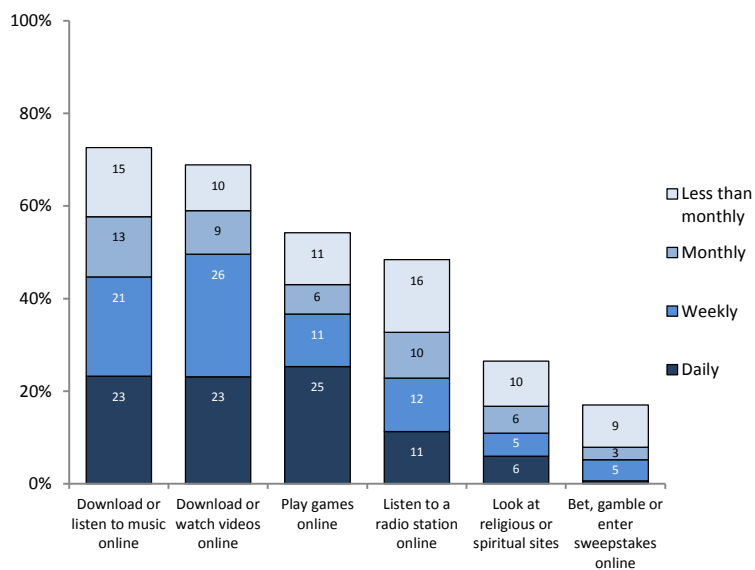
Visiting social networking sites continues to be popular (85%), as is watching TV shows (76%). Thirty-two percent of respondents look at sites with sexual content though just under two-thirds do this either monthly or less often than that.

Q19 (continued):

1. Download or listen to music online
2. Download or watch videos online
3. Play games online
4. Listen to a radio station online
5. Look at religious or spiritual sites
6. Bet, gamble or enter sweepstakes online

Online gambling is the least-popular internet activity (16%) and, proportionally, is engaged in least often by those who do it. By comparison, downloading or listening to music online is fa popular (72%) and the majority do so weekly or daily. More than half of users participate in online gaming.

Online entertainment (2)



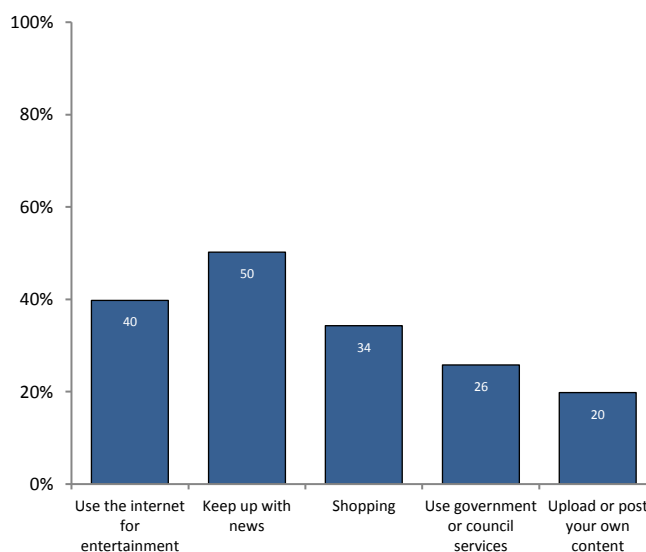
Base: Internet users (n = 1258)

Q39A. Which, if any, of the following would you like to do more of on the internet?

1. Use government or council services
2. Use the internet for entertainment
3. Access education
4. Keep up with news
5. Shopping
6. Networking, including social networking
7. Upload or post your own content
8. Look for information of any kind

The most popular activities that users wanted to do more of online were keeping up with the news (50%) and using it for entertainment (40%).

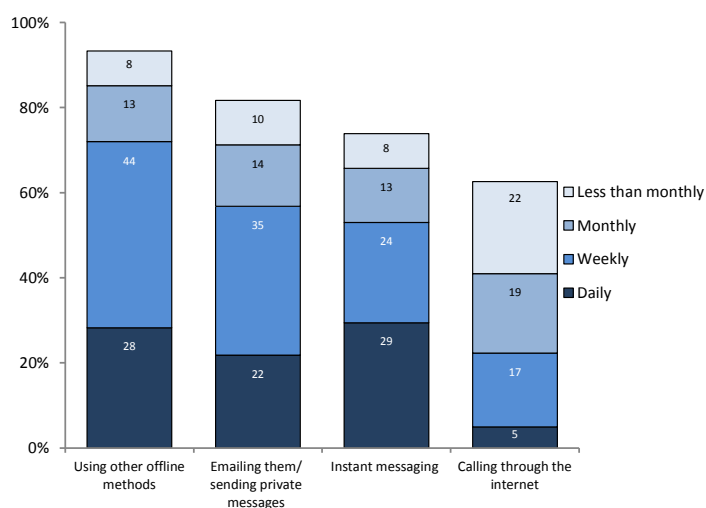
Online activities that users want to do more of



Base: Internet users (n = 1258)

Relationships and Communication

Ways of keeping in touch



Base: All respondents (n = 1377)

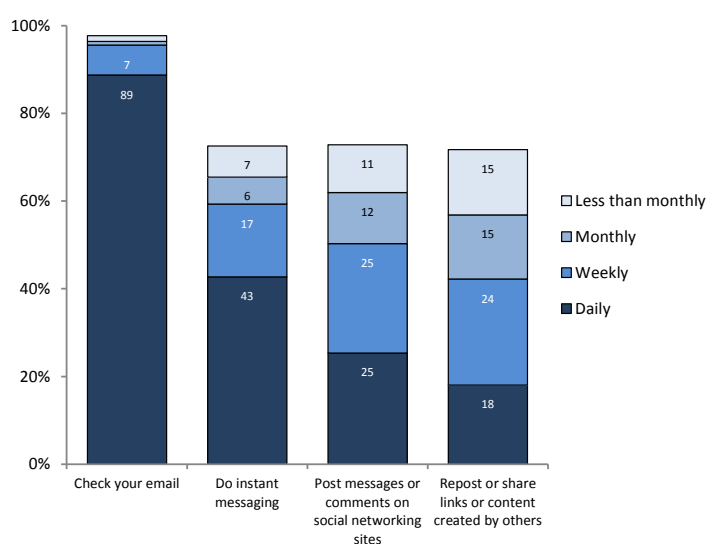
Q30: Thinking of people who do not live in the same household as you, how often do you contact family or friends by... ?

1. Meeting them in person
2. Writing a card or a letter to them
3. Texting them
4. Calling them on the phone
5. Emailing them (including sending private messages in a social networking site)
6. Using any kind of instant messaging
7. Calling them through the internet e.g. Skype
8. Ways other than these (e.g. meeting them in person or calling them on the phone)

Offline methods of keeping in touch, such as writing letters or meeting face to face, are still popular: 93% of participants engage in such activities. However, online options like email and private messages are not far behind (81%), with instant messaging occurring less frequently (74%) followed by internet-mediated calling (63%).

Note that instant messaging includes chat functions such as those available on Facebook or Google, while internet-mediated phone calling includes programmes such as Skype.

Online communication and sharing (1)



Base: Internet users (n = 1258)

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?

1. Check your email
2. Do instant messaging
3. Post messages or comments on social networking sites
4. Repost or share links or content created by others.

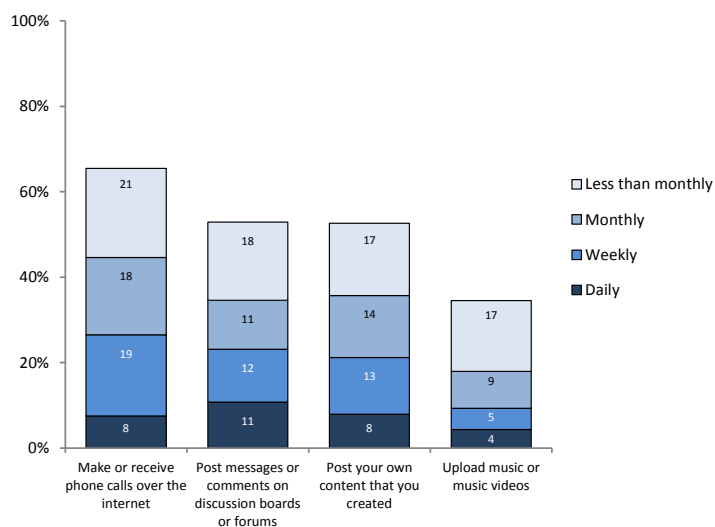
Checking email is by far the most popular and frequent form of online communication engaged in by almost all users. Most indicated that they check emails at least once a day. Just over 70% of all users engage in three other activities, including instant messaging, posting messages or comments on social networking sites and reposting or sharing links or content created by others.

Q25 (cont.):

5. *Make or receive phone calls over the internet*
6. *Post messages or comments on discussion boards or forums*
7. *Post your own content that you created.*
8. *Upload music or music videos*

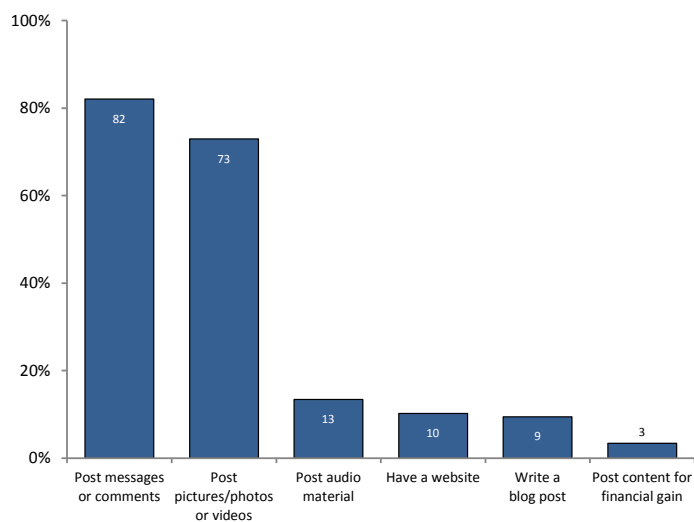
Around two-thirds of participants use the internet to make phone calls and, of that number, about 40% make calls at least weekly. The composition, however, of each category of online communication varies. For example, few respondents make or receive online phone calls daily, whereas 43% of those who use instant messaging do so at least daily, if not several times each day.

Online communication and sharing (2)



Base: Internet users (n = 1258)

Content creation on social media sites



Base: Internet users (n = 1258)

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

1. Post messages or comments
2. Post pictures, photos or videos
3. Post audio material
4. Post content for financial gain

Q24B_1 ... 2: Do you have the following?

1. A website
2. Write a blog

The main social media activity is posting messages or comments (82%), followed by posting pictures or videos (73%) and audio material (13%). This is likely to reflect the ease of posting a comment or photo, compared with the effort required for the other activities, such as creating a website or writing a blog post.

Commerce

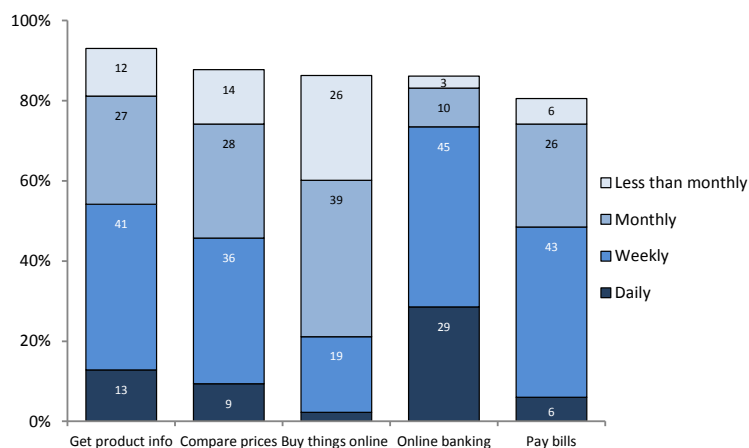
Q31: Now I'd like you to think about different transactions people do in their everyday lives like banking or shopping. How frequently do you use the internet for the following purposes?

1. Get information about a product online
2. Compare prices of products/services online
3. Make travel reservations/bookings online
4. Buy things online
5. Sell things online
6. Use your bank's online services
7. Pay bills online
8. Pay for online services, subscriptions or software
9. Use your smartphone or tablet to make a purchase of any kind

The most popular kinds of online consumer transactions are accessing information about products, comparing prices, buying online, online banking and paying bills. A moderate proportion of users choose to buy things online (84%). Most users engage in online banking at least weekly while, in contrast, they buy things online monthly or less often.

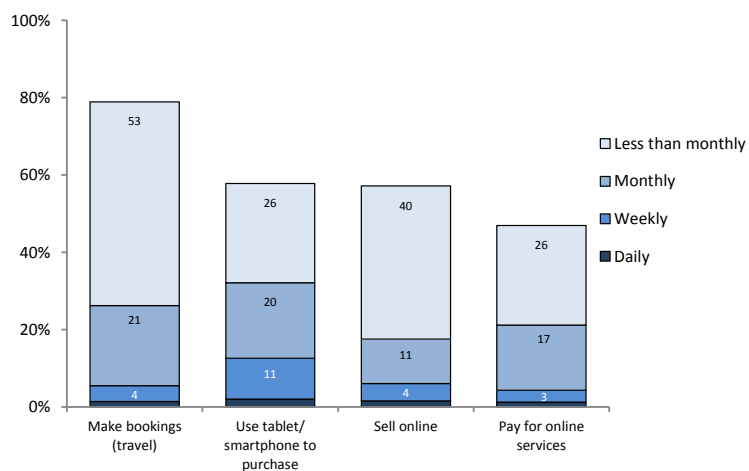
There are clear differences in frequency for less-popular online activities. While most users indicated that they find travel information online, most do so less often than monthly. Overall, users are less likely to sell than to buy online; most of those who sell do so less often than monthly.

Online consumer transactions (1)



Base: Internet users (n = 1258)

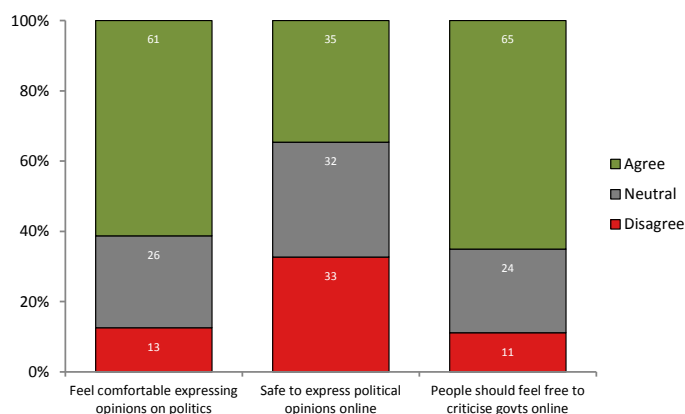
Online consumer transactions (2)



Base: Internet users (n = 1258)

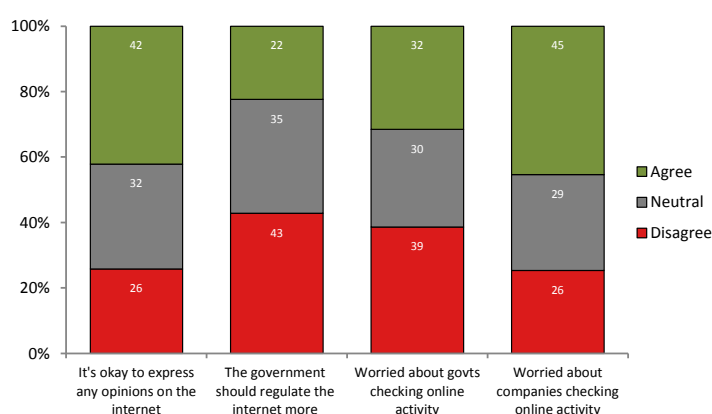
Public Sector and Politics

Political issues on the internet (1)



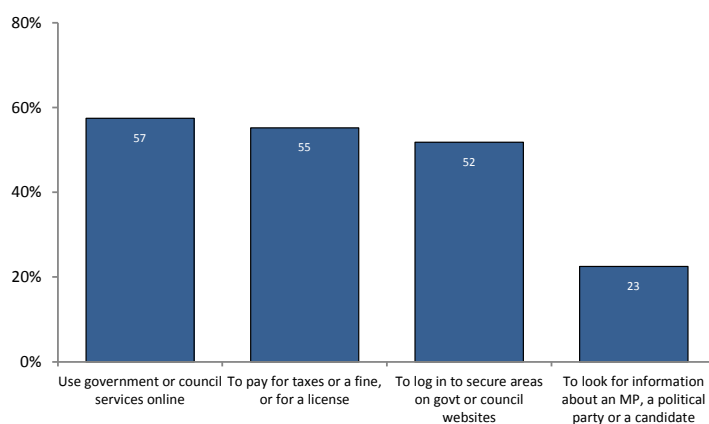
Base: Internet users (n = 1258)

Political issues on the internet (2)



Base: Internet users (n = 1258)

Use of the internet for public information services



Base: Internet users (n = 1258) | y-axis values range from 0% to 80%

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.

1. In general, I feel comfortable saying whatever I think about politics
2. On the internet, it is safe to say whatever you think about politics
3. People should be free to criticise their government on the internet
4. It is okay for people to express their ideas on the internet, even if they are extreme
5. The government should regulate the internet more than it does now
6. I am worried about the government checking what I do online
7. I am worried about companies checking what I do online.

Most respondents (65%) gave a '4' or '5-Strongly Agree' rating regarding the freedom to criticise the government online. Participants echoed this when asked whether or not they feel comfortable expressing political opinions, with 61% of participants indicating that they did, and only 13% disagreeing. However, respondents were divided about whether or not it is 'Safe to express political opinions online'.

Forty-two percent of respondents think that it is okay to express any views (even those that are extreme) online. Over 40% disagree with the suggestion that the government ought to regulate the internet more. Under half of the participants are concerned about companies checking on their personal online activity (45%), though 32% of respondents expressed concern about the government doing the same thing.

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

1. To use Government or council services that are delivered online
2. To log in to secure areas on Government or council websites
3. To look for information about MP, political party or candidate
4. To pay taxes, a fine, or for a licence online

Accessing government services is a fairly common occurrence. Across all internet users, more than half use the internet to access government or council services, to log in to government websites and to pay taxes or fines, or for licences. Around a quarter look online to find more information about political candidates or parties; this, most likely, reflects the relative infrequency of popular political events.

Internet Security

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

1. Received a virus onto your computer
2. Bought something which has been misrepresented on a website
3. Had credit card details stolen via use on the internet
4. Been given information about internet safety
5. Updated your internet security to protect your computer
6. Received obscene or abusive emails
7. Been contacted by someone online asking you to provide bank or personal details
8. Accidentally arrived at a pornographic website when looking for something else
9. Been bullied or harassed online

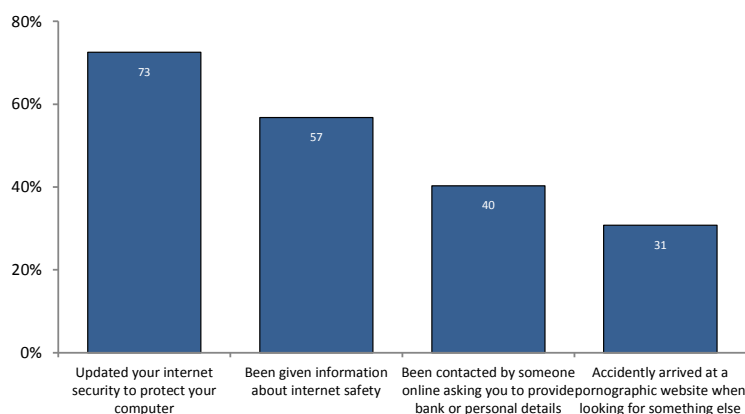
Not all online activity is useful or desirable and our results show a general awareness of some risk associated with the internet. Fifty-seven percent of users have been given some form of information about internet safety and more (73%) have updated their internet security to protect against viruses.

Forty percent of users reported receiving malicious requests for bank account details. Almost a third (31%) of users have arrived accidentally at pornographic sites when they had not intended to do so.

Looking at less common issues, 29% of users reported knowledge of receiving viruses into their computers. Online bullying (or 'cyber-bullying') has been of particular public concern in recent years.

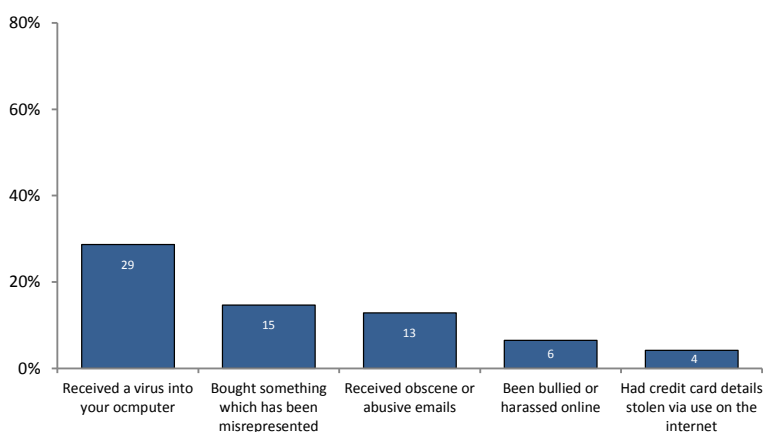
In our sample, 6% have experienced online bullying or harassment. Of interest, is that a higher percentage (13%) reported receiving obscene or abusive emails, which signals that not all such emails fall under 'bullying'. This may be because some obscene or abusive emails are sent en masse, and not directed to the recipient personally. Credit card fraud, one of the most serious internet issues queried, was infrequent (4 %).

Nuisances and security (1)



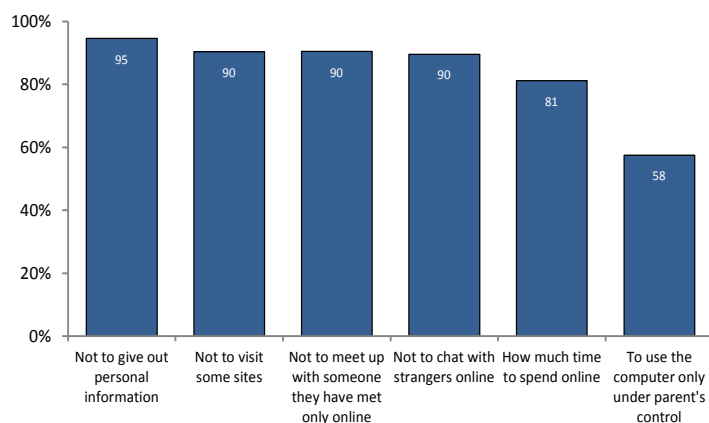
Base: Internet users (n = 1258) | y-axis values range from 0% to 80%

Nuisances and security (2)



Base: Internet users (n = 1258) | y-axis values range from 0% to 80%

Household rules for internet usage



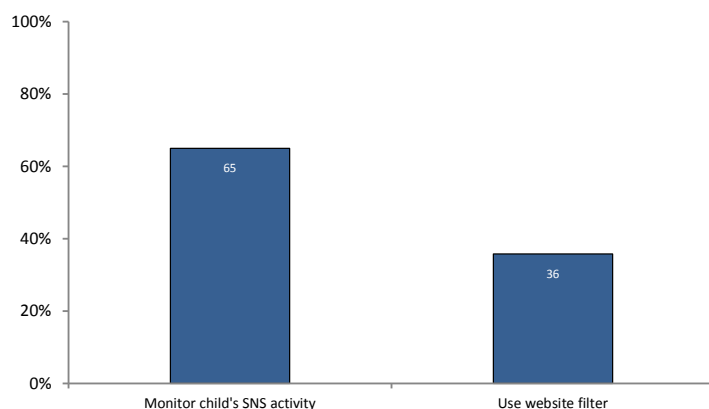
Base: Internet users in households that include someone under the age of 18 (n = 516)

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

1. Not to visit some sites
2. How much time to spend online
3. Not to give out personal information
4. Not to chat with strangers online
5. Not to meet up with someone they've only met online
6. To use the computer only under parent's control

It can be expected that the ubiquity of the internet has motivated some parents to advise their children on how to use the internet safely. Close to all parents tell their children not to engage in risky behaviours such as giving out personal information (95%), visiting certain websites (90%) and chatting with strangers online (90%). Fewer (58%), though still a majority go so far as to limit children's internet use to a parent-controlled computer.

Monitoring internet use



Base: Internet users in households that include someone under the age of 18 (n = 337)

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

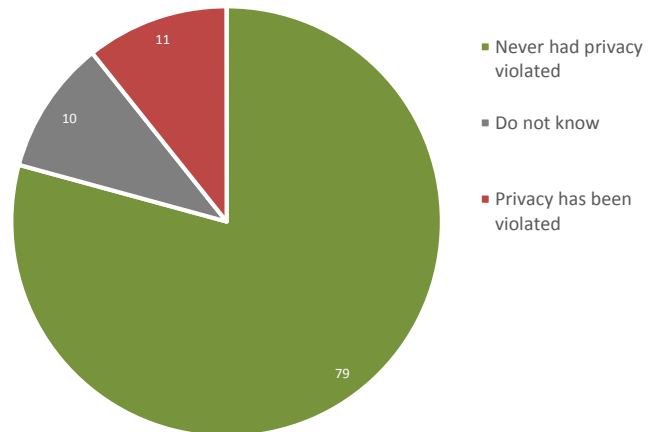
Q47B: Do you monitor what your children do on social networking sites such as Facebook?

Sixty-five percent of parents with children who use the internet reported monitoring their children's SNS activity. A more systematic method of controlling children's online activity is to use website-filtering software, which limits access to certain inappropriate websites. More than one-third (36%) of parents use such software.

Q49A: Have you ever had your privacy violated online?

The majority (79%) of internet users reported that they have not experienced any violation of privacy online, while 11% have. While this is a small percentage it presents violation of privacy online as a major issue when extrapolated to the total population of internet users.

Violation of privacy



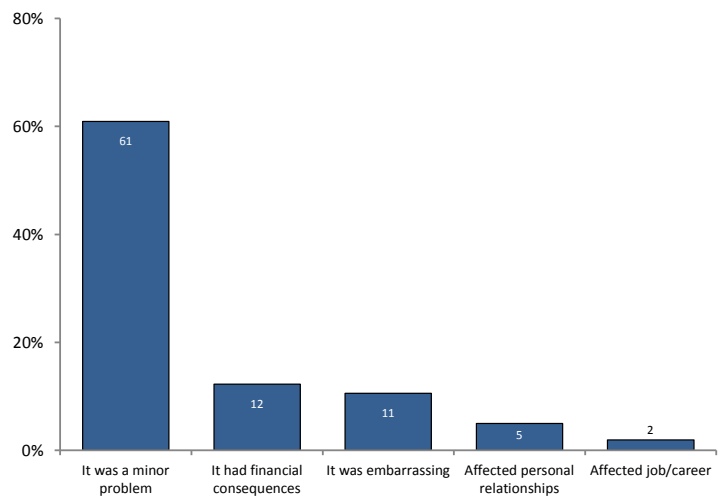
Base: Internet users (n = 1258)

Q49B: Which, if any, of these happened as a result of this?

1. It was a minor problem
2. It was embarrassing
3. It had financial consequences
4. It affected your job/career
5. It affected your personal relationships

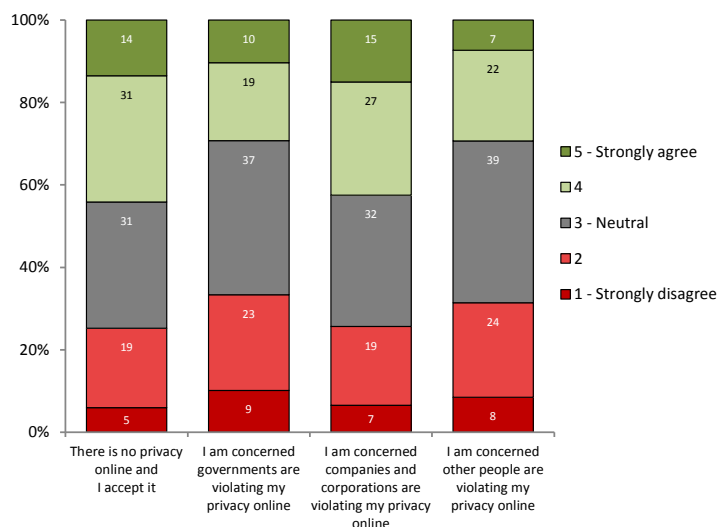
Respondents who reported a violation of online privacy were queried over the consequences of the violation(s). Sixty-one percent of those who reported a breach of online privacy view it as a minor problem. Few stated that it had an impact on their lives such as on their personal relationships, jobs or careers.

Consequences of online privacy violation



Base: Respondents who had experienced a violation of privacy (n = 137) | Multiple responses were permitted across the categories shown | y-axis values range from 0% to 80%

Opinions on online privacy (1)



Base: Internet users (n = 1258)

Q49CG: How much do you agree or disagree with the following statements?

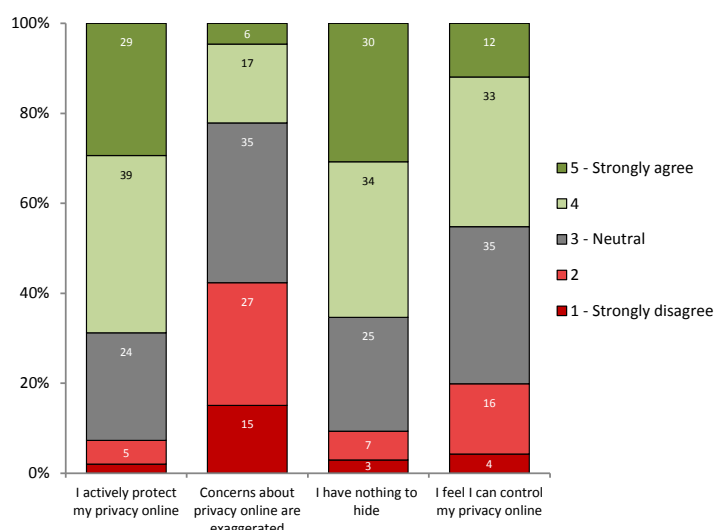
1. There is no privacy online and I accept it
2. I am concerned governments are violating my privacy online
3. I am concerned companies and corporations are violating my privacy online
4. I am concerned with other people are violating my privacy online
5. I actively protect my online privacy
6. Concerns about privacy online are exaggerated
7. I have nothing to hide
8. I feel I can control my privacy online

Twenty-nine percent of respondents indicated that they were concerned about violations of their internet privacy by the government. This is fewer than the 42% percent who are concerned about such violations by corporate entities but the same as those concerned about privacy violations by other people.

Sixty-eight percent of users protect their privacy online actively, compared to 45% who feel as though they can control their online privacy. Few users agree that concerns over online privacy are exaggerated while most reported that they have nothing to hide (64%).

At least one-quarter of responses about internet security are neutral and, in some cases, the proportion of neutral responses is much higher. For instance, 39% of responses regarding violations of online privacy by other people are neutral.

Opinions on online privacy (2)



Base: Internet users (n = 1258)

Section 2

The Diversity of Internet Users

Our findings show that the internet is used differently by certain groups of people in society. In this section, we look at the most interesting and significant differences relating to groups based on age, gender, ethnicity, household income and area (urban–rural). This section introduces a Usage Index as a way to understand the differences between demographic sub-groups. The Index is the mean frequency of use for each individual across a range of online activities. The minimum possible score is zero, if a person replied ‘never’ to all questions. The maximum score, representing answers of ‘several times a day’ to all questions, is 5. The average Usage Index across all users is 1.5. See Appendix 2 for more detail about how the Usage Index was calculated.

Some of the notable patterns for each social grouping are:

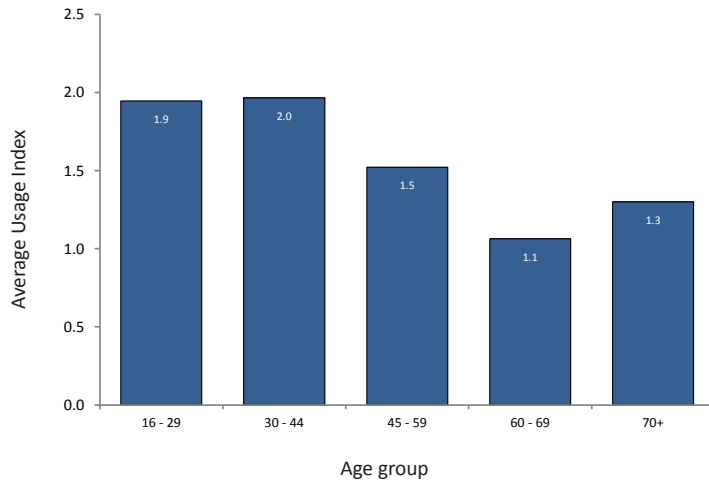
- Age: The younger a person is, the greater their internet use. However, there is variation in the steepness of the gradient in this trend depending on the different activities that are carried out online.
- Gender: Males and females use the internet on a more or less equal basis for activities such as browsing the web or watching feature films online. Differences are apparent, however, with men being more focused on entertainment activities and women more likely to visit social networking sites.
- Ethnicity: Asian and New Zealand European internet users are more highly engaged in a range of activities, such as buying things online. Pasifika people, however, are more likely to look at religious sites and, along with Māori, lead the way in subscribing to online music services.
- Household income: Internet use and access to multiple devices generally increases with household income, though people aged 16 to 29 years are noticeably high internet users regardless of income.
- Area: Higher internet use continues to occur in urban areas compared with rural locations as indicated in earlier surveys.

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.
- The numbers shown on graphs in this section represent percentages (rounded to integers), and Usage Index scores (rounded to one decimal place).
- Survey question wording: The full wording of the relevant survey question is given at the top of the column for any questions that were not already covered in Section 1. The number of the question as listed in the WIPNZ 2015 questionnaire is also given.

Age

Usage Index by age group

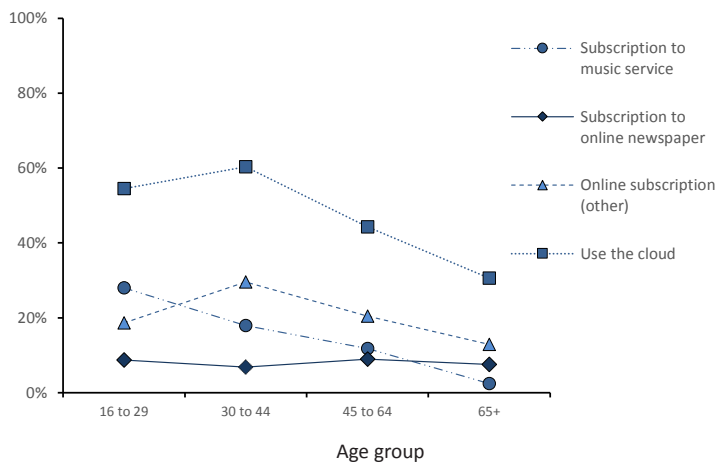


Base: Internet users (n = 1258) | Values indicate average Usage Index for each age group. Because the Usage Index is a subtle measure, operating within a small range, all Usage Index results are plotted with a y-axis range of 0 to 2.5, even though the theoretical upper limit of the index is 5.

The graph opposite shows an average Usage Index of respondents' internet use across a range of activities (see Appendix 2 for full description of the Usage Index). Usage indices in this report range from 0 (no usage) to 5 (very high level of usage). Across all users, the average index is around 1.5 and the Usage Index is plotted across five age brackets.

There is no meaningful difference between the 16–29 and 30–44 age brackets, with both sitting at a usage value just under 2.

Paid subscriptions and cloud computing by age



Base: Internet users (n = 1258)

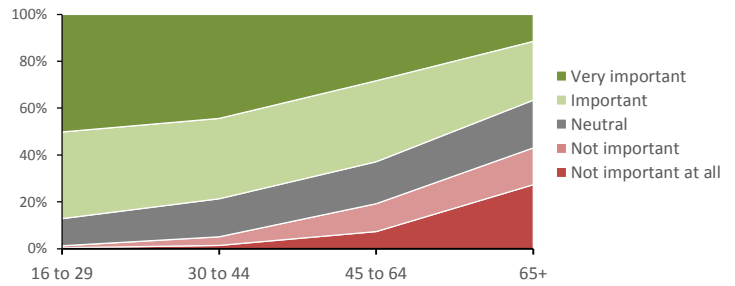
Rates of online subscription and cloud usage across four different age brackets indicate that cloud computing is used more readily by younger respondents, although 30–44-year-olds make slightly more use of it than do the youngest age bracket. This may reflect vocational differences.

One-third of 16–29-year-olds subscribe to an online music service. This percentage drops steadily for each of the three older age groups. Online newspaper subscriptions are uncommon across all age groups and are not used by more than 15% of respondents of any age. Other online subscriptions, which could include online video games, newsletters or paid memberships, are more popular collectively than are online newspaper subscriptions but, still, are not used by more than 40 % of respondents in any age group.

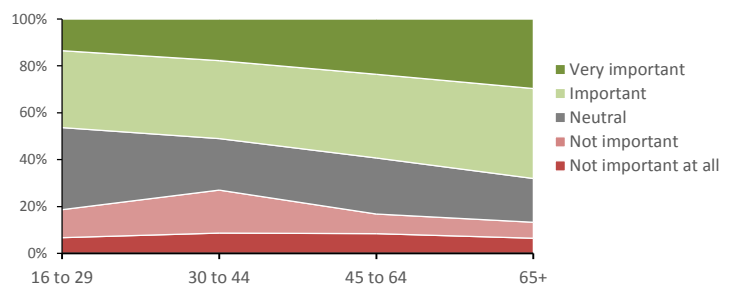
Our results show clearly that younger respondents place more importance on the internet as a source of entertainment than do other age groups. However, for all except the oldest age group, the internet was still rated by the majority of respondents as either 'Important' or 'Very important'.

Ratings of television, radio and newspapers (in their offline forms) show less striking trends. However, there is a tendency for older age brackets to assign more importance to these offline media as sources of entertainment.

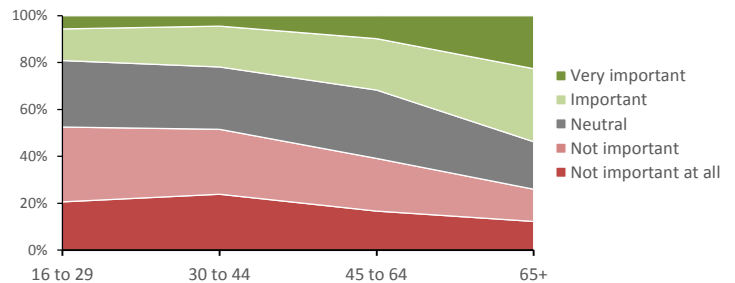
Importance of the internet as entertainment



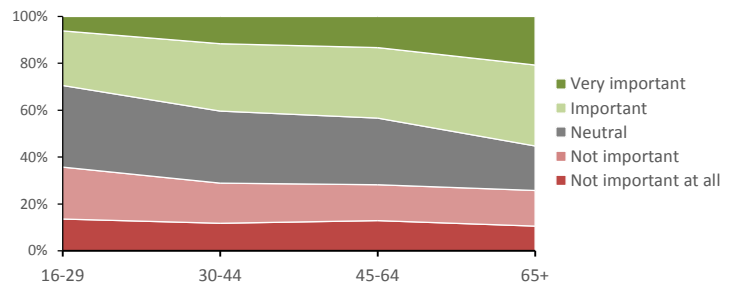
Importance of TV as entertainment



Importance of newspapers as entertainment

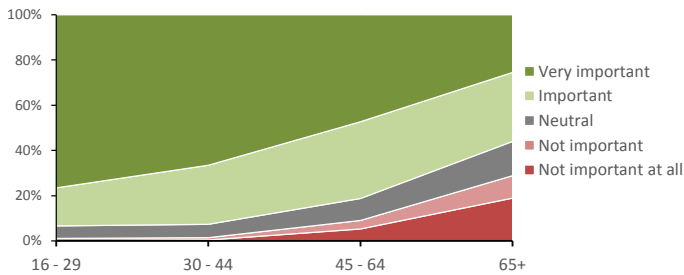


Importance of radio as entertainment



Base: All respondents (n = 1377)

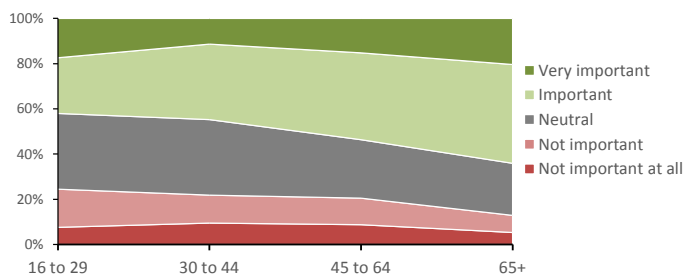
Importance of the internet as an information source



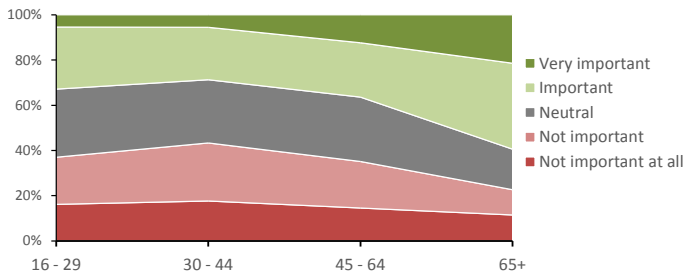
When asked about the importance of various media as forms of information, respondents across age groups reported similarly. The internet is seen as an either 'Very important' or 'Important' source of information for the majority of members of all age groups, and only a very small number of respondents in the two youngest age groups reported the internet as 'Not important' or 'Not important at all'.

Results for the same question directed at television indicate that older age groups have a slightly greater tendency than do others to rate television as either 'Important' or 'Very important' as a source of information. The same can be said for newspapers and radio although, for all three of these media, the composition of responses remains relatively stable across all age groups.

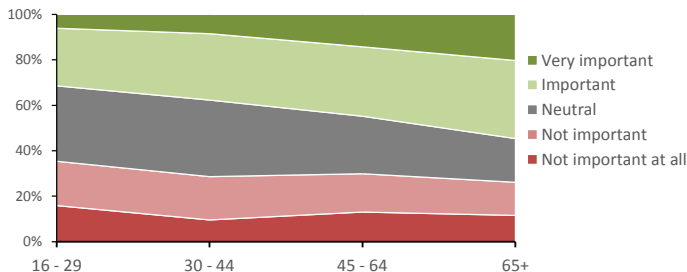
Importance of TV as an information source



Importance of newspapers as an information source



Importance of radio as an information source



Base: All respondents (n = 1377)

Gender

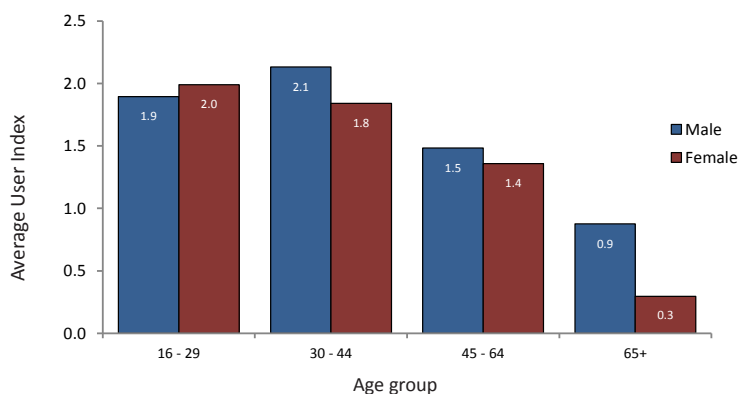
The Usage Index indicates the average of a given respondent's internet usage over a range of activities (see Appendix 2 for a full description). Scores close to 1 indicate next to no usage whereas scores closer to 5 indicate very high usage.

Average usage scores for 16–29-year-olds are more or less the same for males and females while, for older age groups, males have consistently higher average scores.

Almost all users of both genders surf the web. Moreover, there is little difference between the genders when it comes to downloading or watching feature films from the internet, playing games online, or looking at spiritual or religious sites.

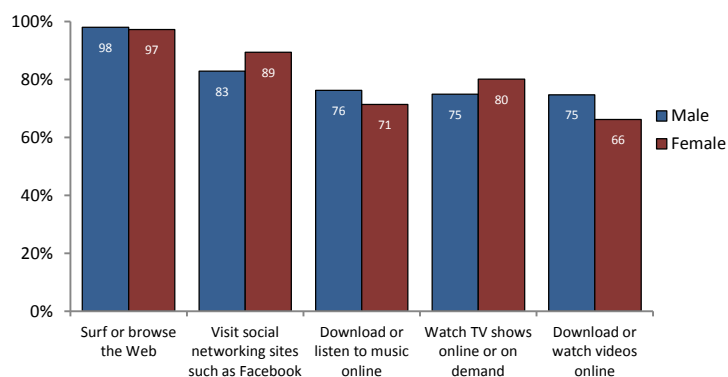
Slightly more females visit social networking sites than do males whereas, notably, more males listen to radio stations online. The most pronounced difference between the genders here is that half of the male users in our sample reported looking at sites with sexual content; only 18% of female users reported doing so.

Usage Index by gender and age



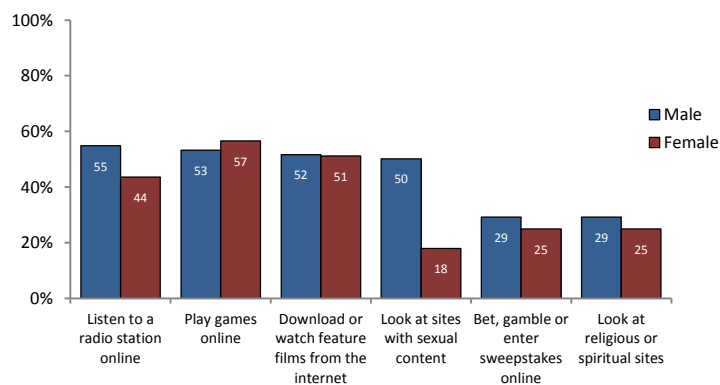
Base: Internet users (n = 1258)

Entertainment activities by gender (1)



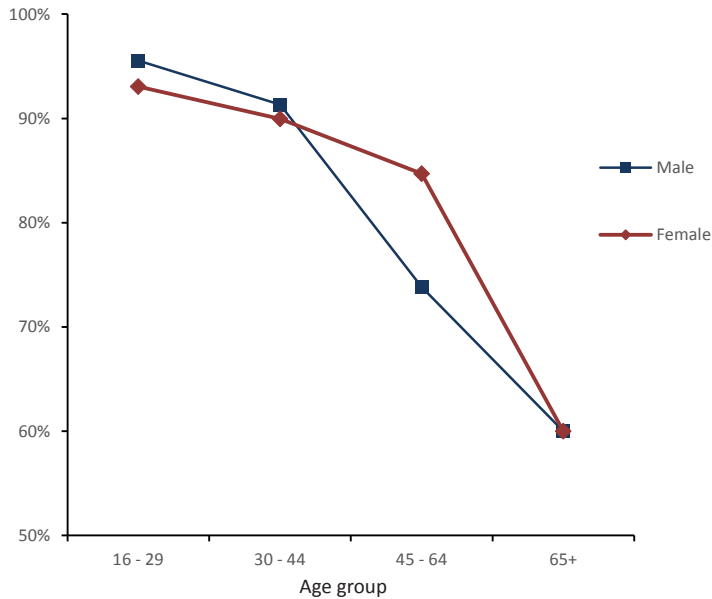
Base: Internet users (n = 1258)

Entertainment activities by gender (2)



Base: Internet users (n = 1258)

Social media usage by age and gender

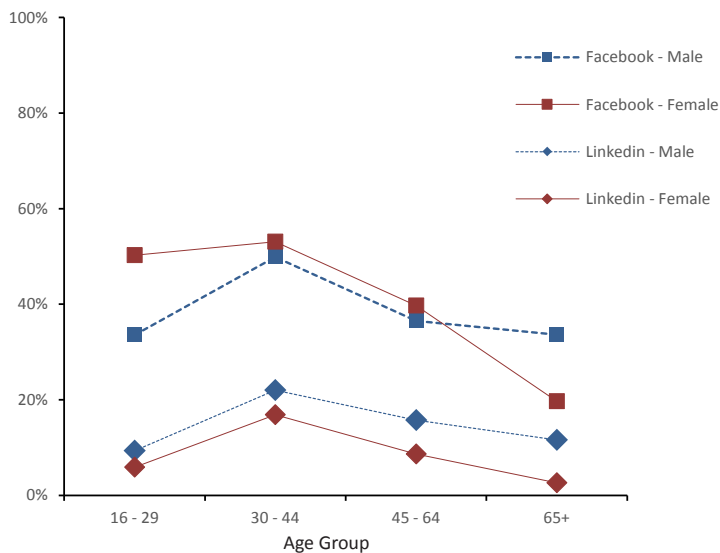


Base: Internet users (n = 1258) | Usage rates calculated from Q23. *Are you a member of a social networking site or sites*

The difference in social media usage between genders (see p. 24) prompted us to examine male–female differences across four age groups. Social media usage is most popular in the youngest users and declines with age.

Social media usage differs between the two genders only for the 45–64 age bracket. In other words, the gender trend for SNS usage shown above is carried by only a particular age bracket, with middleaged women using social media more than men of the same age.

Facebook and LinkedIn usage by age and gender



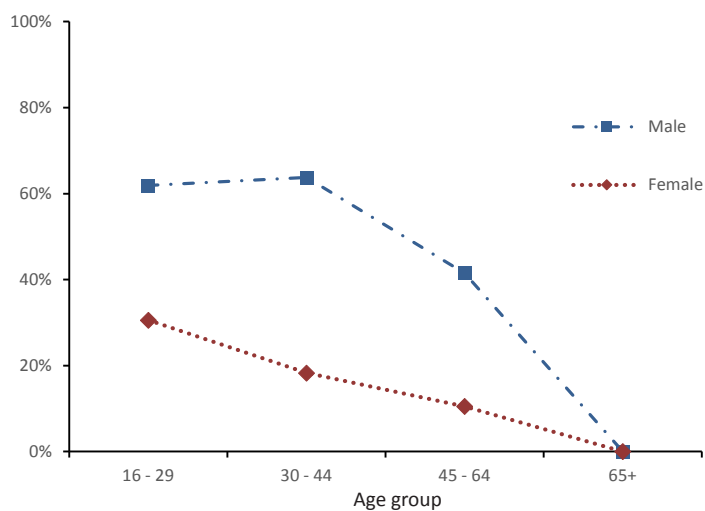
Base: Internet users (n = 1258)

To investigate usage across age groups and between genders, Facebook was chosen for its popularity as a social networking site, and LinkedIn for its focus on vocational information and professional networking. Data presented here indicates how often gender and age groups list Facebook or LinkedIn as the sites they use most often (referred to here as ‘main SNS’).

There is no pronounced difference between age groups in terms of using LinkedIn as a main SNS, although men have a slightly higher percentage than women. In the 16–29 age bracket, females consider Facebook as their primary SNS more than males do whereas this pattern is reversed for older males and females (65+).

The rate at which each gender views sites with sexual content does not converge until the very oldest bracket (65+). The majority of males in the 16–29 and 30–44 age groups view sites with sexual content, and just under half of males aged between 45 and 64 use such sites. Across all age groups, a minority of women look at sexual sites and there is a downward trend from younger to older age brackets.

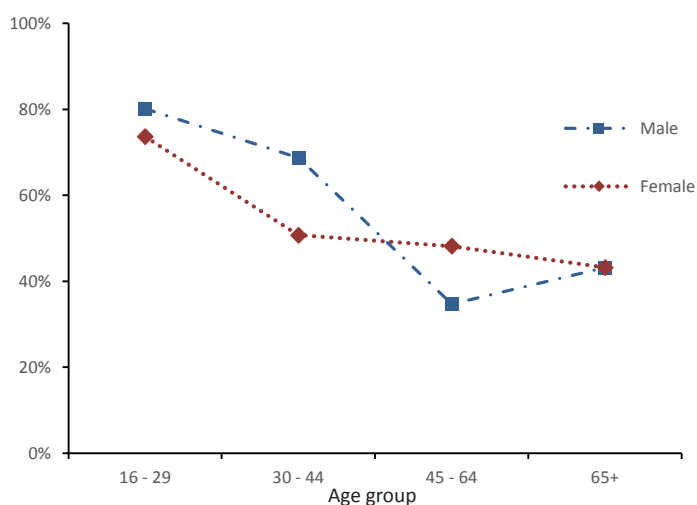
Viewing sites with sexual content by age and gender



Base: Internet users (n = 1258)

Common stereotypes predict that men play more games than do women. Looking at online video games, this is true only for those in the 30–44 age bracket. For those aged 45–64, women actually play online games more often than do men and, for the youngest age group, there is only a small difference between the genders (with males playing online games slightly more often).

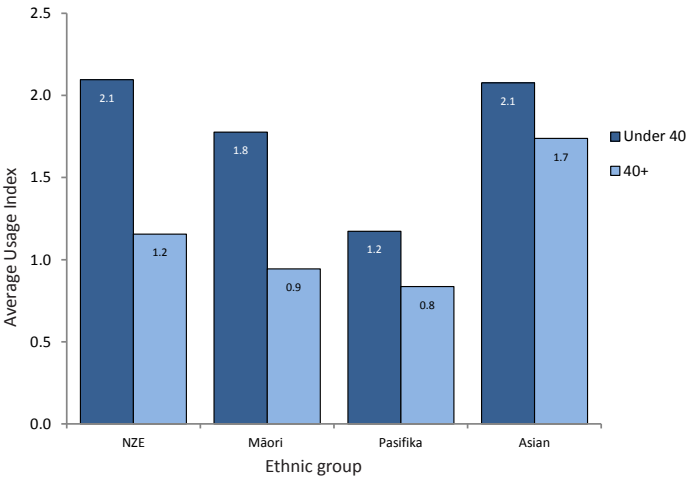
Playing games online by age and gender



Base: Internet users (n = 1258)

Ethnicity

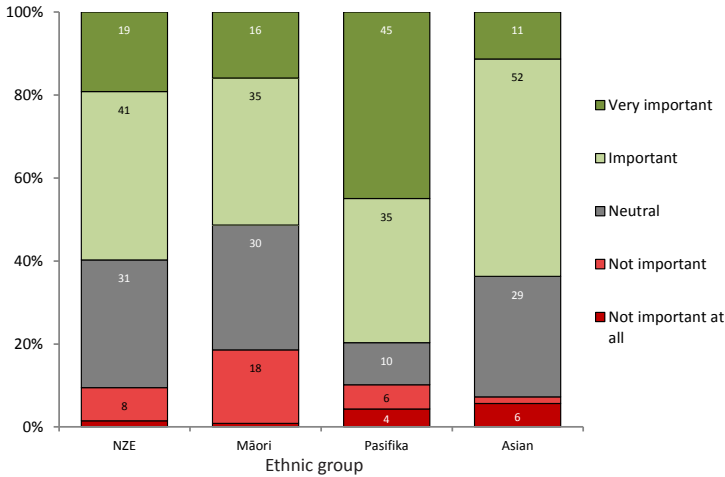
Usage Index by age and ethnicity



Base: Internet users (n = 1258)

This graph presents average Usage Index scores for four ethnicities, split into two age groups. For those under 40, New Zealand Europeans (NZE), Māori and Asian respondents have similar average Usage Index scores, with a notably lower score for Pasifika. There is a more discernible difference between ethnicities for those aged over 40. Asians have a clearly higher average score, followed by NZEs; Māori and Pasifika respondents have the lowest scores in this age bracket.

Importance of other people as an information source by ethnicity

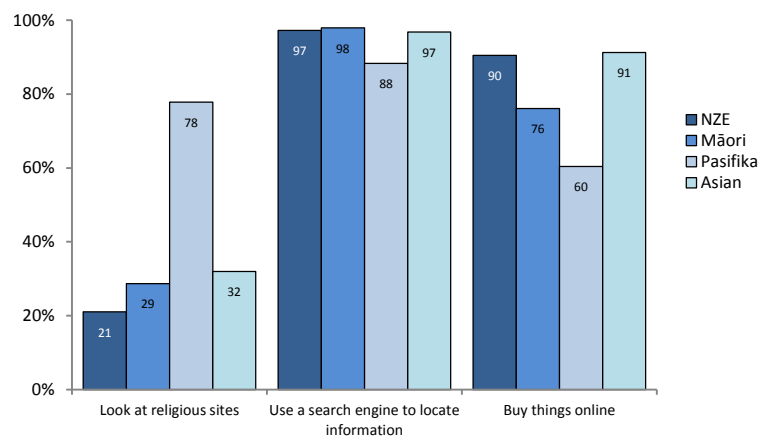


Base: All respondents (n = 1377)

Attitudes towards other people as information sources are split by ethnicity. Pasifika users stand out as valuing other people for this purpose more than do members of other groups (80% listed other people as 'Very Important' or 'Important'). Asians have similar views but tend to give answers on the less-extreme end of the Likert scale.

Pasifika people are much more likely to visit religious sites than are people of other ethnicities, who do so relatively infrequently. In stark contrast is the very high proportion of each group that uses search engines. Asian and NZE respondents are matched for buying things online, followed by Māori; Pasifika people are least likely to do so.

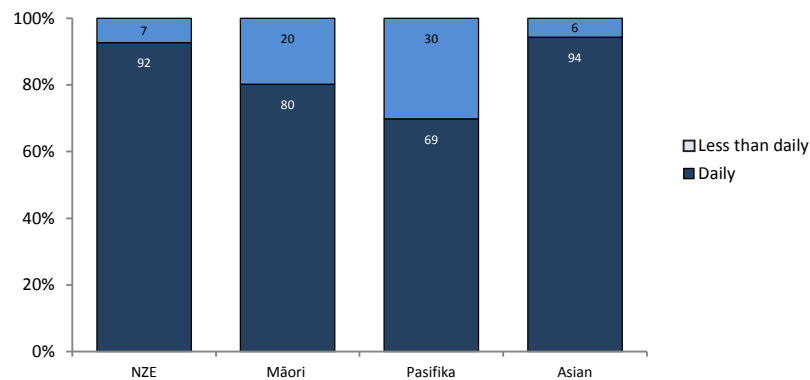
Online activities by ethnicity



Base: Internet users (n = 1258)

High percentages of NZE, Māori and Asian respondents indicated that they check emails either 'Daily' or 'Several times a day'. However, 69% of Pasifika participants reported that they check emails daily. The latter group also had the highest proportion of 'Never' responses.

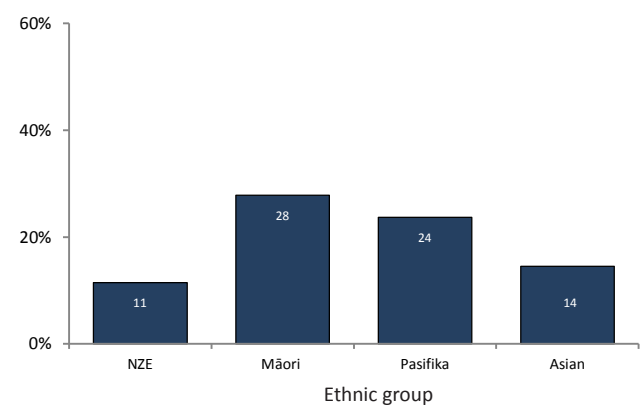
Checking email by ethnicity



Base: Internet users (n = 1258)

The popularity of online music subscriptions is reported on p. 21. Māori had the highest percentage of such subscriptions (28%), whereas NZE had the lowest (11%).

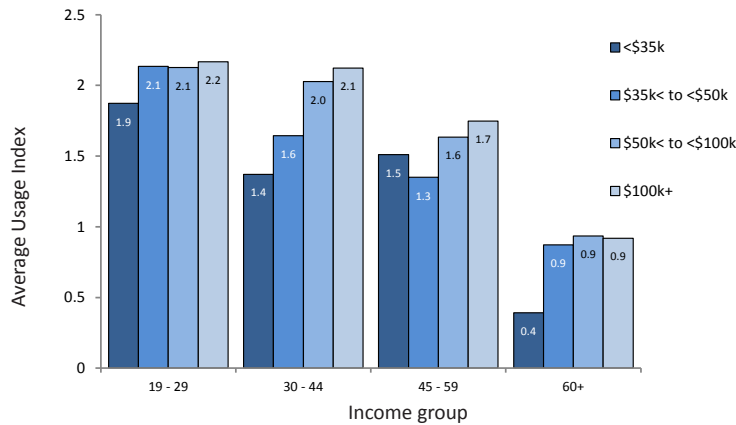
Music subscriptions by ethnicity



Base: Internet users (n = 1258)

Household Income

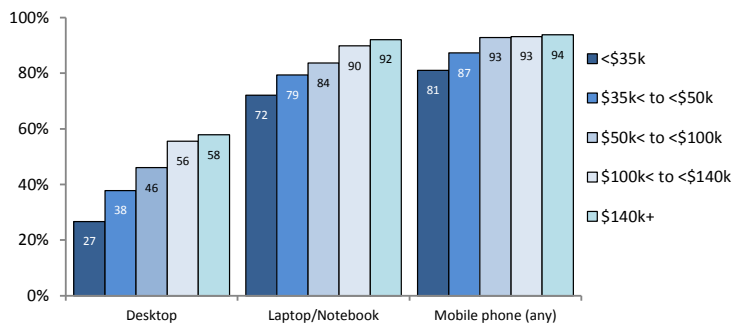
Usage Index by age and household income



Base: Internet users (n = 1258)

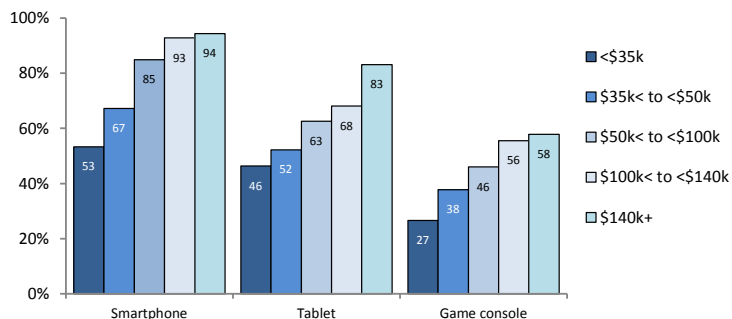
Earlier in this report, a decrease in Usage Index scores with increasing age was noted. This pattern is preserved here within each income group. Furthermore, there is a small but perceptible increase in the average Usage Index as annual household income increases. This pattern is most evident for those in the 30-44 and 45-59 age groups.

Devices in household by income (1)



As with the Usage Index, users in higher income groups reported greater frequencies of owning electronic devices. For some devices, such as mobile phones (of any kind), this increase is not very pronounced in any but the lowest income categories, whereas there is a much clearer increase in ownership with higher income for smartphones, game consoles, tablets and desktops. Smartphone ownership shows the greatest divide between income groups: 94% of the highest income group (earning more than \$140,000) have smartphone in their households, compared to 53% of the lowest income group (earning less than \$35,000).

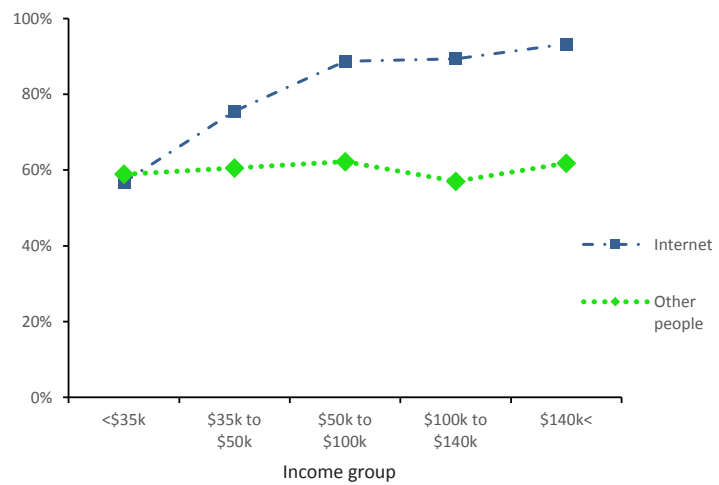
Devices in household by income (2)



Base: Internet users (n = 1258)

Aligning with average Usage Index scores, greater affluence coincides with larger proportions of people who see the internet as an important source of information. The importance of other people for information remains stable across income levels but is rated as less important than is the internet for all but the lowest income group.

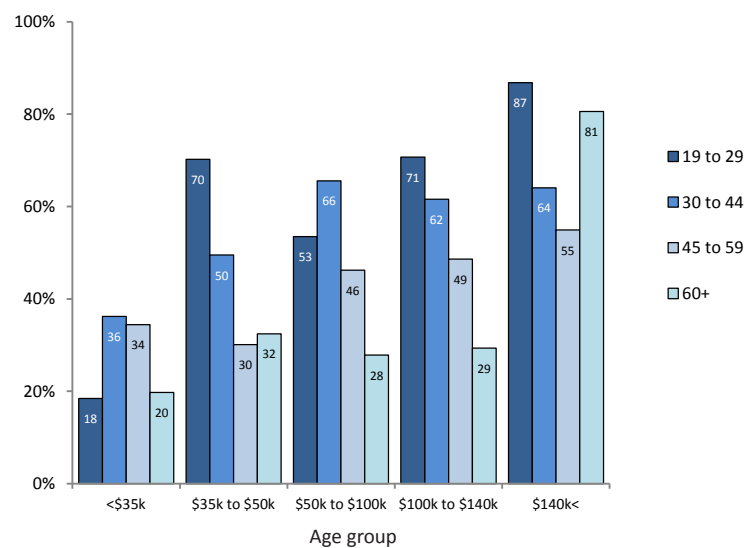
Importance of the internet and people for information by household income



Base: Internet users (n = 1258)

There is a less clear but still discernible increase in cloud usage with greater income. This is more pronounced for some age groups than for others. The numbers here should be interpreted with caution as, in some cases, some categories (e.g. 19–29-year-olds earning more than \$140,000) are reduced to a small number of cases. But note that the number of respondents in some cells is low.

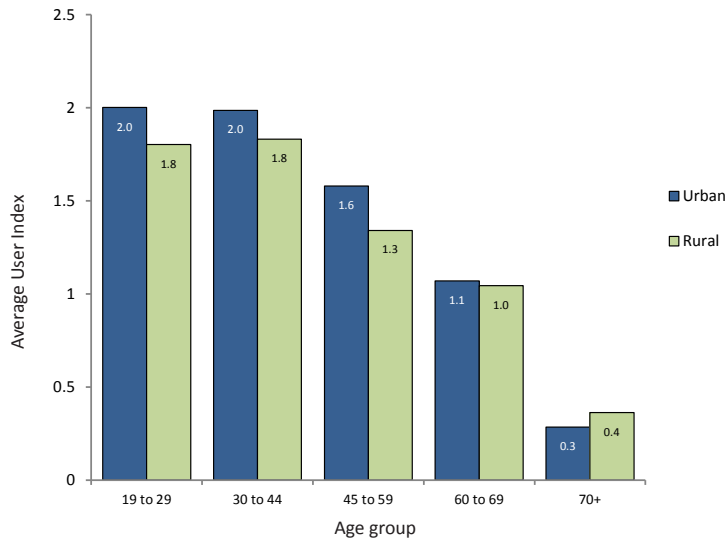
Using the cloud by age and household income



Base: Internet users (n = 1258)

Area: Urban to Rural

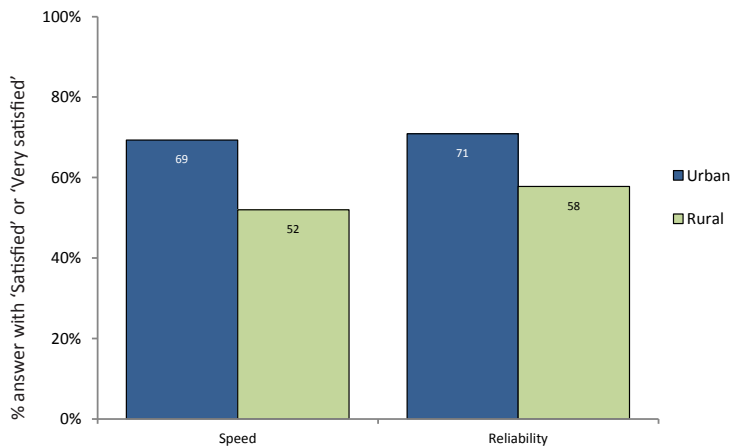
Usage Index by urban-rural and age



Base: Internet users (n = 1258)

Because of inconsistencies in infrastructure, a difference in usage between urban and rural respondents is to be expected. Overall, rural users' average Usage Index score is only slightly lower than is that of their urban counterparts. Splitting these scores by age, higher usage for urban users can be seen in all but the oldest age group.

Satisfaction with internet connection by area



Base: Internet users (n = 1258)

Differences between urban and rural locations also play out in respondents' satisfaction with connection speed: 69% of urban dwellers are satisfied with internet speed compared with 52% of rural dwellers. Similarly, 71% of urban users are satisfied with the reliability of their internet connections while 58% of rural users are satisfied with theirs.

People with Disabilities and their Internet Use

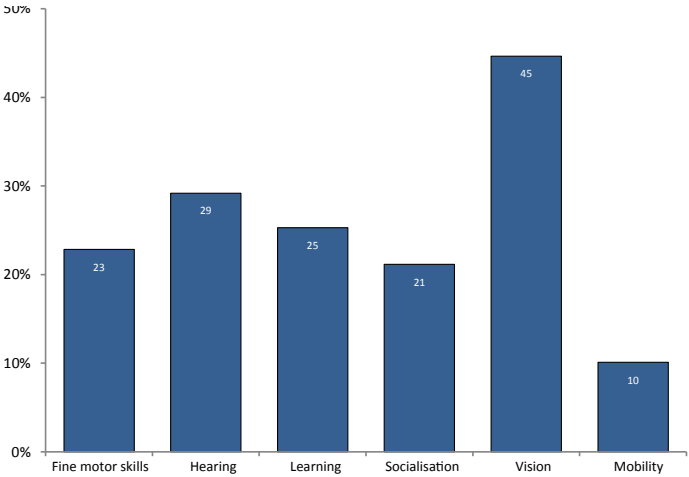
- Q2D1: In some settings do you find it difficult to ...
1. Use your hands to hold, grasp, or use objects, including fine movements
 2. Hear
 3. Learn, think, concentrate, and remember
 4. Communicate, mix with others, or socialise
 5. See
 6. Walk, lift, or bend down

A new question was introduced to the 2015 survey in order to gain a better understanding about people with disabilities and their internet use. Of the respondents who used the internet, 14% indicated that they live with impairment or ongoing health concerns. Of these respondents, 45% said they had difficulty seeing, while around one in four identified issues with hearing, learning, fine motor skills or socialisation. Ten percent reported having difficulty with mobility.

Q2D2: Which of these, if any, help you use the internet?

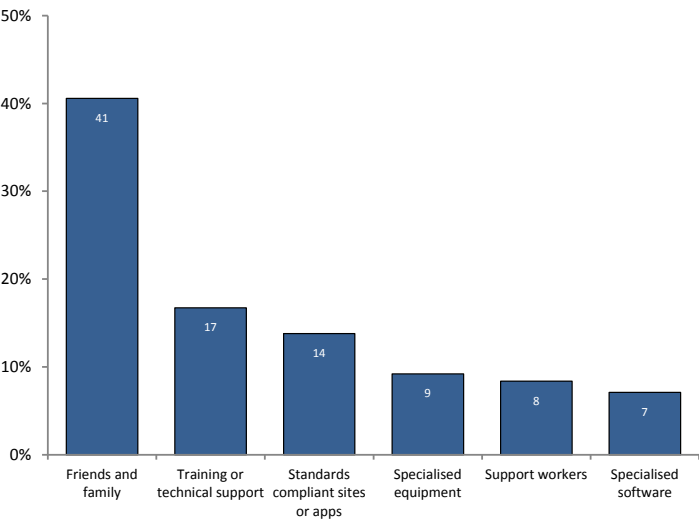
Participants with disabilities reported most commonly that assistance for their internet use came from friends and family (41%). It should be noted that the lower percentages for the other categories indicated could mean that these alternative strategies might not be available to respondents.

Internet users with disabilities



Base: Internet users who report having difficulty with a disability (n = 195)

Internet users with disabilities: alternative strategies



Base: Internet users who report having a disability (n = 195)

Section 3

Digital Disadvantage in 2015

In considering how New Zealanders use the internet, this section indicates a small but significant portion of our sample who may be ‘digitally disadvantaged’ – be they non-users or low-level users. In this final section of the report, we identify those online activities that are engaged in by users, irrespective of their levels of skill or online engagement, to determine what kind of burden of exclusion non-users may face. As the proportion of non-users has gradually decreased in our WIPNZ surveys, we are more aware that this group may be increasingly disadvantaged as they are more easily overlooked as a shrinking minority.

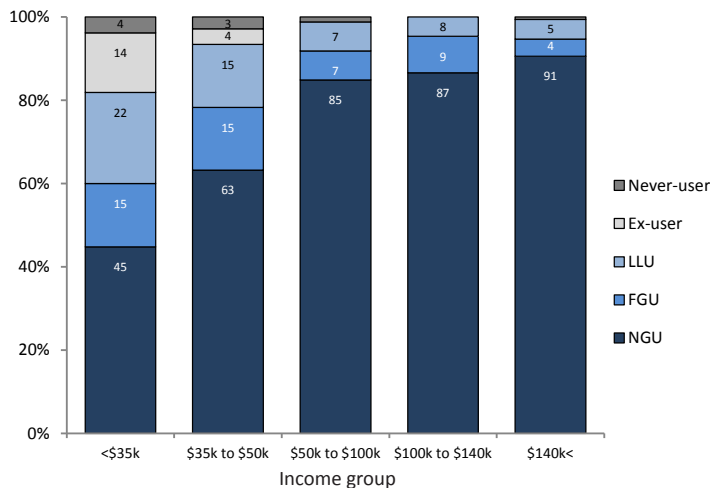
We can think of all online activities as sitting somewhere on a scale between online ‘Specialist’ and online ‘General’ activities.¹ Those activities on the ‘Specialist’ end of the spectrum usually require strong engagement with the internet, high-speed connections or newer devices. ‘General’ internet activities are more likely to be accessible on slower connections and may not entail strong online engagement. To gauge the extent to which activities are considered ‘General’, we have examined the relative usage of Next Generation Users and Low Level Users (the methods for defining these groups are described in detail in Appendix 2). Those activities which are newer and less mainstream will be conducted much more often by NGUs than by LLUs. As activities become ‘naturalised’ to the extent that they become a part of everyday life, LLUs will ‘catch up’ to NGUs in their capabilities. Based on this logic, we have ranked in Appendix 1 all of the internet activities measured in the survey according to the ratio of NGU usage to LLU usage. We demonstrate here one example of how this metric is calculated and what it means (Appendices 1 and 2 give further detail). Downloading smartphone apps sits towards the ‘Specialist’ end of the ‘General to Specialist’ continuum at this relatively early stage in its life cycle. Eighty-six percent of NGUs download apps, compared to 17% of LLUs. By dividing the percentage of usage for NGUs by the percentage of usage for LLUs, we see that NGUs are five times more likely to download apps than are LLUs. This is a high figure, 7th highest out of the 52 activities analysed in this way, placing the downloading of smartphone apps firmly at the ‘Specialist’ end of the continuum at this time.

This metric produced intuitive results which could not be ascertained by looking at levels of usage in isolation – it is the ratio of usage between different types of user that gives us a picture of how far along the ‘General to Specialist’ continuum an internet activity sits. LLUs are defined according to low frequencies of internet use across online activities. The NGU measure, by contrast, is based on access through multiple devices, along with other indicators of high internet engagement (see Appendix 2 for a full definition). This analysis, therefore, provides some insight into which activities might be on their way to becoming so naturalised that being deprived of them could result in genuine exclusion from mainstream society.

¹ These descriptions replace ‘luxury’ and ‘core’ that were used in the 2013 report to better reflect the types of activities rather than to infer status.

The Persistence of the Digital Divide

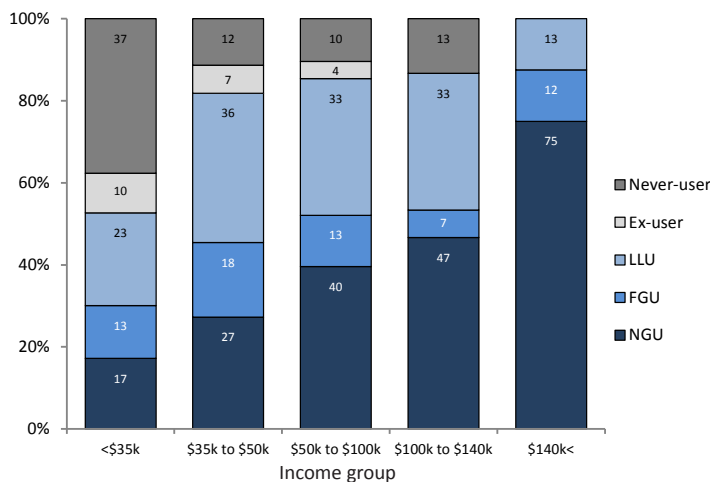
**User status by household income:
Under 65s**



Base: Respondents younger than 65 who gave income information (n = 1141)

For those respondents aged under 65 and earning more than \$50,000 household income annually, the proportions making up each of the five different classifications are almost identical across the three different income brackets; more than 80% of users of each level fall into the Next Generation User classification. This percentage shrinks for groups earning less than \$50,000, which include more Low Level Users, First Generation Users and, in the case of the <\$35k bracket, Ex-users.

**User status by household income:
65 years and older**

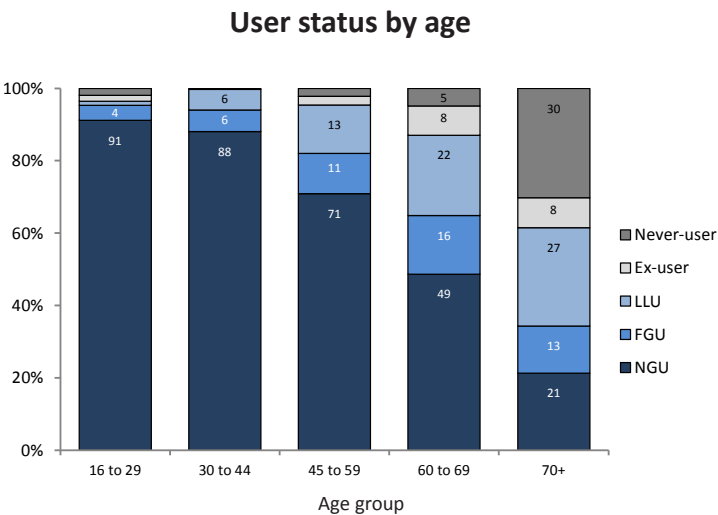


Base: Respondents 65 years old or older who gave their income information (n = 235)

The digital divide between income groups is much more evident for those people aged over 65 years. The large majority of respondents in the highest income group are NGUs (75%), compared to 17% in the lowest income bracket.

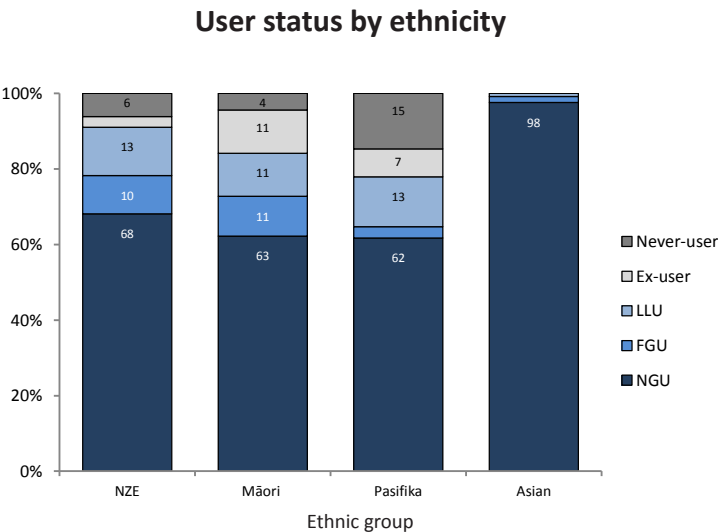
Overall, user status seems to be affected by an interaction between income and age. But note that the number of respondents in some cells is low.

There is a stark pattern in user classification according to age group; younger groups are made up mostly of NGUs and the proportion of NGUs decreases at an accelerating pace across older age groups. Thirty-eight percent of respondents over 70 years of age are either Never-users or Ex-users, compared with 4% of 16–29-year-olds.



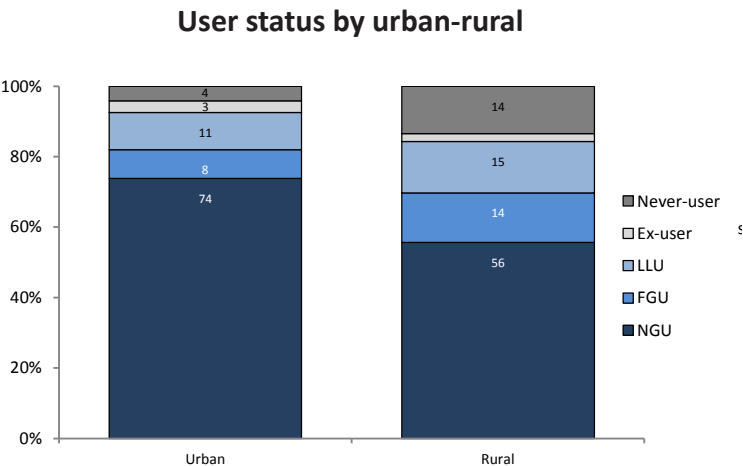
Base: All respondents (n = 1377)

Almost all (98%) of the Asian respondents are classified as NGUs; this is a higher proportion than for any other ethnic group. The NGU classifications for NZE, Māori and Pasifika are similar, with NGUs making up between 60% and 70% of each.



Base: All respondents (n = 1377)

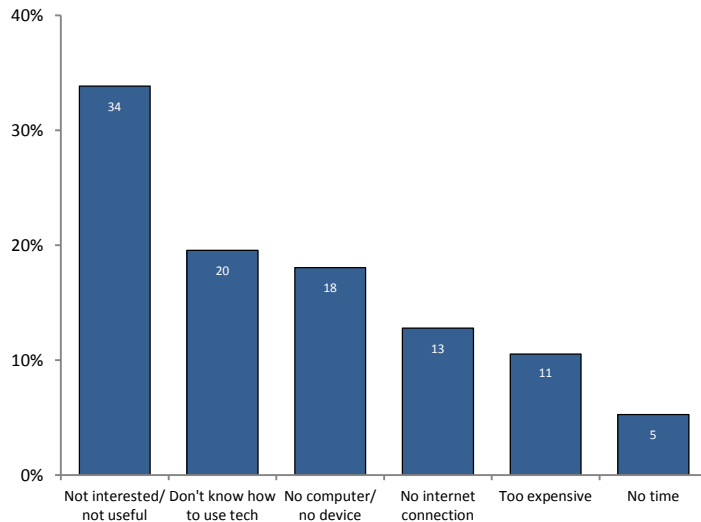
Consistent with previous findings, there is a higher percentage of NGUs among urban (74%) than among rural participants (56%). For rural respondents, there are higher proportions of FGUs and Never-users.



Base: All respondents (n = 1377)

Focus on Non-Users

Reasons for non-use

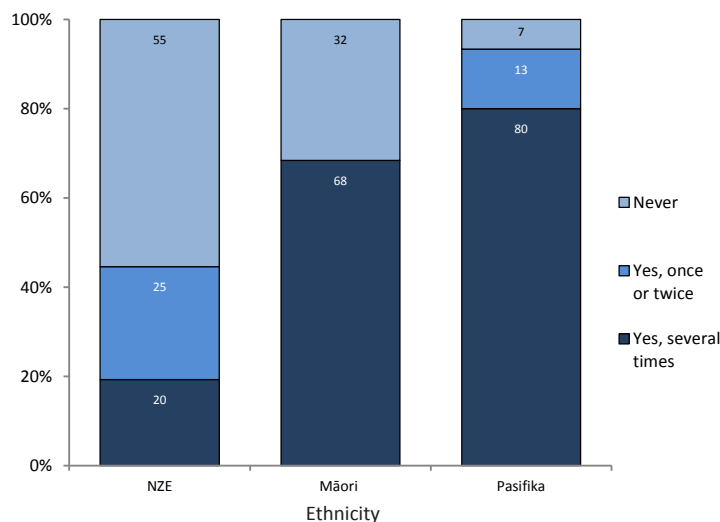


Base: Never-users (n = 75) and Ex-users (n = 44)

Q1A: What is the main reason you do not use the internet?

Of the small percentage of Never-users and Ex-users, 34% reported not using the internet because of lack of interest or perceived usefulness. Others cited a lack of knowledge (20%), lack of devices (18%) and cost (11%).

Proxy internet use by ethnicity



Base: Never-users (n = 75) and Ex-users (n = 44)

Q16: In the past year have you asked someone to do something on the internet for you, such as send an email, get information or make a purchase?

An example of using a proxy may be asking a relative or friend to search for a fact on the internet. From the group of Never-user and Ex-user respondents, Pasifika people use the internet through proxies more often (93%) than do New Zealand Europeans (45%) or Māori (68%). But note that the number of respondents in some cells is low.

General and Specialist Internet Activities

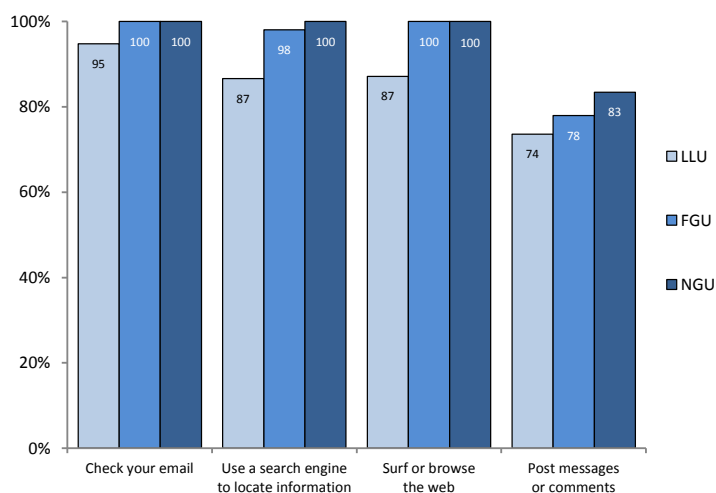
Appendix 1 shows all of the online activities surveyed, ranked by the NGUs%/LLUs% ratio: that is, taking the percentage of NGUs declaring that they had ever engaged in a given online activity and dividing that percentage by the equivalent LLU percentage. This ratio gives an indication of which activities are more exclusive to NGUs and which are carried out more or less equally by NGUs and LLUs.

Here we plot activities with the lowest NGUs%/LLUs% values (in no case was there a ratio of less than 1). Because these activities are used frequently by NGUs and LLUs alike, we consider these to be 'general' internet activities. They include checking email, looking up information, browsing webpages and using social media. Note that 'general' holds the same meaning as 'core' activities in the 2013 WIPNZ report.

Other general activities include finding specific facts, looking for news, looking up product information and looking for travel information.

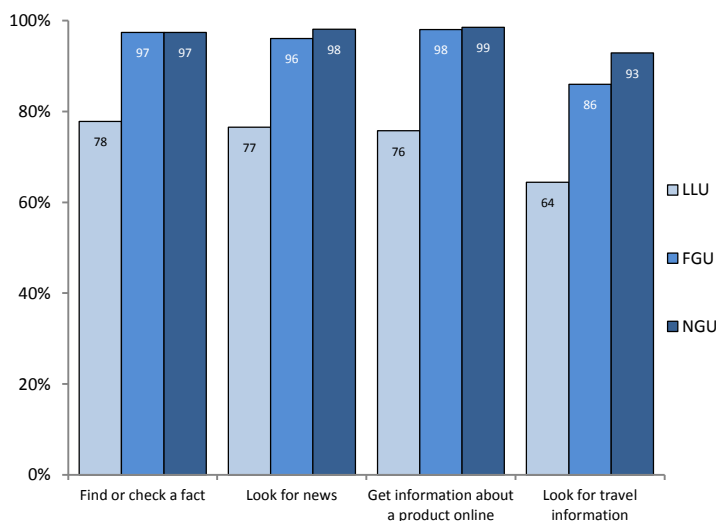
Overall, a large part of core internet use includes retrieving specific information or social correspondence.

Top eight 'general' internet activities (1)



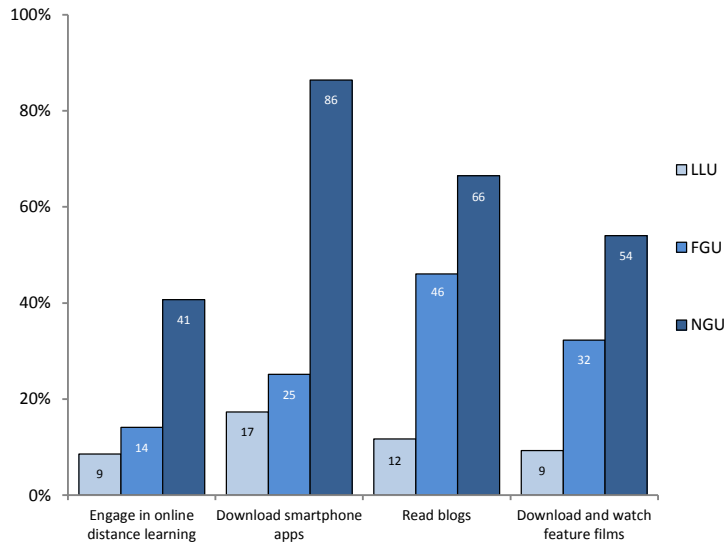
Base: Internet users (n = 1258)

Top eight 'general' internet activities (2)



Base: Internet users (n = 1258)

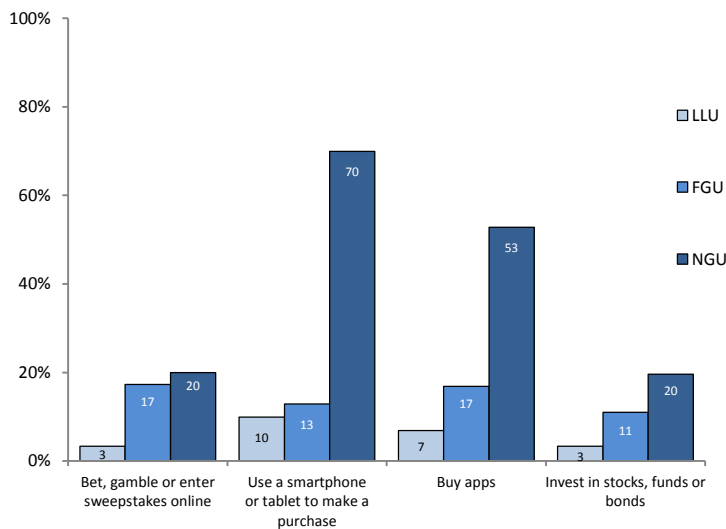
Top eight 'specialist' internet activities (1)



Base: Internet users (n = 1258)

On the bottom end of the list in Appendix 1 are activities with the highest NGUs%/LLUs% ratios, to which we refer here as 'specialist' activities. These are activities in which NGUs engage much more often than do LLUs. In this plot, NGUs have proportions of more than five times the size of corresponding LLU proportions. FGUs occupy intermediary positions between NGUs and LLUs.

Top eight 'specialist' internet activities (2)

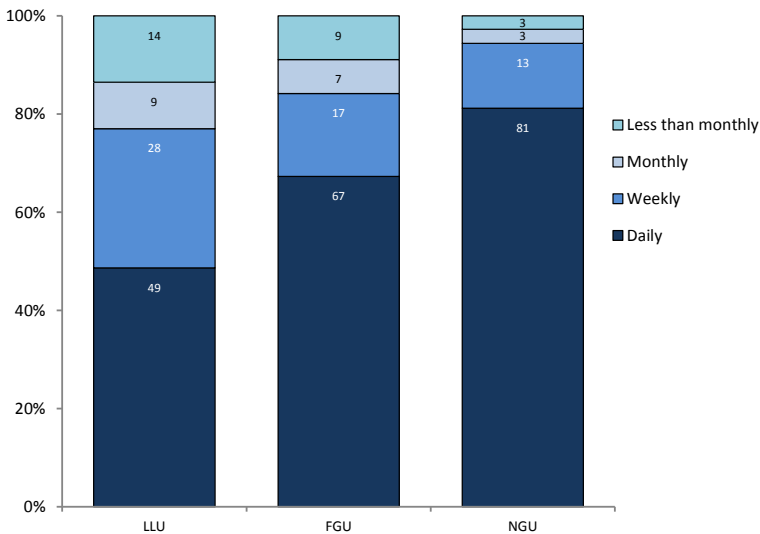


Base: Internet users (n = 1258)

This plot gives activities with even more extreme NGU%/LLU % ratios.

This graph shows the overall proportion of each group that uses social networking and the nature of that usage in terms of frequency. As expected, LLUs have lower values for social network use but of note is that, for each category, it is still common for those who do use social networking to check it at least daily. A characteristic of NGUs is that a large majority (81%) of them check online social networks daily

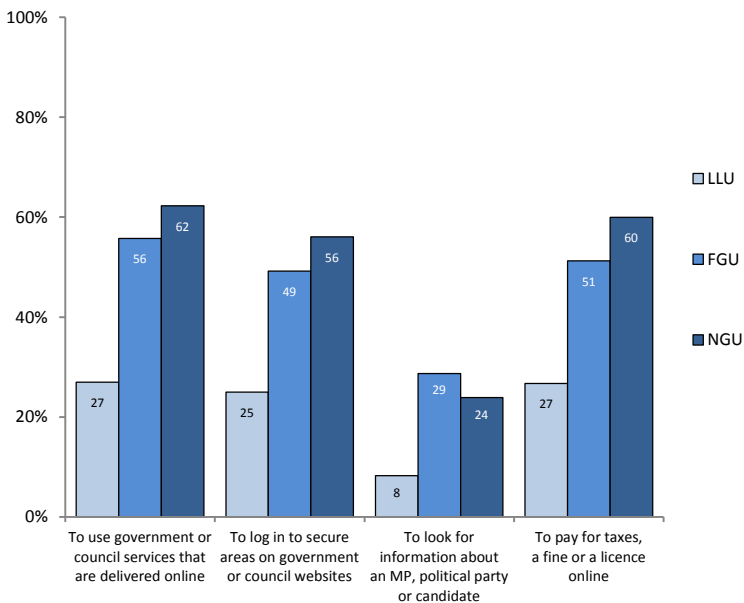
Social networking:
general or specialist?



Base: Internet users (n = 1258)

Lastly, we look at how many respondents of each user classification use government services online. Based on these criteria, we can see that NGUs are more likely to make use of these services than are LLUs, although not by much. Thus, this can be considered to be a 'general' activity.

Online engagement with government:
general or specialist?



Base: Internet users (n = 1258)

Appendix 1:

Ranking of Online Activities

Rank	Descriptions of online activity	NGUs%/LLUs%*
1	Check email	1.05
2	Post messages or comments	1.13
3	Surf or browse the web	1.14
4	Use a search engine to locate information	1.15
5	Find or check a fact	1.25
6	Look for local/national/international news	1.28
7	Get information about a product online	1.30
8	Look for travel information	1.44
9	Look for health or medical information	1.49
10	Use an online map or an app for navigation	1.50
11	Look for information about New Zealand events, culture or history	1.51
12	Post messages or comments on social networking sites	1.66
13	Compare prices of product services online	1.67
14	Use your banks online services	1.68
15	Buy things online	1.69
16	Look up the definition of a word	1.76
17	Pay bills online	1.78
18	Make travel reservations/bookings online	1.80
19	Visit social networking sites	1.85
20	Post audio material	2.06
21	Watch TV shows	2.09
22	Look for information on entertainment activities	2.10
23	Make or receive phone calls over the internet	2.22
24	Repost or share links or content created by others	2.22
25	Play games online	2.38
26	Look at religious or spiritual sites	2.40
27	Post pictures, photos, or videos	2.49
28	Get information for school or university related work	2.58
29	Do instant messaging	2.84
30	Look for images and content for reuse	3.06
31	Listen to a radio station	3.08
32	Upload music or music videos	3.19
33	Look for jobs/work	3.27
34	Look for information on a social networking site	3.44
35	Download free apps	3.59
36	Download or listen to music online	3.73
37	Look for jokes, cartoons, or other humorous content	3.82
38	Sell things online	3.86
39	Post content for financial gain	3.92
40	Pay for online services, subscriptions or software	4.08
41	Look at sites with sexual content	4.09
42	Post your own content that you created	4.21
43	Post messages or comments on discussion board or forum	4.39
44	Download or watch videos online	4.53
45	Participate in distance learning	4.76
46	Download apps on a smartphone	4.98
47	Read blogs	5.68
48	Download or watch feature films	5.80
49	Bet, gamble, or enter sweepstakes	6.04
50	Use your smartphone or tablet	7.06
51	Buy apps	7.65
52	Invest in stocks/funds/bonds online	7.80

* This ranking is the percentage of Next Generation Users (NGUs) who ever engage in the activity divided by the percentage of Low Level Users (LLUs) who ever carry out the activity

Appendix 2:

Definition of Usage Index and User Types

Usage Index Update

The Usage Index is the average frequency at which a person engages in a range of online activities, where '0' equals 'never' on all questions, and '5' equals 'several times a day' on all questions. The following 46 activities were included in the calculation of the Usage Index for each individual.

Table 1: List of activities used to calculate Usage Index

Q19: Entertainment

1. Play games online
2. Download or listen to music online
3. Download or watch videos online
4. Look at religious or spiritual sites
5. Listen to a radio station online
6. Bet, gamble or enter sweepstakes online
7. Surf or browse the Web
8. Watch TV shows online or on demand
9. Download or watch feature films from the internet
10. Visit social networking sites such as Facebook
11. Look at sites with sexual content

Q21: Information/Q38: Education

1. Look for news - local, national, international
2. Look for travel information
3. Look for jobs/work
4. Read blogs
5. Look for jokes, cartoons, or other humorous content
6. Look for information on entertainment activities such as movies or shows
7. Look for health information
8. Look for information on a social networking site
9. Look for information about New Zealand events, culture or history
10. Look for images and content for re-use
11. Use a search engine to locate information
12. Use an online map or an app for navigation, for example to plan the route of a journey or estimate how long a journey will take
13. Look up a definition of a word

Q25: Communication

1. Check your email
2. Do instant messaging
3. Make or receive phone calls over the internet
4. Work on your blog
5. Post photos or pictures on the internet
6. Upload music or music videos
7. Update your status
8. Comment on other people's blogs, posts etc.
9. Download apps on a smartphone
10. Share links (this includes emailing a link to a website/video/photo etc. or sharing such a link through a social networking site, such as on your own or somebody else's Facebook page)

Q31: Commerce

1. Buy things online
2. Sell things online
3. Get information about a product online
4. Compare prices of products/services online
5. Make travel reservations/bookings online
6. Use your bank's online services
7. Pay bills online
8. Invest in stocks/funds/bonds online
9. Pay for online services, subscriptions or software (e.g. for premium membership to a site)
10. Buy apps
11. Download free apps
12. Use your smartphone or tablet (e.g. iPad) to make a purchase of any kind

Next Generation Users (NGUs)

We defined Next Generation Users as those who have accessed the internet in the past year through two or more of the following devices: smartphone/tablet/e-reader/game console/smart TV. This group was then refined down to the more involved users by excluding the following:

1. Those who do not spend any time on a wireless handheld device (either 'no' in Q2, or zero time spent accessing the internet through a wireless handheld device on an average day in Q2A)
2. Those with no internet connection (including mobile connection) at home
3. Those who have dial-up access only at home (or didn't know/refused connection type), i.e. included only those who stated they had broadband (including mobile) at home
4. Those who rated their internet ability a 1 or 2 out of 5
5. Those who rated the importance of the internet to their everyday life a 1 or 2 out of 5
6. Those with a Usage Index of less than 1, i.e. those who also fell into the LLU definition.

Low Level Users (LLUs)

This group includes all internet users with Usage Indices of less than 1.

First Generation Users (FGUs)

The remainder of users, who are neither highly connected Next Generation Users, nor low-use Low Level Users, are considered to be First Generation Users.

Appendix 3:

Methodology

Sample design

The design aimed at achieving a representative sample of approximately 1300–1400 people, aged 16 and older across New Zealand. Previous waves of the survey were undertaken using CATI telephone interviewing, carried out by Phoenix Research; in 2015, this was carried out by Infield. However, in 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). A small sample of face-to-face interviews was carried out in South Auckland. 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 who were part of the 2013 (and earlier) samples who had indicated that they were prepared to consider answering a further wave of questions for the WIP study. Of these, those 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 internet through UFB as indicated by fibre companies and/or UFB coverage maps³. A fresh simple random sample of phone numbers.
4. An online panel sample drawn to provide adequate coverage (in conjunction with the recontact and fresh telephone components) of the New Zealand population.
5. An online sample of people without landlines, who were also members of the same panel.
6. 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: non-English speakers; those refusing.

Achieved sample and weighting

The achieved sample for the 2015 survey was 1377, including 1258 internet users and 119 non-users. The combined database was weighted, taking into account the survey design, incorporating probabilities of selection for each cell in the sample design and to correct for departures from Statistics New Zealand-estimated proportions on several important parameters: age (grouped); gender; and ethnicity. Where available, the most recent estimates were used. The final weights were scaled to match the sample size. For weighting purposes, ethnicity was coded in such a way as to match census data; this allows for multiple ethnicities to be reported by an individual. The weighted sample is well matched to the New Zealand population estimates for 2013 (as calculated by Statistics New Zealand based on the 2013 census) for the demographics used for weighting purposes.

Statistical procedures

The primary means of determining the statistical significance of differences between demographic categories was through the use of Pearson chi-square tests for nominal (and ordinal) data. Additional tests were used, where appropriate, for ordinal data. The Pearson chi-square test is a non-parametric test for tables of counts, where a significant result means that the distribution of counts is different across the categories of a certain demographic. All of the tests are two-sided, meaning that no pre-judgment is made about the directionality of differences.

Confidence intervals update

The precision of estimated weighted proportions can be assessed using indicative confidence intervals.

Appendix 3: Methodology

For all respondents (n=1377), 95% confidence intervals varied from approximately $\pm 1.8\%$ on percentages under 20% or over 80%, to around $\pm 2.3\%$ on percentages in the 20%–80% range. For the internet users subset (n=1258), 95% confidence intervals varied from approximately $\pm 2.0\%$ on percentages under 20% or over 80%, to around $\pm 2.5\%$ 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. When reporting 2015 results in terms of three age categories, for example, the confidence intervals are around $\pm 3.5\%$ for the under-40s (n=845) and for the 40–64 group (n=826), and around $\pm 5\%$ for the 65+ (n=335) group. The sub-sample sizes for various demographics are given below. The bootstrap calculator in the SPSS descriptives procedure was used to calculate the confidence intervals. This increases the reported confidence intervals in order to compensate for any extra sampling error caused by the complexity of the sample. Note that this process affects confidence intervals, but does not change the estimates of the results themselves.

Weighted sample sizes

Table 2. Weighted sample size according to user status

User	n
User	1258
Never-user	75
Ex-user	44
<i>Total</i>	<i>1377</i>

Table 3. Weighted sample size according to grouped age

Age	n
16-19	119
20-29	244
30-39	214
40-49	231
50-59	213
60-69	185
70+	171
<i>Total</i>	<i>1377</i>

Table 4. Weighted sample size according to ethnicity*

Ethnicity	n
NZ European	944
Māori	113
Pacific Islander	69
Asian	125
Other	25
<i>Total</i>	<i>1276</i>

* Note: When reporting results on ethnicity, we use the 'main' ethnicity given by respondents when asked, 'which ethnicity do you most strongly identify with'. Since a proportion of respondents said they could not choose a 'main' ethnicity, the n is somewhat lower when ethnicity cross-tabulations are presented.

Table 5. Weighted sample size according to area

Area	n
Three main cities	823
Other cities	268
Towns (secondary/minor urban areas)	133
Rural centres and rural areas	153
<i>Total</i>	<i>1377</i>

Table 6. Weighted sample size according to combined household income

Household income	n
<\$35k	200
\$35k to <\$50k	151
\$50k to <\$100k	392
\$100k to <\$140k	209
\$140k+	178
<i>Total</i>	<i>1130</i>

Table 7. Un-weighted sample size according to sample strata

Sample source	n
Telephone fresh sample	164
UFB targeted	138
Face-to-face	29
Telephone recontacts	298
Online recontacts	75
Online general sample	385
Online no landline sample	287
<i>Total</i>	<i>1377</i>



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