

Consumer perceptions of the internet

July 2016

Background and objectives

- InternetNZ has recently completed a Memorandum of Understanding process with the New Zealand Government. Section 27 of that MOU states:
 - To help ensure InternetNZ is demonstrably in touch with the broad community of New Zealanders who use the Internet, and to increase the community's understanding of its own views on Internet issues, InternetNZ will begin regularly testing the views of the broad community of New Zealanders who use the Internet to identify their key issues of concern, and publicly reporting back on the views expressed
- Research was commissioned to meet the requirement to identify key issues of concern across the community of New Zealanders that use the Internet
- The key research objectives were to:
 - Appropriately sample and engage the New Zealand public at large
 - Be sufficiently open-ended in its questioning to allow those participants to express their concerns about the Internet in New Zealand without moderation
 - Summarise that information in a manner that allows those views solicited to be analysed and aggregated into usable and reportable insights and metrics
 - Result in a report, or reports, that are suitable for both discussion, insight and engagement planning internally; AND to share with the public summarising the opinions shared

Methodology

- Research comprised of four focus groups with the following audiences:
 - 1x focus group (Auckland) – young (under 25 years)
 - 1x focus group (Auckland) – tech savvy
 - 2x focus groups (Auckland) – general public, mix age, gender, income.
- The fieldwork was conducted on 22 and 23 June 2016 at UMR's focus group facility in Auckland
- Each group was around one and half to two hours duration.
- Quantitative findings are based on a telephone survey of n=750 New Zealanders, aged 18 years and older
 - The margin of error for a 50% figure at the 95% confidence level is plus or minus 3.6%
 - Fieldwork was conducted between 20-26 July 2016

Executive summary

- Multiple devices were used to connect to the internet – with many in the focus groups noting heavier use of smartphones in recent years
- There was a strong preference for broadband/ WiFi to connect to the internet – driven by high or unlimited caps on broadband plans and the expense of mobile data
- Across connected New Zealanders (93% of population) there was heavy usage with nearly all checking the internet at least once a day with nearly a third constantly connected
- Increased usage was attributed to using the internet as an everyday communication tool, as a key entertainment source, an increasing use of apps, having more people working from home, and being used as a time filler with widespread access either from free WiFi spots or mobile data plans
- Top-of-mind perceptions around the internet were predominantly positive – relating to how it enables access to information and the gaining of knowledge, the use of social media, its use as a way to communicate and connect
 - Related to this, the main uses for the internet were to access social media, to get information, to communicate with people and for entertainment
 - The main benefits were seen to be the ability to find any information a person may want, that it provided an easy way to communicate, provided a way for people and communities to connect, and that it made life easier
- In the focus groups the key benefits to society resulting from the internet were its ability to foster connectivity, that it led to greater transparency and accountability, it democratised access to information, and that it provided access to wider, more diverse views

Executive summary (cont.)

- On an unprompted basis, the key concerns regarding the internet were the threats to the security of personal data (27%), the threat to privacy (16%), identity theft (13%), online crime (9%), and too much screen time for young children (9%)
 - On a prompted basis, security of personal data (72%, total concern) and threats to privacy (67%) still rated strongly as concerns. However, too much screen time for children (72%) and cyber bullying (69%) featured more strongly when prompted
 - These concerns also featured strongly in the focus groups, along with the impact on society – with people becoming less connected, less able to communicate effectively, and people less able to think for themselves
 - Access issues were also raised as a concern in the groups, based mostly on cost but also location as internet access was deemed crucial and put those without access at a clear disadvantage. Some felt this could potentially exacerbate the class gap in New Zealand
 - Net neutrality was generally only an issue for younger audiences – who were clearly more concerned about being able to access content from a wide range of providers, and that information was not censored or modified
 - Piracy was a low level concern for most – with little blame or guilt associated with illegal downloading or streaming. There was some low level concern that penalties and enforcement may be ramped up as part of the TPPA
- Overall, while acknowledging that there were positives and negatives associated with the internet – an overwhelming majority (89%) felt that the benefits outweighed the negatives
 - In the focus groups, this was mainly due to the fact that the internet made life so much easier, allowed people to be more connected, and democratised access to knowledge
 - It was also noted that there were ways to address concerns and that many of the negatives existed prior to the internet

Executive summary (cont.)

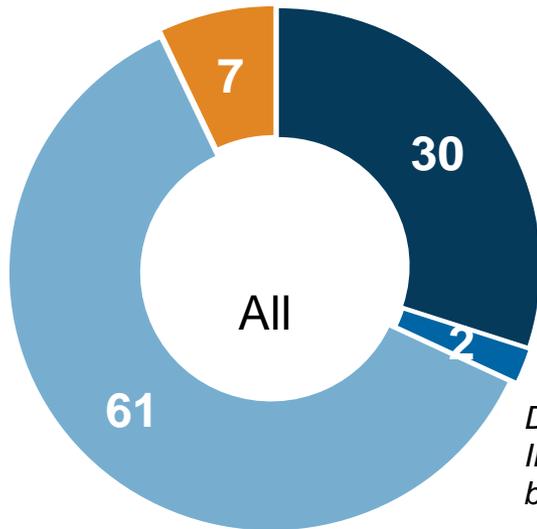
- There was uncertainty around the future direction of the internet
 - On the positive side were potential technological advances, and the development of more programmes and apps to make life even easier
 - On the negative side were the increasingly negative social impacts, and potential loss of jobs
- The key organisations that were seen to have responsibilities in relation to the internet were ISPs, the government (GCSB), specific government agencies, the police, social media companies, and Netsafe



Usage of the internet

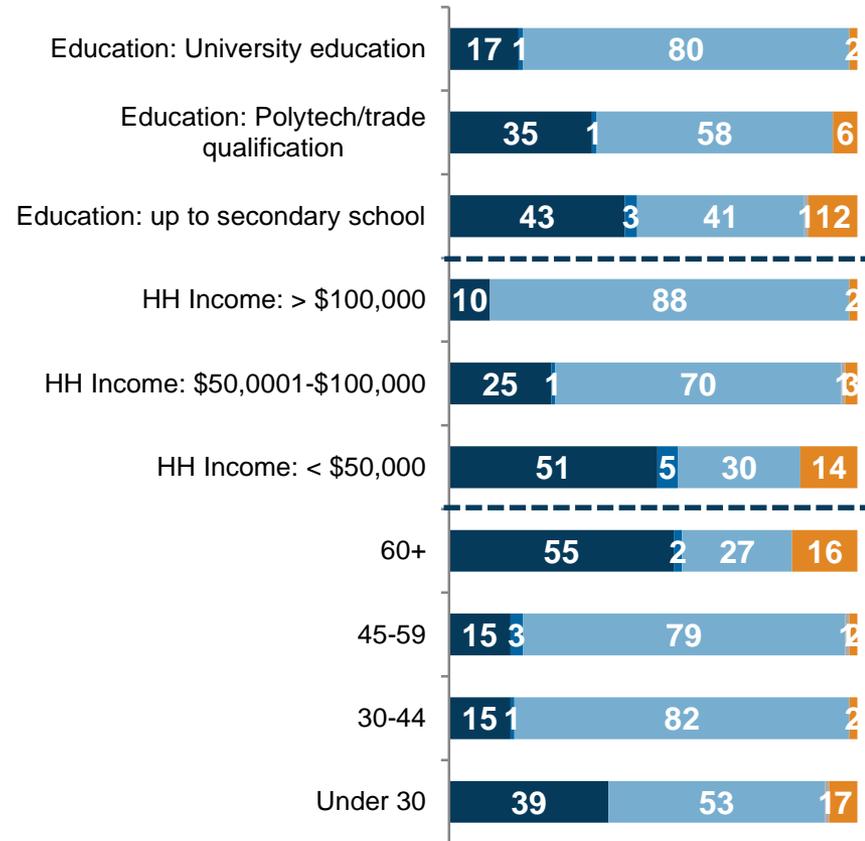
Nearly all have Internet access

- Nearly all households have access to the Internet (93%)
 - Having 'no access' was higher for those on lower incomes, those with only secondary school level education, and among older respondents
 - Having access at both home and work was higher among tertiary educated, those on higher incomes, and those aged between 30 and 59 years



Do you have access to the Internet at work, at home or both?

■ Yes - home ■ Yes - work ■ Yes - both ■ Unsure ■ No



Usage and behavior – access to the internet

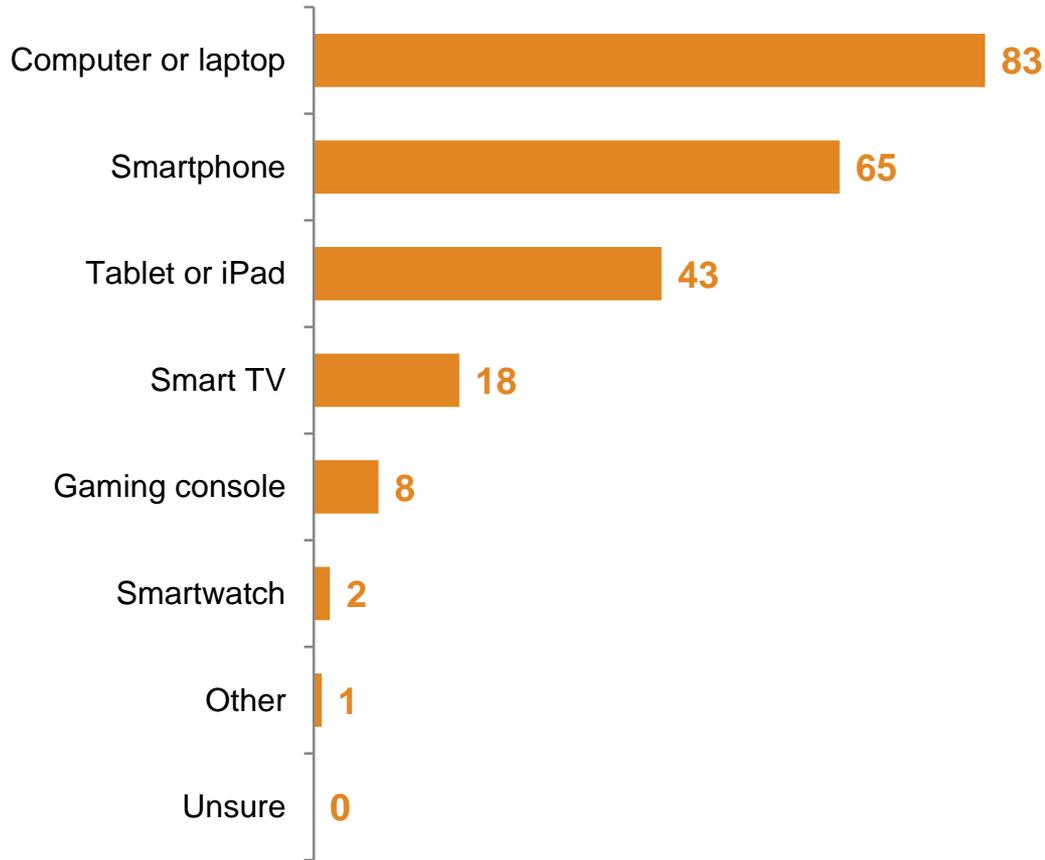
- People were using multiple devices to connect to the internet – sometimes simultaneously
 - Computers and laptops were still used by most (83%) but there was an indication in the focus groups that usage was declining
 - Most use a computer or laptop when typing a lot or when a larger screen is beneficial such as when watching videos or when viewing a lot of content

I'll check my phone for things like Snapchat but I prefer to go onto Facebook on a laptop rather than on my phone just because I like the bigger screen. I'll use the internet on my phone if I haven't got a laptop. (Auckland, female, under 25 years)

- Wide use of smart phones (65%) with many in the groups noting increasing usage, followed by tablets (iPad) (43%), smart TV (18%), gaming console (8%) and smart watches (2%)
 - Smart phones and gaming consoles were used more by younger audiences, with wider use of tablets or iPads by those aged between 30-44 years
 - Those aged 60 plus were less likely to use all devices apart from a computer/ laptop
- Other devices were used:
 - Mostly for personal use, especially among younger groups
 - When competing with others in household for use of laptop or tablet
 - Accessing information on the move
 - Easier to use than booting up computer
 - To access apps

Ways we connect

Please let me know the ways you connect to the internet – do you use a...?



	18-29	30-44	45-59	60+
Computer or laptop	81%	87%	87%	78%
Smartphone	85%	79%	67%	31%
Tablet or iPad	38%	55%	46%	32%
Smart TV	17%	23%	21%	10%
Gaming console	19%	13%	4%	-
Smartwatch	1%	4%	2%	-

Usage and behavior – connection type

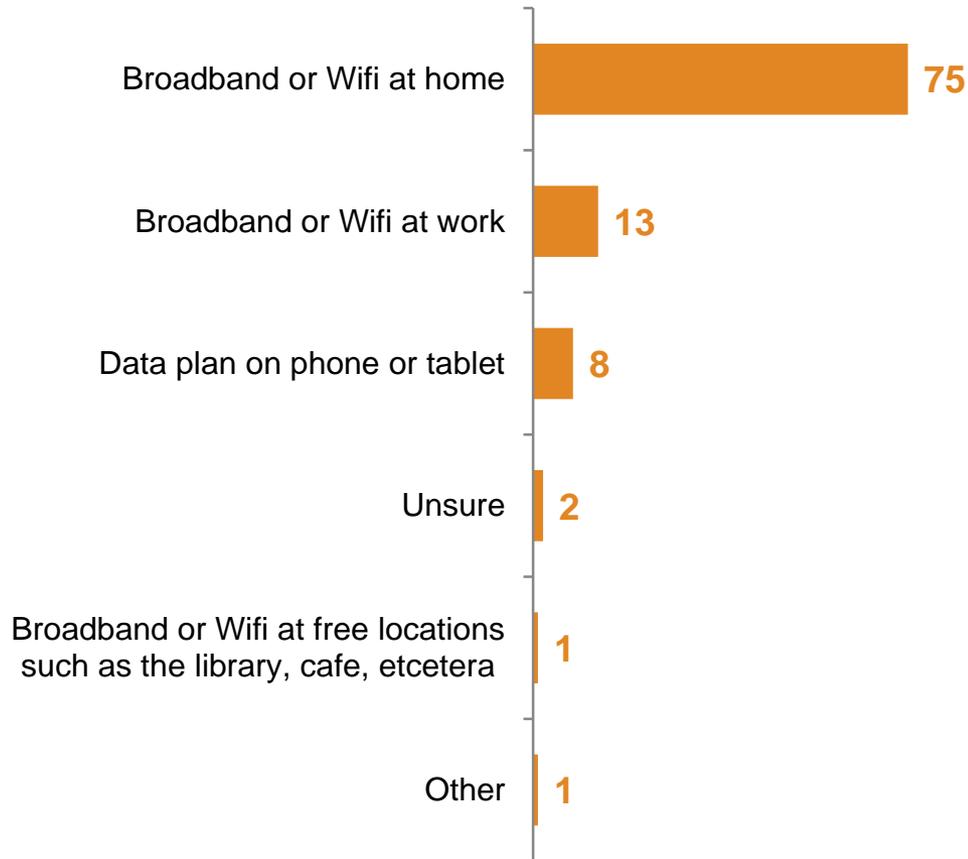
- There was a clear preference for WiFi (75% use home WiFi as the main way to connect, 13% work WiFi)
 - In the focus groups this use was driven by home connection often being unlimited
 - It was also noted that there were a lot of spots to access free WiFi such as in cafes, restaurants, libraries etc
- Some use of mobile data as the main way to connect (8%) – but viewed as expensive and often seen as a backup
 - Those aged under 30 years were more likely to use mobile data as their main way to connect
- Overall, 92% had access to a connection by broadband/ WiFi at home and 48% at work
 - 49% could access the Internet on a data plan on a phone or tablet (higher among those aged under 30 years)
 - 26% sometimes connected using broadband/ WiFi in free locations (higher among those aged under 30 years)
 - Those aged 60 plus were less likely to use any other way to connect apart from broadband/ WiFi at home

If you're inside building four walls then WiFi. If you're outside then data. (Auckland, tech savvy, female)

I am lucky enough to have a bit of data so if I want to stream something then I will stream it, otherwise if I didn't I would just WiFi everything because it is too expensive. (Auckland, general public, female)

Main connection type

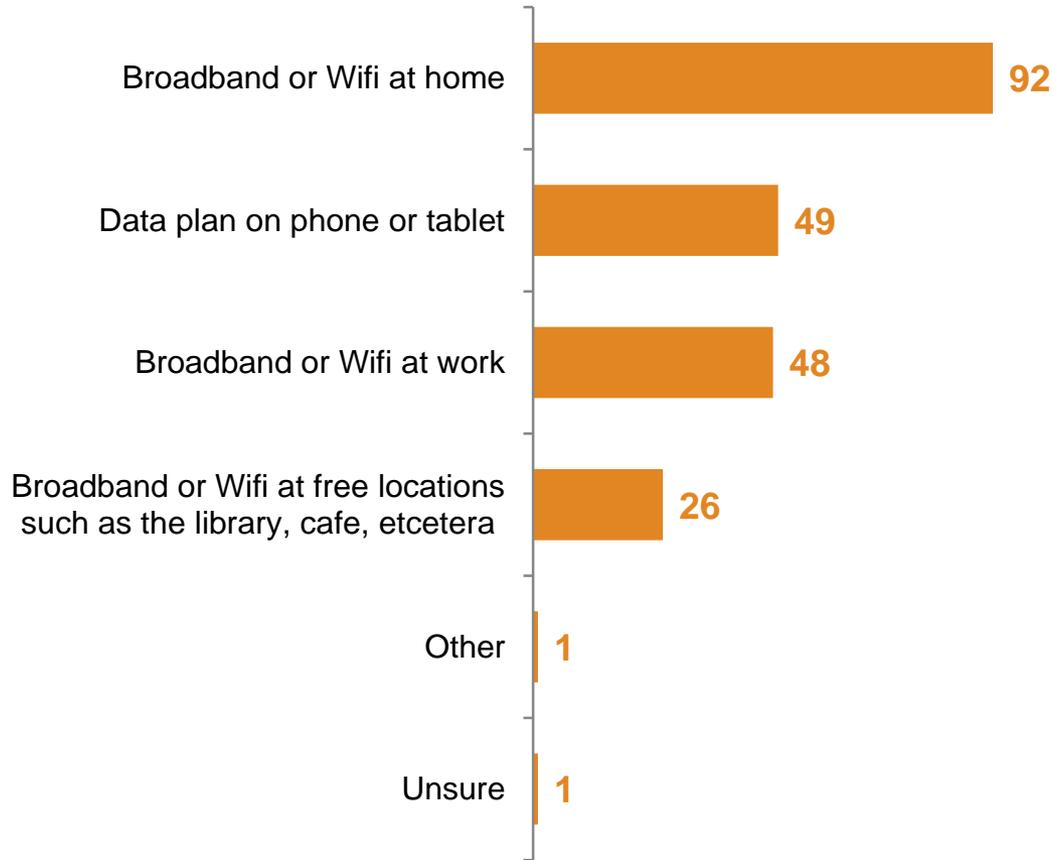
And which type of internet connection do you MAINLY use?



	18-29	30-44	45-59	60+
Broadband or Wifi at home	73	75	73	79
Broadband or Wifi at work	9	17	18	7
Data plan on phone or tablet	13	6	6	8

All connection types

And what types of internet connections do you use?



	18-29	30-44	45-59	60+
Broadband or Wifi at home	92%	97%	92%	87%
Data plan on phone or tablet	72%	55%	45%	26%
Broadband or Wifi at work	46%	57%	59%	26%
Broadband or Wifi at free locations such as the library, cafe, etcetera	43%	26%	23%	14%

Usage and behavior – frequency of use

- Nearly all – checked at least once a day (94%) with 31% claiming to be continually connected and monitoring, 20% checking every hour or so, 30% a couple of times a day, and 13% at least once a day
- In the focus groups heavy use was being driven by:
 - Use of the Internet based programmes as their main communication tool
 - Constant checking driven by notifications and new content being continually posted
 - Use at night as their TV replacement – often a concentrated couple of hours of viewing
 - Force of habit with some noting that they felt anxious if not connected

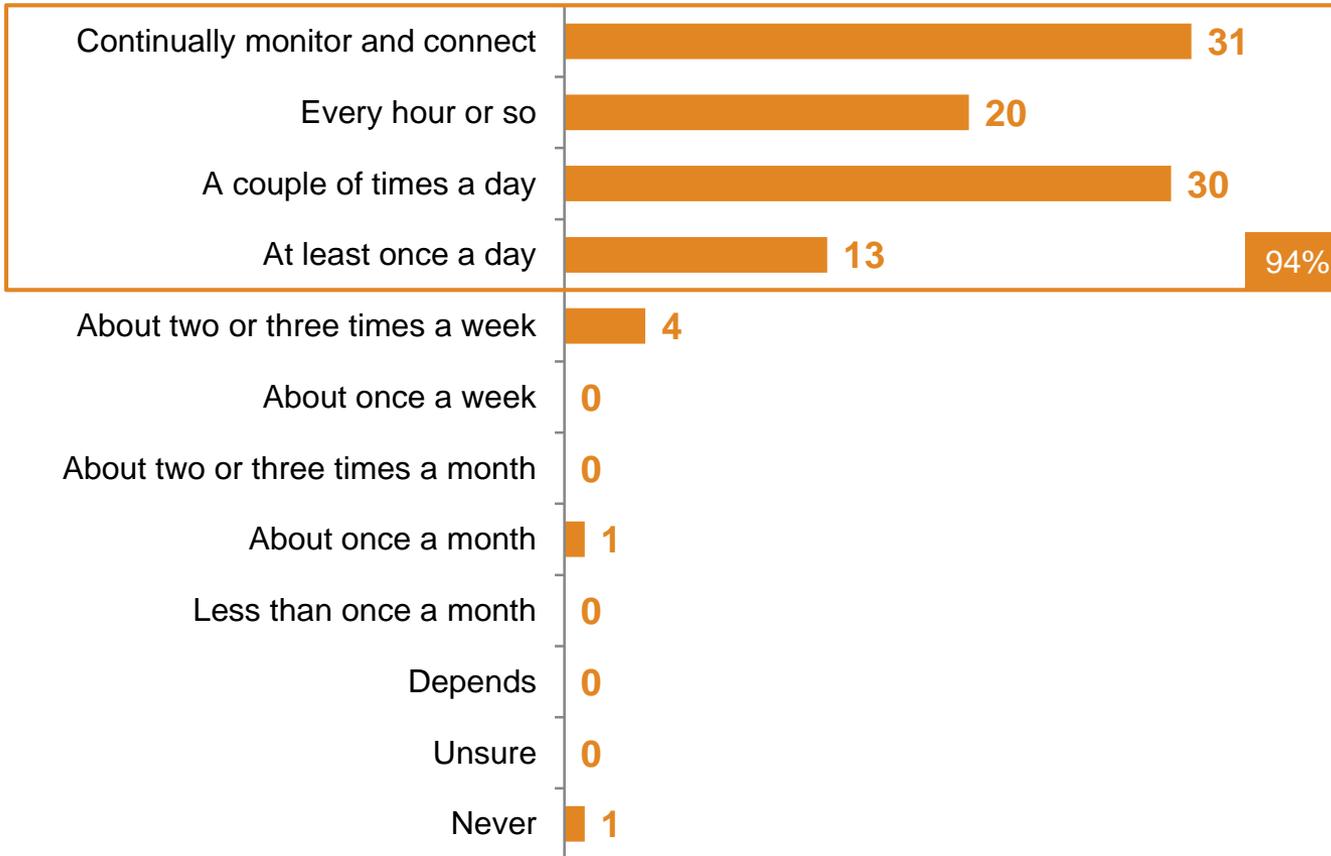
[If no access?] I'd just feel like something is missing – because it's such a big part of my day I would say. I definitely use the internet on a daily basis. It's almost like part of my daily routine would be thrown off if I didn't have it. (Auckland, female, under 25 years)

- In the groups, those using the internet less were generally older and less computer savvy and use tended to be more task focused
- Some in the groups voiced concern at the growing usage and had put measures in place to limit use – such as turning off notification alerts, and removing some apps

[Do you dip in and out?] I try to do that because I don't like to be on the internet all the time. I try and get out of the house but it's hard when you get bored because you know there's just so much on there that you can do. (Auckland, female, under 25 years)

Internet frequency of use

And about how often do you use the Internet – do you?



Changing usage and behavior

- A key change noted in the focus groups was the increasing use of the internet and smartphones. This was often attributed to the following factors
 - Used increasing for everyday communications which leads to increasing use/ more checking
 - An increasing use of apps
 - Greater access with more having mobile data plans or free WiFi connections – so used increasingly as a time filler wherever they are

Now as soon as I wake up in the morning the first thing I'm looking at is my phone and not just because my alarm's going off. It's because I want to see like what people are up to. It's like a drug. It's the strongest drug in the world. (Auckland, tech savvy, male)

- More were also using the Internet to conduct online transactions such as banking, bookings
 - This was seen to lead to less personal contact and potentially a weaker relationship with suppliers
 - More were also working from home
 - Along with increasing data needs driven by greater use for entertainment such as streaming content or gaming

Just streaming or downloading a TV show or something. I was the first one in my family that did it and now I've got them all onto it now so everyone's doing it now. (Auckland, male, under 25 years)

My social media is so data heavy with video integration and all sorts of rich media websites. Everything just uses way more data than it used to, across the internet, whatever you're doing. (Auckland, male, under 25 years)



Views of the internet

Top of mind perceptions

- In the focus groups there were predominantly positive top-of-mind perceptions regarding the Internet
 - Perceptions were dominated by the way the internet has improved access to information and knowledge
 - Also featuring strongly were the use of social media and its role as a key communication tool
 - There were some low level top-of-mind concerns – around being a time waster, misinformation, slow and expensive connections, security, and concerns for children



Main uses for the internet

- The main personal uses for the internet were to access social media (48%), to get information/ learn (42%), as a communication tool (31%), and for entertainment (27%)
 - The use for undertaking transactions such as banking (17%) and shopping (11%) also featured at lower levels
- In the focus groups the increased use of social media was mainly driven by its use as a communication tool and entertainment source

Facebook's now got that Facebook live – you can see them, or even Skype, you can video see them. It feels like you can physically – you can see their form and it's really good, like this whole communication, like everything that they're coming up with now. (Auckland, tech savvy, female)

- Its use for information gathering was viewed as unparalleled with people noting that they can 'can find or learn anything'
 - The internet also allowed access to information from a diverse range of views/ world views
 - Provision of information in a visual form (Youtube etc) was also viewed as superior by some

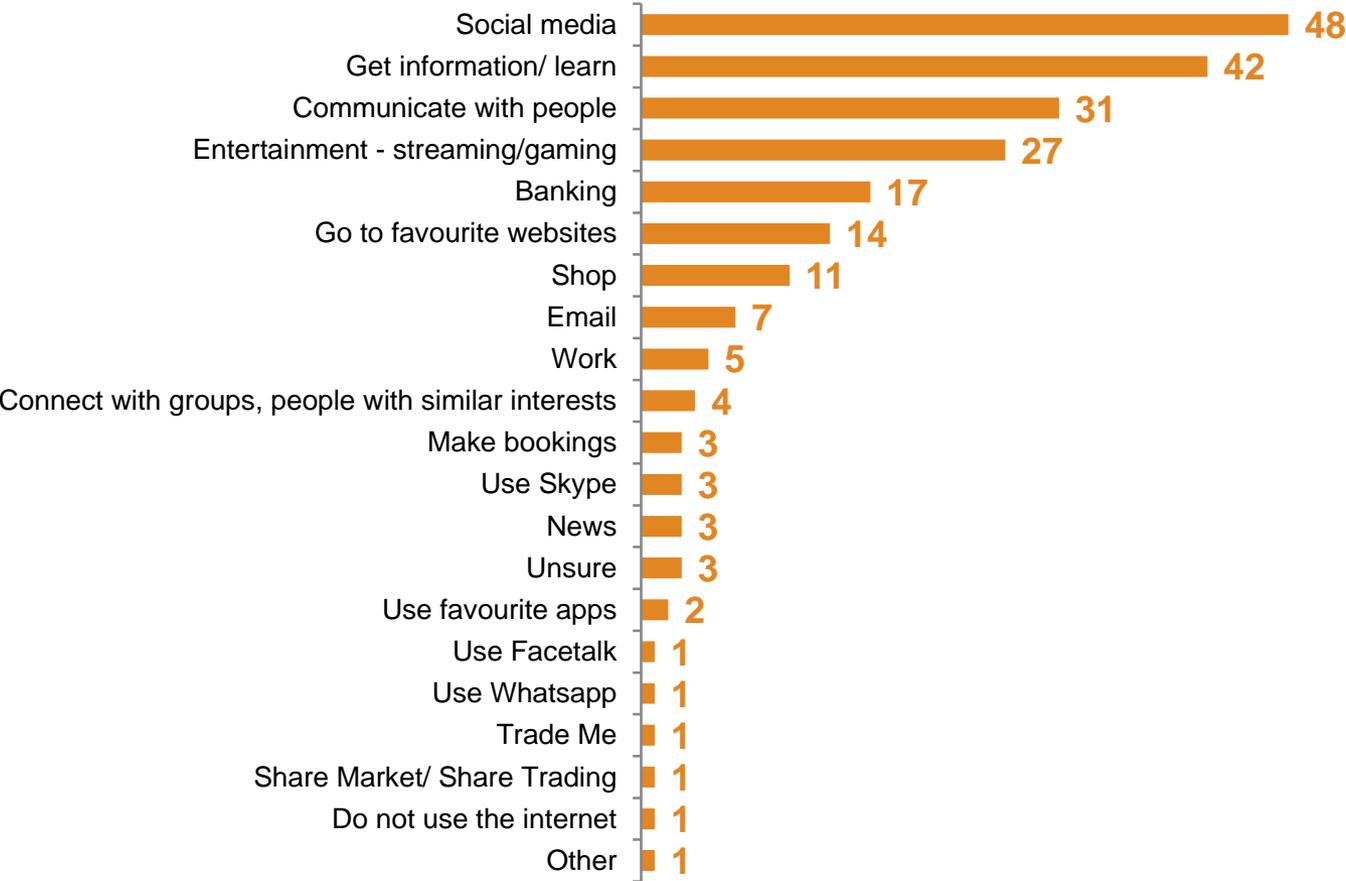
Shared knowledge, it is a collective experience and a way to communicate with people all over the world about anything. You can learn anything you want to know. (Auckland, general public, female)

[Favourite things about the internet] *Informative, connected and accessible. I like the idea that there's this vast quantity of information on anything you could want – the size of a turtle or anything like that, whether or not that's interesting to you, but I find it quite interesting just having all that information in your hand (Auckland, male, under 25 years)*

Just the ease and speed that you can access information about anything. I am a massive Google fan, I Google anything and everything. (Auckland, general public, female)

Main internet uses

Regardless of whether you use the internet for work or personally, what are the main activities you personally do on the internet?



Main uses for the internet (cont.)

- In the focus groups, while the internet provided multiple platforms to communicate with friends, family, and colleagues – it was also seen to provide a means to connect to others with similar interests or views, across the world

It's basically a virtual world where you're more connected than sometimes the physical world. (Auckland, tech savvy, female)

And another thing is the communication tool, the ability to connect with people anywhere around the world at any time on multiple different platforms as well. And not just people you know, just anyone. You are closer to everyone these days. (Auckland, general public, female)

Even just political things and social awareness and stuff like that, we can spread messages across the world really quickly. For me it's just the most amazing invention because it's created a possibility for a world connection, like everyone, the whole world has the potential to be connected now and it doesn't matter where you are. (Auckland, tech savvy, male)

- It was clearly a key form of entertainment with many watching a huge range of content including - movies, television, to access news, gaming, and websites

Any sort of entertainment. Anything you could ever want to be entertained by is pretty much on the internet. [Are you thinking more music or TV?] Yeah, all of that, and social media entertainment, gaming entertainment. If you're a news junkie entertainment, whatever. (Auckland, male, under 25 years)

I download movies and access to international news. I daily go on to news sites to read news. [Do you use it for quite a lot of entertainment now you mentioned watching movies?] Yes mostly I watch movies. We don't really watch TV, actually we don't watch TV at all ever. So that is how I access all my news and that is how I am accessing film and TV series. (Auckland, general public, female)

Main uses for the internet (cont.)

- Many noted the convenience of online transactions including shopping, banking, and travel bookings etc

Bookings. Even just like restaurants and stuff to, you can check reviews and everything else. (Auckland, tech savvy, male)

It speeds up tasks that used to take a long time like basic banking. I would just do it on the internet and not worry ever about having to go into the bank. (Auckland, tech savvy, male)

I have got shopping/booking travel and hotels and banking. I don't know what we did before we did internet banking. (Auckland, general public, female)

- Some valued different apps and products such as Google maps, Google help, and reading apps

I've had to travel places, and they ask if I need directions and I'll just google map and I'll get there. I feel quite confident that I'll get there. (Auckland, female, under 25 years)

- It was seen as a tool to keep safe when travelling as it allowed people to keep in contact, and notify friends and family that they are safe through social media

And just knowing that I'll be able to – if I'm ever in a tight spot I can just go on Facebook and communicate with my 800 friends and they'll help me. (Auckland, female, under 25 years)

- It was seen to facilitate freedom of expression and allowed diverse views to be heard

A diversity of views can come out where in the recent past you'd be relying on the main news networks, now you can find other versions of the same story or just things that the mainstream media literally won't cover which are actually impinging on your life or on the lives of other people that are not considered newsworthy to the mainstream but actually are really crucial. (Auckland, tech savvy, male)

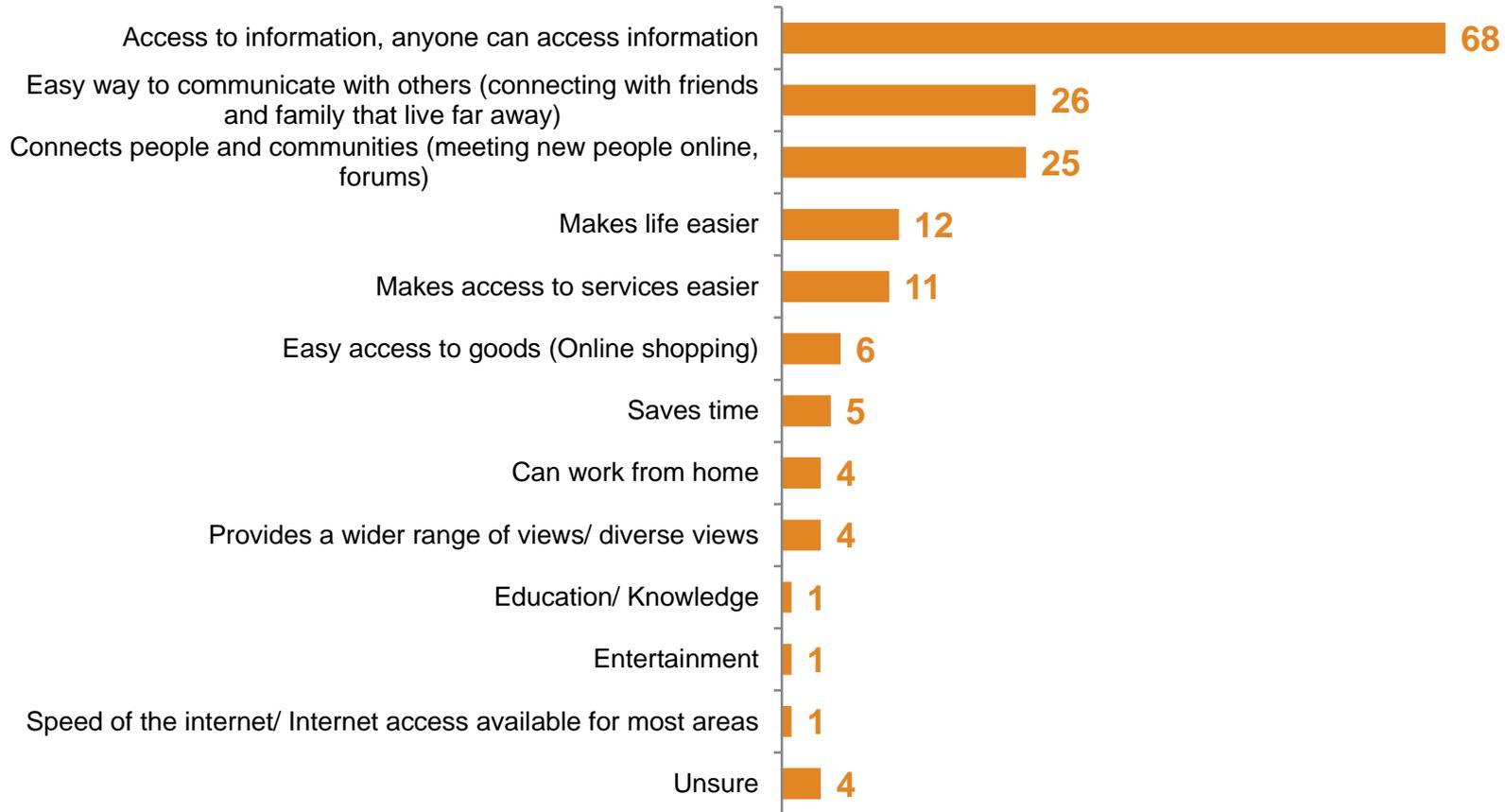
Main benefits of the internet

- Access to information was considered the main benefit of the Internet (68%), followed by providing an easy way to communicate (26%), and providing a way for people and communities to connect (25%)
 - These were followed by the belief that it made life easier (12%) and made access to services easier (11%)
 - In the focus groups this was often attributed to saving time by no longer having to do things in person (e.g. go to the bank or downloading a book instead of going to the library)

I think it's cool but it's also sometimes I find it quite ridiculous, like how people make it so easy – like people who make devices so make it so easy for other people to use. It's just like making life so easy like for everything. You can shop online, you can buy everything online. I find I sometimes think like that's so stupid how everything is just – you sit back and you just do it off your phone. In some senses it is good, it helps people, but I just kind of laugh about it sometimes, about how ridiculously easy it is to do stuff these days. (Auckland, male, under 25 years)

Main internet benefits

What do you think are the main benefits of the internet?



Societal benefits

- In the focus groups participants were asked to nominate societal benefits of the Internet. A key benefit was that it was seen to foster connectivity by helping to connect like minded people, an ability to access support, and by connecting New Zealand with the world

Support, you can find answers to your questions as well as find people who can help you with various things. Online community. If you are having trouble with something you can literally just put it on a forum and ask it and come back with a thousand answers. (Auckland, general public, male)

A greater sense of connectivity between people. You are not going to feel that you are the only person that did something or felt something because you can connect on there and find all sorts of people. (Auckland, general public, male)

- It was seen to lead to transparency and accountability by making it hard to lie or hide ensuring people will get caught out if they do, and also by allowing access to price comparisons, and reviews

Transparency. I'm talking more from the ... society point of view, what exactly is happening in your society, and accountability also. (Auckland, tech savvy, female)

I think people are a hell of a lot more accountable for what they do and say. (Auckland, general public, male)

That also creates peer accountability because everyone can – I don't want to say police each other, but keep an eye on what each other is doing and share opinions very quickly. Monitor, that's it, it's an opportunity for social monitoring. (Auckland, tech savvy, male)

- It provided equal access to information as people could find any information they wanted

I think knowledge is massive. If you have got access to the internet it doesn't matter what your background is you can access it and read it. You can learn just as well as the next person apart from their experiences. (Auckland, general public, male)

Societal benefits

- Provided a wider world view/ diversity of views

Maybe this comes under knowledge and having information handy but I feel like because of the internet people in general are a lot more aware of news issues and things happening. People know so much more about social issues because a lot of it is on social media. I feel like people are a lot more aware of what's happening. (Auckland, female, under 25 years)

You also get a wider view of the world and what is going on rather than tuning in to the 6 o'clock news you can get any news at any time. It has broadened up what you can access. (Auckland, general public, female)

- Meant that there is a lot less paper used

Like the amount of paper that you save ... a person who does the same job as me, may have started with a typewriter and he'd write it in pencil and send it to the ladies in the typing pool to type it all up. So the amount of paper. (Auckland, male, under 25 years)

- Supports democracy, gives people a voice and can be an avenue for activism

Easier to mobilise groups of people for an activist campaign. You're all going to meet at Aotea Square for a march. (Auckland, tech savvy, male)

It's like giving us a way to speak our mind. (Auckland, tech savvy, female)

- Provided access to a wider range of services online such as medical consultations, translation services – especially positive in areas with limited services available

Societal benefits (cont.)

- Provided a way of reinforcing, informing, and fostering national identity
I guess it can foster a national identity. In multicultural societies like New Zealand you'll have videos of people doing the haka. Then you'll have all the New Zealanders standing up for the Maori culture which is pretty nice. (Auckland, female, under 25 years)
- Enabled a changing, more flexible workplace
And it has changed the way people work, it has given people the opportunity to work remotely. (Auckland, general public, female)
- Provided more up-to-date news and information
[Societal benefits] *Spreading awareness of events and disasters, just like news in general.* (Auckland, female, under 25 years)
- Allowed New Zealand businesses to access customers in other countries
Just for business a company can do business with someone on the other side of the world it is not constrained by geography any more. (Auckland, general public, female)

Internet concerns - unprompted

- On an unprompted basis, the biggest concern was the threat to the security of personal data (27%)
 - In the focus groups, this often related to the use of personal information/ pictures (posted by individuals) - some noted that your Facebook footprint was permanent, and may be used against you in future
 - To a lesser extent it also related to the selling of information collected by companies, and location tracking

I'm not sure about Facebook photos when I'm 14 – am I going to want to have them available when I'm 40? What's my plan with my social media? What's my exit strategy? In five or 10 years do I start a new account? What happens if I die? (Auckland, male, under 25 years)

Yeah and lack of control no matter how many little clicks, terms and conditions you try to get out of, you still – there'll be a way in which they're using it and even if you – you'd never be able to fight it in a court of law anyway. (Auckland, tech savvy, male)
- The next biggest concern was the threat to privacy (16%)
 - In the focus groups, this mainly related to surveillance and webcams

I know there are lots of cameras. I feel there is no privacy at all. [Are you careful about what you do?] Just in Auckland City that means whatever we do we are under constant monitor. And that is a concern. (Auckland, general public, female)
- Online crime rated next as a concern – with the risk of identity theft being nominated by 13%, 9% mentioning online crime generally, and specific mentions of viruses/ hackers (2%)

It's so easy to stalk people these days. I'll see people and I don't actually know them but I know them ... I've seen their page. (Auckland, female, under 25 years)

The third thing is about crime and viruses. Scams. Lots of people lose money. (Auckland, general public, female)

Internet concerns - unprompted

- Concerns related to issues that impact children were nominated by a number of respondents, including - impact of screen time (9%), children having access to explicit material (3%), and the safety of children (1%)
 - In the focus groups there were also concerns about children losing socialisation skills

That's the irony of social networking. It's actually making kids less social. Their social skills I think are going down, the lack of eye contact, and also confidence. (Auckland, tech savvy, male)

And just that children aren't children any more. They don't ride bikes and play outside until the street lights go off. They all just sit inside with an iPad and get babysat by an X-box and I think that is really sad. (Auckland, general public, female)

- There were concerns about the amount of misleading or wrong information on the internet (8%)

Load of info – some good some not so good. Kind of what other people said you never quite know what is true and what is just made up. (Auckland, general public, female)

Also you can never truly believe what you read. I don't trust the source, is it true or not. (Auckland, general public, female)

- Coming through stronger in the focus groups, was the belief that people were becoming more socially isolated (7%) as they had less face-to-face contact with people – this was seen to lead to lack of empathy and authenticity

The lack of real life and real connections between people and with that the lack of empathy and authenticity between relationships. (Auckland, general public, female)

- Concerns about cyber bullying were raised by 7% of respondents

Internet concerns – unprompted (cont.)

- Other concerns were:
 - Internet speed (6%)
 - Being dependent on internet – borderline ‘addiction’ including - concerns about the potential impacts on brain, melatonin levels, provides constant distraction, can waste a lot of time (5%)
 - The cost of connection (5%)
 - Losing ability to think independently (3%)
 - Being prosecuted for piracy (2%)
- In the focus groups a few more concerns were raised – or appeared to generate stronger concern. It was felt that differing levels of access could create a ‘digital divide’
 - Which globally may see a growing difference between first and third world countries
 - In New Zealand may see differences in access between rich and poor and those living rurally

I was thinking of it more along the lines of a class division. If somebody can't afford the internet it will put them at a huge disadvantage as to their peers who could. (Auckland, general public, male)

Even in really rural areas, like the satellite connection has got a lot better in the last few years – it's getting harder if you don't have internet, it takes so much longer and costs more so if you can't do things on the internet, or if you don't have the technology. (Auckland, male, under 25 years)

I had the growing gap between first and third world countries. Completely losing touch with a whole half of our planet who don't have access to even electricity let alone the internet and what happens to them in this new world. (Auckland, general public, female)

Internet concerns – unprompted (cont.)

- Some also felt that society was becoming too reliant on the internet which made us vulnerable if the internet ever went down. A few (older participants) also felt that people were at a disadvantage if they could not use it

If we didn't have it. Life as we know it today wouldn't be practical without the internet now. [So if we didn't have it, it would be onerous?] It wouldn't be onerous it would be impossible. (Auckland, general public, male)

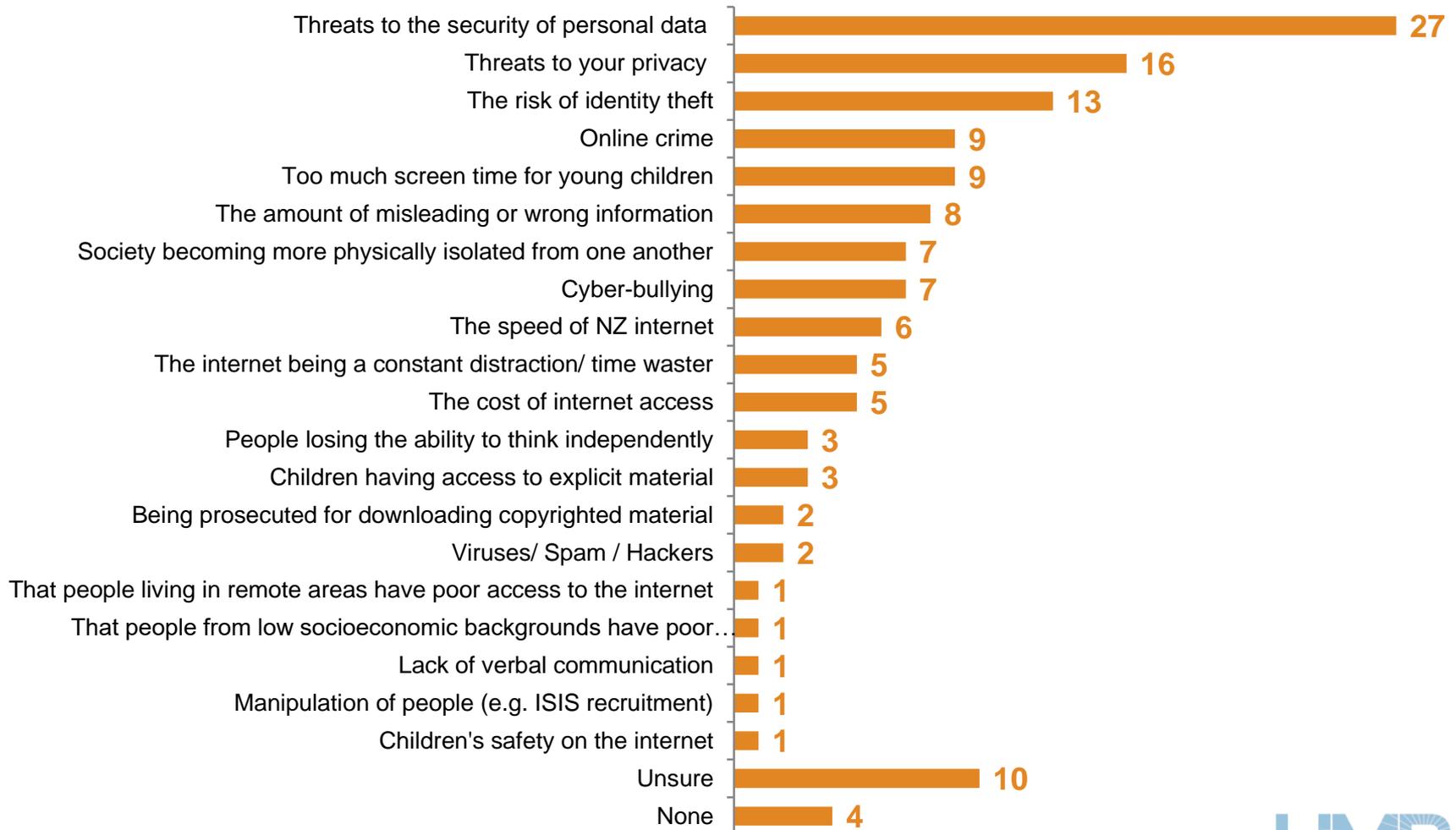
If you can't use it then you get left behind and that is where it is sitting at the moment. (Auckland, general public, male)

Basically the vulnerability of society. We are heading down a path whereby the technology could quite easily be lost through a catastrophic event and we would not have the capability to recover from that because of the degree of specialisation that the internet and automation has introduced. (Auckland, general public, male)

- Other concerns raised in the focus groups were:
 - Pressure to use more – services delivered online, work
 - Impact on health – RSI, posture
 - Limited content available in New Zealand – Netflix, Facebook
 - US rules forced on New Zealand as part of TPPA
 - Possible job losses

Internet concerns - unprompted

What are your main concerns about the internet?

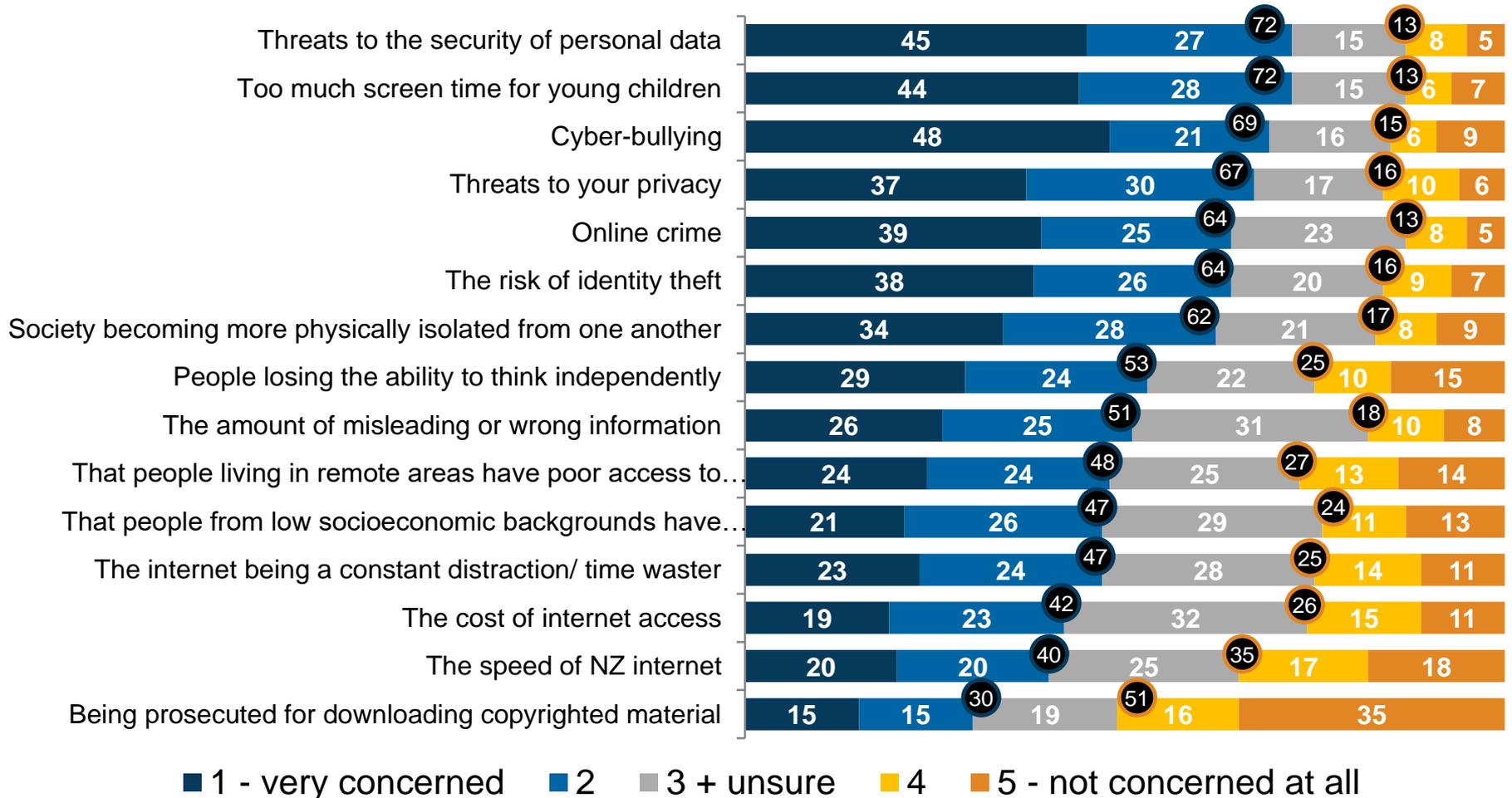


Internet concerns – prompted

- On a prompted basis, the concerns that resonated most strongly were:
 - 'Threats to the security of personal data' – 72% concerned (combine 1+2 – where 1 means very concerned and 5 means not concerned at all)
 - 'Too much screen time for young children' – 72%
 - 'Cyber bullying' – 69%
 - 'Threats to personal privacy' – 67%
 - 'Online crime' – 64%
 - 'Risk of identity theft' – 64%
 - 'Society becoming more physically isolated from one another' – 62%
- The lowest concerns were:
 - 'Being prosecuted for downloading copyrighted material' – 30%
 - 'The speed of the internet' – 40%
 - 'The cost of internet access' – 42%
- Overall, female respondents tended to be more concerned about most issues compared with male respondents (although much closer on aspects like cost, speed, and piracy)
 - While those aged 60 years plus tended to be less concerned about issues

Internet concerns – prompted (cont.)

Using a 1 to 5 scale where 1 means very concerned and 5 means not concerned at all – how concerned are you about the following aspects of the internet?



Qualitative insights – concern about security of personal data

- The threat to the security of personal data was explored in the groups. Top of mind thoughts often related to personal information being accessed and used from public places like Facebook, online searches or using transactional functions on websites

With the question of privacy there's a lot of controversy around websites that actually have a lot of your information, whether they sell it to third world countries so people can scam you – I guess we aren't that private now. (Auckland, female, under 25 years)

I suppose because we have such intimate social relationships online so there is that aspect as well as the hacking financial trying to get your money. (Auckland, general public, female)

- The perception that data was collected was reinforced by pop ads tailored to Facebook content or searches – which some find intrusive

Yes that scares me how you buy stuff and then you get ads on Facebook for them, they are watching you and they know. (Auckland, general public, female)

- Some felt that syncing of accounts meant that personal data was being shared with parties they were unaware about

It is a bit of a worry because so many things get synced, Google accounts and everything gets synced and you don't know where things are going and who is getting information and who is getting connected. (Auckland, general public, female)

- There were also examples given where location data has been captured and used – people had safety concerns around the ability of people to be able to track movements or find them

My personal safety. Who knows, someone may know my living address and contact details, my personal details. (Auckland, general public, female)

Qualitative insights – concern about security of personal data (cont.)

- There was some concern about data collected by suppliers or on websites and the potential on-selling of that information

Personal information being shared goodness knows where. (Auckland, general public, female)

And I think people do breach your privacy quite regularly accidentally but company's do it all the time. They do things like sharing email addresses accidentally and things like that, that happens all the time. (Auckland, general public, female)

Same thing with email addresses sold to major companies and even your contact numbers. We get calls and emails from people you don't even know. (Auckland, general public, female)

- Some also thought about the data collected by government – concern was more about potential government leaks rather than concern that the government would use the information against them
- A few were concerned about the information stored by ISPs and phone companies

But what worries me is that you're putting your fingerprint onto your phone, but I'm pretty sure that information is being sent somewhere and someone's got your fingerprint. And your passwords on your email, you think you're keeping the password safe but actually your email provider, if it's Gmail or anyone, they have your password. (Auckland, tech savvy, male)

Qualitative insights – concern about security of personal data (cont.)

- Level of concern varied
 - Those less concerned felt spam software had improved, that the risks were the price to pay to be connected and to access services, that no-one would be interested in them, and that there was small chance of anything happening

I really trust in humanity. I don't think anything's going to go wrong and with the information for businesses and stuff like that, they're tracking it anyway. They're tracking everything. You can't really get out of it, and I don't see any solutions to get out of it. (Auckland, tech savvy, male)

I am probably a bit naïve but I just can't imagine what use my information would be to anyone. What would they do with it. Name, date of birth what are they doing to do with that that will be that detrimental to me. (Auckland, general public, female)

I think the benefits outweigh the negatives, there is such a small chance of it happening and it is so convenient to do it. (Auckland, general public, female)
 - Those concerned felt there were significant risks and did not want people to be able to access their data – concerns were exacerbated by the feeling that they had little control over how their data was shared

I'm more worried about how much data is – people aren't aware of that is being taken, so when you fill in your forms or you tick the T&Cs etc they have explicit information that you think that that's all that they have, but they could have access to so much more information, especially in your user and the way that you use instruments and stuff. I know they're even getting information now on how you click on your screen and things like that. People aren't aware of that. That's not in the terms and conditions. That is what I'm worried about. (Auckland, tech savvy, male)

Qualitative insights – concern about security of personal data (cont.)

- Some had put measures in place to limit data access
 - By limiting the amount and type of information they shared on social media

The threat of someone stealing my data or my photos means I don't post as much to Facebook as I might want. (Auckland, male, under 25 years)

I am quite careful, I don't put too much out there. (Auckland, general public, female)

I am not going to share anything on any particular network or otherwise that I am worried about getting out. If I can't show my mother then I won't put it online. (Auckland, general public, male)
 - Turning off location on devices
 - Restricting access and using strict privacy settings

You can do privacy settings but people still seem to be able to see it sometimes. (Auckland, male, under 25 years)
 - Installing spam software/ ad blocker etc

I think it is just the price of it. It doesn't make that much difference to me. You can always get an ad blocker. (Auckland, general public, male)

I am always concerned that the lap top does have proper anti virus system. (Auckland, general public, female)

Qualitative insights – concern about impact on children

- It was clear from the focus groups that people were concerned about the potential impact on children. But the internet was not inherently blamed – many felt there was a need for greater parental responsibility

All I wanted to say was that it made me feel like maybe we need to ask the question of whose responsibility is it? Is society responsible to make choices, or is the device itself an issue that needs to be restricted for humanities' good. (Auckland, tech savvy, male)

I guess it's the responsibility of the parent really. (Auckland, female, under 25 years)

- A few felt that what children were using the internet for was the key issue, rather than the amount of time

I would actually argue that Minecraft is essentially the Lego of this generation so her playing that for two hours is a lot better than her sitting on Facebook. She is still creating. (Auckland, general public, male)

- Some had put in measures to address concerns with their own children
 - This included turning off the internet at certain times of the day

I pull the plug out at 8 o'clock. And they have to do their homework in my room so I can see them and make sure they are doing homework and not playing or going on YouTube. (Auckland, general public, female)

- Making sure children were aware of the dangers on the internet

You just need to think about not so much sheltering them because they are going to get around it, that is what kids do. I used to sneak out of my parent's house before there was internet, they're going to find a way one way or another it is just making sure they understand it, they understand the consequences, it is like anything really. (Auckland, general public, male)

Qualitative insights – concern about impact on children (cont.)

- A major concern was the amount of screen time children were exposed to – both as part of schooling and leisure time
 - I have an eight-year-old daughter, as part of their curriculum, the whole day her eyes are on the computer and when she comes home all the homework is on the laptop. By late evening I always see her eyes red, I feel so worried.* (Auckland, tech savvy, female)
- This was seen to result in children not experiencing the real world like other generations – and as a result were less healthy and more anti-social
 - [Screen time for young children?] *I just think that it makes them completely anti-social, they are supposed to be the future of the world and if they are not learning anything productive or learning how to interact with people, it concerns me that.* (Auckland, general public, female)
 - Children don't play in the playgrounds any more. When I was started high school there were people running around playing.* (Auckland, male, under 25 years)
- Technology was seen to be used as a babysitter
 - The other scenario I saw was this kid with the parents eating dinner and the kid was literally given their i-pad there and she was just so busy with her i-pad at the dinner table.* (Auckland, tech savvy, female)
- There were some questions around the impact of internet use on the developing brain
 - What's it doing to their brains? We're like the test ... just lately how it's become so big and what not, we don't know the effects of it. What it's doing to neurons and what not.* (Auckland, tech savvy, male)

Qualitative insights – concern about impact on children (cont.)

- Some felt there was too much reliance on parental blocks on programmes
 - Kids were seen to often have better skills than parents so could get around measures put in place to limit use

You have two- or three-year-old children who can unlock your phone, go onto YouTube, go onto the specific video they want to watch. It's just like wow. (Auckland, female, under 25 years)

Our kids are smart. They know how to hack. (Auckland, tech savvy, female)
- Some were concerned about potential access to inappropriate material which children were too immature to deal with – and over which they had little control

And like relationships, it goes back to losing touch but if you're a 13 or 14 year old looking at hard core pornography, it's so easy. What is that going to do to your life? Your friends, family, views on women, views on men. It just goes on and on. [It's dangerous. (Interjection.)] (Auckland, male, under 25 years)

I keep reminding her to let us know what you are doing. For example my daughter she closes the door 24/7 and it could be a teenaged thing but I say to her you close the door if you are studying or if you are changing your clothes simple as that but otherwise keep the door open because we like to come in because the minute you start knocking whatever she is doing can change. (Auckland, general public, male)

Qualitative insights – concern about cyber bullying

- In the groups participants were very concerned about cyber bullying, it was seen to happen to adults and children
 - However, they were more concerned about children as they were seen as more naïve and less emotionally developed to cope with bullying

[When you think about cyber bullying do you think about little kids or more generally?] Personally I only think about children, I suppose you could get attacked if you are a public figure but in my own sense of using the internet I don't feel threatened but maybe it is where I am using it or how I am using it. But as an adult I feel on balance I can understand the way people argue and I think you can kind of separate yourselves from it a bit. (Auckland, general public, female)

I guess an adult it still affects them but a child is more vulnerable. (Auckland, general public, female)

- It was seen as much harder to police or control cyber bullying as it often happens behind closed doors

And they are often using the internet behind closed doors in their room or whatever so as a parent you don't necessarily see what might be happening. Whereas bullying in the playground at school although that is awful but other people can see it and be witness to it. (Auckland, general public, female)

- Some also felt it was exacerbated by children being active on social media when they were too young

I guess just kids who just don't understand enough about what they might be getting themselves into. Maybe getting on to Facebook or Instagram or any of those social media sites even though they are technically too young but they can still set up an account and who knows but maybe people who aren't who they say they are and connecting with them in some way. (Auckland, general public, female)

Qualitative insights – concern about cyber bullying (cont.)

- Due to the anonymous nature of the internet, participants felt that cyber bullying was often more vicious as people could not see the consequences of their actions, and did not view people online as real people
 - It also provided an avenue for predators as they could be anonymous online

[Is cyber bullying a big concern?] Yeah, I think so, I'd say so because I mean that seems like something that happens fairly often. I don't know that – there's always been bullies and I think that it's more so now – it's just so easy for someone to – When you're behind a computer screen it's so easy to pass judgement, keyboard ... and just do it that way, so I think that that's something that – even on a smaller level where people are not necessarily bullying but just like really nasty comments ... and it's so easy to do. (Auckland, female, under 25 years)

It is so much easier to say nasty things when you are not doing it face to face. (Auckland, general public, male)

You don't have the face contact and people can so easily write such hurtful things and they people don't see the reaction or the consequences. (Auckland, general public, female)

Qualitative insights – concern about privacy

- Some were very concerned about privacy – although, concerns were often conceptual rather than real, often based on scenarios from movies or television programmes

I'm just scared that some day someone could come in and take over you. It is like that movie to me – the one where his whole life is taken over. (Auckland, general public, female)

- On probing, main concerns were around surveillance (public cameras, monitoring by GCSB), and data collection by government

I'm worried about surveillance. I'm worried about all the information being just like in the wrong hands. I hate being guilty until proven innocent and that's the way I feel sometimes about it. That like they take all the information and you've got nothing to hide. If you don't have to hide it, you have nothing to hide. That for me feels like I'm guilty until proven innocent, not the other way around. If I've got nothing to hide, then why are you surveilling me? (Auckland, tech savvy, male)

- However, there appeared to be more concern about the leaking of data rather than government agencies using the information directly against them

I'm more worried about the government having access to my email and then dodgy government security being not good – like the government record on big IT projects is so shocking. I think there's lots of opportunities but like what if it leaks or someone can get into it – that scares me more than some guy in Wellington with a big hat reading my emails. (Auckland, male, under 25 years)

- Many felt the benefits to public safety outweighed privacy concerns

[Surveillance?] *If it makes the world a safer place then that is what needs to happen I guess. There are so many terrible things happening in the world that I guess that is a way they cotton on to these groups of people who are plotting terrible things.* (Auckland, general public, female)

Qualitative insights – concern about privacy

- Some were aware that individuals had access to sensitive data which had the potential to be abused

My partner is a pharmacist and they have a big database where they can basically search anyone's health records and see them. They're not supposed to do it and there's steps to make sure they don't but you can basically – if you had a good enough excuse as to why you were looking at this person's data, you could get away with it. (Auckland, female, under 25 years)

- Those who were less concerned felt that they had nothing to hide and that there would be little interest in their life

I don't feel like I have anything to hide. If I was a terrorist, maybe I would not like it but I'm not so that's fine. (Auckland, female, under 25 years)

I think that Big Brother has got so much information that looking at one individual person who is quite harmless doesn't matter. (Auckland, general public, female)

- Some also had faith that the system in New Zealand protected the privacy of individuals

I hope in New Zealand it's safe because of the regulations, privacy regulations. They are quite safe and far better than any other place. (Auckland, tech savvy, female)

- People who have moved to New Zealand appeared less concerned as they felt part of a crowd, although, they understood that countries with a small population may feel more exposed

Where I come from there are thousands of people and nobody cares what they do. But here it is important to have privacy. [Why do you think it is more important?] I would probably say that is it a small country with a small population. It doesn't bother me so I guess my upbringing is a lot different. (Auckland, general public, male)

Qualitative insights – concern about crime

- Levels of concern about online crime was connected to whether they had experienced or knew someone who had experienced a crime
 - The most common crimes experienced were credit card fraud and hacking of email accounts
- Most continued to use online transactional websites - they trust banks or companies to have measures in place to protect customers
 - Convenience was generally seen to outweigh the risks

At the end of the day I always say the banks will be responsible for replacing your money if that happened and that is what I bank on happening. (Auckland, general public, female)

You do so much on line with purchasing and transactions that you can't really worry about it too much otherwise it would limit you. (Auckland, general public, female)

I've had friends who have had their banks cleared out and they got the money back two days later. Not an issue. Banks are covered for that. (Auckland, tech savvy, male)

- Some felt that online crime was still relatively unlikely to happen compared to physical crime
 - I put identity theft and online crime as some of my lowest things on the list just because personally I feel I would be more likely to be affected by physical or real crime than virtual crime.* (Auckland, general public, female)

Qualitative insights – concern about crime (cont.)

- Some were also concerned about identity theft and stalking

I use Facebook quite heavily so if someone was to pretend to be me elsewhere and I get a call from the cops or something saying I have done this and someone has photo-shopped me somewhere and it looks legit – maybe to that aspect I am afraid of identity theft. (Auckland, general public, female)

- A number of theoretical crimes were also raised (mostly by younger audiences) which included:
 - Dark side of knowledge such as how to build a bomb
 - Online drug dealing – police tracking
 - Dark web
 - Videos of people fighting – lots of violent videos
 - Revenge porn/pictures

I know there's things out there and having younger brothers just surfing the net. If they pick up how to shoot someone, how to build a bomb, that could lead to – it's good that it will expand their minds and they want to become engineers but then there could be like a dark side and it can show them different ways and read into stories of what people have done. (Auckland, tech savvy, female)

Drug dealing online. Cops have caught a few people just by keeping the same number. Drug dealing, they could be doing this, doing that, it's all done online. It's all there for people to see and what not. (Auckland, tech savvy, male)

Qualitative insights – concern about crime (cont.)

- Some had put measures in place to guard against online crime

- Security software

We have our own software and a firewall. I also have a back up as well. For example after I make one transaction I take a screen shot, the day and time and the transaction ID. So if something goes wrong I have a record of it. (Auckland, general public, female)

- Strong passwords/ encryption

I think encryption is great. So many services are using such high-quality encryption compared to using a text messages which can legally and quite easily be read by the ISP, compare it to something like highly secure like chat apps or whatever that no-one can read. Even the company can't read it. They've encrypted email and all sorts of other stuff. (Auckland, male, under 25 years)

[What can you do?] *Changing passwords and that sort of thing and having complicated passwords.* (Auckland, general public, female)

- Server system/ firewall at home

- Back ups

I have quite an elaborate personal back up system in place, that is why I have three computers and one computer is kept as a computer of last resort. So it is a concern and especially with regards to security and banking systems. (Auckland, general public, male)

- Tape over camera

I put a sticker on the camera otherwise the computer has the camera and when you sit down in front of the camera people can look at you and know what you are doing. (Auckland, general public, female)

Qualitative insights – concerns about social impact

- There were concerns in the focus groups that people were losing social connections and the ability to communicate effectively
 - This was driven by less need to access services face to face and more online communication

Losing touch with people, like sitting in a room with people and everyone is on their phones. You're with your partner and you're both on your phones and not talking, not like in a bad way, just because you're just not talking, you're just on the internet. At my flat we message or we chat each other from across the house. It's terrible. It's so bad. I don't want to talk to you but I'll send you a message like "pay rent". (Auckland, male, under 25 years)

If you go to any restaurant or catch any bus everybody is head down on their phone there is no interaction even at an eye contact level these days. [How will that change the world or our community?] People will become more reserved with lack of empathy and authenticity. You won't even know your neighbours any more. And most people won't even care to know. (Auckland, general public, female)

- There was also a feeling that over reliance on the internet was resulting in people losing the ability to think for themselves

And the other thing I mentioned we are depending a lot more on the internet. And because everything is just a push of a button we are getting a bit lazy. (Auckland, general public, female)

You only have to see young people's writing these days and they don't have to learn these things because you just push a button on Google and it will give you the right spelling. And I think that is detrimental to people's overall learning. We are humans we need to be able to think and do things, we can't have robots doing it all for us. (Auckland, general public, male)

Qualitative insights – concerns about social impact (cont.)

- Some felt people (including themselves) were spending too much time on the internet
 - It was seen as a time waster and distraction but also hard to resist – so almost likened to an addiction
 - Also like being distracted, like not being able to focus on stuff.* (Auckland, male, under 25 years)
 - Addiction, obviously time-wasting – that's a big one.* (Auckland, tech savvy, male)
 - I also put time waster, you can just get so lost on there and end up hours have gone by.* (Auckland, general public, female)
 - However, one felt that New Zealanders less prone to addiction as more focused on outdoor activities
 - I don't really know if New Zealand has that same risk potential simply because Kiwis are a little bit more outdoorsy. I lived in Hong Kong for three years and compared to countries and cultures like that where they are a lot more advanced than we are so this is a completely different way of life and living and I just don't know if Kiwis are up to that yet.* (Auckland, general public, female)
- Some have taken measures to try to limit the use of the internet as they felt conscious of the amount of time they were spending online
 - Nowadays for me I'm trying sometimes not to have internet and just turn it off completely so that I can study or I can do something else rather than internet.* (Auckland, tech savvy, female)
 - I've turned a lot of my notifications off now. [Why's that?] Because I don't want to be disturbed. I want to choose when I check everything. I think to be efficient, like I've taught myself, just given myself certain times in the day when I check certain things. I don't want to be disturbed any more. I even removed Facebook from my main page. I've also stopped following a lot of people. I've tried to remove all those notifications.* (Auckland, tech savvy, male)

Qualitative insights – concerns about cost/ speed

- Compared to overseas both cost and speed were seen as poor, especially the cost of mobile data

I just think that it is way too expensive to have internet in New Zealand. I like mobile phone plans the data usage they give you is laughable. It is the most expensive thing on any plan. (Auckland, general public, female)

- Cost of connection was considered high in New Zealand which was considered important as it is a factor that could potentially limit access – which would be a real disadvantage as internet was seen to be integral to modern life

- Inability to access the internet was seen to promote a class divide as it was important for schooling and education

I think with the internet being such an important resource there are a lot of people who can't afford the internet or it makes it difficult for them but it has become an essential service. And so if you have school age children and you don't have the internet that is a big problem for their education. You can use public libraries and things like that but it is an extra barrier. (Auckland, general public, female)

- It was also seen to limit job opportunities as more were only advertised online

Qualitative insights – concerns about cost/ speed (cont.)

- Connection speed was also criticised – with technology and software improving but connection speed limiting functionality

[Does it seem fast enough here for most of you?] *No. Not if you are streaming movies and that sort of thing.* (Auckland, general public, female)

For me the first thing that frustrates me is the speed. At work I am on the internet and I don't know if it just because technology advances so quick but it is just the time you wait for stuff to pop up and work, just lately it seems more frustrating than ever. (Auckland, general public, female)

If you compare with other countries, yeah it is really slow. (Auckland, tech savvy, female)

- Rural connections were seen as particularly slow
- Although some felt that New Zealand was constrained by infrastructure issues with only one pipe coming into New Zealand

We're a bit isolated in terms of the cables and stuff. (Auckland, male, under 25 years)

There is no point in having an ultra fast pipe locally and no international connection so it is a matter of balancing what you can get through the internal connection. (Auckland, general public, female)

Qualitative insights – concerns about piracy

- There were few concerns about piracy with most ambivalent about accessing content for personal use

I still go to movies all the time it is only the ones you wouldn't go and see at the theatre or ones that are old. You don't go to a video store any more. I feel you are not hurting anyone by not going through Netflix. (Auckland, general public, female)

- But some felt there should be rules in place for those selling content

I don't think watching it is the problem. I see the people that are actually putting it on disks and selling it, that's the problem. [The ones that are making something from it. (Interjection.)] (Auckland, tech savvy, male)

- Often seen as the only way to access some content as not available to view in New Zealand by any other means

The problem is it's so hard to access legally so much content like it's all ring-fenced. You either have to pretend to be in America or pay – often I'd love to buy this content on Amazon but I legally cannot. There's no way I can watch this game in New Zealand. I'm trying to watch football. I legally can't, no matter how much I'm willing to spend. (Auckland, male, under 25 years)

- A few were concerned about the ability of overseas companies to influence copyright law in New Zealand

I guess I'm more worried about international companies writing New Zealand laws. I think that's terrible when Warner Bros straight up is writing laws for New Zealand. That's a pretty terrible way to run a country. (Auckland, male, under 25 years)

Qualitative insights – concerns about piracy (cont.)

- Penalties were seen as meaningless as no-one had heard of anyone being prosecuted or cut off
I don't think I know anyone who's had their internet cut off though, like I didn't know whether it was true or not.
(Auckland, female, under 25 years)
- This was contrasted to Germany where one noted it was strongly enforced, this raised the possibility that stronger measures could be introduced in New Zealand as part of the TPPA
In other countries they do. I was in a flat in Germany where they came and we got a 2000 Euro fine to the person who was the lease holder just because the internet was under their name and it was the previous person who'd downloaded some stuff. That's a gigantic amount of money for something. So it's already happening in other countries. [Do you expect it to happen here?] Well, it's part of the TPPA. (Auckland, tech savvy, male)

Net neutrality

- For most, net neutrality did not feature as a top-of-mind concern. But it was clearly an issue for some younger participants

- There was a perceived need to ensure access to content from different providers

Like you're concerned with Spark and stuff doing dodgy deals with like overseas companies and like going together with Netflix and like throttling other competitors' content and like being able to have different channels of internet service. But it's like a very slippery slope of what could be like a pretty terrible future if you don't have that sort of neutrality going on. (Auckland, male, under 25 years)

- Along with ensuring information was not modified or tampered with

Then my first thing that I wrote down was the freedom of information is what I'm worried about on the internet. Censorship, too centralised. The control of content. I know that Facebook is banned in China and Google is heavily censored in China. You cannot get Facebook in China, and I just feel like the whole point of the internet is that it should be free and it should be shared with all of humanity and it shouldn't be used as a monetised agent to just generate profits. I think that will destroy its potential and I feel like, especially with Google and with analytics moving the way it is, it's being geared around just making money and it's moving away from free information, free connection and its potential to eventually free humanity. That's what I wanted to say about that. (Auckland, tech savvy, male)

You can have whatever you want on there without it being monitored or edited, you write your own opinion. [That is an important part of the internet to you?] I think so, that is what the internet started as, a place for people to share information. It allows you to be aware of what is going on in the greater world outside of what information is controlled over here. You can find out what really happened in the news story or something. (Auckland, general public, female)



The future of the internet

Balance of views

- Regardless of concerns, an overwhelming majority (89%) felt that the benefits of the internet outweighed the negatives
 - Generally, the benefits identified in the groups which overrode concerns were that it made life easier, meant you were more connected, and that it democratised access to knowledge
I would say that it is positive. Makes life easier. You can chat with friends all the time, you can find information easily on the internet, you can connect with other people. (Auckland, general public, female)
 - Most noted that there was no turning back and that they would not want to go back to a world without the internet
I just think it's something that we can't do without now. We've gone past the point. We're so reliant on it, and it's so entrenched in our lives. (Auckland, tech savvy, male)
 - Some felt many of the negatives were happening in some form without the internet and that the internet was not in itself a problem, in so much, as the way people use it. Some also compared it to the introduction of new technology like television which was considered bad for society when it was first introduced
Bad things still happened before the internet so it has just shifted. (Auckland, general public, female)
I remember television just being the most banal thing but it was just so addictive until you fell asleep. So I don't necessarily think that it's that different in a way, except that you get a lot more choice out of it. (Auckland, tech savvy, male)

Balance of views

- Most felt that there were ways to manage most risks and concerns such as
 - Limiting usage
 - Having safeguards in place and regulations on uses for data
 - Checking reviews to see if companies/software is legitimate
 - Having prevention strategies

I'd rather have it than not have it. I'm just going to be a strict mum. (Auckland, female, under 25 years)

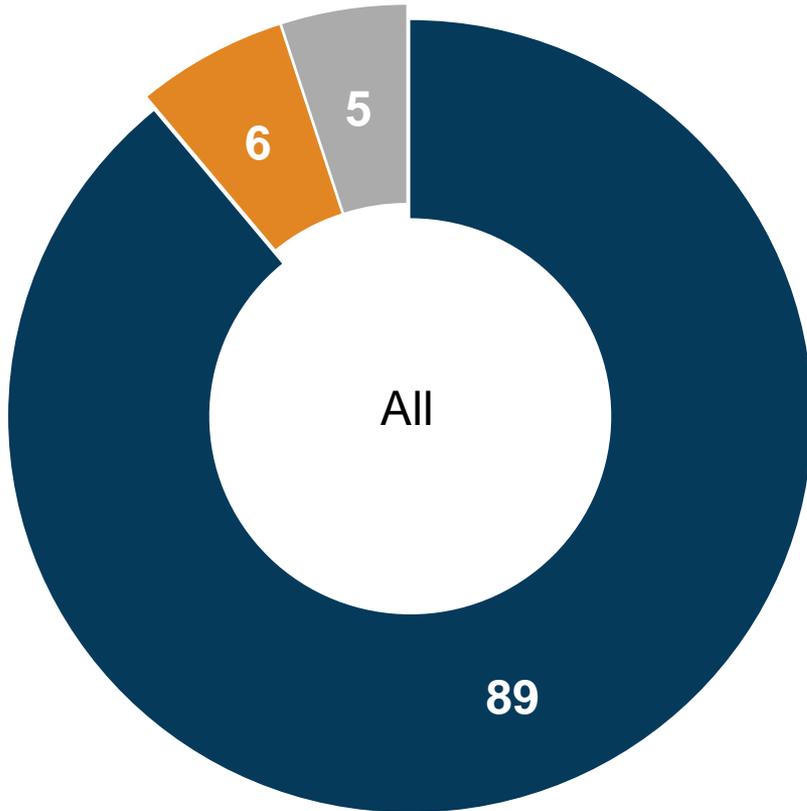
The world has moved ahead so fast it is going to be difficult without it. But at the end of the day you can walk hand in glove keeping the balance there it is going to be perfect. (Auckland, general public, male)

You have to be firm with your own self to have a demarcation, keeping your own space. (Auckland, tech savvy, female)

The internet is going to be the future so they do need to be clued up on it, aware when is too much. (Auckland, male, under 25 years)

Overall view of the internet – benefits outweigh negatives

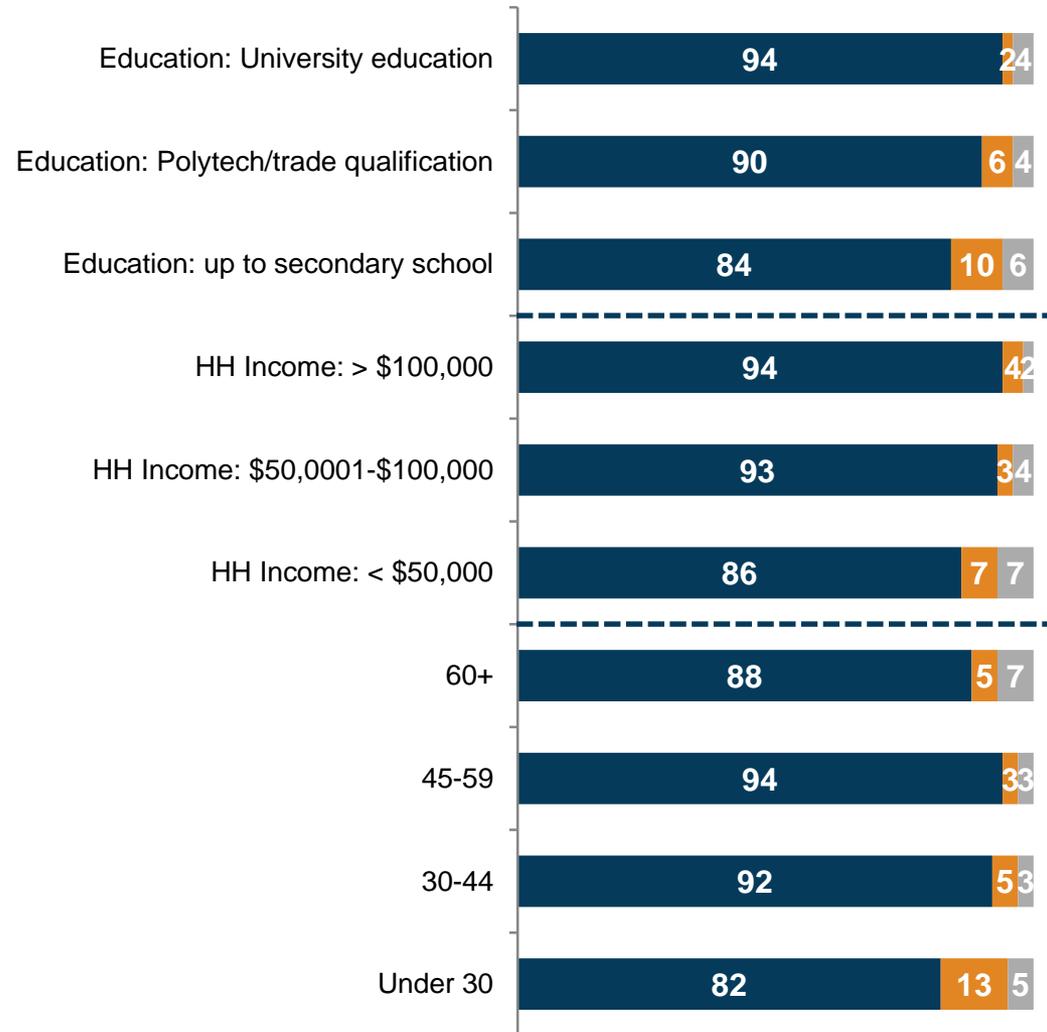
There are positives and negatives to the internet – but overall do you think the benefits outweigh the negatives?



■ Yes

■ No

■ Unsure



Future of the internet

- People were uncertain about the future direction of the internet but most felt we would become even more reliant on it

I think what worries me is we said maybe 20–30 years ago that we couldn't live without electricity – now we're saying we can't live without the internet. We're saying we can't live without it but actually we can, and we could have done without electricity but it would have been a lot harder. It's almost more important, more important than food. Got to have my internet. (Auckland, tech savvy, male)

Have you seen the Disney movie Wally, and like everyone in the future is real fat and they all sit on these chairs that move around? That's what I get scared that we're going to end up like. It's terrible. (Auckland, female, under 25 years)

- Some older participants felt they would be under increasing pressure to keep up with new technology
- There were continued concerns around the loss of personal connections

I think they are going to lose the joy of living basically. The way I look at it, it is good in terms of economic, the company makes money but in terms of living a life - in the house children and parents don't talk to each, the other day my wife sent me a text and I am in the other room. (Auckland, general public, male)

- Potential job losses as newer technology took over from humans

Cyber world and society it going to be more modern. I can see in the future there will be lots of people losing their jobs maybe because of robots or of computers doing their jobs for them. (Auckland, general public, female)

Future of the internet (cont.)

- On a mundane level, it was seen to continue to get faster and the range extended
- More apps and software would be developed to make life easier and be used for everyday tasks, along with improved security systems

Everything's going to be online. Self-service things. Everyone's going to be independent to do things. (Auckland, tech savvy, female)

I have heard about a smart shopping list so the fridge can detect what is not in there and prints out a shopping list for you. (Auckland, general public, female)

I think everything will be done online in the future. It is already starting to go that way, there is an app for everything. (Auckland, general public, female)

I am interested in pay by phone so have all your accounts synced up to your mobile device. (Auckland, general public, male)

- One person felt that it could be used as a tool to foster democracy, making it easier for people to voice their opinion

It could be a tool for a better democracy. All we would need is an app that everybody in the country with a phone downloads and you put in your IRD number or something and it connects you. Any referendums or anything – the flag issue was so expensive because they had to send out a physical referendum. An app would have been a free download and an instant click and we would have had an answer. It's an amazing democratic tool that we're not utilising. (Auckland, tech savvy, male)

Future of the internet (cont.)

- New technology would be developed
 - Driverless cars/ planes
 - Computer chips stored on the body
 - More virtual reality/ holograms
 - Virtual currencies, like bitcoin, block chain technology

Sounds really technical but I think block chain technology is going to be really fascinating. Essentially like when you think of bit coin and the secure hand-offs where it's not mediated by a central party from like contracts and anything from uber to anything – block chain technology, it's quite interesting in terms of selling and buying. (Auckland, male, under 25 years)

[So how will that look?] Who knows, maybe there will be a chip in my brain. He glasses can have the information and I am sure there is something they can insert and you just think of it and it tells you where to go. [Is that good or bad?] I find with the internet people fail to talk to each other and that is the bad side of it. People only send you greetings or messages through the internet. (Auckland, general public, male)

Even in the future you don't have to learn to drive a car it just drives for you. You just need to communicate with the computer and the car can drive itself. (Auckland, general public, female)

- More information would be stored in the cloud rather than on personal hardware

The cloud system is very good, like safe, and like for instance I lost my phone and because I was already having connection, all pictures and so many receipts etc, had already gone to Google drop box so I found it there. It backed up automatically. (Auckland, tech savvy, female)

'Internet of things'

- This was not a term many were familiar with
 - The concept did not elicit a lot of excitement as it was not seen as a new idea
 - One also noted that innovations that were supposed to make life easier had not necessarily done so and it may be similar for this concept

It is kind of like industrialisation and everyone thought people would have so much time and everything would become automated so no one is going to need to work and everyone will be doing a 20-hour week but the nature of work changed with technology and so the nature of convenience so it is not like your life is going to become simpler necessarily. (Auckland, general public, female)

- There were also reservations about relying on technology to do simple household tasks

I think sometimes for convenience that would be fantastic but sometimes it is the small things in life that you enjoy doing and if you were to go to the shop you might see someone or a kid on the playground or a sunset, you don't get that if you are at home or someone is doing it for you. So it can sometimes take away the small things in life. (Auckland, general public, male)

- Some felt there were security risks with everything connected to the internet – making them vulnerable to hacking
- Some disliked the loss of perceived control
- Some felt it took away the ability for people to think for themselves
- On the positive side, some felt it would be convenient and liked some of the possible uses for this technology

Parts of it you can understand like wanting to turn on your heating before you get home and being able to time things. So I guess it is being able to balance autonomy and convenience. (Auckland, general public, female)

That would be really good. You can heat up your house before you get home so that you don't have to go home to a cold house. (Auckland, tech savvy, female)



Appendix

Question line and prompt

Introduction (5 mins)

Purpose of focus groups

Facilitation: no right or wrong answers, equal time, all views important

Confidentiality: advise client viewing and recording

Logistics: toilets, timing, mobile phones, emergencies

Icebreaker (5 mins)

[Write down] What are the first words that come to mind when you think of “The internet”?

[Read out – quick discussion]

Usage and behaviours (20 mins)

Write down your two or three favourite things about the internet [Discuss]

What else do you use the internet for?

How do you access the internet? Prompt: Home? Work? Mobile?

How often are you using it? Has your usage changed over the last few years?

Benefits - whiteboard exercise (10 mins)

List the societal benefits – benefits to the country or to everyone

[discuss in more depth]

Future (10 mins)

Have you heard things about the future of the internet or what it might allow that excites you?

Do you expect to benefit from those things?

Will NZ more generally? Why or why not?

[Prompt: internet of things, data sharing]

Concerns (40 mins)

Write down your top two or three concerns about the internet

[Discuss in detail]

[Prompt if not raised: value for money, speed, access]

HANDOUT PROMPT – rate and discuss, focussing specifically on privacy/security/data sharing

What’s your overall opinion of the internet now positives/negatives covered?

Wrap up (5 mins)

[Write down] Single biggest risk/concern

Conclusion and closing questions

Prompt 1

How much to each of these things concern you?

0 = doesn't concern you at all

10 = concerns you a lot

A	Too much screen time for young children	
B	Businesses using your data	
C	The risk of identity theft	
D	Ensuring everyone has access to the internet	
E	Threats to your privacy	
F	Threats to the security of personal data	
G	The speed of NZ internet	
H	The cost of internet access	
I	Being prosecuted for downloading copyrighted material	
J	Cyber-bullying	
K	Online crime	
L	Constant distractions	
M	People becoming more socially isolated	