2017 World Internet Project Survey: Results for Auckland

Ting Huang

January 2019 Technical Report 2019/001

RIMU Research and Evaluation Unit

Auckland Council
Te Kaunihera o Tāmaki Makaurau

2017 World Internet Project Survey: Results for Auckland

January 2019 Technical Report 2019/001

Ting Huang

Research and Evaluation Unit

Auckland Council
Technical Report 2019/001

ISSN 2230-4525 (Print)
ISSN 2230-4533 (Online)

ISBN 978-1-98-856496-8 (Print)
ISBN 978-1-98-856497-5 (PDF)

This report has been peer reviewed by the Peer Review Panel.
Review completed on 9 January 2019 Reviewed by two reviewers
Approved for Auckland Council publication by: Name: Eva McLaren Position: Manager, Research and Evaluation (RIMU)
Name: Alison Reid Position: Manager, Economic and Social Research and Evaluation
Date: 9 January 2019

Recommended citation
Huang, T (2019). 2017 World Internet Project Survey: results for Auckland. Auckland Council technical report, TR2019/001

© 2019 Auckland Council

This publication is provided strictly subject to Auckland Council's copyright and other intellectual property rights (if any) in the publication. Users of the publication may only access, reproduce and use the publication, in a secure digital medium or hard copy, for responsible genuine non-commercial purposes relating to personal, public service or educational purposes, provided that the publication is only ever accurately reproduced and proper attribution of its source, publication date and authorship is attached to any use or reproduction. This publication must not be used in any way for any commercial purpose without the prior written consent of Auckland Council.

Auckland Council does not give any warranty whatsoever, including without limitation, as to the availability, accuracy, completeness, currency or reliability of the information or data (including third party data) made available via the publication and expressly disclaim (to the maximum extent permitted in law) all liability for any damage or loss resulting from your use of, or reliance on the publication or the information and data provided via the publication. The publication, information, and data contained within it are provided on an "as is" basis.

Executive summary

The internet is an important and necessary tool in many aspects of everyday life – at the workplace, in education and training, and in social and civic life. Understanding Aucklanders' current internet access, usage patterns and attitudes toward the internet assists the council, its partners, including council-controlled organisations (CCOs), central government agencies and stakeholders in the private sector, to develop policies and programmes bringing positive change in internet use in Auckland.

The World Internet Project Survey

The World Internet Project is a survey on internet use and digital adoption that has been conducted every two years since 2000. The project is coordinated by the Centre for the Digital Future at the University of Southern California, and has been undertaken in 39 participating countries.

New Zealand has been participating in the World Internet Project since 2007. For 2017, the survey was managed by the New Zealand Work Research Institute (NZWRI) at Auckland University of Technology. The survey looks at New Zealanders' internet usage behaviour and attitudes toward the internet in areas such as internet privacy, political engagement and freedom of speech on the internet. Questions in relation to the use and the impact of the internet for those living with disabilities were also added specifically for New Zealand. Data was collected between September and December 2017, and a booster sample for Auckland took place between October and December 2017. In total, a final sample of 1065 respondents aged 16 years or over was achieved for Auckland.

This report presents the key results for Auckland. It provides a profile of Aucklanders' internet use and their attitudes toward internet privacy and the impact of the internet. The findings are summarised below.

Types of internet users

Almost all Auckland respondents (94%, or 1001 respondents) indicated they were current users of the internet (93%) or had used the internet in the last three months prior to the survey (1%).

Over half (53%) of the Auckland respondents were next generation users – regarded as highly connected internet users who make more use of mobile devices and are relatively more capable to complete various tasks on the internet. Almost three in ten (29%) respondents were first generation users – regarded as those who connected to the internet using more traditional devices (computers). A tenth (11%) of the Auckland sample were

those who used the internet at a low level and were only doing a small range of activities on the internet (i.e. low level users).

Among the 64 non-users in the Auckland sample (6%), the most common reason for not using the internet was they either have no interest or don't find it useful (45%). Other common barriers identified included lack of device access (25%) and low levels of technology literacy (23%). While over half (55%) of non-users did not think they require any help to become an internet user, among those who said they require help, most said they would need training or support (16% of non-users).

There were large differences in the distribution of users and non-users by age. Most (over 70%) of those aged between 16 and 44 were next generation users, compared to 32 per cent of the 65-74 age group and nine per cent of those aged 75 or over. Those aged 65 or over were also over-represented among the non-users. For example, almost a third (30%) of those aged 75 or over were non-users. This contrasts with one per cent or less among those aged between 16 and 44.

Internet usage behaviour

Among the internet users, the most common methods for accessing the internet were through internet connection at home (95%) and using mobile data (65%). Of those users who accessed the internet at home, almost all (93%) had broadband, either through a landline (49%), or ultra-fast broadband (41%), or both (3%). Over one in five (22%) of the rural respondents had ultra-fast broadband at home. In contrast, almost half (47%) among those living in urban areas had ultra-fast broadband at home.

Almost all internet users (90%) had used, in addition to computers, mobile devices such as phones, tablets or e-readers, to connect to the internet. About half (47%) of the users had used all three types of devices at some level of frequency and 37 per cent used computers and phones. Results by age suggest that the likelihood of using all three types of devices decreases as age increases. Over half of the internet users aged between 25 and 54 (54% - 64%) had made use of all three device types. This contrasts with less than a quarter (23%) of those aged 75 or over.

The results indicated a possible link between respondents' use of different devices and how they rated their ability across a number of common tasks on the internet (i.e. internet literacy). The proportion of respondents who agreed with the statements about their internet literacy was smaller among those who had only used computers to connect to the internet, compared to those who had used at least two types of devices. Differences were more pronounced for tasks such as changing who to share content with (36% of those who used computers only compared to 61% - 71% of those who had used at least two types of devices), creating and uploading content (23% compared to 58% - 68%) and downloading apps to a mobile device (15% compared to 76% - 86%). The proportions of those who

agreed that they can undertake these three tasks were also substantially greater among respondents in the 16-44 age groups (at least 75%) compared to those aged 65 or over (29% - 46%). This was related to the greater proportion of those using both computers and mobile devices among those aged between 16 and 44.

Overall, Auckland respondents used the internet more frequently as a tool to communicate and a source of information, and used it less frequently for entertainment, banking or shopping and learning. Across the 29 different individual activities, checking emails, sending direct messages or chatting and looking for news were more frequently undertaken, with most users reported doing them at least weekly (97%, 85% and 84% respectively). About one quarter (23%) of respondents said they never used the internet to interact with or access central government services, and almost a third (32%) never used it for local government services. Among those who indicated some use for these two purposes, most reported either monthly or less than monthly (63% of respondents for central government services and 59% for local government services).

Results also show that the likelihood of doing activities online daily or several times a day was generally smaller among those aged 65 or over compared to others. Age differences were most pronounced when comparing this older age group with the 16-24 age group, for activities such as downloading or listening to music (10% of those age 65 or over vs. 67% of the 16-24 age group), downloading or watching videos (10% vs. 73%) and sending direct messages or chatting (50% vs. 88%).

While about one in ten (13%) of the internet users did not think they required any help to do more activities on the internet, more than half (52%) indicated the need for having better security online and ways to protect their identity online if they were to increase their internet use. This was followed by cheaper cost of internet use (49%). In addition to these two factors, almost half among the older age group (65 or over) also indicated that better understanding of the benefits of the internet (47%) and getting training or support (42%) would help increase their internet use.

Privacy and security on the internet

Less than a quarter (22%) of the users believed they had experienced privacy violations online in the past year. Of those, over half (56%) felt the violation was only a minor problem. However, a similar proportion (53%) also said their experience of privacy violation changed how they use the internet and/or they changed their security settings as a consequence.

Respondents' attitudes indicated some concerns over their privacy online. Although about three quarters (73%) said they actively protect their privacy online, over half (51%) agreed that there is no privacy online, and half agreed that they can control their privacy online. A greater proportion agreed that they are concerned about private corporations (41%)

violating their privacy online compared to the New Zealand Government (21%), other governments (22%) or other people (28%).

Attitudes toward the impact of the internet

Using the internet as a tool for political engagement, almost six in ten (58%) agreed that the internet can help them better understand politics. Approximately a third agreed that the internet helps people have more political power (38%), have more say about what the government does (38%) and help influence public officials care more about what people think (33%).

With regard to freedom of speech on the internet, six in ten respondents agreed that they feel comfortable saying what they think about politics (61%) and that people should be free to criticise their government on the internet (64%). A smaller proportion agreed that it is safe to say whatever they think about politics (31%) and it is okay to express their ideas on the internet even if they are extreme (40%). Over a quarter (26%) of respondents agreed that the government should regulate the internet more.

Attitudes toward the impact of the internet on political engagement and freedom of speech also vary by age. For example, most (71%) of the respondents among the 25-44 age group agreed that the internet helps people better understand politics. In contrast, only 42 per cent of those aged 65 or over agreed with this statement. The proportion of those who agreed that they feel comfortable with saying what they think about politics on the internet was notably higher among those aged between 45 and 64 (76%) and those aged 65 or over (68%), compared to the younger age groups, particularly the 16-24 age group (45%).

Conclusion

Results from the survey highlight the relative disadvantage of internet use faced by Aucklanders aged 65 or over. Compared to people in the younger age groups, those aged 65 or over used mobile devices less often for connecting to the internet, had lower ratings for internet literacy, engaged in online activities less frequently and made up most of the non-internet users.

The results also indicate the need for protecting users' privacy online to increase internet use. As internet users were found to be more concerned about private corporations violating their privacy online, government agencies and the private sector should work together in initiatives to improving internet privacy.

The findings presented here increase our understanding of Aucklanders' behaviours of internet use and attitudes toward the internet. The results could also be used by council and other agencies to develop policies, strategies and programmes towards achieving equitable internet access and use in Auckland, thus contributing to greater opportunity and prosperity for all Aucklanders.

Table of contents

1.0 Introduction....1
1.1 Background to the World Internet Project New Zealand Survey....1
1.2 This report....3
2.0 Users and non-users of the internet....5
2.1 User types....5
2.2 Non-users of the internet....11
3.0 Internet usage behaviours....14
3.1 Types of device(s) used....14
3.2 Access methods and types of internet connection....16
3.3 Internet literacy....18
3.4 Internet usage frequency by online activity....21
3.5 Preference for internet usage....23
4.0 Privacy and security on the internet....26
4.1 Negative experiences on the internet....26
4.2 Attitudes and behaviour toward internet privacy....29
5.0 Impact of the internet on civic engagement....33
5.1 Attitudes toward the impact on political engagement....33
5.2 Attitudes toward freedom of speech on the internet....36
5.3 Attitudes toward the reliability of information....39
6.0 Using the internet with disabilities....41
6.1 Types of disabilities and their impact on internet use....41
6.2 Assistance for using the internet with disability....43
6.3 Impact of the internet on quality of life....44
7.0 Concluding remarks....46
8.0 References....47
Appendix A 2017 Survey Questionnaire....49
Appendix B Sample profile for Auckland....69
Appendix C Definitions of user types and non-users....77
Appendix D Usage frequency by online activity....79

List of figures

Figure 1: Respondents by user type (%) – Auckland vs. the rest of New Zealand 6
Figure 2: User types – by age group (%) 7
Figure 3: User types – by household income (%) 8
Figure 4: User types – by highest level of qualification (%).....9
Figure 5: User types – NZ European and non-NZ European (%) 10
Figure 6: User types – Māori and non-Māori (%) 11
Figure 7: Reasons for not using the internet (%) 12
Figure 8: Type of help required for non-users to use the internet more often (%).....13
Figure 9: Average frequency of connecting to the internet – by device type (%) 15
Figure 10: Device use for connecting to the internet – Auckland compared to the rest of New Zealand (%) 15
Figure 11: Device use for connecting to the internet – by age (%) 16
Figure 12: Methods used to access the internet in the last month (%) 17
Figure 13: Types of internet connection at home (%) 18
Figure 14: Internet literacy (%).....19
Figure 15: Respondents who somewhat or strongly agreed with the statements about their internet literacy – by device use (%) 20
Figure 16: Respondents who somewhat or strongly agreed with the statements about their internet literacy – by age (%) 21
Figure 17: Online activities with notable age differences in the proportion reporting ‘daily’ or ‘several times a day’ for average frequency 23
Figure 18: Respondents’ preferred changes in frequency by activity category (%) 24
Figure 19: Help needed to do more online activities – all internet users (%) 25
Figure 20: Negative experiences online in the past year (%).....27
Figure 21: Impact of the privacy violations experienced (%).....28
Figure 22: Consequences of the privacy violations experienced 29
Figure 23: Overall responses to statements regarding privacy online (%).....30
Figure 24: Respondents who agreed with the statements on attitudes toward privacy online – those who experienced privacy violations compared to those did not (%) 31
Figure 25: Respondent who were concerned with others violating their privacy online – those experienced privacy violations compared to those did not (%) 32
Figure 26: Attitudes toward the impact of the internet on political engagement (%) 34
Figure 27: Respondents who agreed with the statements on the impact of the internet on political engagement – internet users and non-users (%) 35
Figure 28: Respondents who agreed with the statements on the impact of the internet on political engagement – by age (%).....36
Figure 29: Attitudes toward freedom of speech on the internet – all respondents (%).....37
Figure 30: Respondents who agreed with the statements on freedom of speech on the internet – internet users and non-users (%).....38
Figure 31: Respondents who agreed with the statements on freedom of speech on the internet – by age (%) 39
Figure 32: Perceptions on the overall reliability of information on the internet – internet users and non-users (%).....40

Figure 33: Respondents' confidence in evaluating the reliability of information on the internet – internet users and non-users (%) 40
Figure 34: Type of disability – by level of severity (%) 42
Figure 35: How often internet use is limited by the difficulty or difficulties – by type of disability (%) 43
Figure 36: Help or assistance required for accessing the internet more easily (%) 44
Figure 37: Perceptions on the impact of the internet on quality of life for internet users with disabilities 45
Figure 38: Frequency of using the internet for communication (%) 79
Figure 39: Frequency of using the internet as a source of information (%) 79
Figure 40: Frequency of using the internet for entertainment (%) 80
Figure 41: Frequency of using the internet for banking or shopping (%) 80
Figure 42: Frequency of using the internet for learning (%) 81

List of tables

Table 1: Types of disabilities reported 41
Table 2: Gender (%) 69
Table 3: Age (%) 69
Table 4: Ethnicity (%) 70
Table 5: Ethnicity by age (%) 71
Table 6: Household income (%) 71
Table 7: Household income by age (%) 72
Table 8: Household income by ethnicity (%) 73
Table 9: Highest level of qualification (%) 73
Table 10: Highest level of qualification by age (%) 74
Table 11: Highest level of qualification by ethnicity (%) 75
Table 12: Marital status (%) 76
Table 13: Employment status (%) 76
Table 14: Urban and rural (%) 76
Table 15: List of activities to calculate usage index 77

1.0 Introduction

With the rapid spread of digital technologies across the globe, the internet has become an important and necessary tool for participating in modern society. The internet is increasingly used for communication, as a source for information, for entertainment, at the workplace, in education and training, in commercial transactions (Digital Inclusion Research Group, 2017), as well as for people participating in the political process, and in social and civic life (Centre for the Digital Future, 2017). With increased and quality connectivity to the internet, people and businesses will be able to access and take advantage of the opportunities, information and services available online, thus fostering economic growth and wellbeing (McKinsey Global Institute, 2011; Organisation for Economic Cooperation and Development, 2013 and 2017; World Bank, 2016).

Local and central government recognise the benefits of the internet to the economy and society. Auckland Council is committed to working with partners and stakeholders to deliver opportunity and prosperity for all Aucklanders, as outlined in the Auckland Plan 2050 (Auckland Council, 2018). To do this, the Plan identifies the need for equitable access to high-speed internet and quality digital services. It is acknowledged that with improved access to the internet, more people and businesses can take advantage of the opportunities available online (e.g. opportunities for employment, businesses, learning, innovation, public engagement) and keep up with changes in digital technology. Auckland will thus benefit from a lift in productivity and standard of living.

This report presents the key findings for Auckland from the 2017 World Internet Project New Zealand Survey. The information provided in this report contributes to our current understanding of internet access and usage patterns in Auckland, and Aucklanders' attitudes toward internet privacy and its wider impacts on civic life. This can assist the council, its council-controlled organisations (CCOs) such as Auckland Tourism, Events and Economic Development (ATEED), Community Education Trust (COMET Auckland), other agencies and partners in the private sector, to identify the groups of Aucklanders that may be relatively disadvantaged, and barriers to accessing and using the internet.

1.1 Background to the World Internet Project New Zealand Survey

The World Internet Project is a longitudinal study on internet use and digital adoption that has been conducted every two years. The project is coordinated by the Centre

for the Digital Future at the University of Southern California, and 39 countries[1] have participated since 2000. Apart from collecting data on internet usage behaviour, the study also looks at the social impact of and attitudes toward the internet, in areas such as privacy and security, political engagement, freedom of speech and information reliability (Centre for Digital Future, 2017; Díaz Andrade et al., 2018).

New Zealand has been participating in the World Internet Project since 2007. In 2017, the survey was managed by the New Zealand Work Research Institute (NZWRI) at Auckland University of Technology. Data collection took place between September and December 2017 and a sample of 2013 participants nationwide[2] was achieved (see Section 1.1.1 below for more details on the method used). In partnership with Auckland Council's Research and Evaluation Unit (RIMU), the sample size for Auckland was boosted by another 400 participants via additional Computer Assisted Telephone Interviews (CATI) that took place between October and December 2017. This was to ensure a robust sample size for in-depth analysis for Auckland.

The 2017 survey explored New Zealanders' usage and attitudes toward the internet in areas such as internet privacy, political engagement and freedom of speech on the internet. Questions in relation to the use and the impact of the internet for those living with disabilities were also added specifically for New Zealand. Results at the national level are available in a report prepared by the NZWRI (Díaz Andrade et al., 2018).

1.1.1 Survey method

Data for the 2017 survey was collected by Infield International Limited on behalf of NZWRI. Information from the respondents was collected either via CATI interviews or self-completed online questionnaire. Respondents in the nationwide sample were drawn from two sampling frames as described below.

[1] A full list of the 39 participating countries can be found at the Centre for Digital Future's website https://www.digitalcenter.org/world-internet-project-partners

[2] Note that there is a slight variation in the sample size figure between this report and the national report. A respondent from the Auckland sample was removed from NZWRI's analysis, resulting in a sample size of 2012 participants nationwide. This respondent was from Auckland and answered 'don't know' to both questions "are you a current user of the internet" and "have you used the internet in the last three months". However, this respondent has been included in this report, as this respondent provided responses to the questions in the section on non-internet users and questions on political engagement, information reliability and freedom of speech on the internet.

For the CATI interviews, 60 per cent were drawn from landline random digit dial[3] supplied by Infield International, 20 per cent from white page listings, and 20 per cent from mobile phone random digit dial. Respondents in the CATI interviews were required to be 16 years of age or over, and 50 of those approached in the mobile phone interviews were known to be under the age of 40.

For the online questionnaire, respondents were drawn from an online panel database that has 143,000 active members. This database is a major online sample provider in New Zealand, and has a slight skew towards younger people (Díaz Andrade et al., 2018, p.2).

For the Auckland booster sample, the 400 respondents in the additional CATI interviews were drawn from landline random digit dial.

The survey began with a number of basic demographic questions on the respondents' gender, location and year of birth. For some sections of the questionnaire, screening questions were used to identify those who were eligible to answer the next questions (e.g. on internet usage frequency) in the section. The screening questions mean that not all participants answered all questions.

A full version of the questionnaire is included in Appendix A.

1.1.2 Final Auckland sample

As mentioned earlier, without the booster of the Auckland sample, a total of 2013 people aged 16 years or over completed the survey nationwide, 665 of whom were Aucklanders.[4] With the subsequent booster of 400 Auckland respondents through additional CATI interviews, the final Auckland sample had 1065 respondents. Of those, two thirds were from CATI interviews (n=715), and the other third completed the survey online (n=350).

Please refer to Appendix B for a breakdown of demographic characteristics of the Auckland sample.

1.2 This report

This report presents the key results from the 2017 World Internet Project New Zealand Survey for Auckland, with the following areas of focus:

[3] This sampling method selects respondents by generating landline telephone numbers at random.

[4] Note that results in the national report (Díaz Andrade et al., 2018) did not include the Auckland booster sample.

- the different types of internet users and differences in user type distribution by age, household income, qualification level and ethnicity (Section 2.1)
- reasons why non-users do not use the internet (Section 2.2)
- the usage behaviours of the internet users, including their use of device, ways of accessing the internet, types of internet connection at home, their internet literacy, internet usage frequency, and their preferences for internet usage (Section 3.0)
- internet users' experiences of, and attitudes toward, privacy and security on the internet (Section 4.0)
- respondents' attitudes toward the impact of the internet on civic engagement, including political engagement, freedom of speech and information reliability (Section 5.0)
- internet use by those with disabilities (Section 6.0).

The number of respondents who answered each questions are shown on charts throughout (n=). Results from group comparisons should be viewed with caution, especially in cases where groups are small (e.g. less than 30).

Although significant testing of results has not been undertaken, notable differences across sub-groups are mentioned.

2.0 Users and non-users of the internet

This section presents the categorisation of different types of internet users in the Auckland sample and their demographic profile.

2.1 User types

Respondents were regarded as internet users if they answered 'yes' to either "are you a current user of the internet?" or "have you used the internet in the last three months?".

Respondents were grouped into different types of users based on how they reported using the internet, including their use of device and connectivity, internet literacy and usage frequencies. A usage index, on a scale 0 (never) to 5 (several times a day) was calculated by averaging the respondent's usage frequencies across 29 different online activities, broadly bundled into groups such as: communication, source of information, entertainment, banking or shopping, and learning.

In line with the national results report (Díaz Andrade et al., 2018), users were categorised into the following four groups:

- **Next generation users** were those internet users who, in addition to having broadband or mobile connection at home, used the internet on their phones, tablets or e-readers, answered 'neutral', 'somewhat agree' or strongly agree' across all five statements about their ability in completing a number of tasks on the internet in the internet literacy question, and had usage indices greater or equal to 1. Note that they were also regarded as highly connected internet users.
- **First generation users** were those current internet users with usage indices greater or equal to 1, but connected to the internet using fewer, or more traditional devices (e.g. computers).
- **Low level users** were those current internet users with usage indices less than 1.
- **Ex-users** were those who had used the internet in the last three months, but not currently using the internet.

Those who stated they had never used the internet in the last three months across all possible options were defined as non-users.[5]

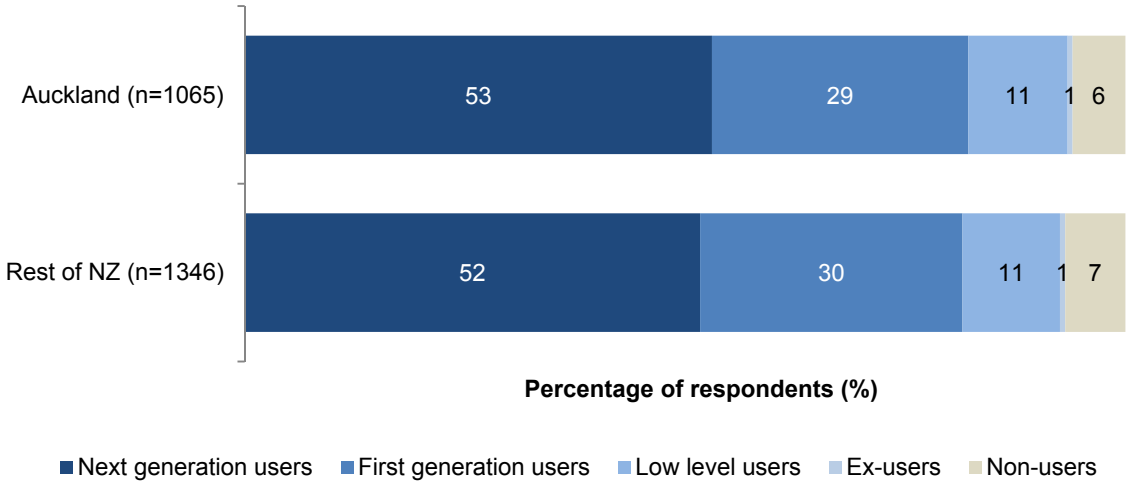
An outline of the methodology in defining those groups is provided in Appendix C.

2.1.1 Respondents in Auckland and the rest of New Zealand by user types

Figure 1 below shows how survey respondents in Auckland and the rest of New Zealand are distributed across the different user types. In the Auckland sample:

- 94 per cent of the respondents were internet users, with over half identified as next generation users (53%), followed by first generation users (29%) and low level users (11%)
- just under one per cent of the sample (six respondents) were ex-users who had only used the internet in the last three months, but not currently using the internet
- six per cent of the respondents (64) were non-users (i.e. never-users), mostly (54) made up by those aged 65 or over.

Figure 1: Respondents by user type (%) – Auckland vs. the rest of New Zealand



Note: Two respondents in the rest of New Zealand sample answered "don't know" or "prefer not to answer" to questions 22 to 26 on usage frequency.

[5] The national report refers this group as never users to compare with the results from the 2015 survey.

2.1.2 Differences in user types across demographic groups in Auckland

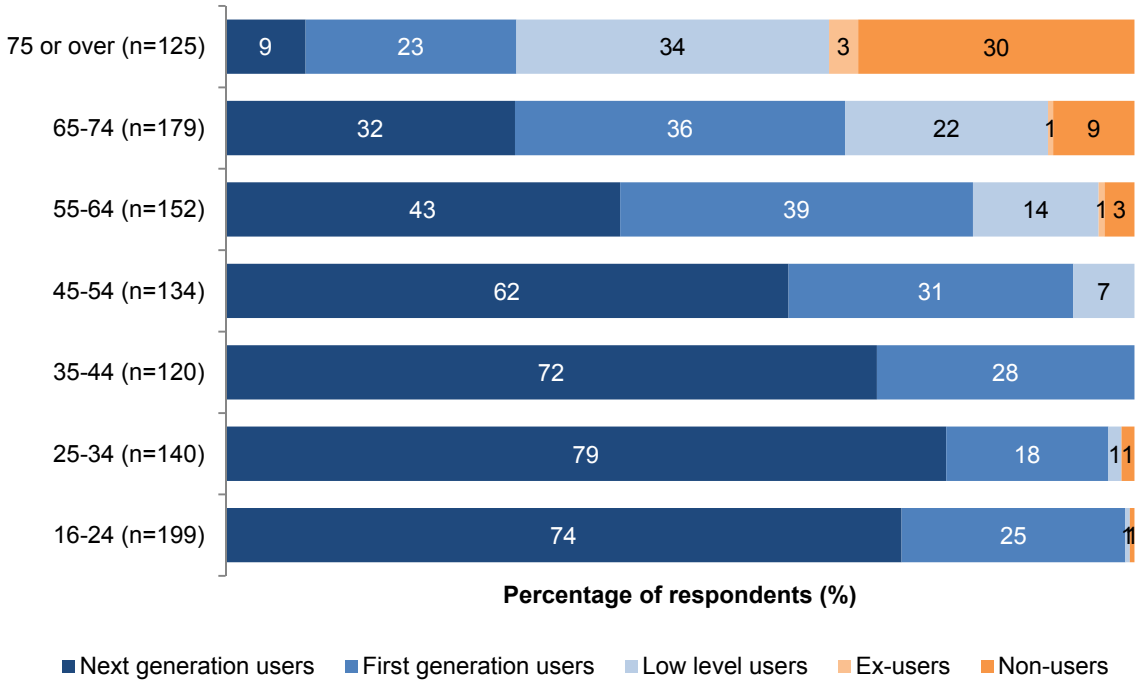
Figure 2 to Figure 6 show the differences in the results of user type distribution between demographic groups.

There is a strong relationship between age and user type distribution. Over 70 per cent of those aged between 16 and 44 were next generation users. This was substantially greater compared to other age groups, especially those who were 65 or over.

The proportions of first generation users and low level users among the 55-64 (39% and 14% respectively) and 65-74 age groups (36% and 22% respectively) were greater than the proportions among those aged between 16 and 44.

Those aged 75 years or over had the greatest proportions of low level users (34%) and non-users (30%).

Figure 2: User types – by age group (%)



Base: All respondents, excluding those who did not provide a response for age

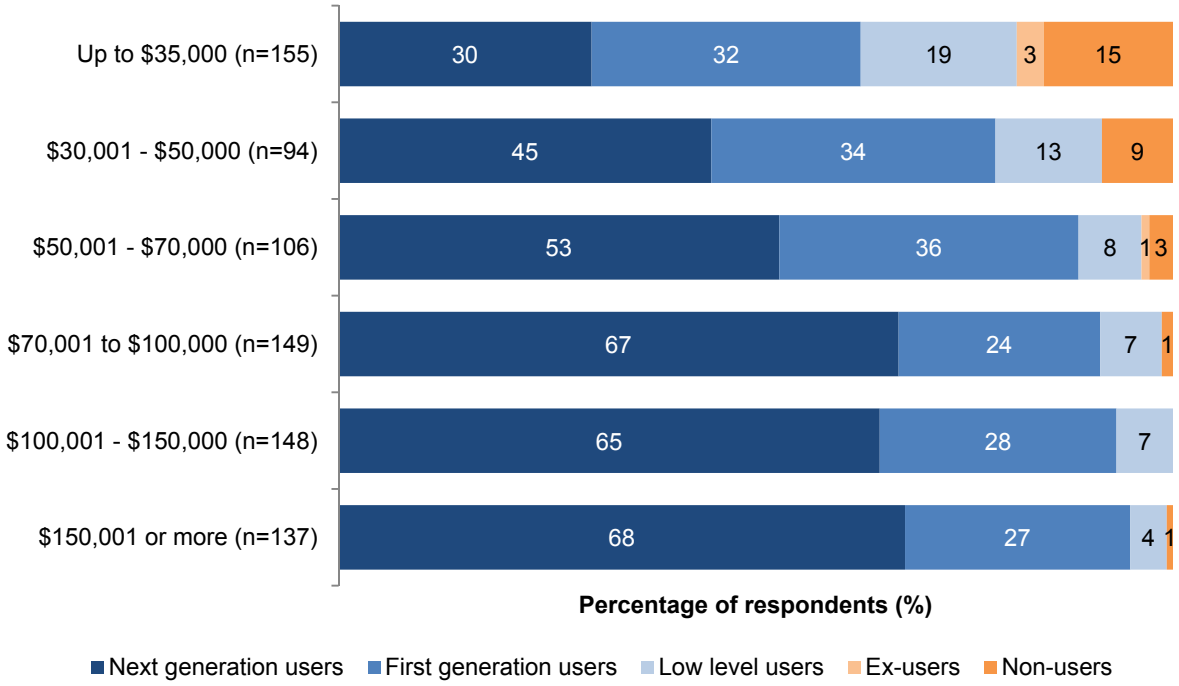
Respondents with higher household incomes tend to have greater proportions of next generation users than those at lower household income brackets (Figure 3). In particular, the proportion of next generation users among those with household incomes above $70,000 (about two thirds) was markedly higher compared to the

proportion observed among those with household incomes of $50,000 or less (30% - 45%).

A greater proportion of respondents in the bottom household income bracket (i.e. $35,000 or less) were low level users (19%) and non-users (15%) compared to those with household income above $50,000.

Differences in the results by household income could be related to age. About two in five (41%) of respondents aged 65 or over had household incomes of $50,000 or less. This compared to only 17 per cent among those in other age groups.

Figure 3: User types – by household income (%)



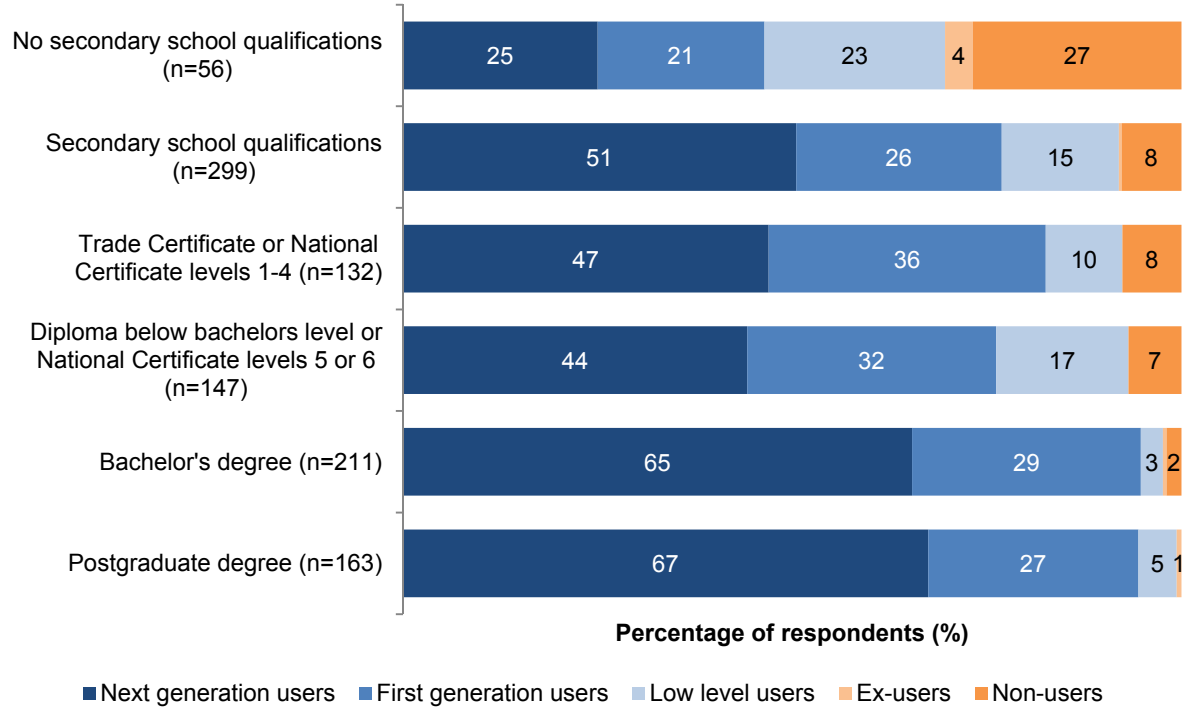
Base: All respondents, excluding those 277 respondents who did not respond to the question on household income

Respondents with no school qualifications had the lowest proportion of next generation users (25%) and the highest proportion of non-users (27%).

About two thirds of those respondents with a Bachelor's degree (65%) or a postgraduate degree (67%) were next generation users. This was greater compared to those with a secondary school qualification (51%), a level 1-4 certificate (47%) or a diploma (44%). The proportion of low level users among those with a Bachelor's or a postgraduate degree (3% and 5%) was also smaller compared to others.

The observed differences by qualification level could also be related to age. Over half of those respondents aged between 25 and 44 had a Bachelor's or a postgraduate degree (refer to Table 10 in Appendix B).

Figure 4: User types – by highest level of qualification (%)



Base: All respondents (excluding those 57 respondents who did not provide a response to questions on qualifications)

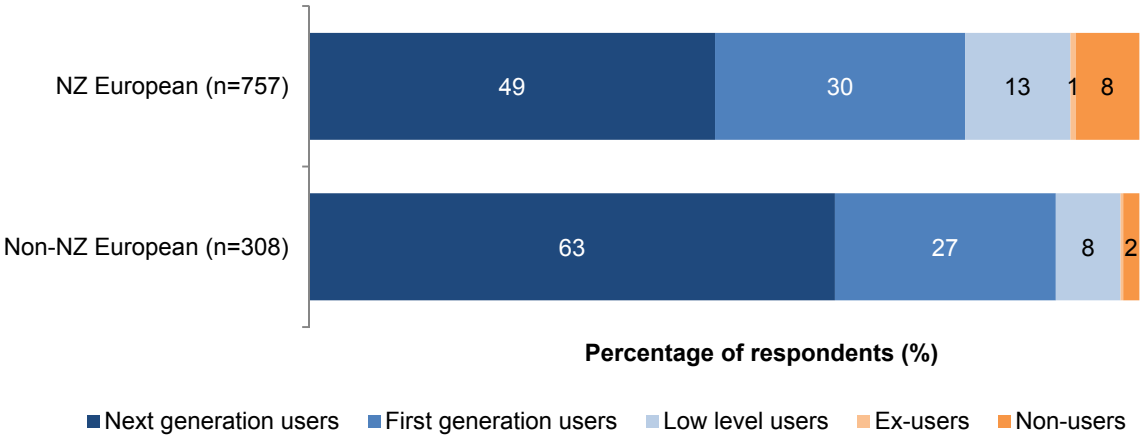
Before looking at differences in the results by ethnicity, it is important to note that the ethnic categories are not mutually exclusive. In the survey, respondents were asked to select the ethnic group that they most strongly identify with, and other ethnic group(s) that they also belonged to. The largest ethnic group in the survey was New Zealand European (72%), followed by Other European (22%) and Māori (10%), with other ethnic groups too small for meaningful comparisons (refer to Table 4 in Appendix C).

Figure 5 and Figure 6 present the results in user type distribution for the two of the largest ethnic groups – New Zealand European and Māori.

A smaller proportion of New Zealand European respondents were next generation users (49%) compared to the rest of the Auckland sample (63%). This could be largely related to the over-representation of New Zealand European respondents among the older age groups. Approximately 90 per cent of those aged 65 or over

were New Zealand European, this compared to over half (54%) among those aged between 25 and 44.

Figure 5: User types – NZ European and non-NZ European (%)

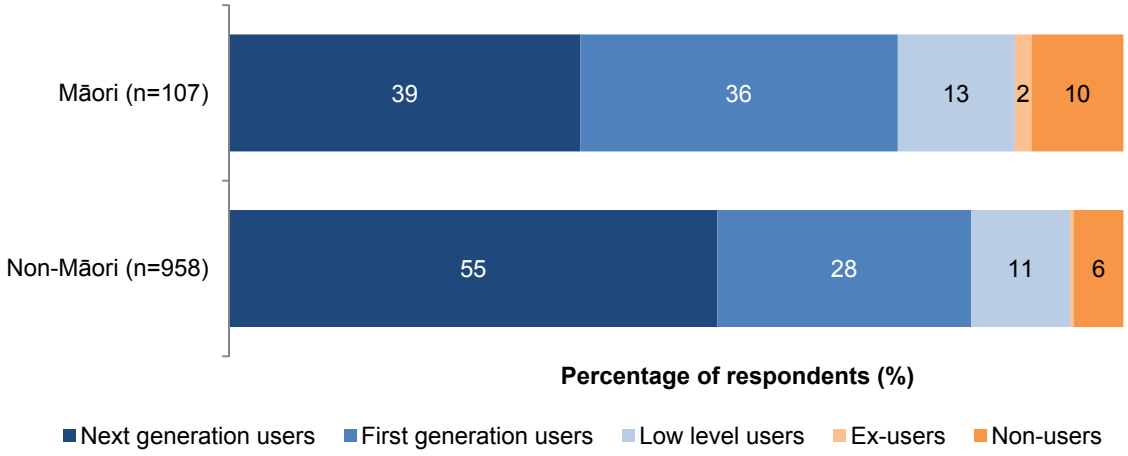


Base: All respondents.

The proportion of next generation users among Māori respondents (39%) was notably smaller than the non-Māori group (55%). Also, a relatively greater proportion of Māori respondents were first generation users (36%) compared to the rest of the sample (28%). These differences could be related to:

- the greater proportion of Māori respondents aged 55 or over (51%) compared to non-Māori respondents (42%)
- the greater proportion of Māori respondents with household income $35,000 or less (21%) compared to the non-Māori group (13%)
- the 10 percentage-point difference in those with certificates or diplomas between Māori (35%) and non-Māori respondents (25%)
- the lower proportion of those with a Bachelor's or postgraduate degree in the Māori group (23%) compared to non-Māori (36%).

Figure 6: User types – Māori and non-Māori (%)



Base: All respondents.

Note: due to the large sample size difference between Māori and non-Māori respondents, comparison presented in this graph should be viewed with caution.

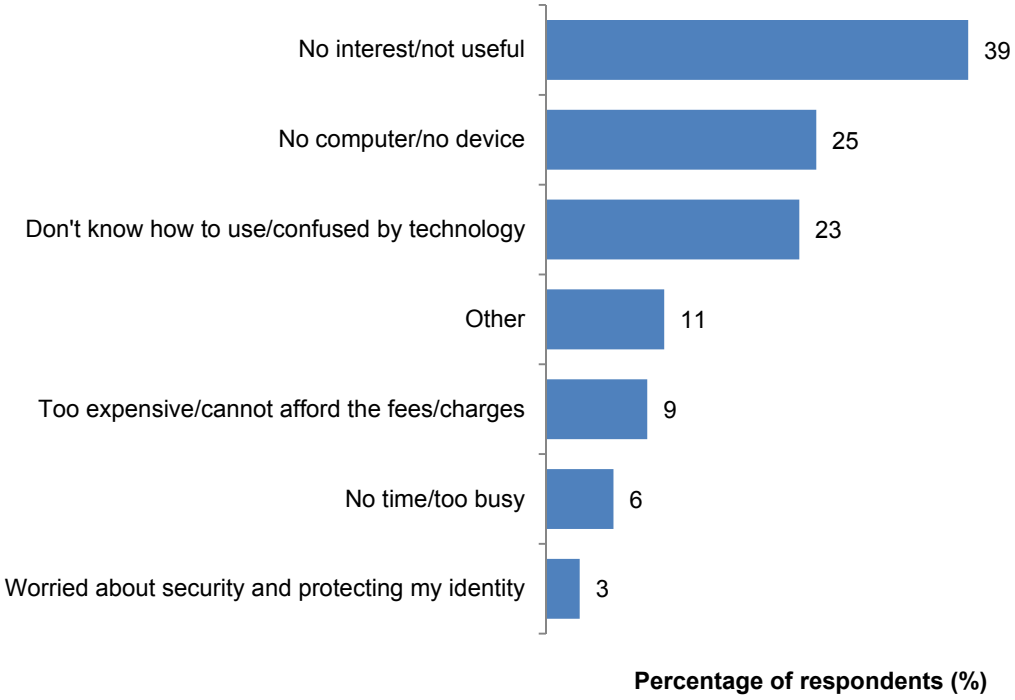
2.2 Non-users of the internet

Respondents who had not used the internet at all in the previous three months were asked to state why, with the most important reason first. They were also asked to indicate what would be the most help to become an internet user. Results to these questions are discussed below.

2.2.1 Reasons for not using the internet

As shown in Figure 7, the most commonly mentioned reason by the non-users for not using the internet was either that they have no interest or they don't find the internet useful (39%). Lack of device access and/or low levels of technological literacy were barriers to using the internet, with a quarter of the non-users (25%) indicating they have no computer or device to access the internet, and 23 per cent indicating they had not used the internet because they are confused by the technology.

Figure 7: Reasons for not using the internet (%)



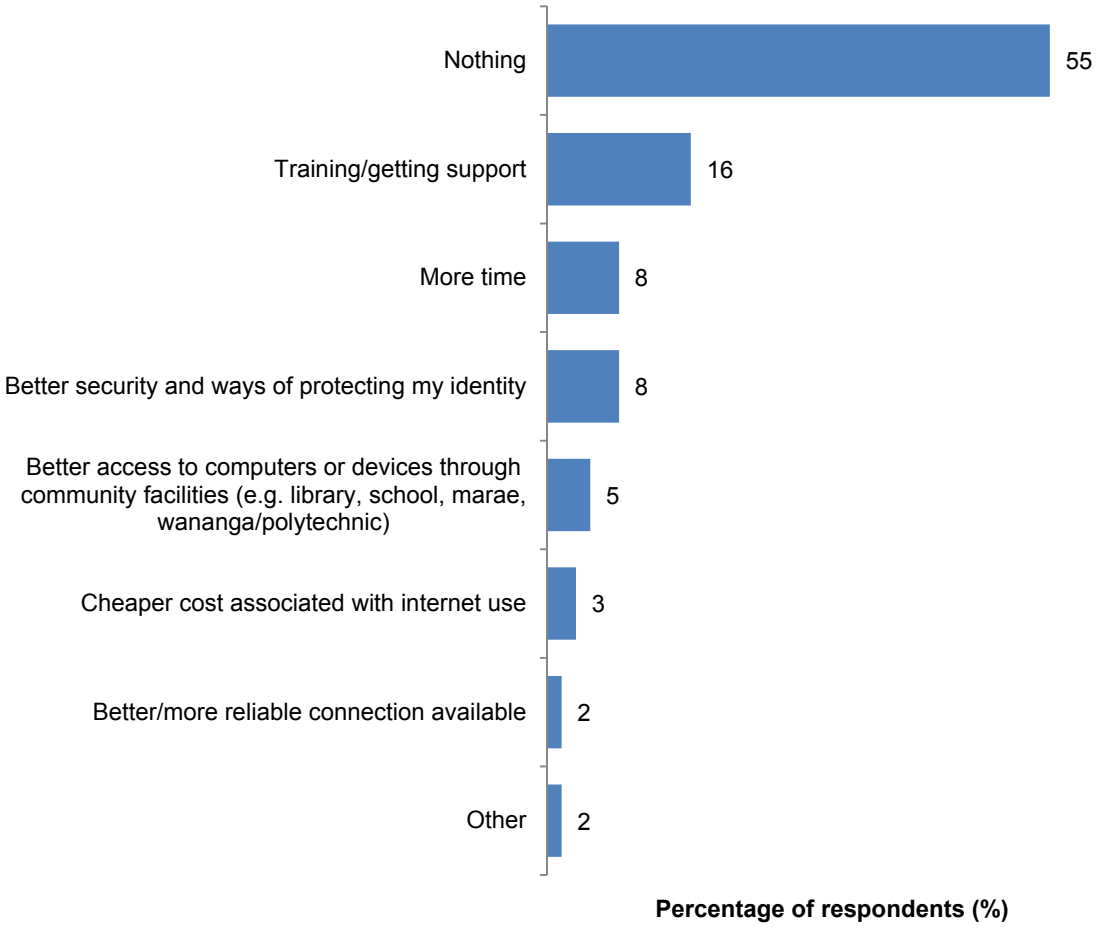
Base: Non-users (n=64)

Note: Respondents were able to identify more than one reason, therefore the percentages add up to more than 100 per cent.

2.2.2 Help required to become an internet user

Over half (55%) of the 64 non-users in the Auckland sample did not think they require any help to become an internet user. Among those 29 non-users who did select one of the types of help, most said training/getting support (16% of the non-users). This was followed by more time (8%) and better security and ways of protecting their identity online (8%).

Figure 8: Type of help required for non-users to use the internet more often (%)



Base: Non-users (n=64).

Note: Respondents were only able to choose one answer.

3.0 Internet usage behaviours

The section presents results on the usage behaviours of those respondents identified as internet users. The series of questions on their usage behaviours cover aspects such as:

- the type of device(s) they use to connect to the internet
- the access methods and types of internet connections at home
- their ability to complete basic tasks on the internet (internet literacy)
- their frequencies of using the internet for 29 different online activities
- their preference for internet usage.

results for each aspect are presented in the following five sub-sections respectively.

3.1 Types of device(s) used

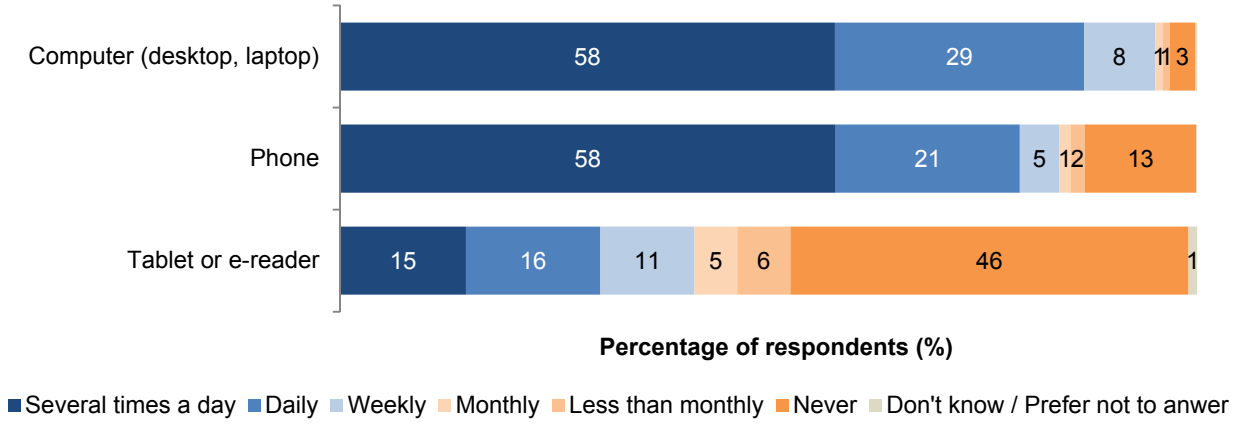
Internet users were asked to indicate how often on average they connected to the internet using different types of devices – computer, phone, tablet or e-reader – on a scale of several times a day, daily, weekly, monthly, less than monthly and never.

As Figure 9 shows, the types of device(s) respondents used more frequently for connecting to the internet were:

- computers (desktop or laptop) – 87 per cent used a computer at least once a day, 95 per cent used it at least weekly
- phones (79% at least once a day, 84% at least weekly).

Tablets or e-readers were used less frequently compared to computers and phones, with only 31 per cent of the internet users using them several time a day or daily to connect to the internet. Almost half (46%) reported never using them.

Figure 9: Average frequency of connecting to the internet – by device type (%)

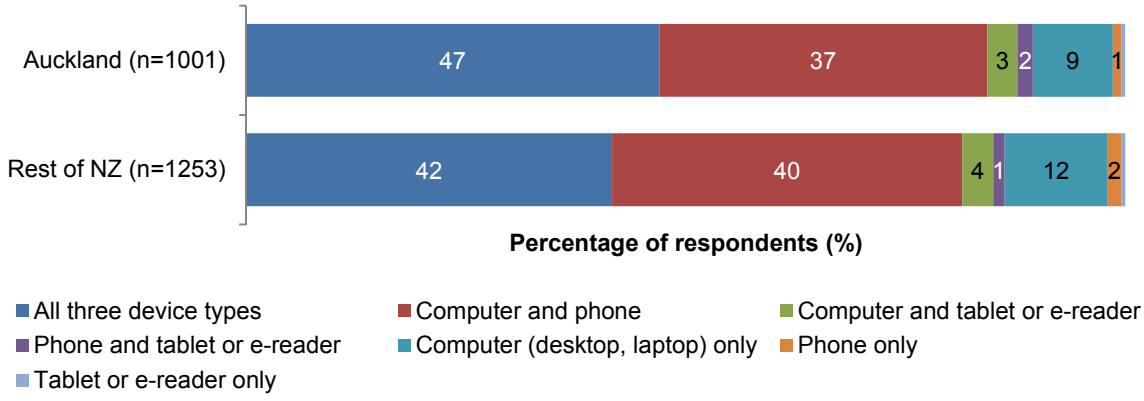


Base: Internet users (n=1001)

Figure 10 shows the breakdown of internet users in the Auckland and the rest of New Zealand samples, by the types of devices they had used, regardless of their device usage frequency (less than monthly to several times a day inclusive).

Nine in ten (89%) internet users in the Auckland sample had used at least two types of devices to connect to the internet. Among those, almost half (47%) used all three types of devices and 37 per cent used computers and phones.

Figure 10: Device use for connecting to the internet – Auckland compared to the rest of New Zealand (%)



Base: Internet users, excluding those said 'don't know/prefer not to answer' for all three device types. Note this only affected the rest of New Zealand sample.

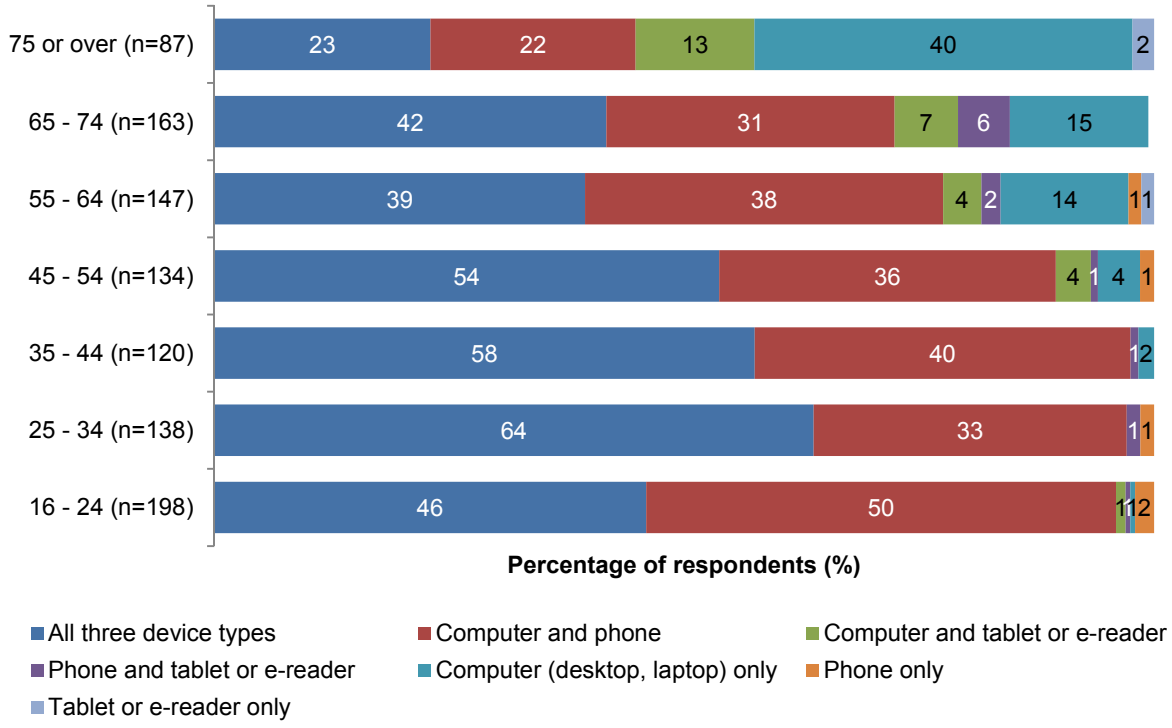
Results across age groups show a variance in device use (Figure 11). Generally speaking, the likelihood of using all three types of devices decreases as age groups

increase. Over half of those aged between 25 and 54 (54% - 64%) used all three device types for connecting to the internet. This was a markedly greater proportion than that among those aged 55 or over (23% - 42%).

Whist a relatively smaller proportion of respondents aged 16 to 24 used all three types of devices, this age group made more use of computers and phones for connecting to the internet (50%) compared to others.

Those aged 75 or over had the highest proportion of those connecting to the internet through only computers (40%) and the lowest proportion of those making use of all three types of devices (23%).

Figure 11: Device use for connecting to the internet – by age (%)



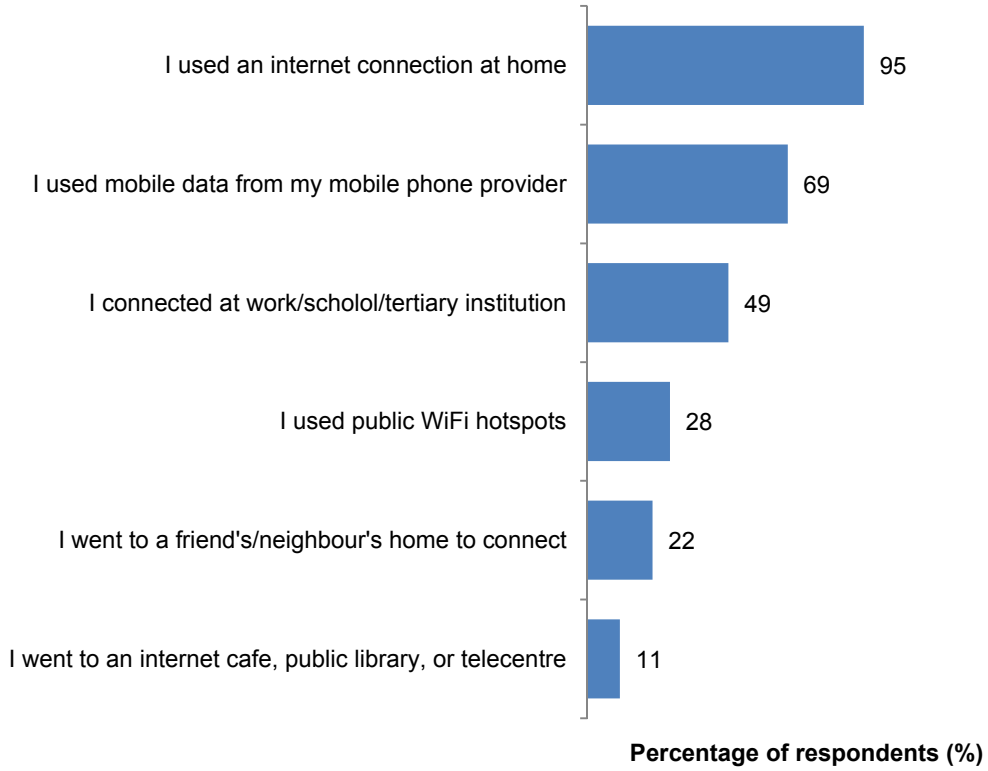
Base: Internet users, excluding those did not provide a response for age.

3.2 Access methods and types of internet connection

Internet users were asked how they had accessed the internet in the month prior to the survey. They were allowed to select as many methods of access that applied to them.

Most of the internet users in the Auckland sample accessed the internet using either their internet connection at home (95%) or mobile data from their mobile phone provider (69%).

Figure 12: Methods used to access the internet in the last month (%)



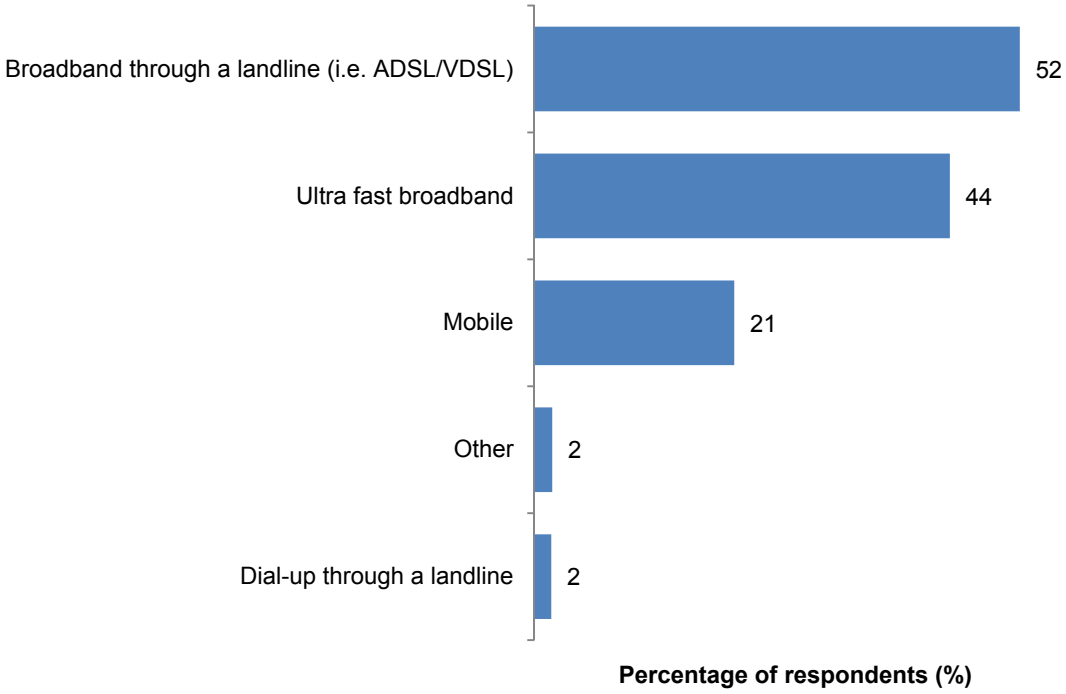
Base: Internet users (n=1001).

Note: Respondents could select more than one answer, therefore the percentages may add up to more than 100 per cent

Among those that accessed the internet at home, 93 per cent had broadband, either through a landline (49%), or ultra-fast broadband (41%), or both (3%). This followed by 21 per cent with mobile connection (e.g., T-stick, modem, 3G, 4G) at home.

There were some differences in the results for those living in urban areas compared to rural areas. Among those living in rural areas, 72 per cent had landline broadband and only 22 per cent had ultra-fast broadband at home. This compared to a half-half split (49% for landline broadband 47% for ultra-fast broadband) for those living in urban areas.

Figure 13: Types of internet connection at home (%)



Base: Respondents who used an internet connection at home to access the internet (n=955)

Note: Respondents could select more than one answer, therefore the percentages add up to more than 100 per cent

3.3 Internet literacy

In the survey, internet literacy was measured via self-ratings, on a 5-point scale (strongly agree to strongly disagree). Questions focused on the ability to complete a number of tasks on the internet.

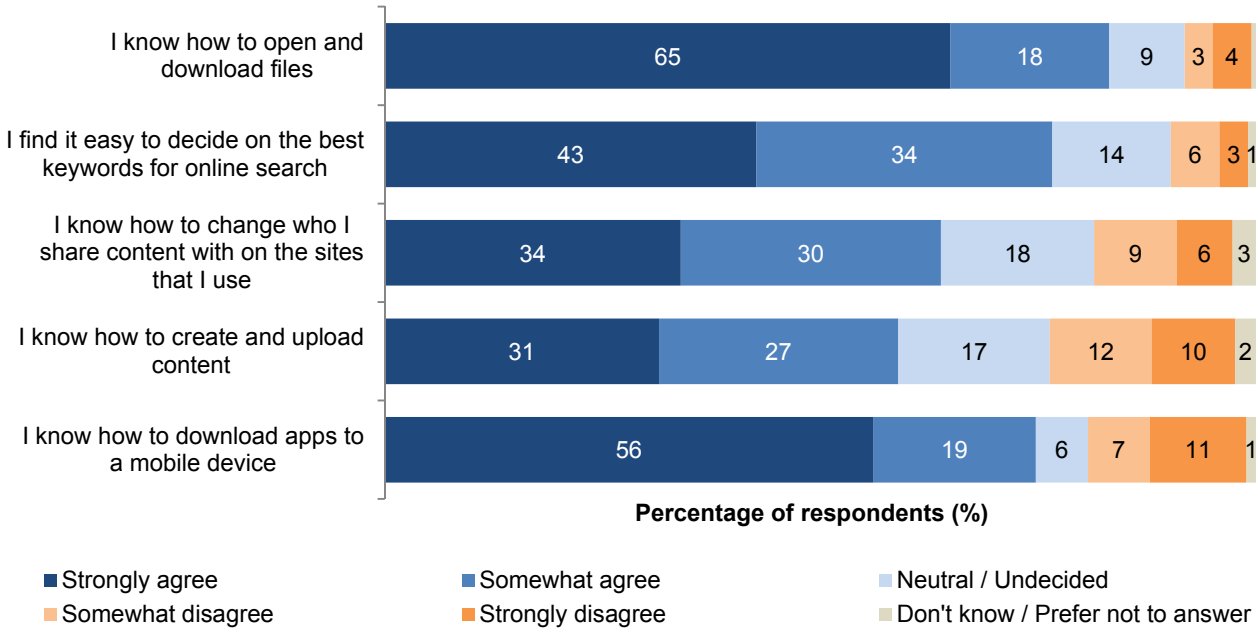
A relatively high proportion of Auckland internet users somewhat agreed or strongly agreed that they:

- know how to open and download files (83%)
- find it easy to decide on the best keywords for online search (77%)
- know how to download apps to a mobile device (75%).

About six in ten internet users agreed that they know how to control who to share content with on relevant websites (64%) and create and upload content (58%).

Similar patterns of internet literacy ratings were observed for respondents in the rest of New Zealand.

Figure 14: Internet literacy (%)

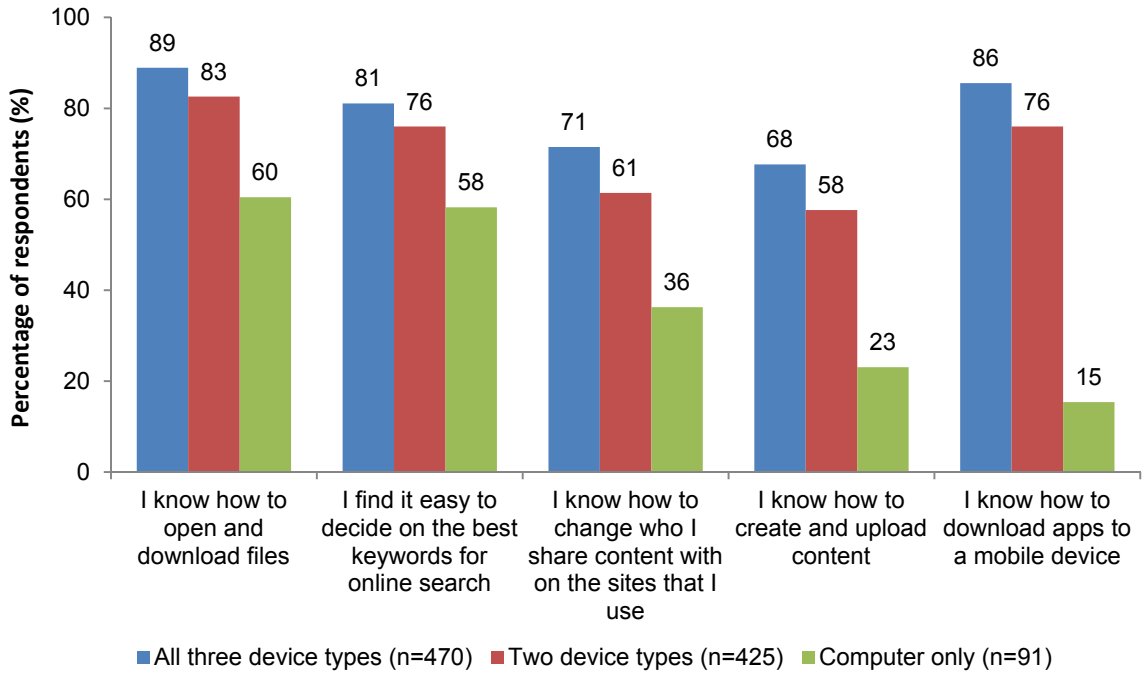


Base: Internet users (n=1001)

Figure 15 suggests a possible link between the types of devices respondents used and how they rated their ability to undertake the tasks. The proportion of respondents who agreed with the statements about their internet literacy was smaller among those who had only used computers to connect to the internet, compared to those who used at least two types of devices. Differences were more pronounced for the following tasks:

- change who to share content with (36% of those who used computers only compared to 61% - 71% of those who had used at least two types of devices)
- create and upload content (23% compared to 58% - 68%)
- download apps to a mobile device (15% compared to 76% - 86%).

Figure 15: Respondents who somewhat or strongly agreed with the statements about their internet literacy – by device use (%)



Note 1: Respondents who only used phones or tablets/e-readers or both are excluded as the sample sizes are too small (i.e. less than 30).

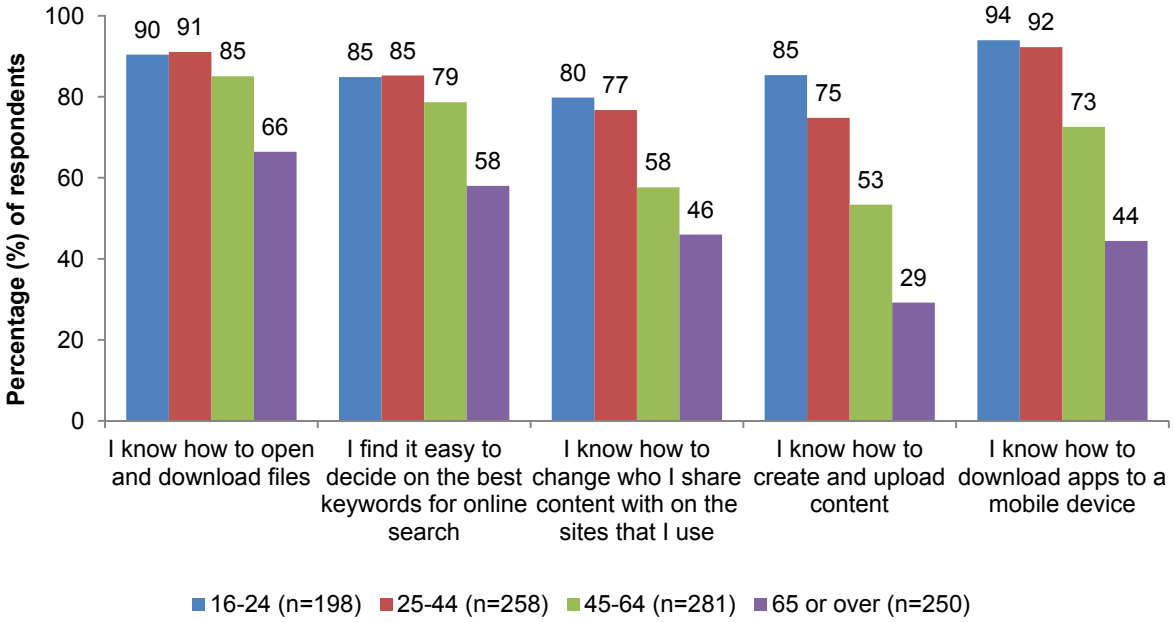
Note 2: The figures presented in this graph are the percentage totals of those who somewhat agreed and those who strongly agreed.

There were also differences in internet literacy by age. As shown in Figure 16, a smaller proportion of those aged 65 or over agreed with the statements about their internet literacy than those aged under 65, particularly those aged between 16 and 44. Age differences were stronger for tasks such as:

- creating and uploading content
- downloading apps to a mobile device.

The observed age differences in internet literacy could be linked to the greater proportion of the younger age groups (i.e. 16-44) using both computers and mobile devices compared to those aged 65 or over (refer to Figure 11).

Figure 16: Respondents who somewhat or strongly agreed with the statements about their internet literacy – by age (%)



Base: Internet users, excluding those who did not provide a response for age.

Note: The figures presented in this graph are the percentage totals of those who somewhat agreed and those who strongly agreed.

3.4 Internet usage frequency by online activity

Internet users were asked to indicate how often they did 29 different activities online, on a six-point scale from several times a day to never. The activities were broadly categorised into:

- using the internet for communication
- using the internet as a source of information
- using the internet for entertainment
- using the internet for banking and shopping
- using the internet for learning.

Results indicate that, overall, Auckland respondents used the internet more frequently as a tool to communicate and as a source of information. They used the internet less frequently for entertainment, banking or shopping and learning (see Figure 38 to Figure 42 in Appendix D).

Markedly higher proportions of internet users reported ‘weekly’, ‘daily’, or ‘several times a day’ for the following activities compared to other activities:

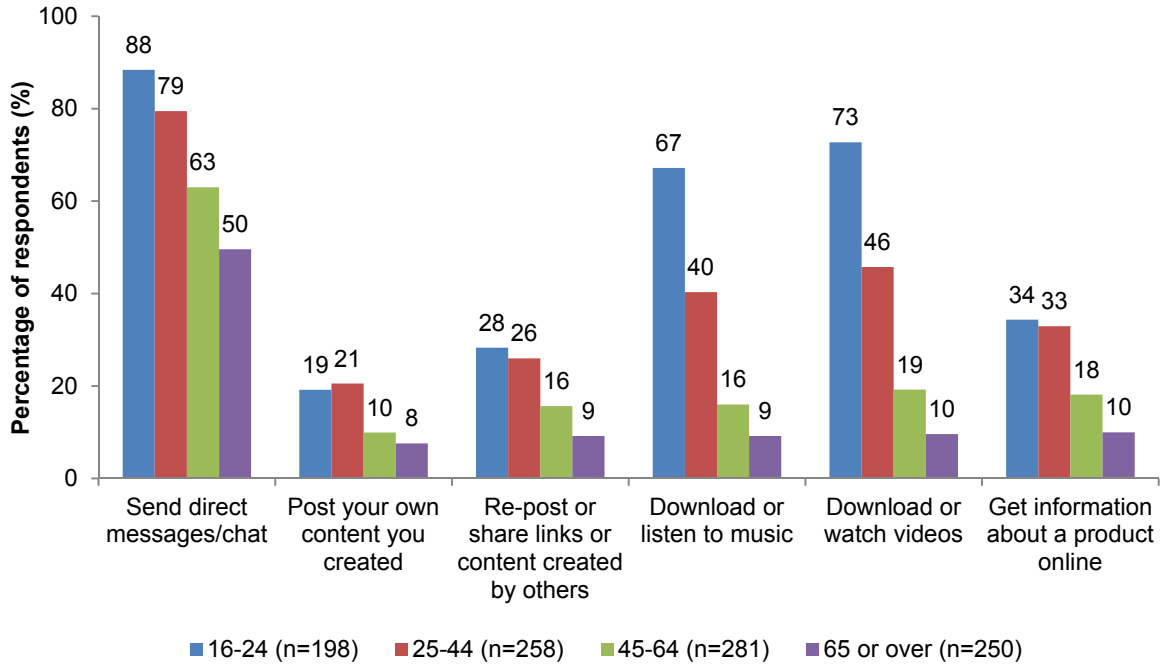
- checking emails (6% for ‘weekly’, 29% for ‘daily’ and 62% for ‘several times a day’)
- looking for news (19%, 42% and 23%)
- sending direct messages or chatting (16%, 28% and 41%).

Questions on how often the internet is used to interact with, or to access, central and local government services, were specifically added to the 2017 survey. About one quarter (23%) said they never used the internet to access central government services, and almost a third (32%) never used it for local government services. Among those who indicated some use, most accessed for these purposes either monthly or less than monthly (refer to Figure 39 in Appendix D for more details).

Internet usage frequency also varies across age. The proportion of those doing the online activities daily or several times a day, as Figure 17 shows, tends to decrease as age group increases. Differences between the youngest (i.e. 16-24) and the older (i.e. 65 or over) age groups were more pronounced for activities such as:

- download or listen to music (67% of the 16-24 age group and 10% of those aged 65 or over)
- download or watch videos (73% compared to 10%)
- send direct messages or chat (88% compared to 50%).

Figure 17: Online activities with notable age differences in the proportion reporting 'daily' or 'several times a day' for average frequency



Base: Internet users, excluding those who did not provide a response for age.

Note: The figures presented in this graph are the percentage totals of those who reported 'daily' or 'several times a day'.

3.5 Preference for internet usage

Internet users were asked whether they would like to do more or less of a range of internet activities. In addition to those previously asked activity categories, the question also asked whether respondents would like to learn how to use new digital tools (e.g. the cloud).

A relatively greater proportion of respondents would like to do more of the following:

- learn how to use new digital tools (41%)
- general learning (30%).

A small but notable proportion of respondents would like to use the internet less for:

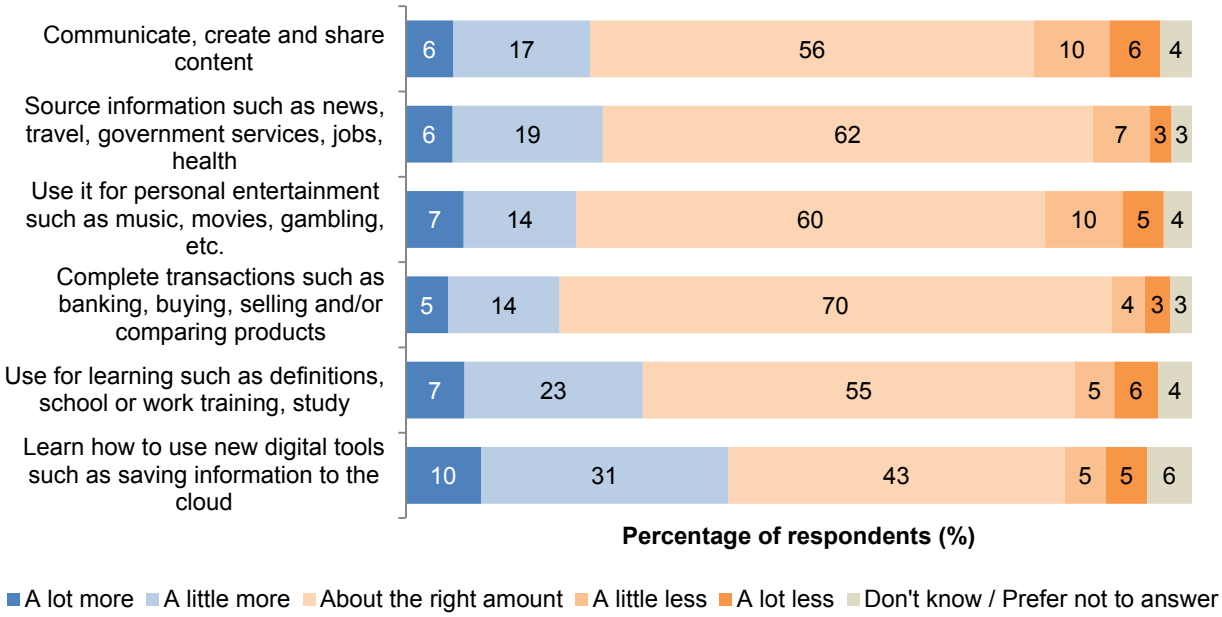
- communication purposes (16%)
- entertainment purposes (15%).

Also note that, for those activity categories that were previously asked in the usage frequency questions (questions 22 to 26), the majority of respondents felt they were

doing them about the right amount, in particular, banking or shopping activities (70%). This contrasts with only 43 per cent for learning new digital tools.

The observed pattern of responses for this question suggests respondents would like to learn about new digital technology if given the opportunity.

Figure 18: Respondents' preferred changes in frequency by activity category (%)



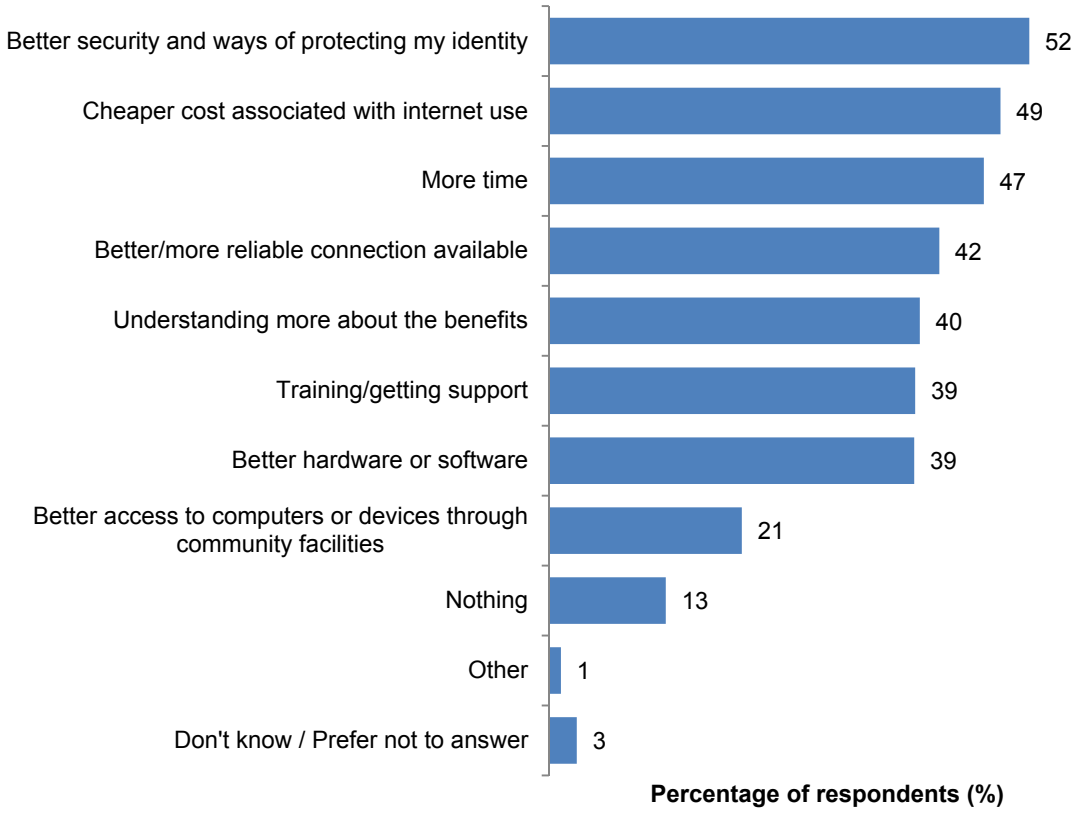
Base: Internet users (n=1001)

Figure 19 shows responses to the question on the additional help existing internet users would require to do more online activities. About one in ten (13%) of the users did not think they required any help to do more online activities.

Among those who did select one of the types of help, a considerable proportion reported having better security online and ways of protecting their identity online (52% of internet users), cheaper cost of internet use (49% of internet users) or more time (47% of internet users) would help increase their internet usage. The high response rate for better security raises the issue of internet privacy and security, and this is discussed in the next section of the report.

Among those aged 65 or over, in addition to having better security online (50%) and cheaper cost for internet use (45%), a noticeable proportion also considered better understanding of the benefits of the internet (47%) and getting training or support (42%) were important for increasing their internet usage.

Figure 19: Help needed to do more online activities – all internet users (%)



Base: Internet users (n=1001).

Note: Of those who did not answer 'nothing', respondents were able to select more than one answer, therefore the percentages add up to more than 100 per cent.

4.0 Privacy and security on the internet

As indicated previously in Figure 19, online security and privacy could be an important factor affecting internet usage. This section specifically investigates the security and privacy issues that internet users in the survey reported they had experienced online, and their attitudes toward internet privacy.

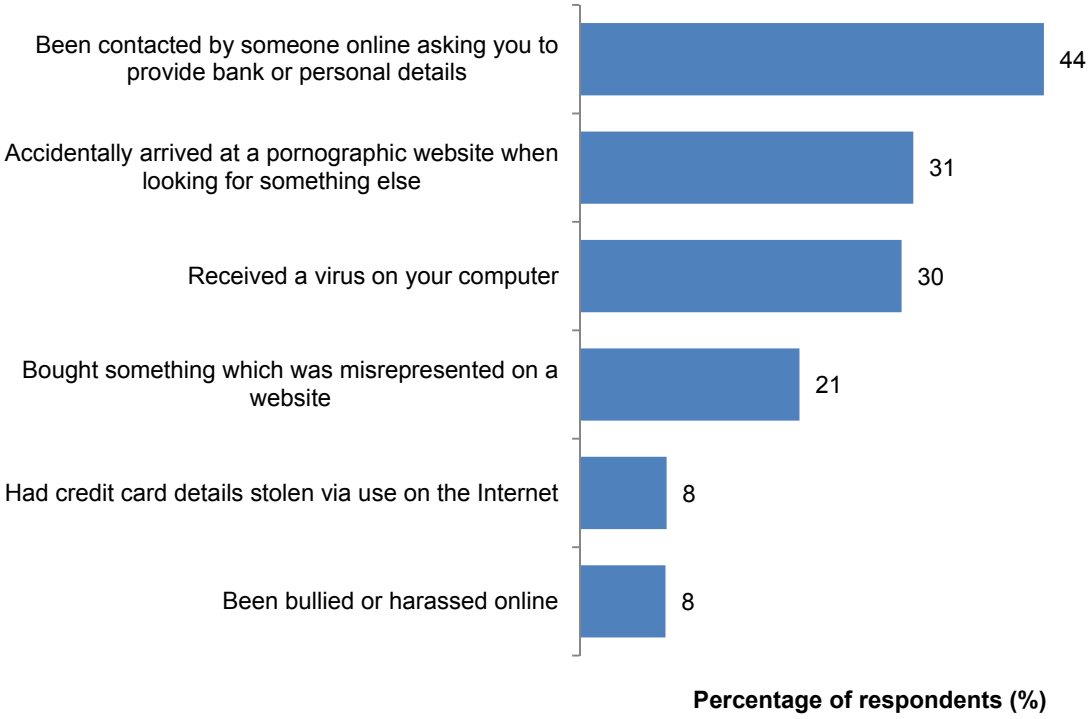
4.1 Negative experiences on the internet

Internet users were asked whether they had ever experienced a range of possible negative scenarios in the past year. Just over a quarter (28%) internet users had not experienced any of the scenarios, and almost three quarters (72%) had experienced at least one scenario.

As shown in Figure 20, almost half (44%) of internet users had been contacted by someone online for personal details, followed by accidentally arrived at a pornographic website (31%) and received a virus on computer (30%). Relatively few had credit card details stolen on the internet (8%), or had been bullied or harassed online (8%).

Over a quarter (27%) of the users had experienced only one scenario. Of those, most had been contacted by someone online for personal details (12% of internet users).

Figure 20: Negative experiences online in the past year (%)

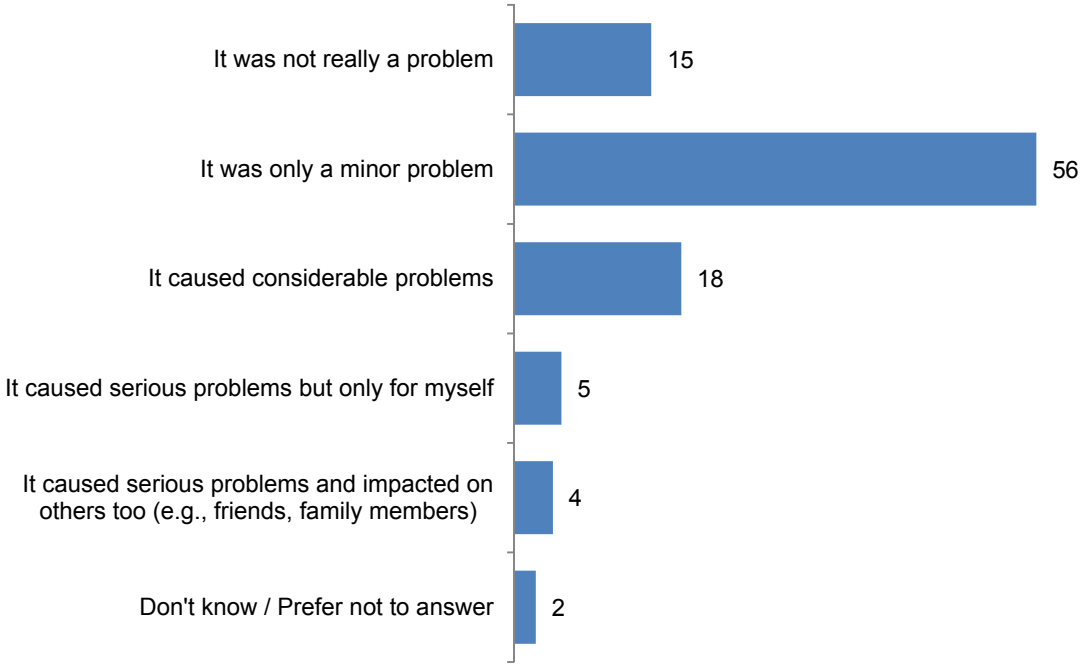


Base: Internet users (n=1001).

Note: Respondents were able to select more than one answer, therefore the percentages add up to more than 100 per cent.

Despite the relatively high number of internet users who had experienced at least one negative scenario, just under a quarter (22%) believed they had experienced privacy violations online. Of those, the largest group (56%) felt it was only a 'minor problem' (Figure 21).

Figure 21: Impact of the privacy violations experienced (%)



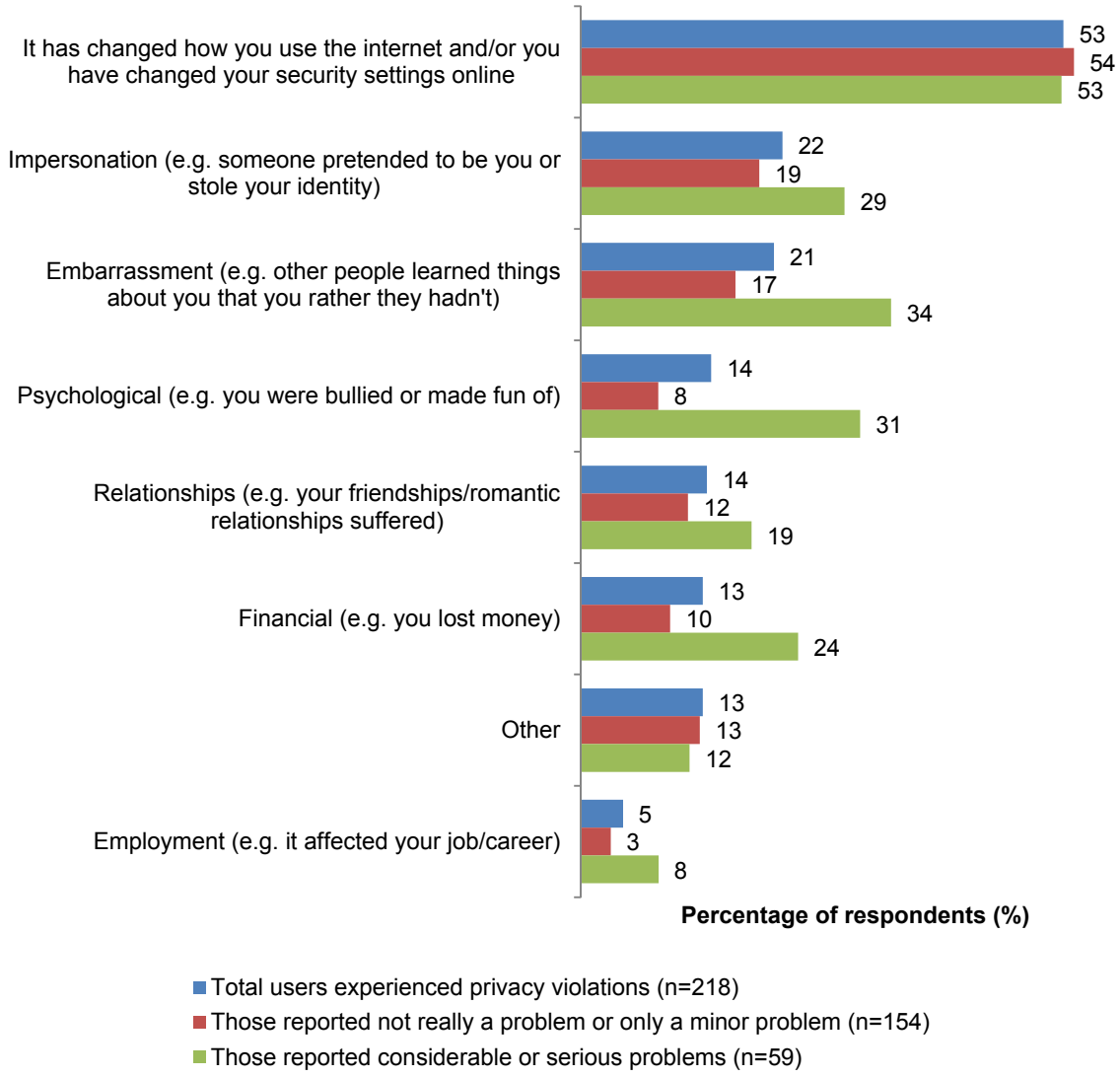
Base: Respondents who believed they experienced privacy violations in the past year (n=218)

Figure 22 shows that, regardless of whether respondents felt the violation of their privacy had caused considerable problems or it was a minor problem, over half reported it had changed how they use the internet and/or they changed their security settings as a consequence.

Among those who reported the impact being considerable or serious, a relatively greater proportion experienced:

- embarrassment (34%)
- psychological consequences (31%)
- financial consequences (24%)
- consequences that affected their relationships (19%).

Figure 22: Consequences of the privacy violations experienced – by impact of the violation (%)



4.2 Attitudes and behaviour toward internet privacy

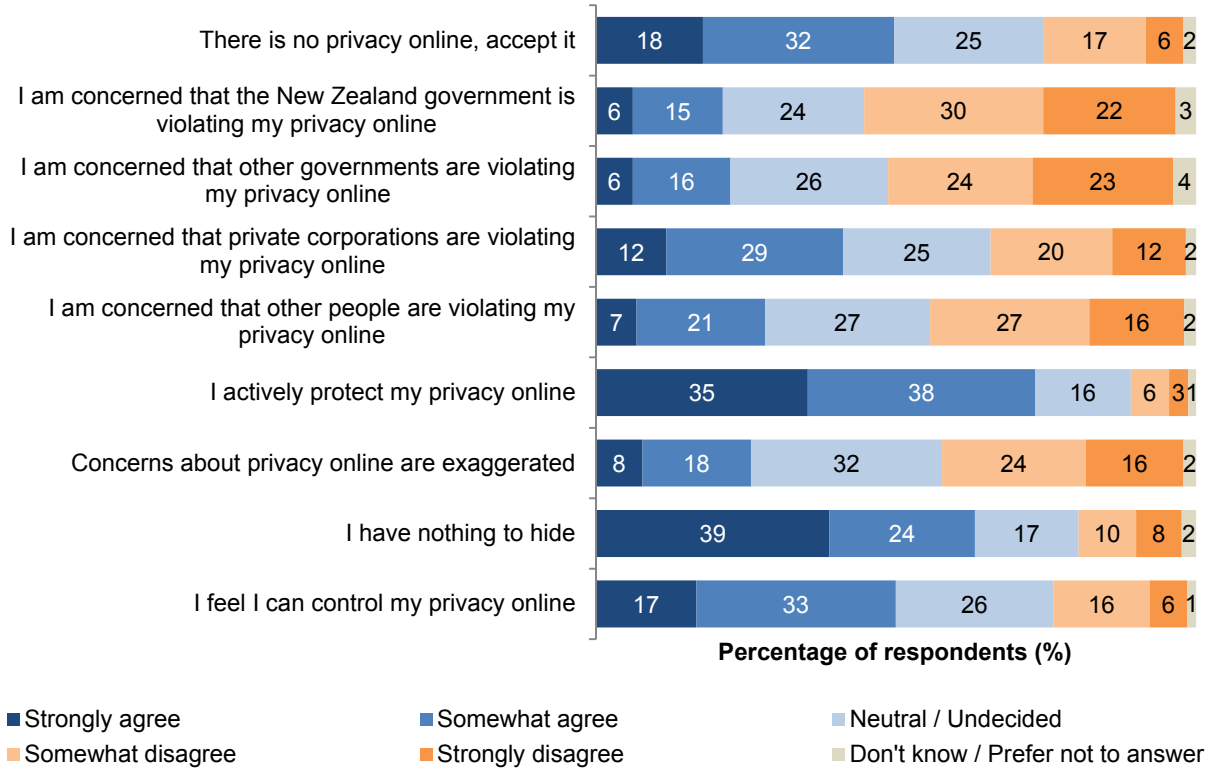
Internet users were asked to rate the extent to which they agreed or disagreed with a set of nine statements relating to online privacy, on a 5-point scale (see Figure 23).

At least half of the respondents agreed (either strongly or somewhat) with those statements related to their personal behaviour toward online privacy. About three quarters (73%) of the respondents said they actively protect their privacy online, followed by half agreed that they can control their privacy online.

Results also show a greater proportion of internet users concerned about the behaviour of private corporations (41%) toward their privacy online than the

behaviour of the New Zealand Government (21%), other governments (22%) or other people (28%).

Figure 23: Overall responses to statements regarding privacy online (%)

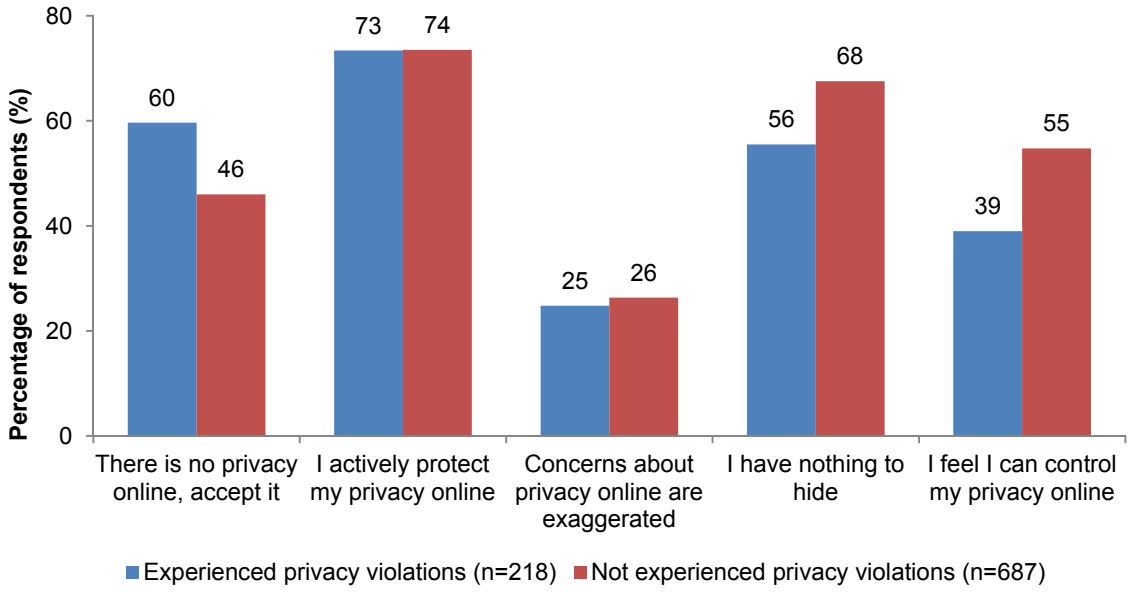


Base: Internet users (n=1001)

Some notable differences were found between the responses of those respondents who believed they had experienced privacy violations online and those who did not. Among those who said they had experienced privacy violations online:

- a greater proportion agreed that that there is no privacy online (60% compared to 46%)
- a smaller proportion agreed that they have nothing to hide (56% compared to 68%)
- a smaller proportion agreed that they can control their privacy online (39% compared to 55%).

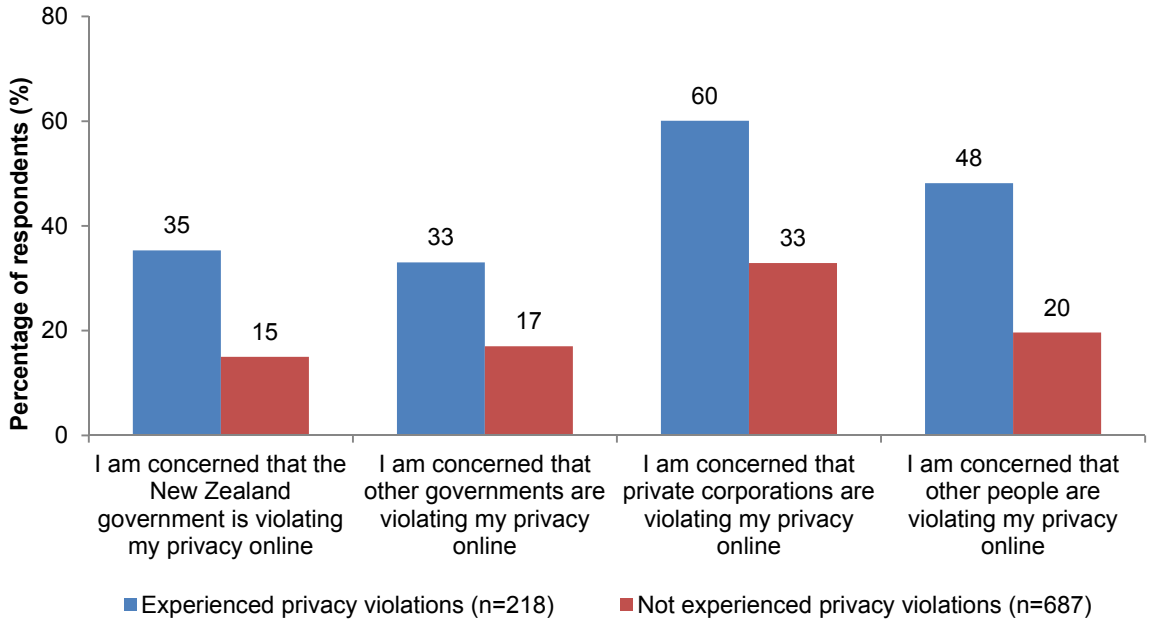
Figure 24: Respondents who agreed with the statements on attitudes toward privacy online – those who experienced privacy violations compared to those did not (%)



Note: The figures presented in this graph are the percentage totals of those who somewhat agreed and those who strongly agreed.

Those who believed they had experienced privacy violations online were also markedly more concerned about the New Zealand Government (35%), other government (33%), other people (48%) and private corporations (60%) violating their privacy online, than those who had not experienced privacy violations (refer to Figure 25).

Figure 25: Respondent who were concerned with others violating their privacy online – those experienced privacy violations compared to those did not (%)



Note: The figures presented in this graph are the percentage totals of those who somewhat agreed and those who strongly agreed.

5.0 Impact of the internet on civic engagement

The World Internet Project is specifically interested in the impact of the internet on civic engagement. To investigate this, the survey asked all respondents, both internet users and non-users, on their attitudes toward:

- the impact of the internet on political engagement
- freedom of speech on the internet
- the reliability of information on the internet.

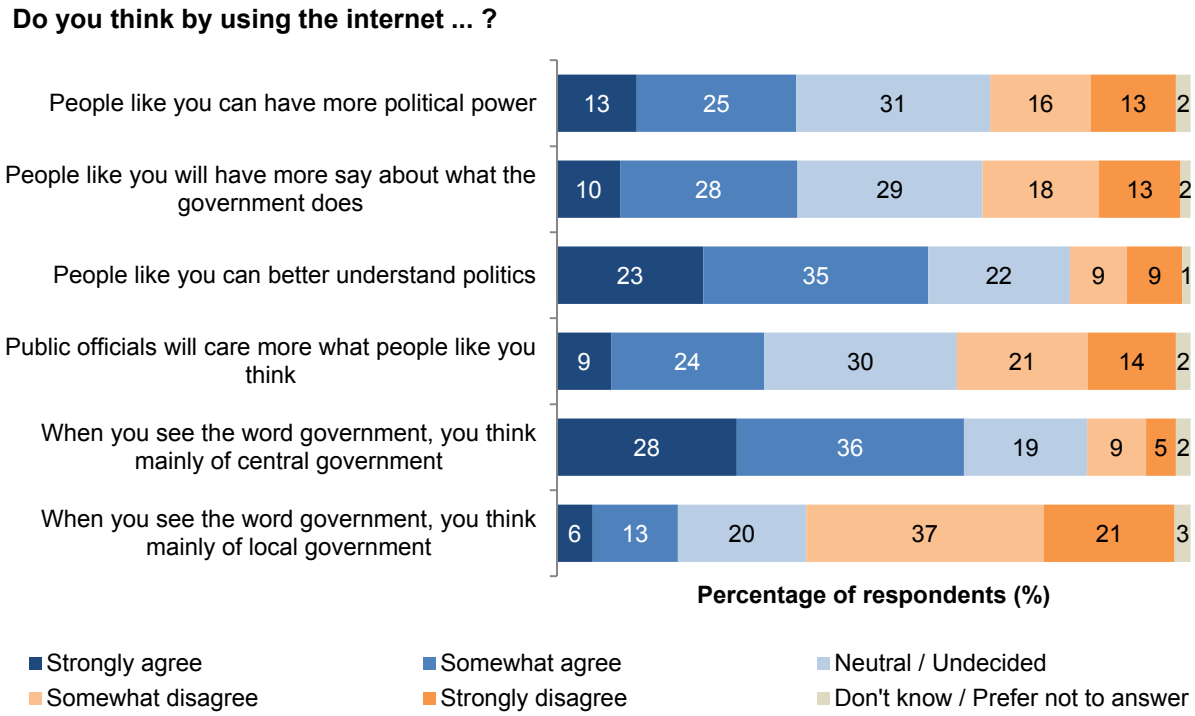
5.1 Attitudes toward the impact on political engagement

All respondents were asked to rate, on a 5-point scale, how much they agree or disagree with a number of statements on the impact of using the internet for political engagement.

Almost six in ten (58%) strongly or somewhat agreed that by using the internet people can better understand politics. This was markedly higher than the proportion who agreed that, by using the internet, people have more political power (38%), have more say about what the government does (38%) and public officials care more about what people think (33%).

The survey also included questions designed to explore perceptions of the word ‘government’. About two thirds (64%) of all respondents agreed that their interpretation of the word government would be the central government. This compared to only two in ten (19%) who agreed they would mainly think of local government.

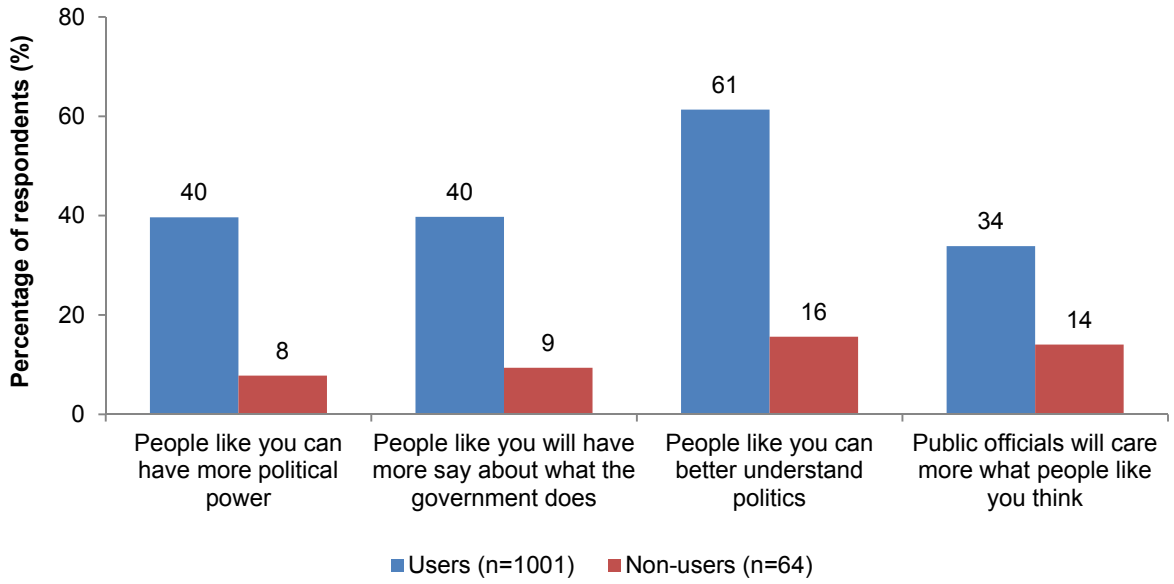
Figure 26: Attitudes toward the impact of the internet on political engagement (%)



Base: All respondents (n=1065)

There were noticeably different results to these questions among internet users, compared to non-users. In particular, a markedly higher proportion of users agreed that using the internet helps people better understand politics (61% compared with 16% of non-users).

Figure 27: Respondents who agreed with the statements on the impact of the internet on political engagement – internet users and non-users (%)

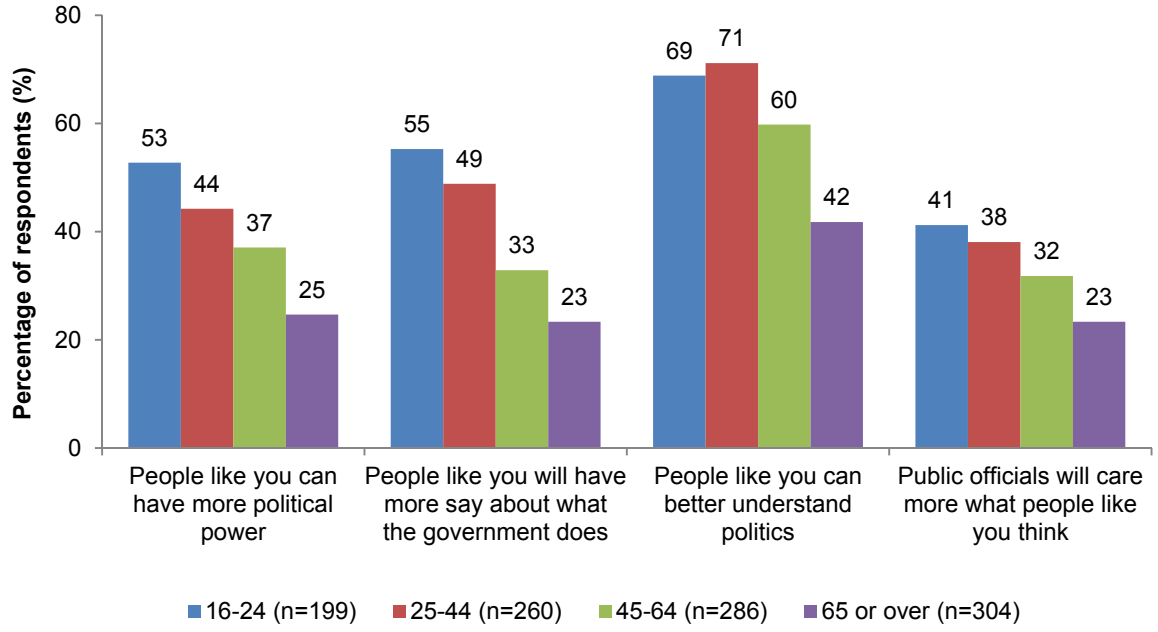


Note: The figures presented in this graph are the percentage totals of those who somewhat agreed and those who strongly agreed.

Respondents' attitudes toward the impact of the internet on political engagement also vary by age. Generally speaking, the proportion of those who agreed with the statements decreases as age group increases (Figure 27). For example, there was a large age difference observed among those who agreed that using the internet helps people better understand politics (71% of the 25-44 age group compared with 42% of those aged 65 or over).

Smaller age differences were observed for the question regarding whether respondents agreed that by using the internet, public officials will care more what people think. This was due to the lower proportions of respondents that agreed with this across all age groups compared to other questions.

Figure 28: Respondents who agreed with the statements on the impact of the internet on political engagement – by age (%)



Base: All respondents, excluding those who did not provide a response for age.

Note: The figures presented in this graph are the percentage totals of those who somewhat agreed and those who strongly agreed.

5.2 Attitudes toward freedom of speech on the internet

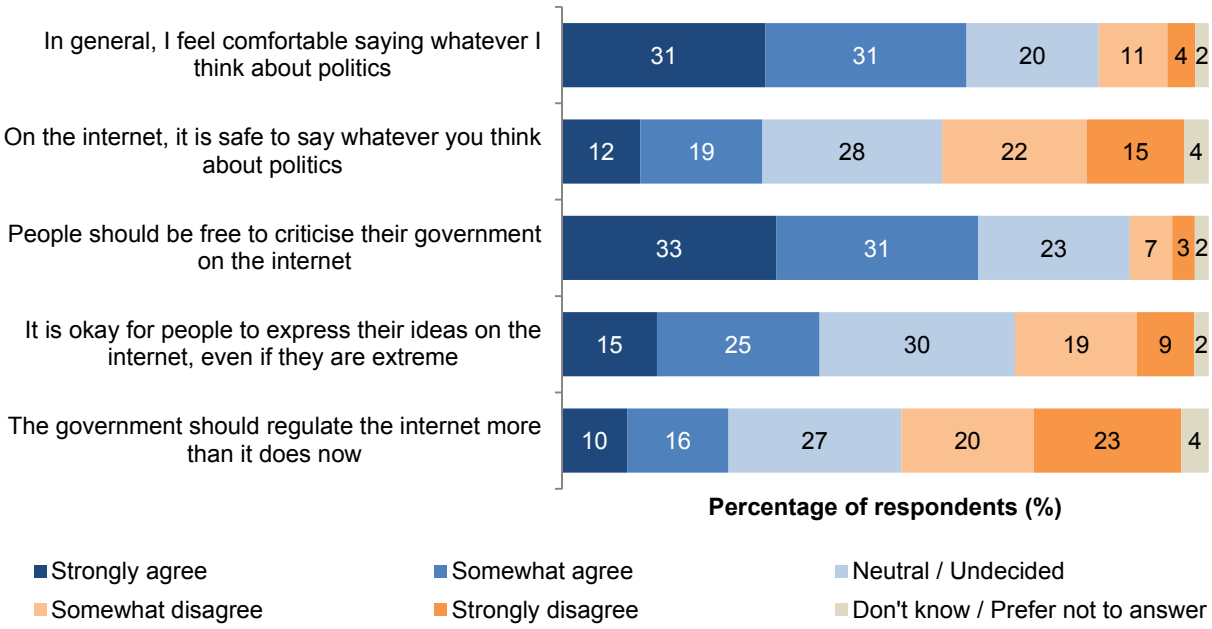
Respondents were asked how they felt about freedom of speech on the internet, with a specific focus on government and politics.

Overall, about six in ten respondents (61%) somewhat or strongly agreed that they feel comfortable saying what they think about politics and people should be free to criticise their government on the internet (64%).

A relatively smaller proportion agreed that it is safe to say whatever they think about politics (31%) and it is okay to express their ideas on the internet even if they are extreme (40%). However, a considerable proportion of respondents disagreed with these two statements respectively (37% and 30%).

About a quarter (26%) of respondents agreed that the government should regulate the internet more. This was notably lower compared to the proportion of respondents who disagreed with this statement (43%).

Figure 29: Attitudes toward freedom of speech on the internet – all respondents (%)

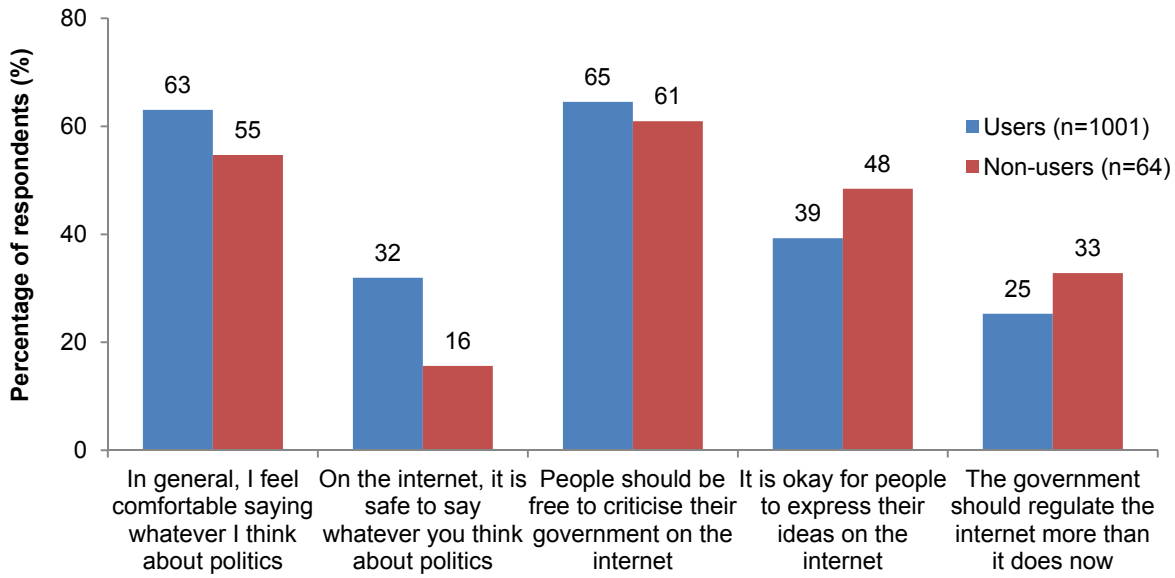


Base: All respondents (n=1065)

Comparing the responses between internet users and non-users, a greater proportion of users agreed that they feel comfortable with saying what they think about politics on the internet (63% of users compared to 55% of non-users) and feel safe to do so (32% compared to 16%). Also, a quarter of users agreed that the government should regulate the internet more, compared to a third among non-users.

While the non-users tend to be more conservative about using the internet to express their opinions about the government and politics, the majority of both users (65%) and non-users (61%) agreed that people should be free to criticise the government on the internet.

Figure 30: Respondents who agreed with the statements on freedom of speech on the internet – internet users and non-users (%)

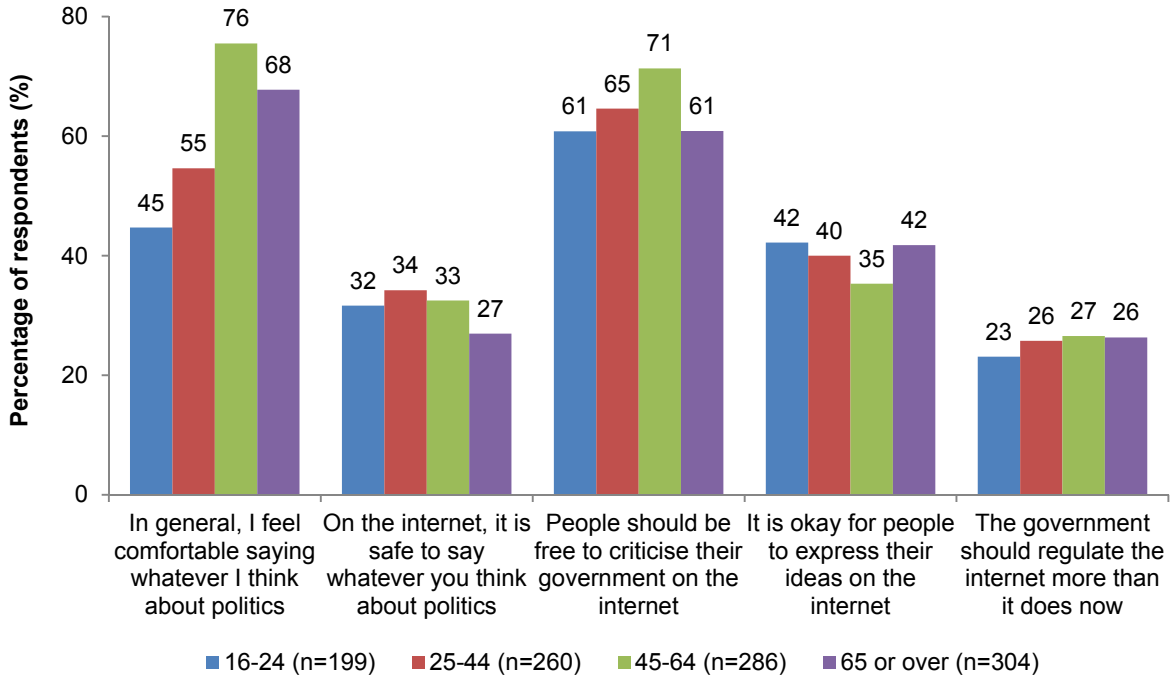


Note: The figures presented in this graph are the percentage totals of those who somewhat agreed and those who strongly agreed.

Figure 31 shows variations in the results by age. There was a marked age difference in the proportions of those who agreed that they feel comfortable saying whatever they think about politics. The majority of those aged 45 or older agreed with this statement (76% of the 45-64 age group and 68% of those aged 65 or over). In comparison, about half of those aged between 16 and 44 agreed with the statement (45% of the 16 to 24 year olds and 55% of the 25-44 year olds).

Relatively low proportions of all age groups agreed that it is safe to say whatever they think about politics on the internet, and the government should regulate the internet more than it does now.

Figure 31: Respondents who agreed with the statements on freedom of speech on the internet – by age (%)



Base: All respondents, excluding those who did not provide a response for age.

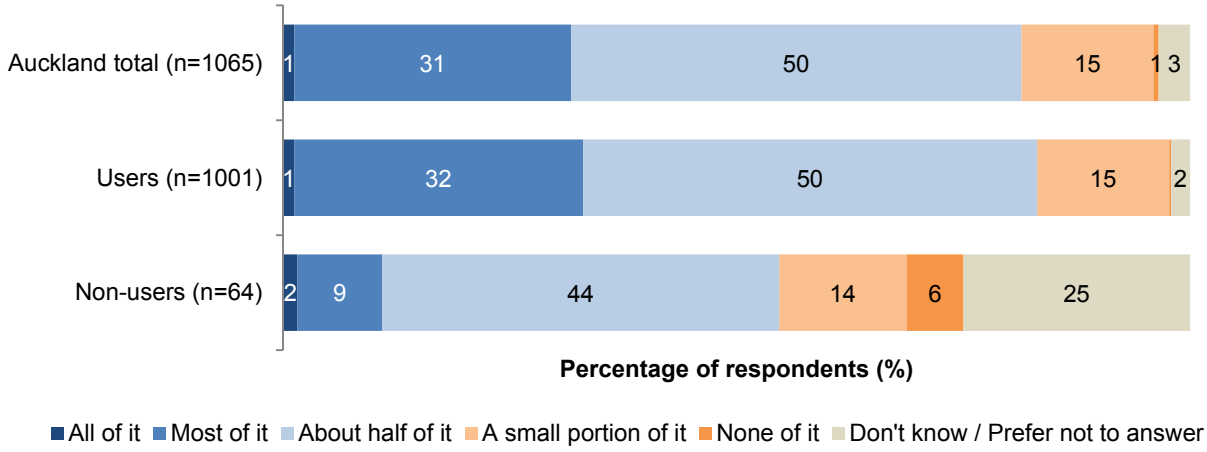
Note: The figures presented in this graph are the percentage totals of those who somewhat agreed and those who strongly agreed.

5.3 Attitudes toward the reliability of information

The internet has increasingly become an important source of information. To find out the level of trust people have in the information available on the internet, the survey asked the respondents to rate the overall reliability of information, and their confidence in evaluating it.

About a third of all respondents (32%) and those who were internet users (33%) considered all or most of the information on the internet to be generally reliable. This compared to only one in ten (11%) among the non-users.

Figure 32: Perceptions on the overall reliability of information on the internet – internet users and non-users (%)

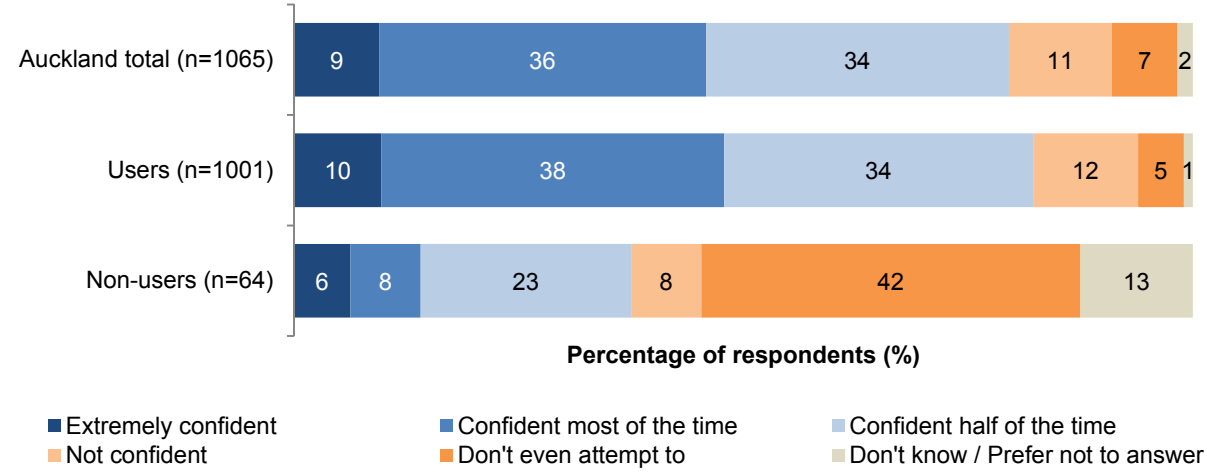


Base: All respondents (n=1065)

With regard to the confidence in assessing the reliability of information on the internet, perhaps not surprisingly, half of the non-users reported they were not confident or didn't even attempt to assess it.

Most (82%) of the internet users reported some level of confidence in assessing the reliability of information on the internet. Almost half (48%) users felt either extremely confident (10%) or confident most of the time (38%), compared to only 14 per cent of non-users. A third (34%) of the users felt confident that they can accurately assess the information reliability half of the time.

Figure 33: Respondents' confidence in evaluating the reliability of information on the internet – internet users and non-users (%)



Base: All respondents (n=1065)

6.0 Using the internet with disabilities

Since 2015, the World Internet Project Survey has included questions that look at how people with disabilities access and use the internet.

6.1 Types of disabilities and their impact on internet use

The survey adopted the Washington Group's Short Set of questions[6] for identifying respondents' disabilities. Respondents were asked to report whether they have some difficulty, a lot of difficulty, or cannot perform at all, six basic functions or actions such as seeing, hearing, walking or climbing steps, remembering or concentrating, self-care, or communicating.

Table 1 below shows the number of respondents and those who were internet users by type of disability. More than 300 (34%) of internet users reported at least one disability, and among those, almost three in ten (28%) were those aged 65 or over.

Table 1: Types of disabilities reported

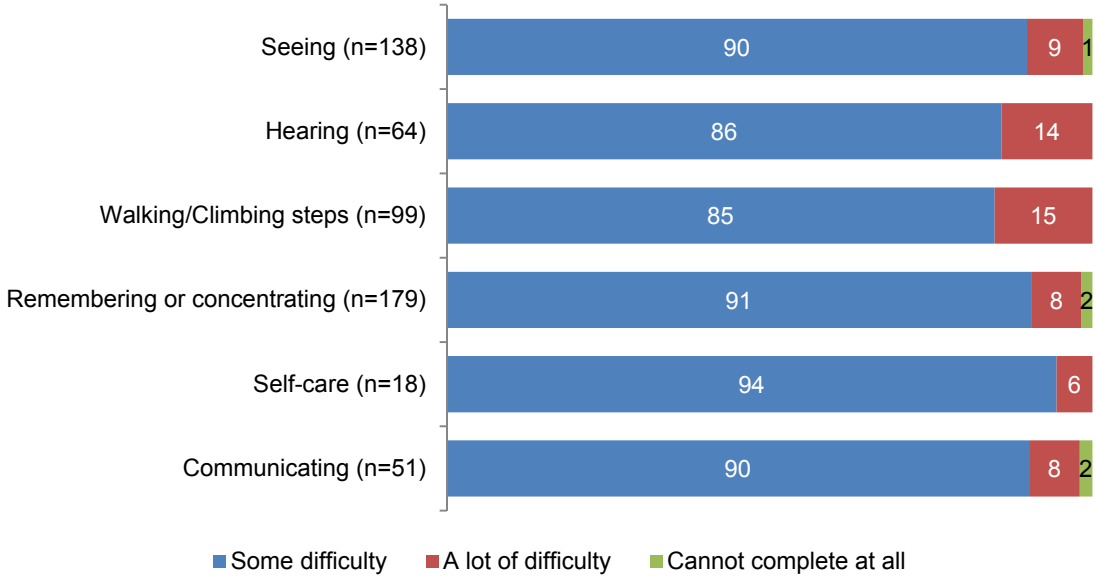
Type of disability	Number of respondents	Percentage (%) of total respondents (n=1065)	Number of internet users	Percentage (%) of internet users (n=1001)
Difficulty in seeing, even if wearing glasses	146	13	138	14
Difficulty in hearing, even if using a hearing aid	74	7	64	6
Difficulty in walking or climbing steps	127	12	99	10
Difficulty in remembering or concentrating	192	18	179	18
Difficulty with self-care	22	2	18	2
Difficulty in communicating	58	5	51	5
Total who reported at least one disability	**385**	**26**	**343**	**34**

Note: The types of disabilities are not mutually exclusive as respondents were asked to report all that applied to them.

[6] More information about the short set of questions can be read on the Washington Group's website at: http://www.washingtongroup-disability.com/washington-group-question-sets/short-set-of-disability-questions/

Forty-three internet users (5% of internet users) reported they had at least one disability with severe difficulty (i.e. with a lot of difficulty or cannot complete the function or action at all). Figure 34 below shows the type of disability by level of severity.

Figure 34: Type of disability – by level of severity (%)



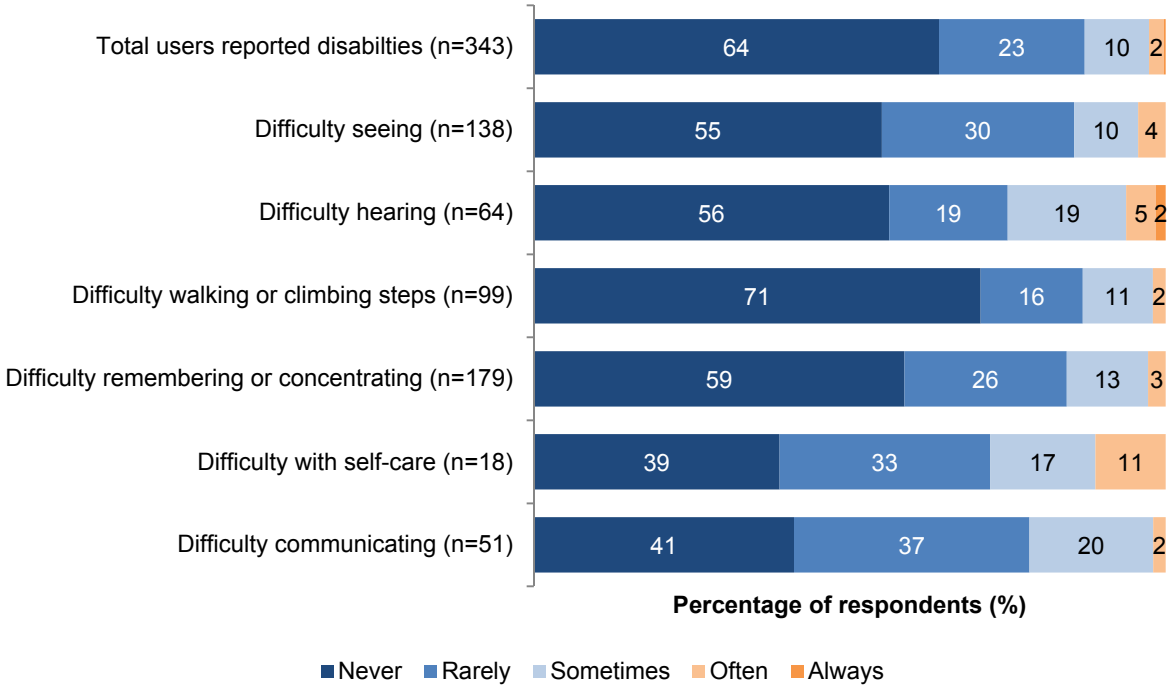
Base: Internet users who reported at least one disability (n=343).

Note: The types of disabilities are not mutually exclusive as respondents were asked to report all that applied to them. results for those who reported disabilities in self-care should be viewed with caution due to the very small sample size (n=18).

Those who reported at least one disability were asked how often their internet use was limited by the difficulty or difficulties they were experiencing.

Overall, the majority (64%, or 220 respondents) did not find their difficulties limited them from accessing and using the internet. About one in ten (12%) reported their difficulties sometimes or often limited their internet use (Figure 35).

Figure 35: How often internet use is limited by the difficulty or difficulties – by type of disability (%)



Base: Internet users who reported at least one disability.

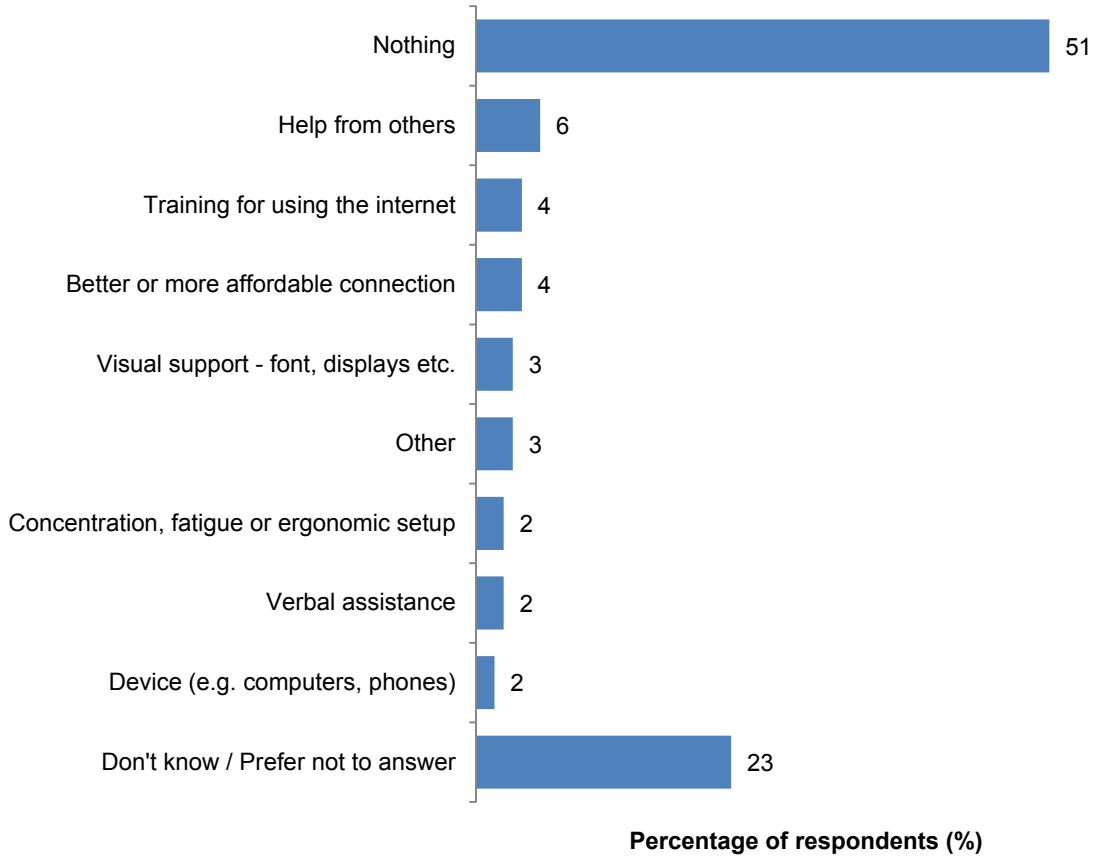
Note: The types of disabilities are not mutually exclusive as respondents were asked to report all that applied to them. results for those who reported disabilities in self-care should be viewed with caution due to the very small sample size (n=18).

6.2 Assistance for using the internet with disability

Those who experienced difficulty in accessing or using the internet because of their disabilities (ranging from rarely to always) were asked to state any additional help that enables them to access, and use, the internet more easily.

Just over half (51%) said they did not need assistance despite their disabilities limiting their internet use. Of those who said they required assistance (32 respondents), help from others (6%) was more commonly thought as the most helpful type of assistance.

Figure 36: Help or assistance required for accessing the internet more easily (%)



Base: Internet users who experienced difficulty, rarely, sometimes, often or always, in accessing and using the internet because of their disabilities (n=123)

Note: Respondents may list more than one type of assistance, therefore the percentages may add up to more than 100.

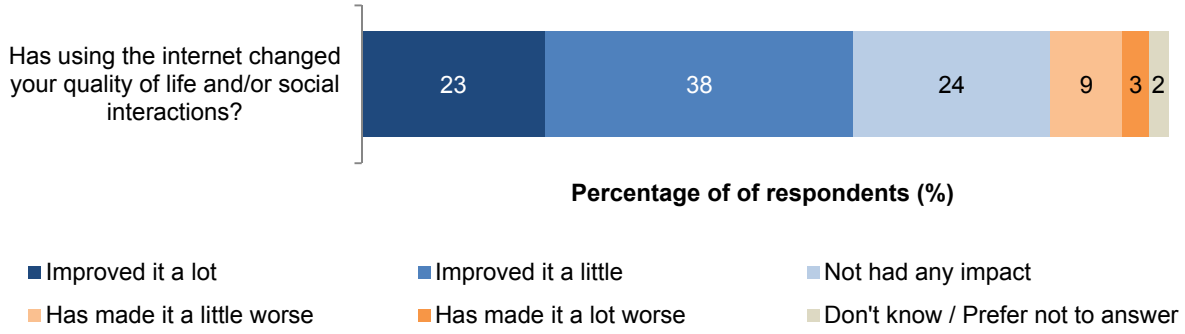
Over two thirds of those internet users who required assistance for internet use (22 out of 32 respondents) had access to their assistance. Paying by themselves, families or friends was identified as the main way to get access to their assistance (50%).

6.3 Impact of the internet on quality of life

The survey asked respondents who had some difficulty in accessing or using the internet because of their disabilities, on their perceptions of the impact of the internet on their quality of life or social lifestyle.

Among those who were internet users, six in ten (61%) felt the internet improved their quality of life, either by a lot (23%) or a little (38%). Only five per cent said their quality of life was made worse by the internet – three per cent said a little worse and two per cent said a lot worse.

Figure 37: Perceptions on the impact of the internet on quality of life for internet users with disabilities



Base: Internet users who experienced difficulty, rarely, sometimes, often or always, in accessing and using the internet because of their disabilities (n=123).

7.0 Concluding remarks

Based on the results from the 2017 World Internet Project Survey, this report provides useful insights on Aucklanders' internet usage behaviour, and their perceptions on internet privacy and impacts of the internet.

Overall, Auckland respondents used the internet more frequently as a tool to communicate and connect with others and look up information, than for purposes such as entertainment, banking or shopping and learning. The majority of respondents also perceived the internet as a useful platform for participating in the political process – it can help people better understand the government and politics and enable them to express their opinions and views. These were similar to the results at the national level (Díaz Andrade et al., 2018) and for the rest of the New Zealand sample.

The results highlight a strong divide in internet usage behaviour by age. Compared to people in the younger age groups, those aged 65 or over used mobile devices less often to connect to the internet, felt less confident about their ability to complete common tasks on the internet, engaged in online activities less frequently and made up most of the non-internet users. These findings are similar to what has been observed internationally – older citizens are often over-represented among those who are more digitally disadvantaged (Digital Inclusion Research Group, 2017). While affordability could be a factor affecting the internet use of the older people, the results suggest that there is a stronger need for more engagement with this group in order to help them understand the benefits of the internet and provide training and support for developing their internet skills.

The survey also indicated internet users' privacy online as a key factor in affecting internet use. Although most internet users in the Auckland sample agreed that they have been actively protecting their privacy online, they were still concerned that private corporations are violating their privacy. Improving privacy online would thus require government agencies and the private sector working together, to create a robust cybersecurity environment so that people trust their private information is being looked after on the internet.

The findings presented here increase our understanding of Aucklanders' behaviours of internet use and attitudes toward the internet. The information could be used to develop monitoring measures for related focus areas in the Auckland Plan. The results could also be used by council and other agencies to develop policies, strategies and programmes achieving equitable internet access and use in Auckland, and thus contributing to greater opportunity and prosperity for all Aucklanders.

8.0 References

Auckland Council. (2018). *Auckland Plan 2050.* Auckland: Auckland Council.

Centre for the Digital Future. (2017). *World Internet Project International Report, Eighth Edition.* Los Angeles: University of Southern California. Available at: https://www.iis.se/docs/2017-World-Internet-Project-report.pdf.

Digital Inclusion Research Group. (2017). *Digital New Zealanders: The Pulse of our Nation. A report to MBIE and DIA.* Available at: https://www.mbie.govt.nz/info-services/digital-economy/documents-and-images/digital-new-zealanders-the-pulse-of-our-nation-may-2017.pdf

Díaz Andrade, A., Hedges, M.R., Karimikia, H. and Techatassanasoontorn, A. (2018). *World Internet Project: The Internet in New Zealand 2017*. Auckland: New Zealand Work Research Institute, Auckland University of Technology. Available at: https://workresearch.aut.ac.nz/__data/assets/pdf_file/0009/174915/Core-Report_Sept19_release.pdf.

McKinsey Global Institute. (2011). *The great transformer: The impact of the internet on economic growth and prosperity.* Available at: https://www.mckinsey.com/~/media/mckinsey/industries/high%20tech/our%20insights/the%20great%20transformer/mgi_impact_of_internet_on_economic_growth.ashx.

McKinsey Global Institute. (2017). *A future that works: automation, employment and productivity.* Available at https://www.mckinsey.com/~/media/mckinsey/featured%20insights/digital%20disruption/harnessing%20automation%20for%20a%20future%20that%20works/mgi-a-future-that-works_full-report.ashx

Organisation for Economic Cooperation and Development. (2013). *The Internet Economy on the Rise: Progress since the Seoul Declaration*. Paris: OECD Publishing. https://read.oecd-ilibrary.org/science-and-technology/the-internet-economy-on-the-rise_9789264201545-en#page1 [Accessed: 20 September 2018].

Organisation for Economic Cooperation and Development. (2017). *OECD Digital Economy Outlook 2017.* Paris: OECD Publishing.

https://read.oecd-ilibrary.org/science-and-technology/oecd-digital-economy-outlook-2017_9789264276284-en. [Accessed: 20 September 2018].

World Bank (2016). *World Development Report 2016: Digital Dividends*. Washington, DC: The World Bank. http://documents.worldbank.org/ curated/en/896971468194972881/pdf/102725-PUB-Replacement-PUBLIC.pdf [Accessed: 11 October 2018]

Appendix A 2017 Survey Questionnaire

Section 0 – Participant Information Sheet

Thank you for agreeing to take part in the World Internet Project New Zealand survey [1] of internet usage. You have been randomly selected through your phone number to participate. The answers you provide will be very useful for the way the service and access is developed for all of us.

The survey takes between 10-30 minutes depending on whether or not you are an internet user. Your completion of the survey is accepted as your consent to participate. The survey is anonymous and although it asks you for some personal information it is not possible for that information to be linked back to a specific person. The project has been approved by the Auckland University of Technology Ethics Committee on 1 May 2017, application reference number 17/123.

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Associate Professor Antonio Diaz Andrade. He can be contacted by telephone on (09) 9219999 ext 5804 or by email at WIPNZ@aut.ac.nz.

[1] The World Internet Project is a collaboration of over 40 countries to develop an understanding of the cultural, economic, political and social impact of the internet on New Zealanders in comparison with other countries. The New Zealand part of this has run every two years since 2007 and provides a picture of our changing internet usage patterns. Previous versions of this survey have been used to assist in decision making and raising the standard of planning and debate in government policy and business planning in New Zealand.

Section 1 – Demographics (Part 1)

This next group of questions is to ensure that we get a balanced sample that represents the wider New Zealand population.

1. What is your gender?
   1. Male
   2. Female
   -2 Prefer not to answer

2. To make sure we get a cross-section of respondents from across New Zealand, can you please enter your postcode below?
   Click here if you need to find your postcode from your address. Note that your address will not be recorded by us.

   _ _ _ _

3 Can you please tell me whether your household is located in an urban area, i.e. a city or town, or in a rural area?

4. In what year were you born?

   _ _ _ _
   -2 Prefer not to answer

Section 2 – Screening – Internet Part 1

Base – All Respondents

5. Are you a current user of the Internet?
   It does not matter how often or how you access the internet – just whether you currently use the internet or not.
   1. Yes → **Section 4**
   2. No
   -3 Don't know
   -2 Prefer not to answer

6. Have you used the internet in the last three months?
   1. Yes → **Section 4**
   2. No → **Section 3**
   -3 Don't know
   -2 Prefer not to answer

Section 3 – Base Non-Internet Users

7. What are the reasons you DO NOT use the internet?
   Please put your MOST IMPORTANT reason first and include other reasons that are applicable to you.

   _____

   Later coding:
   1. No interest/not useful
   2. Don't know how to use/confused by tech
   3. No computer/no device
   4. Too expensive/ cannot afford the fees/charges
   5. No time/ too busy
   6. No internet connection available
   7. Worried about security and protecting my identity
   8. Other (please specify): _____
   -3 Don't know
   -2 Prefer not to answer

8. What would be the most help to become an internet user?
   1. Nothing
   2. Understanding more about the benefits
   3. Better access to computers or devices through community facilities (e.g. library, school, marae, wananga/polytechnic)
   4. Cheaper cost associated with internet use
   5. More time
   6. Training/getting support
   7. Better/more reliable connection available
   8. Better security and ways of protecting my identity
   9. Other (please specify): _____
   -3 Don't know
   -2 Prefer not to answer

All non-users → Section 5 – Public Impact Attitude

Section 4 – Base Internet Users

9. On average how often do you connect to the internet (e.g., for search, e-mail, social networks, etc.) with each of the following devices?

	Several times a day	Daily	Weekly	Monthly	Less than monthly	Never	DK	PNA
Computer (desktop, laptop)	6	5	4	3	2	1	-3	-2
Phone	6	5	4	3	2	1	-3	-2
Tablet or e-reader	6	5	4	3	2	1	-3	-2

10. In the last month, how did you connect to the internet? Please select all that apply.
    1 I used mobile data from my mobile phone provider
    2 I used an internet connection at home → **Q11**
    3 I went to a friend's/neighbour's home to connect
    4 I connected at work/school/tertiary institution
    5 I used public WiFi hotspots
    6 I went to an internet cafe, public library, or telecentre
    7 I did not connect to the internet

11. What type of internet connection do you have at home?
    1 Dial-up through a landline
    2 Broadband through a landline
    3 Ultra fast broadband
    4 Mobile
    5 Other (please specify) _____
    6 None
    -3 Don't know
    -2 Prefer not to answer

12. How many years have you used the internet?
    1 Less than 1 year. Please type in the number of months _____
    2 More than 1 year. Please type in the number of years _____
    -3 Don't know
    -2 Prefer not to answer

13. In the past year have you ever experienced the following?

	Yes	No	DK	PNA
Received a virus on your computer	1	2	-3	-2
Bought something which was misrepresented on a website	1	2	-3	-2
Had your credit card details stolen via use on the Internet	1	2	-3	-2
Been contacted by someone online asking you to provide bank or personal details	1	2	-3	-2
Accidentally arrived at a pornographic website when looking for something else	1	2	-3	-2
Been bullied or harassed online	1	2	-3	-2

Section 5 – Public Impact Attitude

14. Please respond to each of the following statements.
Do you think by using the internet…?

	Strongly disagree	Somewhat disagree	Neutral/ Undecided	Somewhat agree	Strongly agree	DK	PNA
People like you can have more political power	1	2	3	4	5	-3	-2
People like you will have more say about what the government does	1	2	3	4	5	-3	-2
People like you can better understand politics	1	2	3	4	5	-3	-2
Public officials will care more what people like you think	1	2	3	4	5	-3	-2
When you see the word government, you think mainly of central government	1	2	3	4	5	-3	-2
When you see the word government, you think mainly of local government	1	2	3	4	5	-3	-2

15. How much of the information on the Internet overall is generally reliable?
    1 None of it
    2 A small portion of it
    3 About half of it
    4 Most of it
    5 All of it
    -3 Don't know
    -2 Prefer not to answer

16. Information on the Internet comes from multiple sources of differing reliability. How confident do you feel that you are able to accurately assess the reliability of information on the internet?
    1 Extremely confident that I can accurately assess reliability
    2 Confident that I can accurately assess reliability most of the time
    3 Confident that I can assess reliability of about half of it
    4 Not confident that I can accurately assess reliability
    5 Don't even attempt to assess reliability
    -3 Don't know
    -2 Prefer not to answer

All non-users → Section 7 – Freedom of Speech

Section 6 – Internet Users Privacy & Usage

17. In the PAST YEAR, do you believe that your privacy has been violated online?
    1 No, I haven't experienced this → Q20
    2 Yes, I have experienced this
    -3 Don't know → Q20
    -2 Prefer not to answer → Q20

18. How much of a problem was this privacy violation?
    1 It was not really a problem
    2 It was only a minor problem
    3 It caused considerable problems
    4 It caused serious problems but only for myself
    5 It caused serious problems and impacted on others too (e.g., friends, family members)
    -3 Don't know
    -2 Prefer not to answer

19. What were the consequences of this privacy violation? Please select all that apply.
    1 Financial (e.g., you lost money)
    2 Embarrassment (e.g., other people learned things about you that you rather they hadn't)
    3 Impersonation (e.g., someone pretended to be you or stole your identity)

4 Relationships (e.g., your friendships/romantic relationships suffered)
5 Employment (e.g., it affected your job/career)
6 Psychological (e.g., you were bullied or made fun off)
7 It has changed how you use the internet and/or you have changed your security settings online
8 Other (please specify) _____

20. How much do you agree or disagree with the following statements?

	Strongly disagree	Somewhat disagree	Neutral/ Undecided	Somewhat agree	Strongly agree	DK	PNA
There is no privacy online, accept it	1	2	3	4	5	-3	-2
I am concerned that the New Zealand government is violating my privacy online	1	2	3	4	5	-3	-2
I am concerned that other governments are violating my privacy online	1	2	3	4	5	-3	-2
I am concerned that private corporations are violating my privacy online	1	2	3	4	5	-3	-2
I am concerned that other people are violating my privacy online	1	2	3	4	5	-3	-2
I actively protect my privacy online	1	2	3	4	5	-3	-2
Concerns about privacy online are exaggerated	1	2	3	4	5	-3	-2
I have nothing to hide	1	2	3	4	5	-3	-2
I feel I can control my privacy online	1	2	3	4	5	-3	-2

21. How much do you agree or disagree with each of these statements?

	Strongly disagree	Somewhat disagree	Neutral/ Undecided	Somewhat agree	Strongly Agree	DK	PNA
I know how to open and download files	1	2	3	4	5	-3	-2
I find it easy to decide on the best keywords for online search	1	2	3	4	5	-3	-2
I know how to change who I share content with on the sites that I use	1	2	3	4	5	-3	-2
I know how to create and upload content	1	2	3	4	5	-3	-2
I know how to download apps to a mobile device	1	2	3	4	5	-3	-2

22. Think about the different ways you use the internet to communicate, create and share content. On average, how often do you use the internet for the following purposes?

	Several times a day	Daily	Weekly	Monthly	Less than monthly	Never	DK	PNA
Check your e-mail	6	5	4	3	2	1	-3	-2
Send direct messages/chat	6	5	4	3	2	1	-3	-2
Make or receive voice calls over the internet	6	5	4	3	2	1	-3	-2
Post your own content (videos, photos, writing, etc.) you created	6	5	4	3	2	1	-3	-2
Re-post or share links or content (videos, photos, writing, etc.) created by others	6	5	4	3	2	1	-3	-2

23. Some people often look up information on the internet as they go about their daily lives – things like news, sports scores and movie times – others don't. On average, how frequently do you use the internet for the following purposes?

	Several times a day	Daily	Weekly	Monthly	Less than monthly	Never	DK	PNA
Look for news (e.g., local, national, international)	6	5	4	3	2	1	-3	-2
Look for travel information	6	5	4	3	2	1	-3	-2
Look for jobs, work	6	5	4	3	2	1	-3	-2
Look for health information	6	5	4	3	2	1	-3	-2
Interact with or access to central government services (e.g., IRD, DIA, WINZ)	6	5	4	3	2	1	-3	-2
Interact with or access to local government services (e.g., your local or regional council, water provider)	6	5	4	3	2	1	-3	-2

24. Think about the routine things you do for personal entertainment like playing games or listening to music. On average, how often do you use the internet for the following purposes?

	Several times a day	Daily	Weekly	Monthly	Less than monthly	Never	DK	PNA
Play games online	6	5	4	3	2	1	-3	-2
Download or listen to music	6	5	4	3	2	1	-3	-2
Download or watch videos	6	5	4	3	2	1	-3	-2
Look at religious or spiritual content	6	5	4	3	2	1	-3	-2
Bet, gamble or enter sweepstakes	6	5	4	3	2	1	-3	-2
Look at sites with sexual content	6	5	4	3	2	1	-3	-2
Use online dating sites	6	5	4	3	2	1	-3	-2

25. Think about different transactions you do in your everyday life like banking or shopping. On average, how often do you use the internet for the following purposes?

	Several times a day	Daily	Weekly	Monthly	Less than monthly	Never	DK	PNA
Get information about a product online	6	5	4	3	2	1	-3	-2
Buy things online	6	5	4	3	2	1	-3	-2
Make travel reservations/bookings online	6	5	4	3	2	1	-3	-2
Pay bills online or do e-banking	6	5	4	3	2	1	-3	-2
Invest in stocks/funds/bonds online	6	5	4	3	2	1	-3	-2
Compare prices of products/services online	6	5	4	3	2	1	-3	-2
Sell things online	6	5	4	3	2	1	-3	-2

26. Some people use the internet for classes or to support their learning, but many others do not. On average, how often do you use the internet for the following purposes?

	Several times a day	Daily	Weekly	Monthly	Less than monthly	Never	DK	PNA
Look up a definition of a word	6	5	4	3	2	1	-3	-2
Find or check a fact	6	5	4	3	2	1	-3	-2
Get information for school-related work	6	5	4	3	2	1	-3	-2
Participate in formal online learning for an academic degree or job training	6	5	4	3	2	1	-3	-2

27. Think about the range of possible internet activities. Which activity would you like to do more or less of?

	A lot more	A little more	About the right amount	A little less	A lot more	DK	PNA
Communicate, create and share content	5	4	3	2	1	-3	-2
Source information such as news, travel, government services, jobs, health	5	4	3	2	1	-3	-2
Use it for personal entertainment such as music, movies, gambling, etc.	5	4	3	2	1	-3	-2
Complete transactions such as banking, buying, selling and/or comparing products	5	4	3	2	1	-3	-2
Use for learning such as definitions, school or work training, study	5	4	3	2	1	-3	-2
Learn how to use new digital tools such as saving information to the cloud	5	4	3	2	1	-3	-2

28. What help, if any, would you need in order to do more online activities?

1 Nothing
2 Understanding more about the benefits
3 Better access to computers or devices through community facilities (e.g., library, school, marae, wananga/polytechnic)
4 Cheaper cost associated with internet use
5 More time
6 Training/getting support
7 Better/more reliable connection available
8 Better security and ways of protecting my identity
9 Better hardware or software
10 Other (please specify) _____
-3 Don't know
-2 Prefer not to answer

Section 7 – Freedom of Speech

29. How much do you agree or disagree with the following statements?

	Strongly disagree	Somewhat disagree	Neutral/ Undecided	Somewhat agree	Strongly agree	DK	PNA
In general, I feel comfortable saying whatever I think about politics	1	2	3	4	5	-3	-2
On the internet, it is safe to say whatever you think about politics	1	2	3	4	5	-3	-2
People should be free to criticise their government on the internet	1	2	3	4	5	-3	-2
It is okay for people to express their ideas on the internet, even if they are extreme	1	2	3	4	5	-3	-2
The government should regulate the internet more than it does now	1	2	3	4	5	-3	-2

Section 8 – Demographics Part 2

30. Which ethnic group do you most STRONGLY identify with? (Choose only one)

1 NZ European
2 Other European
3 Māori
4 Samoan
5 Cook Island Māori
6 Tongan
7 Niuean
8 Chinese
9 Indian
10 Middle Eastern
11 Latin American
12 African
13 Other (please specify) _____
-3 Don't know
-2 Prefer not to answer

31. In addition to the ethnic group that you previously answered, which other ethnic group(s) do you identify with? (Choose as many as applicable to you)

1 NZ European
2 Other European
3 Maori
4 Samoan
5 Cook Island Maori
6 Tongan
7 Niuean
8 Chinese
9 Indian
10 Middle Eastern
11 Latin American
12 African
13 Other (please specify) _____
14 Not applicable
-3 Don't know
-2 Prefer not to answer

32. What is your highest completed secondary school qualification?

1 No secondary school qualifications
2 NZ School Certificate or National Certificate/NCEA level 1
3 NZ Sixth Form Certificate or National Certificate/NCEA level 2 or NZ UE before 1986
4 NZ Higher School Certificate or NZ University Entrance from NZ Bursary or National Certificate/NCEA level 3
5 NCEA level 4
6 Overseas secondary school qualification
7 Other NZ secondary school qualification (please specify) _____
-3 Don't know
-2 Prefer not to answer

33. Apart from secondary school qualifications, do you have any other completed qualifications, the equivalent of 3 months or more full-time study to complete?

1 Yes
2 No → **Q35**
-3 Don't know → **Q35**
-2 Prefer not to answer → **Q35**

34. What is your highest completed qualification?

1 Trade Certificate or National Certificate levels 1-4
2 Diploma below bachelors level (e.g., teaching or nursing diploma) or National Certificate levels 5 or 6
3 Bachelor's degree
4 Bachelor's degree with honours, or postgraduate diploma
5 Master's degree
6 PhD
-3 Don't know
-2 Prefer not to answer

35. What is the current total annual income for your household? Please include your personal income in this total.

1 Up to $5,000
2 $5,001 - $10,000
3 $10,001 - $20,000
4 $20,001 - $25,000
5 $25,001 - $30,000
6 $30,001 - $35,000
7 $35,001 - $40,000
8 $40,001 - $50,000
9 $50,001 - $60,000
10 $60,001 - $70,000
11 $70,001 - $100,000
12 $100,001 - $150,000
13 $150,001 or more
-3 Don't know
-2 Prefer not to answer

36. What is your marital status?

1 Single
2 Married/Civil Union
3 Living with a partner
4 Divorced/Separated
5 Widowed
-3 Don't know
-2 Prefer not to answer

37. What is your employment status?

1 Full time (30 hours or more per week)
2 Part time (less than 30 hours per week)
3 Not currently employed → **Q38**
-3 Don't know
-2 Prefer not to answer

38. What industry are you employed in?

1 Accommodation and food services
2 Administration and support services
3 Agriculture, forestry and fishing
4 Arts and recreation services
5 Construction
6 Education and training
7 Electricity, gas, water and waste services
8 Financial and insurance services
9 Healthcare and social assistance
10 Information media and telecommunications
11 Manufacturing
12 Mining
13 Professional, scientific and technical services
14 Public administration and safety
15 Rental, hiring and real estate services
16 Retail trade
17 Transport, postal and warehousing
18 Wholesale trade
19 Other services (please specify) _____
-3 Don't know
-2 Prefer not to answer

39. Are you currently studying?

1 Yes – Full time
2 Yes – Part time
3 No
-3 Don't know
-2 Prefer not to answer

40. Are you currently …?

1 At home looking after children
2 At home looking after other adults
3 Unemployed
4 Retired
5 Unable to work due to disability or illness
6 Other (please specify) _____
7 None of the above
-3 Don’t know
-2 Prefer not to answer

Section 9 - Disabilities

We are interested to know if you have any difficulties accessing the internet.

41. Do you have difficulty seeing, even if wearing glasses?
    1 No – no difficulty
    2 Yes – some difficulty
    3 Yes – a lot of difficulty
    4 Yes – cannot see at all

42. Do you have difficulty hearing, even if using a hearing aid?
    1 No – no difficulty
    2 Yes – some difficulty
    3 Yes – a lot of difficulty
    4 Yes – cannot hear at all

43. Do you have difficulty walking or climbing steps?
    1 No – no difficulty
    2 Yes – some difficulty
    3 Yes – a lot of difficulty
    4 Yes – cannot walk/climb at all

44. Do you have difficulty remembering or concentrating?
    1 No – no difficulty
    2 Yes – some difficulty
    3 Yes – a lot of difficulty
    4 Yes – cannot remember/concentrate at all

45. Do you have difficulty with self-care such as washing all over or dressing?
    1 No – no difficulty
    2 Yes – some difficulty
    3 Yes – a lot of difficulty
    4 Yes – cannot do that at all

46. Using your usual (customary) language, do you have difficulty communicating, for example understanding or being understood?
    1 No – no difficulty
    2 Yes – some difficulty
    3 Yes – a lot of difficulty
    4 Yes – cannot do at all

47. How often does/do the difficulty or difficulties limit you accessing and using the internet?
    1 Never
    2 Rarely
    3 Sometimes
    4 Often
    5 Always

48. What additional help or equipment enables you or would enable you to access and use the internet more easily?

    _____

49. Do you currently have access to this help or equipment?
    1 Yes
    2 No → **Q51**
    -3 Don't know → **Q51**
    -2 Prefer not to answer → **Q51**

50. How did you get access to that help/equipment that you currently use? Please choose all that apply
    1 Paid for myself
    2 Paid for by my family and/or friends
    3 Provided by my District Health Board or Ministry of Health
    4 Provided by a specialist support organisation related to my disability (e.g., Blind Foundation, Deaf Aotearoa)
    5 Provided by a local community support organisation unrelated to my disability my difficult but that I have personal contact with.
    6 Provided by my employer/workplace
    7 Provided by another support organisation not covered (please specify) _____
    8 Other (please specify) _____
    -3 Don't know
    -2 Prefer not to answer

51. Has using the internet (with or without the aid of additional equipment) changed your quality of life and/or social interaction?

1 Improved it a lot
2 Improved it a little
3 Not had any impact
4 Has made it a little worse
5 Has made it a lot worse
-3 Don't know
-2 Prefer not to answer

Section 10 – Thank You and Close

Appendix B Sample profile for Auckland

Table 2: Gender (%)

	Auckland (n=1065)
Male	41
Female	59
Prefer not to answer	≈0

Base: All respondents.

Table 3: Age (%)

	Auckland (n=1065)
16-24 years	19
25-34 years	13
35-44 years	11
45-54 years	13
55-64 years	14
65-74 years	17
75 years or over	12
Don’t know/ Prefer not to answer	1

Base: All respondents.

Table 4: Ethnicity (%)

	Auckland (n=1065)
NZ European	72
Other European	20
Māori	10
Samoan	3
Cook Island Māori	1
Tongan	2
Niuean	1
Chinese	8
Indian	8
Middle Eastern, Latin American, African (MELAA)	3
Other	10
Don’t know/ Prefer not to answer	1

Base: All respondents.

Note: Respondents could select more than one ethnic identity so percentages will not add to 100.

Table 5: Ethnicity by age (%)

	16-24 years (n=199)	25-34 years (n=140)	35-44 years (n=120)	45-54 years (n=134)	55-64 years (n=152)	65-74 years (n=179)	75 years or over (n=125)
NZ European	54	49	61	71	84	91	89
Other European	19	13	18	25	21	23	16
Māori	10	11	8	4	12	12	13
Samoan	5	3	3	5	1	1	2
Cook Island Māori	2	3	0	2	1	0	0
Tongan	4	1	2	1	1	1	1
Niuean	3	0	0	1	0	0	0
Chinese	16	16	9	6	3	4	0
Indian	16	13	7	7	5	3	1
MELAA	4	3	6	1	3	2	0
Other	15	20	15	11	3	2	4
Don't know / Prefer not to answer	1	3	3	1	0	0	0

Base: All respondents, excluding those who did not provide a response for age.

Note: Respondents could select more than one ethnic identity so percentages will not add to 100.

Table 6: Household income (%)

	Auckland (n=1065)
Up to $35,000	15
$35,001 to $50,000	9
$50,001 to $70,000	10
$70,001 to $100,000	14
$100,001 to $150,000	14
$150,001 or more	13
Don't know/ Prefer not to answer	26

Base: All respondents.

Table 7: Household income by age (%)

	16-24 years (n=199)	25-34 years (n=140)	35-44 years (n=120)	45-54 years (n=134)	55-64 years (n=152)	65-74 years (n=179)	75 years or over (n=125)
Up to $35,000	14	8	3	5	7	24	40
$35,001 to $50,000	8	11	6	9	9	8	12
$50,001 to $70,000	11	12	12	5	7	12	9
$70,001 to $100,000	8	21	21	16	21	11	6
$100,001 to $150,000	10	15	27	22	17	8	3
$150,001 or more	11	11	13	27	18	10	2
Don't know/ Prefer not to answer	38	22	17	16	21	27	29

Base: All respondents, excluding those who did not provide a response for age.

Table 8: Household income by ethnicity (%)

	NZ European (n=757)	Other European (n=209)	Māori (n=107)	Pacific people (n=53)	Chinese (n=86)	Indian (n=81)	Other (n=105)
Up to $35,000	16	20	21	11	12	6	9
$35,001 to $50,000	9	8	7	2	10	15	10
$50,001 to $70,000	10	10	7	8	12	12	9
$70,001 to $100,000	14	16	11	17	16	16	10
$100,001 to $150,000	13	13	13	9	15	10	18
$150,001 or more	14	11	12	21	9	12	10
Don't know/ Prefer not to answer	25	23	28	32	26	28	34

Base: Excluding those who were Middle Eastern, Latin American or African (sample size smaller than 30) and those who did not provide a response for ethnicity.

Note: The broad Pacific ethnic category includes all respondents that identified with at least one Pacific ethnicity.

Table 9: Highest level of qualification (%)

	Auckland (n=1065)
No secondary school qualification	5
Secondary school qualifications	28
Trade Certificate or National Certificate levels 1-4	12
Diploma below bachelors level or National Certificate levels 5 or 6	14
Bachelor's degree	20
Postgraduate degree	15
Don't know/ Prefer not to answer	5

Base: All respondents.

Table 10: Highest level of qualification by age (%)

	16-24 years (n=199)	25-34 years (n=140)	35-44 years (n=120)	45-54 years (n=134)	55-64 years (n=152)	65-74 years (n=179)	75 years or over (n=125)
No secondary school qualification	3	2	2	2	7	5	17
Secondary school qualifications	53	19	13	20	25	23	34
Trade Certificate or National Certificate levels 1-4	7	13	10	13	18	15	11
Diploma below bachelors level or National Certificate levels 5 or 6	5	10	13	14	16	20	21
Bachelor's degree	18	32	33	21	14	16	6
Postgraduate degree	5	18	28	35	16	15	6
Don't know/ Prefer not to answer	9	6	1	4	4	7	6

Base: All respondents, excluding those who did not provide a response for age.

Table 11: Highest level of qualification by ethnicity (%)

	NZ European (n=757)	Other European (n=209)	Māori (n=107)	Pacific people (n=53)	Chinese (n=86)	Indian (n=81)	Other (n=105)
No secondary school qualification	6	7	6	4	1	4	2
Secondary school qualifications	28	27	32	43	33	22	32
Trade Certificate or National Certificate levels 1-4	14	13	23	17	3	2	11
Diploma below bachelors level or National Certificate levels 5 or 6	16	13	12	13	6	11	11
Bachelor's degree	18	13	18	6	38	26	23
Postgraduate degree	13	18	6	11	15	25	17
Don't know/ Prefer not to answer	4	9	4	6	4	10	4

Base: Excluding those who were Middle Eastern, Latin American or African (sample size smaller than 30) and those who did not provide a response for ethnicity.

Note: The broad Pacific ethnic category includes all respondents that identified with at least one Pacific ethnicity.

Table 12: Marital status (%)

	Auckland (n=1065)
Single	30
Married/ Civil Union	44
Living with a partner	9
Divorced/ Separated	6
Widowed	9
Don't know/ Prefer not to answer	2

Base: All respondents.

Table 13: Employment status (%)

	Auckland (n=1065)
Full-time employed	42
Part-time employed	19
Not currently employed	38
Don't know/ Prefer not to answer	1

Base: All respondents.

Table 14: Urban and rural (%)

	Auckland (n=1065)
Urban	91
Rural	9

Base: All respondents.

Appendix C Definitions of user types and non-users

Usage Index

The usage index is the average frequency at which a person engages in a range of online activities, as covered from questions 22 to 26 in the questionnaire. The activities can be broadly categorised into using internet: to communicate, as a source of information, for entertainment, banking or shopping. The index is calculated on a scale of 0 to five, where 0 equals 'never' in all questions, and 5 equals 'several times a day' on all questions. The following activities were included in the calculation of the usage index for each individual.

Table 15: List of activities to calculate usage index

Communication	Source of information	Entertainment	Banking or shopping	Learning
Check your email	Look for news (e.g. local, national, international)	Play games online	Get information about a product online	Look up a definition of a word
Send direct messages/chat	Look for travel information	Download or listen to music	Buy things online	Find or check a fact
Make or receive voice calls over the internet	Look for jobs, work	Download or watch videos	Make travel reservations/bookings online	Get information for school-related work
Post your own content (videos, photos, writing, etc.) you created	Look for health information	Look at religious or spiritual content	Pay bills online or do e-banking	Participate in formal online learning for an academic degree or job training
Re-post or share links or content (videos, photos, writing, etc.) created by others	Interact with or access to central government services (e.g. IRD, DIA, WINZ)	Bet, gamble or enter sweepstakes	Invest in stocks/funds/bonds online	
	Interact with or access to local government services (e.g. your local or regional council, water provider		Compare prices of products/services online	
			Sell things online	

Non Users

- Answered ‘no’ (2) to both question 5 “are you a current user of the internet” and question 6 “have you used the internet in the last three months”
- Respondents who answered ‘don’t know’ or ‘prefer not to answer’ to both screening questions but responded to questions on non-users in section 3 are also treated as non-users in this analysis.

Ex Users

- Answered ‘no’ (2) to question 5 “are you a current user of the internet”
- Answered ‘yes’ (1) to question 6 “have you used the internet in the last three months”.

Low Level Users (LLUs)

- Answered ‘yes’ (1) to question 5 “are you a current user of the internet”
- Had a usage index of less than 1.

Next generation users

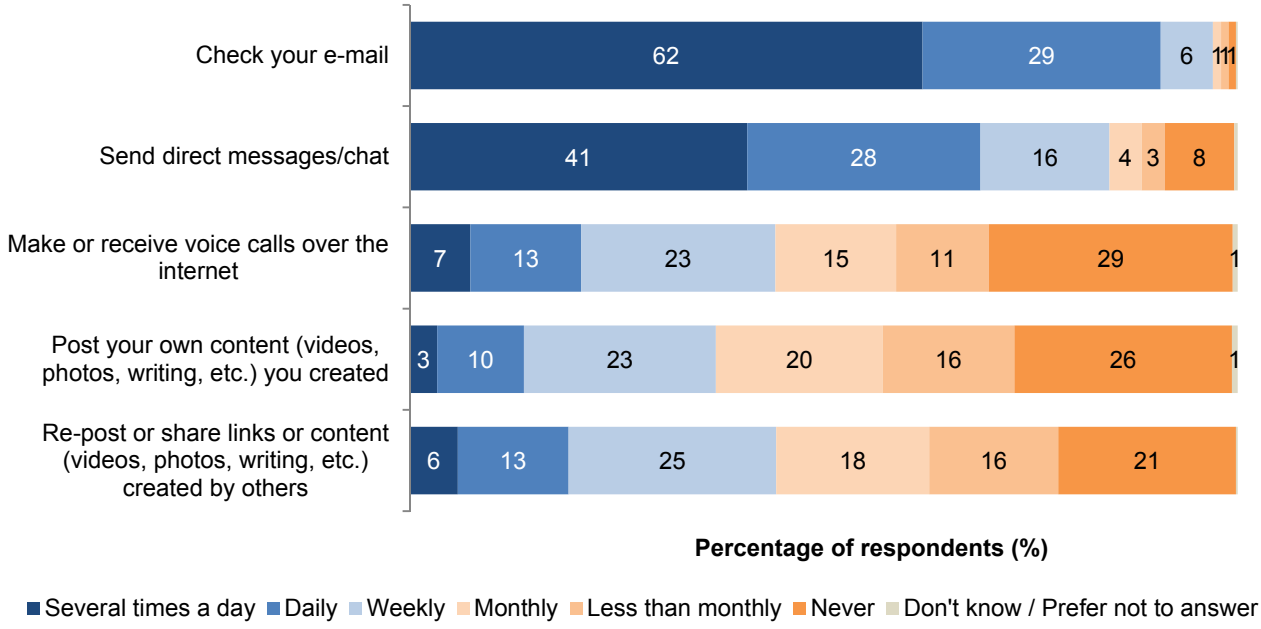
- Answered ‘yes’ (1) to question 5 “are you a current user of the internet”
- Connected to the internet through phones and/or tablet or e-reader (i.e. rated 2 to 6 under phone and/or tablet or e-reader in question 9
- Had broadband (either through landline or ultra-fast broadband) or mobile connection at home (i.e. selected 2, 3 or 4 in question 11)
- Answered ‘neutral’ (3), ‘somewhat agree’ (4) or ‘strongly agree’ (5) to all five statements in question 21 on their ability in completing various tasks on the internet
- Had a usage index of greater than or equal to 1.

First Generation Users

- Answered ‘yes’ (1) to question 5 “are you a current user of the internet”
- Had a usage index of greater than or equal to 1
- Not a next generation user.

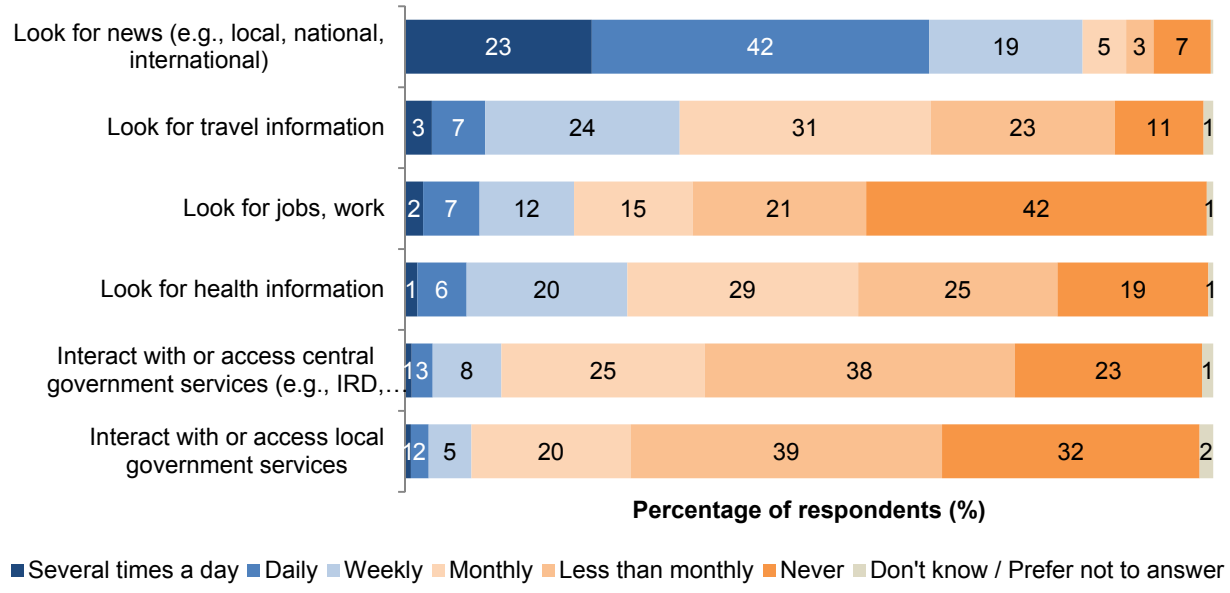
Appendix D Usage frequency by online activity

Figure 38: Frequency of using the internet for communication (%)



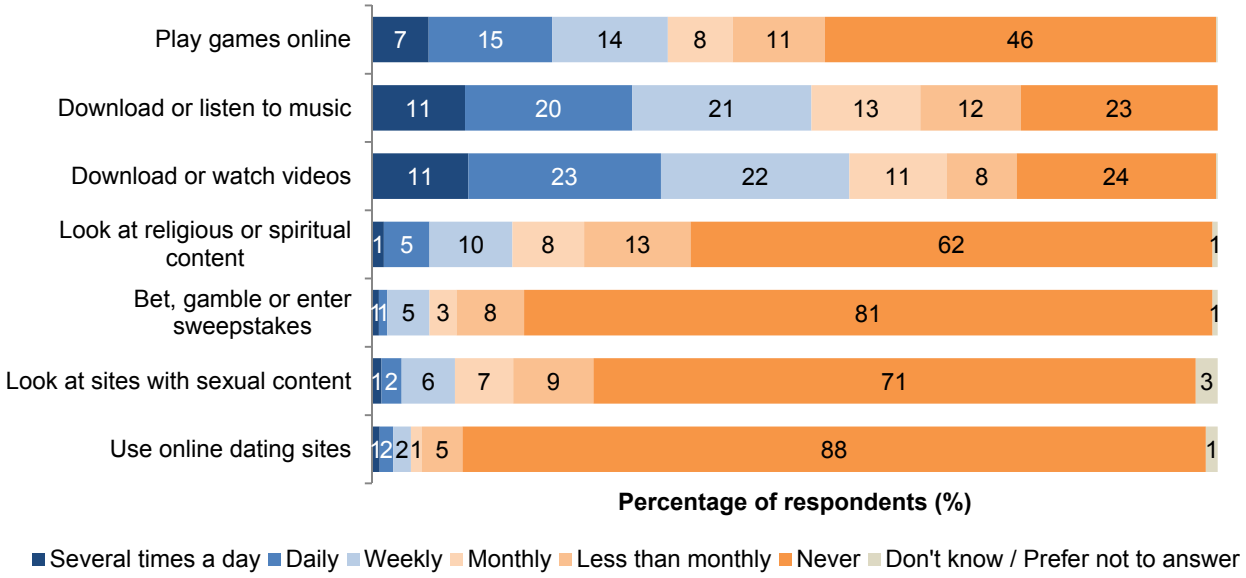
Base: Internet users (n=1001)

Figure 39: Frequency of using the internet as a source of information (%)



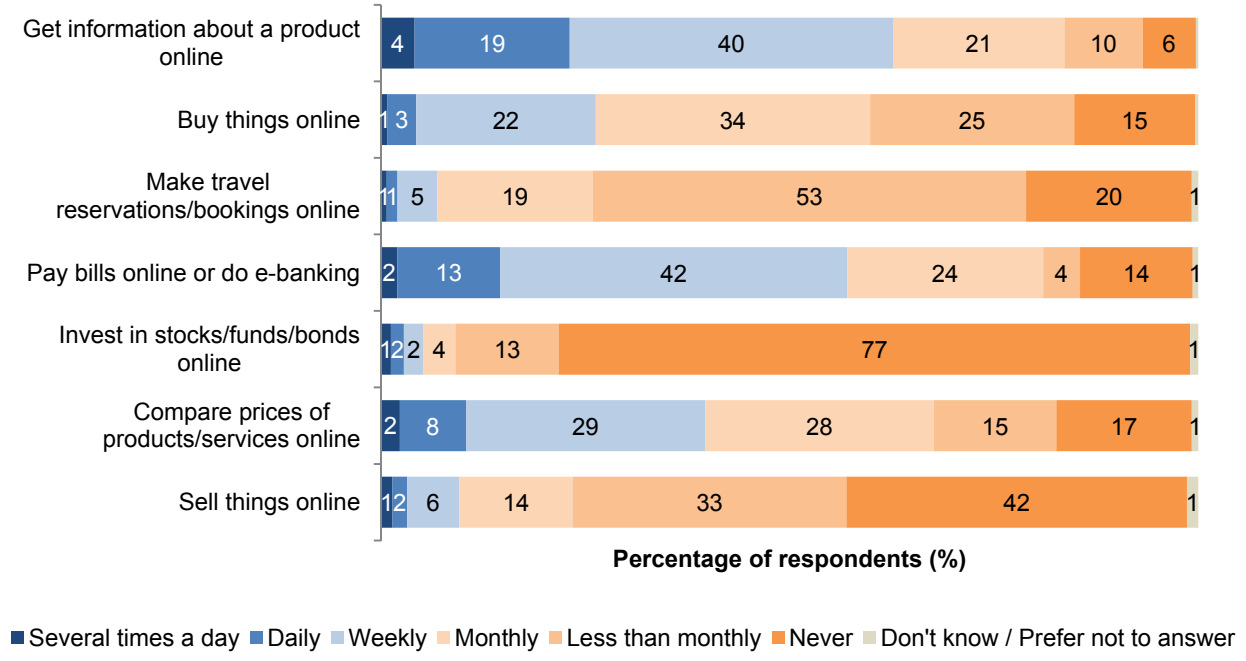
Base: Internet users (n=1001)

Figure 40: Frequency of using the internet for entertainment (%)



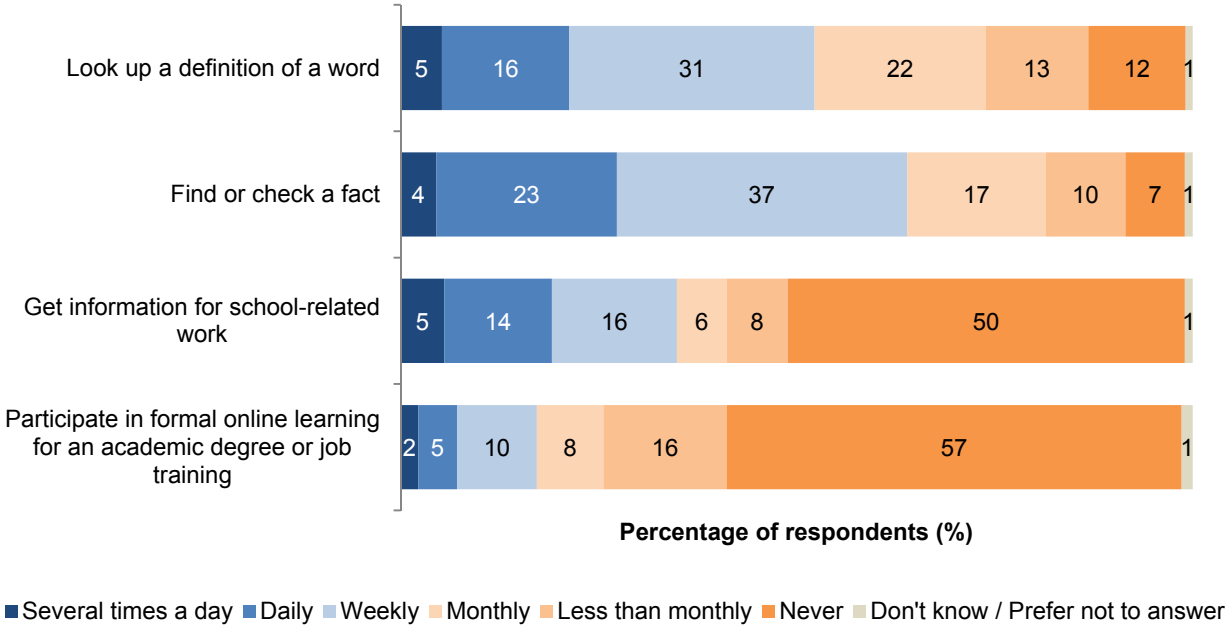
Base: Internet users (n=1001)

Figure 41: Frequency of using the internet for banking or shopping (%)



Base: Internet users (n=1001)

Figure 42: Frequency of using the internet for learning (%)



Base: Internet users (n=1001)

Find out more: phone 09 301 0101, email rimu@aucklandcouncil.govt.nz or visit aucklandcouncil.govt.nz **and knowledgeauckland.org.nz**

Auckland Council
Te Kaunihera o Tāmaki Makaurau