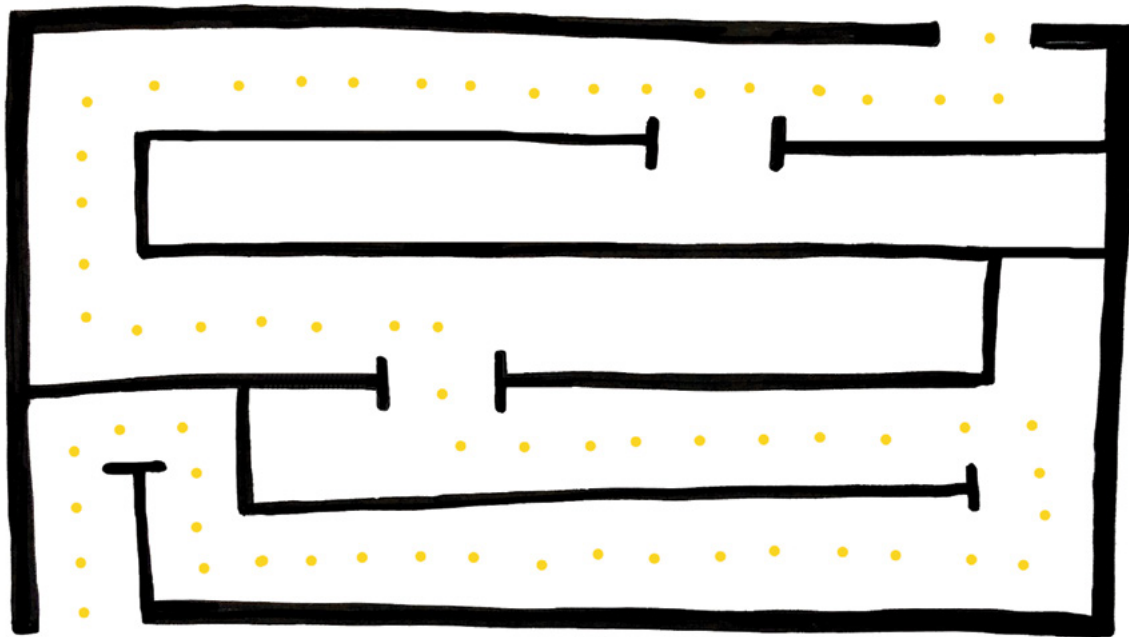




OUT OF THE MAZE



BUILDING DIGITALLY
inclusive COMMUNITIES

A report by



Out of the Maze: Building digitally
inclusive communities

Elliott, Marianne

Published by

The Workshop

Wellington, New Zealand

November, 2018

Illustrations by Megan Salole

Design by Renee Pearson

Contents

Foreword	4
Summary of findings	6
Purpose of this research	6
Definitions and framework	7
Scope and method	8
Why does digital inclusion matter?	13
Barriers to access	19
The impact of digital exclusion	36
Solutions	41
Conclusions	50



Foreword

Digital inclusion improves social inclusion, and to lift New Zealand's digital capability is to lift social outcomes for all. InternetNZ and the Vodafone New Zealand Foundation welcome *Out of the Maze* as an opportunity to give a platform to voices of those who experience digital exclusion.

New Zealanders have come a long way in making the most of the Internet. The Ultra Fast Broadband and Rural Broadband rollouts have made New Zealand a leading digital nation. But while we are making strides in some areas, the effects of digital exclusion are impacting some of our most vulnerable people and communities.

Over recent years we have seen some great research coming out of government and civil society, articulating the urgent need, and the opportunities of digital inclusion. Most recently, two stand out pieces of research have created a baseline for what digital inclusion needs to look like for New Zealand:

- “Digital Inclusion in New Zealand: Government Policy approaches and initiatives” (2017) Cat Soper for The Innovation Partnership.
- “The Pulse of our Nation”(2017), Digital Inclusion Research Group, for the Ministry of Business Innovation and Employment.

Earlier this year, **InternetNZ** made a bold call for universal access to the Internet for all New Zealanders in our work, “Solving Digital Divides Together”. As part of this work, InternetNZ said that New Zealand needs to “uncover the lived experience of digital divides, and to get everyone invested in overcoming digital divides, this work requires listening to the needs of people who experience digital divides.”

This paper aims to fill the gap identified in the current research. It is focused on hearing and learning from the voices of those with lived experience of digital exclusion. In order to create a more just and equitable digital landscape, we need to recognise the importance of the knowledge contributed by those most affected, or we risk perpetuating their marginalisation and creating solutions that don't adequately remove barriers to participation.

While not exhaustive, this research marks the beginning of a new conversation - one that gives primacy to the adage 'nothing about us, without us'. We believe placing the voices of those with lived experience at the centre of the conversation will help us achieve our goals and vision of a digitally connected Aotearoa New Zealand.

The **Vodafone New Zealand Foundation** is committed to providing young people with the resources and opportunities they need to thrive. Our goal is to halve the number of excluded and disadvantaged young people in Aotearoa New Zealand by 2027. It's an ambitious, complex and multifaceted goal and we recognise the important role digital inclusion plays in achieving it.

InternetNZ works for a better world through a better Internet. We believe that Internet access for all New Zealanders will unlock the transformative benefits of ubiquitous connectivity.

While the **Vodafone New Zealand Foundation** and **InternetNZ** seek to improve the lives of New Zealanders in different ways both organisations wholeheartedly believe that digital inclusion improves social inclusion. We've chosen to partner with The Workshop as we saw a strong alignment with their kaupapa, using values based research and stories to build a more inclusive New Zealand.

This research aims to go beyond price and infrastructure challenges and explore other facets of digital exclusion, emphasising both systemic drivers and the everyday impacts of digital exclusion. It highlights the connectivity challenges faced by those in positions of vulnerability, or in the process of significant life transitions, and points to changes in systems and processes that could alleviate these pressures.

Out of the Maze shows that it is critical to work with communities who are affected by digital exclusion and keep their voices heard.

This means:

- enabling community led development - collaborate, co-design, bring everyone on the journey
- building capacity of communities to solve their own problems
- understanding and hearing the voices of vulnerable New Zealanders
- **continuing to ask the question: what does it mean to be a digital society?**

Thank you for taking the time to read this report. We welcome you into our journey of helping to improve the lives of New Zealanders.



Lani Evans
Foundation Manager
Vodafone New Zealand Foundation



Ellen Strickland
Policy Director
InternetNZ



Summary of findings

The people we heard from in this research affirmed what previous research had shown. Having access to affordable and accessible digital devices and services at a convenient time and place, as well as the motivation, skills, and trust to use the Internet to pursue and realise meaningful social and economic outcomes, is essential to social inclusion.

They also told us **losing access can have a disproportionately harmful impact on people who are already experiencing social exclusion** in other ways. Becoming disconnected can have a devastating impact on people going through times of particular vulnerability or instability. A woman leaving a violent relationship, for example, or a young person leaving home without any family support.

People outlined a range of barriers to digital inclusion, including cost, a range of barriers to physical access, low motivation, resilience to setbacks, mixed levels of skills, a lack of trust or safety online and insufficient capacity.

While most of this was consistent with research in other countries, the conversations in this project have given us a more nuanced and detailed picture of how a variety of different social and economic factors can act together to impact a person's digital inclusion at different times throughout their life, and how becoming disconnected can, in turn, exacerbate existing problems.

Participants made suggestions for improving digital inclusion in New Zealand ranging from national policies to reduce housing transience through to kid-safe data plans to help parents support safe digital access for their children. There are suggestions here for central government, local government, iwi, Internet providers, tech companies and charitable organisations.

For a small number of the people we heard from, removing specific physical or financial barriers to digital access may be sufficient to enable them to benefit from digital inclusion. Overall, however, this research points to a need to remove broader social and economic barriers, in order to create more conducive conditions for interventions designed specifically to increase digital inclusion.

Purpose of this research

The purpose of this research was to uncover lived experience of the biggest obstacles for people to be digitally included and what will be most effective at reducing digital exclusion. Particular attention would be paid to factors in addition to infrastructure and cost, and to factors that would allow the excluded to maintain dignity, to be seen, heard and to have a say in how solutions are delivered to them. Attention would also be paid to the technologies and Internet tools that would most benefit the lives of digitally excluded people.

Definitions and framework

This research did not include a review of relevant literature, but it did draw on one recent report, the Pulse of the Nation report by the Digital Inclusion Research Group released in December 2017, for two things:

1. an overview of the groups who are digitally disadvantaged in New Zealand
2. a working definition of digital inclusion.

The *Pulse of the Nation* report found that there is widespread agreement about the groups who are digitally disadvantaged including families on low incomes, Māori and Pasifika youth, offenders and ex-offenders, migrants and refugees, people with disabilities, seniors and people living outside urban areas. This information was used to identify the target groups for this research.

The *Pulse of the Nation* report also proposed a definition of digital inclusion:

"A digitally included person is someone who has access to affordable and accessible digital devices and services at a time and place convenient to them, as well as the motivation, skills, and trust to use the Internet to pursue and realise meaningful social and economic outcomes."

In this context, "digital services" can mean any connectivity services, however delivered. In our research we found that people used the terms broadband, Internet and wifi interchangeably and were largely agnostic as to whether digital services would be delivered by the fixed and/or wireless networks. 'Digital devices' includes handsets (phones), tablets and computers.

This definition provides a four-part framework for discussing the challenges faced by specific groups in relation to digital inclusion, which we used to develop the design of this research:

- 1 Motivation
- 2 Access*
- 3 Skills
- 4 Trust

*including affordability, accessibility and convenience

Scope and method

This research focused on four specific regions in New Zealand which are affected by digital exclusion: Bay of Plenty (Kawerau), the West Coast (Westport), South Auckland (Mangere and Manurewa) and Naenae in the Hutt Valley.

Participants

As noted above, the groups at most risk of digital exclusion in Aotearoa New Zealand have been identified as:

- Families with children in low socioeconomic communities
- People living in rural communities
- People with disabilities
- Migrants and refugees with English as a second language
- Māori & Pasifika Youth
- Offenders and ex-offenders
- Seniors



This research focused on:

- young people (aged 16-24), including young people in remote communities, young people with disabilities, migrant and former refugee young people with English as a second language and Māori and Pasifika young people
- parents and caregivers of school-aged children.

The research targeted both people who experience digital exclusion themselves and people who care for and work with people and communities who experience digital exclusion (e.g. teachers, librarians, people running digital inclusion projects, community and youth workers).

We held discussion groups and interviews in Naenae, Wellington Central, Mangere, Manurewa, Westport and Kawerau. In each of these areas we spoke with young people, parents of school age children, and with social and community workers. In total we heard from 62 people.

In each area we recruited different groups of people. For example, in Naenae we focused on Māori youth. In Manurewa we heard from women with experience of family violence. In Mangere we heard from Pasifika youth. In Westport we heard from young people on the Independent Youth Benefit, and in Kawerau we heard from teen parents. In Wellington we heard from a group of visually impaired youth. We also held one-on-one interviews with youth with disabilities and former refugee youth.

The people we heard from were:

- a group of Pasifika youth in Mangere, Auckland
- youth workers with the MATES mentor programme in Mangere, Auckland
- a group of young people living independently in Westport
- youth and social workers in Westport
- a youth group in Naenae, Wellington
- a group of youth workers in Naenae
- a former refugee living in Wellington
- a group of youth in Wellington living with visual impairment
- youth and parents of school age children living with disabilities around New Zealand
- students at Tarawera High School's teen parent centre in Kawerau
- the Youth Council in Kawerau
- teachers and students at Kawerau Wananga o Aotearoa
- women with experience of family violence in Auckland.



Recruitment

Recruitment was done in different ways in different contexts, but generally we relied on trusted local actors to invite participants who were in the target groups. For example, to recruit young people living independently in the Westport area, we worked with a youth worker who supported independent youth. She invited young people to join the discussion. To recruit women with experience of family violence we worked with a community group who supports women, and the coordinator of the group invited women to our discussion.

Participants in discussion groups were given a \$25 voucher as a thank you and in recognition of the time they had given to this research. Interviewees were generally interviewed in the course of their work, and were generally not given vouchers.

Data collection

This qualitative research was conducted by discussion groups with people who are more likely to experience digital exclusion, and a mix of individual and group interviews with people who work with them.

The discussion tools used in the groups included questions for participants to answer individually on sticky notes, group discussion of the ideas put forward by individuals, probing questions to explore those ideas, dot votes and spectrums. Both the dot-voting and the spectrums were designed specifically as a way to generate discussion and were not designed or used to gather any sort of quantitative data.

Alongside group discussions, in-depth interviews were conducted with youth and social workers.

Data analysis

All discussions and interviews were recorded and transcribed. The transcriptions were read by both the lead and assistant researcher, separately, each of whom used a mixture of deductive (using codes derived from existing literature) and inductive coding - also known as grounded analysis - to tag the data. Through this process a matrix of codes and themes emerged from the data. This matrix helped show how data tagged under one code was connected to data tagged under another code, and to explore those connections. The lead researcher then returned to the transcriptions to corroborate this interpretation of the data by looking for disconfirming evidence and negative cases.

Limits on scope

With the limited scope of this research we were not able to explore in detail the experiences of each specific and distinct group of people affected by digital exclusion, but we did aim to recruit diverse groups for the discussions, including ethnic and gender diversity, and people who have experience of disability (including learning disabilities and mental illness). The scope of this research did not allow a detailed exploration of the experiences of seniors or people who are or have been in detention.

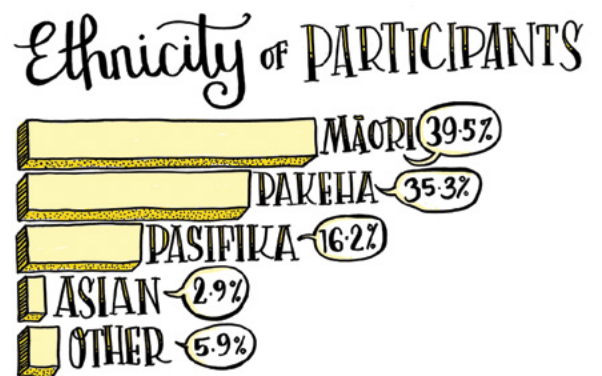
Demographics

We heard mainly from young people, with 67% of our participants being under twenty-five. Almost 40% of our participants identified as Māori, 35% as Pākehā and 16% as Pasifika.

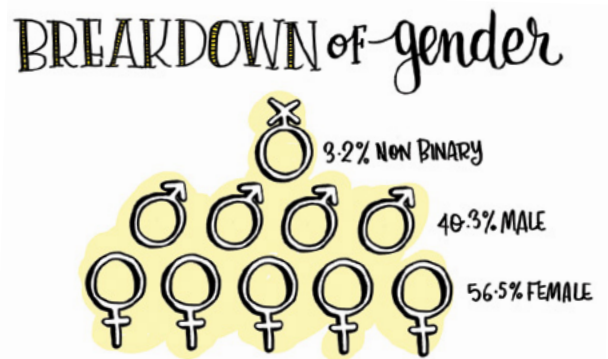
More specifically, of the 62 people we heard from in this research:

- 27** identified as Māori,
- 24** as Pākehā or European New Zealander,
- 11** as Pasifika,
- 2** identified as Asian and
- 4** gave other ethnic identities.

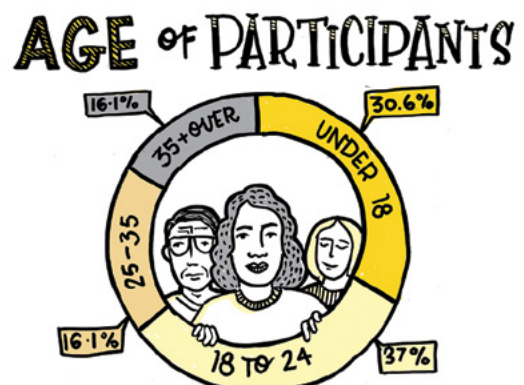
Some participants gave multiple ethnic identities.



- 25** identified as men,
- 35** as women and
- 2** as non-binary.



- 19** were under 18 years of age, another
- 23** were aged 18-24 years, the remaining
- 20** participants were over 25 years of age.



Thirteen participants with disabilities were specifically recruited for discussion groups and interviews. We didn't ask participants in the general discussion groups whether they identified as having a disability, including mental illness however some of these participants did describe their experiences of disability and mental illness as part of the discussions about barriers to digital inclusion.

We talked to 23 people living in provincial or rural areas of New Zealand (Westport and Kawerau), and 35 people living in urban areas (Naenae, Mangere and Manurewa).

Who we missed

Looking at our demographic information, we heard from more girls and women than we did from boys and men. Although we had a good representation of Māori young people and parents, we would have liked to have heard from more Pasifika New Zealanders. In addition, we spoke to two young people who identified as transgender or non-binary but did not speak to a focus group of LGBTQI+ young people.

Amongst the young people living with disabilities we interviewed most were quite highly educated. Our group of youth with disabilities did not include any Pasifika young people, or any people living remotely. We also did not hear from any youth with learning disabilities, though we spoke to the parents of a child with learning disabilities, and some participants in our focus groups identified learning challenges as having been a barrier to their digital inclusion.

Why does digital inclusion matter?

Internet as integral and essential

First and foremost, we learned that being able to use the Internet at an affordable price and in a time, place and form that is accessible, is an integral and essential part of daily life for most of the New Zealanders we spoke to. This was the case even those who faced significant barriers accessing the Internet.

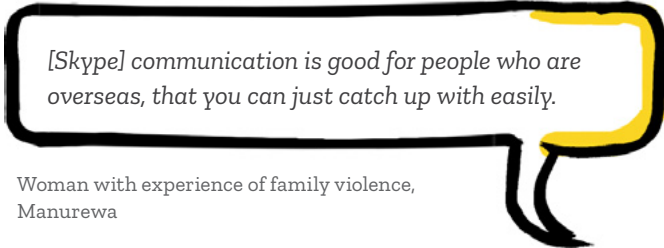
When we asked participants what they used the Internet for, one young person in Westport suggested ‘a better question might be, what don’t people use the Internet for?’ A woman with experience of family violence also responded to that question by asking, ‘what haven’t I used the Internet for?’

Participants of all ages in this research used the Internet as a core part of their social and family connection and communication. They also used the Internet for formal and information education including ongoing adult learning, entertainment, information and news, employment, shopping, banking and a myriad of official processes.

People used the Internet to file birth certificates and tax returns, to apply for jobs, income support benefits, study allowances and loans. They went online to search for jobs, and to find houses to rent. They did their banking online, paid fines and deposited bonds for their rental homes. They used the Internet to do research for school and university assignments, to email their teachers for extensions and then to submit those assignments when they were done.

People used online maps to find their way around, online reviews to choose which product to buy and online stores to buy music, books, shoes, clothes and all sorts of other things that they couldn’t find in their local stores.

Unsurprisingly, the people we heard from used social media a lot. They primarily used Facebook, Snapchat, Instagram and Twitter to connect, communicate and keep up with friends and family, in New Zealand and abroad. Internet-based calling services like Skype, Zoom or WhatsApp calling were used by our participants to talk to friends and family, especially people overseas.

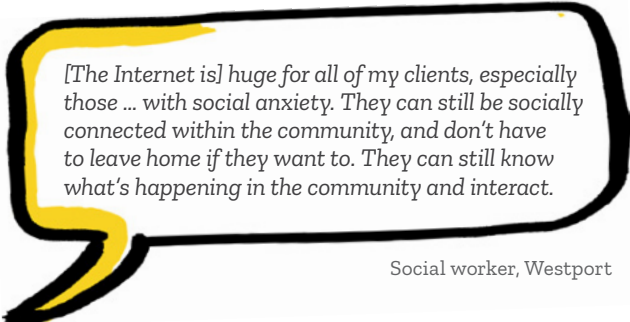


[Skype] communication is good for people who are overseas, that you can just catch up with easily.

Woman with experience of family violence, Manurewa

People also used social media to meet new people who shared their specific interests, to follow the news and to get inspiration for their creative passions and hobbies. They used online videos to entertain themselves and their children and to learn everything from New Zealand history to how to apply make-up. They played online games for fun and social connection.

A young man who experienced social anxiety said that being able to access the Internet meant he was able to remain socially connected during the times when he wasn’t able to leave his home and socialise in person. As a social worker in Westport explained:



[The Internet is] huge for all of my clients, especially those ... with social anxiety. They can still be socially connected within the community, and don’t have to leave home if they want to. They can still know what’s happening in the community and interact.

Social worker, Westport

Young people with disabilities also described the Internet as being a critical technology to enable their full participation in social and public life. The same social worker in Westport also said that being able to connect digitally with her clients, especially those with disabilities, was essential.

Disabilities, absolutely. We don't have public transport. Sometimes it might be raining, I can send a message and they'll get it right away, they don't need to come in.

Social worker, Westport

Young people in Kawerau talked about being able to meet and connect with other young people around the world who shared their particular interests. This provided them with a community in which to feel understood and encouraged in their specific pursuits in a way which may otherwise have been difficult in a small town.

This was also true of young people with disabilities, who used the Internet to connect with young people who had similar impairments to them, around New Zealand and around the world. For some people however, digital media presented particular challenges as a means to connect with people with whom they might have shared experiences.

[T]here is a group of people who are autistic and blind, lots of them are non-verbal too, scattered all over the country. Also a lot of us struggle with social media connections online. I'm fairly okay with it although I struggle with it from the vision point of view. Umm, but a lot of autistics are very bad at anything other than face-to-face communication even if they are verbal.

Young person with vision impairment and Autism, Wellington

One advantage of digital technology, which only came up in the conversations with young people with disabilities, was the potential of smart home technology to make life easier for people with a mobility impairment.

I hate coming home and it's cold and the house is all dark. I try to unlock the door and it's hard to do and you finally do it and you get inside and then try and close the thing and then find the light switch. ... You can have smart light bulbs and because they are linked into your WiFi and your phone becomes like a master key thing. So when you come home and you come in range of your WiFi network and it recognises that it's you. And it recognises that it's night time, so the lights come on. Isn't that cool!

Young person with mobility impairment, Wellington

Even when people told us they didn't use the Internet very often, when we probed further we discovered that they often were using the Internet regularly, but in ways that were so integrated into their daily lives they no longer really registered that they were going online to access things like Google maps or messaging apps on their phones.

Differences in motivations and uses

Different people told us that they used some aspects of the Internet more often, and for different reasons.

Unsurprisingly, parents, young people with disabilities and young people on the Independent Youth Benefit were more likely to have used the Internet for official purposes than other young people. This included high stakes activities like being notified of appointment times at WINZ by email, accessing medical records through ManageMyHealth and young people needing to check in regularly with their social worker to confirm that they were still eligible for their income support. One woman had used the Internet to work out what she needed to do to get a divorce from her husband who was in prison for assaulting her and her children.

Parents were more likely to use the Internet to research health conditions and many also said that they relied on online videos and games to entertain their children.

I like Google for diagnosis for illness, and sicknesses, and rashes, you know, for the kids?

Yeah, home remedies or just to try and figure out what might be wrong with the kids.

Women's refuge group, Auckland

Young people living in a small town talked about using the Internet to find communities of people who shared their 'niche' interests, whether this was poetry or Japanese anime.

A similar view was expressed by young people living in large urban areas. Although they might have access to a larger pool of peers, they still found that the Internet allowed them to connect with people who shared their interests.

For some people it's just more comfortable to connect online cos they can connect with people who are more like them.

High school student mentor, Mangere

Youth in Kawerau also said the Internet allowed them to aspire to a level of success that might otherwise have seemed unrealistic for a kid from a small town in rural New Zealand.

I suppose the mindset is that you can't be like that because we're from Kawerau. It's like nah you can, that's the whole point of social media, anyone can be a star or whatever.

Kawerau Youth Council



↑ Young people with disabilities said that accessing the Internet was often critical to their ability to connect and communicate.

The Internet offers a multitude of positives to assist youth with disabilities to live healthy, happy lives. The ability to research a condition, link up with other individuals living with it even if they're on the other side of the world, can be invaluable.

Youth with disabilities, Wellington

"I guess knowing that you are not alone," was a sentiment that recurred in the group of youth with disabilities. Having technology that enabled them to connect online was integral to youth with disabilities feeling competent and able to participate.

One participant who was a former refugee told us that she used the Internet for several purposes including; translating English terms into her native Spanish, staying in contact with her family in Colombia and keeping up with news and current affairs in Colombia, which tended not to be covered by mainstream news outlets in New Zealand.

I don't speak English, so it's easier to use the Internet to translate And my family live in Colombia so social media is very very important, because that is my way of communicating with them.

Former refugee, Wellington

Staying in contact with her family was particularly important to her, for obvious reasons. She was forced to leave Colombia because her safety was under threat, and it was equally important for her family to have news that she was safe in New Zealand as it was for her to hear from them and be reassured that they were well.

Well I think that's a very important because for instance my mum, she's in Colombia and she's at a certain age that her health is in a frail state, so I need to check on her all the time. So yes, I think that I fall into that group. For me having that contact was very important as soon as I got here.

Former refugee, Wellington

She had also used the Internet to navigate finding housing and work in a new city.

For instance I registered myself as a tenant [with Housing New Zealand], I did it online. Also I used it to find a job, online sending CV's.

Former refugee, Wellington

Multipurpose use of platforms

Interestingly, participants described using some platforms for multiple purposes. YouTube, for example, was used by participants for learning purposes. This included academic and more general learning. Young people told us that they watched tutorials and documentaries on YouTube specifically related to their school or university studies.

I probably have learned more from YouTube than I have in school, or any form of education to be honest.

Māori youth in tertiary education, Kawerau

People also used YouTube to learn a vast range of life skills, including how to cook a chicken, how to tie a tie, how to mix oil and petrol for a line trimmer and how to lift weights. YouTube was consistently described as a source of learning.

I just watch a lot of meditation videos. Or 'how to witchcraft.'

Youth in tertiary education, Kawerau

I taught myself how to play the ukulele through Youtube.

Kawerau Youth Council

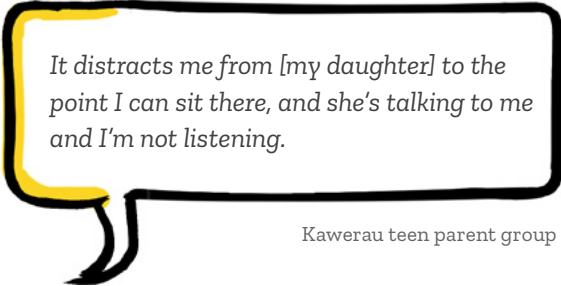
YouTube was also widely used by participants as a source of entertainment, including to entertain children.

The downsides of digital connection

At the same time as they described the Internet as being highly integrated into and essential to their daily lives, most participants said that they had concerns about being online.

These ranged from the risk of being scammed, hacked or bullied to the harmful impacts of being exposed to content which wasn't suitable for their age. There was a common feeling that being connected all the time came with downsides in terms of distraction and addiction.

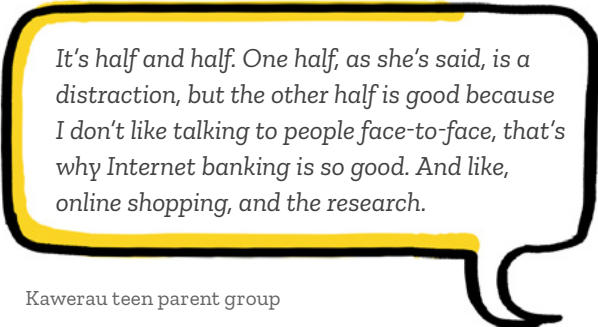
All of the teen parents we heard from worried that their Internet use was a distraction from good parenting.



It distracts me from [my daughter] to the point I can sit there, and she's talking to me and I'm not listening.

Kawerau teen parent group

However they also agreed that having Internet access helped them as parents, and as students.

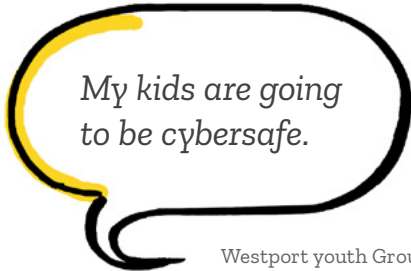


It's half and half. One half, as she's said, is a distraction, but the other half is good because I don't like talking to people face-to-face, that's why Internet banking is so good. And like, online shopping, and the research.

Kawerau teen parent group

While almost every group identified social connection as a core function of their Internet use, many also talked about the risks of social isolation from over-reliance on the Internet for communication.

Some teenagers described themselves as having had too little in the way of supervision and restrictions on their Internet use, and said they planned to monitor Internet use by their own future children more closely.



My kids are going to be cybersafe.

Westport youth Group

One of the themes, therefore, that emerged from this research was the importance of ensuring that all New Zealanders have the skills and confidence to manage their own Internet use, and that of their children, in a way that makes them feel safe and healthy.

It may be counter-intuitive to think of unlimited access to the Internet as a barrier to digital inclusion. But the participants in this research often cited unsupervised Internet use, or a lack of skills and confidence about safe use of the Internet, as being amongst the barriers to 'realising meaningful social and economic outcomes' from their Internet use.

And those times when the Internet saves the day

On the other hand, in our discussions we heard stories where Internet use had unexpected benefits to otherwise marginalised or vulnerable people. One example was the daughter of one of the women who had left a violent relationship. Her daughter had used the Internet to find her own alternative to school.

Actually my daughter used it to find alternative education, because she was not going to school due to severe social anxiety and truancy officers were involved. What's she's done is she's found an online accessible art course down in Wellington and she's just been accepted into it, and it's NCEA and everything, and she's done that herself at 15.

Women's Refuge group, Manurewa

Another example came from Westport, where a teenager had arrived in the town after leaving an unhealthy family situation. The social worker who interviewed him about getting social and income support asked where he was from.

He's from up north somewhere. How did he land in Westport? Two of his gaming friends live in Westport. So when he left home he came down here to find them. I asked, did you find them? Yeah, he's living with them. He didn't know them, but knew their avatars. Comes halfway down the country and introduces himself to people he knows in games and they took him in. ... Could've gone bad. He didn't know anything about them. But it got him away from home, he's on the right track now. So yeah, technology in that case, provided him a pathway, strangely.

Social worker, Westport

In summary, the Internet has become both integral and essential to the daily lives of most people. Many people worry they may be exposing themselves to a range of risks when they use the Internet, and most of those people do not feel confident in their skills and ability to reduce those risks. At the same time, the Internet sometimes provides an absolutely critical pathway to well-being for people who have very few options or resources.

On balance, it seems clear that digital inclusion is essential to the social inclusion of the vast majority of New Zealanders, and especially young people. Having the skill to navigate the Internet both safely and with confidence is essential to genuine digital inclusion. For children, in particular, this depends on having parents or guardians who can skillfully support them, including through limits and boundaries, to access the Internet in safe and healthy ways.

Barriers to access

The barriers people identified to Internet access fell into six broad categories:



Cost



Physical access

including infrastructure, accessible spaces and adaptive devices for people with disabilities



Motivation

including the motivation of parents and guardians



Skills



Capacity



Trust and safety

Financial barriers

When we asked people what got in the way of accessing the Internet, the first answer from almost every group was cost. Often the issue of cost was expressed explicitly in terms of the general financial hardship that some of our participants or others in their communities were experiencing.



We have a higher poverty rate here, so a lot of people are either unemployed and can't afford it or simply can't afford to pay for Internet devices, obviously they (prioritise) food and power.

Kawerau Wananga

If it came between the bills and the wifi, it would have to be the bills.

Kawerau teen parents

Some families struggle to pay for food and bills - this [the Internet] would be the last one on their agenda.

Westport youth Group

When they talked about the cost of getting online participants talked not only about the cost of monthly Internet connection, but also the cost of having and maintaining a suitable device. They talked about the start up costs of getting connected - especially to fibre where that was available - and how that might need to be repeated if they had to move houses.

The cost, in terms of time and money, of moving a connection was a theme that came up in many group discussions and interviews. Participants told us that people who are on low incomes in New Zealand are more likely to have to move house more often, and that this means they are disproportionately penalised by any costs related to moving or getting new connections. For people who are homeless, including young people who have no home of their own but move between the homes of friends and family, the barriers to digital connection are even greater.

Youth with chronic illness, who can use regular devices, also had major issues with cost. As one young woman with chronic fatigue syndrome explained "the energy I have means that if something is put out of my reach by money...I will just do without." This can lead to further social isolation.

Some participants talked about the additional costs of getting out of a contract if they needed to get a better monthly price, or the challenges of getting a new contract at all if they had been forced into any kind of insolvency proceeding.

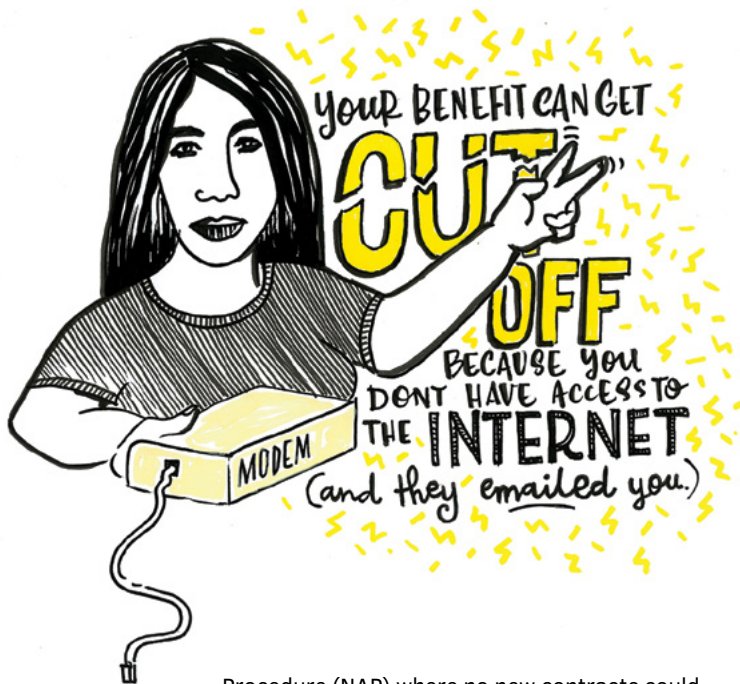


↑ One example was a woman who had been on a high data contract during a time of her life when she was in a well-paid job. Then she was faced with the parallel challenges of getting cancer and having to leave a violent relationship. During this period of her life she could no longer afford the more expensive plan.

The maze of financial barriers

One of the women with experience of family violence said the way telecommunications companies structured their contracts, combined with the requirement from WINZ and other government agencies that clients be online and regularly checking their messages, created a kind of maze or trap that kept women like her in a state of constant disadvantage.

For example, a woman could start out on a wifi contract that she could afford, but which became too expensive when her situation suddenly changed, for example by leaving a violent relationship. She might then be charged penalties for defaulting on payments, or face a default fee for leaving her contract too soon. Or as a result of a stack of financial difficulties in every area of her life, she might be advised to declare insolvency and enter a No Asset



Procedure (NAP) where no new contracts could be entered into for a year. This would mean she couldn't get a new Internet contract with another provider, so she could find herself stuck having to choose between staying on a contract she could no longer afford, or going without wifi.

Meanwhile, a lack of access to wifi could place her at the risk of losing income support or other MSD entitlements as a result of being unable to check her emails to see that she was due to report to an appointment at WINZ. She also might not be able to top up her power account, if it require an online payment. To get online she would have to walk up the road to a wifi hotspot, which would involve waking up the baby, or taking the toddler out late at night.

In short, a raft of different factors came together to make these women feel, as they put it, as though they were caught in a maze that had many more dead-ends than exit points. The women in the group agreed that digital exclusion operated in specifically discriminatory ways against women in their circumstances, although some thought it was more careless than deliberate.

They're not actually thinking about 'Who am I disadvantaging?'

Women's refuge group, Auckland

Whether the 'trap' was deliberate or not, these women proposed that it needed to be changed.

Disproportionate harm on most vulnerable

← Participants recognised that it cost money to provide Internet access, but they also struggled to understand how people on low incomes, and especially those going through times of crisis or transition, could afford to stay connected. They also pointed out that losing the ability to be connected could have a disproportionately disastrous impact on people in those vulnerable or tenuous times.

Your benefit can be cut off because you missed an appointment because you didn't have access to the Internet... because they emailed you.

Women's refuge

We have some strict guidelines that we have to contact [the young people receiving the Youth Payment], and if we can't contact them then their benefits get cut.

Youth worker, Westport

Overall, cost was the barrier to digital access raised most consistently in all group discussions and interviews. This was often framed in the context of wider issues like unemployment, low incomes, poverty and inequality, rather than simply as a problem of high costs.

Physical access

There were three distinct aspects to the conversation about physical access. One was about infrastructure; whether or not Internet was available in the part of New Zealand where the participants lives. The second was about the physical location and accessibility of free Internet services. The third aspect was that physical devices, platforms, software and websites needed to be accessible and adaptive to the needs of users with disabilities.

Infrastructure

Infrastructure tended to be raised as a potential barrier to digital inclusion only after groups had spent some time discussing financial and other physical, social and cultural barriers to Internet access. This probably reflects the fact that the infrastructure for Internet access is widely available in New Zealand.¹

However, there were some infrastructure challenges raised by participants specifically in the remote settlements and rural areas on the West Coast, and in the Bay of Plenty.

In the Buller Region around Westport, there are some small settlements and rural communities where people are still unable to access broadband. One teenager in our discussion group in Westport said she hadn't had any access to the Internet at home until she moved into Westport, relatively recently. Prior to moving into town she had lived in an area that didn't have access to broadband, or a 4G network. This had affected her education.

I only just got the Internet, didn't have Internet before I moved to town. ... Yeah, it got a bit hard. I couldn't do online homework they'd assign you.

Independent youth, Westport

In the Bay of Plenty, participants reported that there were some spots where there was no cell phone coverage, which meant that you couldn't access the Internet on your phone. This was particularly a problem when there was either no home Internet, or where the monthly home Internet contract had limited data which regularly ran out before the end of the month.



Because I live at my partners', and his nan only gets I think the 20 gig, and that runs out.

Teen parent, Kawerau

Without minimising the importance of extending the infrastructural reach of Internet access to all people in New Zealand, it would be fair to say that infrastructure was not the primary, or even one of the major, barriers to access identified by the participants in this research.

In general, people identified that barriers such as cost, trust and motivation were more influential in shaping how people were able to engage with the Internet, and that these barriers remained even when infrastructure issues were resolved.

One of the interviewees in Westport went to some length to make the point that focusing on infrastructure would be a mistake in terms of understanding the real barriers to digital inclusion in the Buller region, and also that a focus on infrastructure alone would be doomed to fail in terms of solutions.

The broadband speed, that's not it at all. It's great that we're getting that, but that's not going to turn the tide for potential users, they need more than that.

Community education advisor, Westport

1 <https://Internetnz.nz/sites/default/files/SOTI%20FINAL.pdf>

Physical access to free Internet

The second aspect of conversations about physical access was about being able to access “digital devices and services at a time and place convenient to people”.

In the discussions and interviews, we heard a lot about the options available for free Internet access. These were widely seen as being a good service, but people also faced barriers trying to access them.

You can get wifi at phone booths. Bus stops. McDonald's. Wendy's. I think all the food outlets? The hospital has wifi, but they only give you one hour.

Women's refuge group, Auckland

Something I found out the other week, I was sitting in East Tamaki Health Care and there's free wifi in there.

Women's refuge group, Auckland

Most of the school students we spoke to had Internet access at school, although some schools had filters that prevented students (and often staff as well) accessing certain sites including social media. Some of the students told us that they had become fairly skilled at find their way around these filters, others thought the filters made sense. One participant who was both a teacher and the parent of a child with learning support needs, felt that these filters were creating unnecessary barriers to students' digital access to useful resources.

It seems strange but I know it happens at a lot of schools. I think it's a control thing. And people being a little afraid of the Internet and knowing what kids might access. And a side of that is that they put barriers up in front of stuff that would actually be good for them.

Teacher and parent of child with disabilities, Wellington

Most people cited their local library as a place where you could access the Internet for free, and in Westport we learned that one of the social work providers left their wifi on overnight and in the weekend so that their clients could come and use the Internet outside of office hours.

I know our clients can still access wifi, we leave it on. I know I've seen some of them sit out there in the weekends.

Social worker, Westport

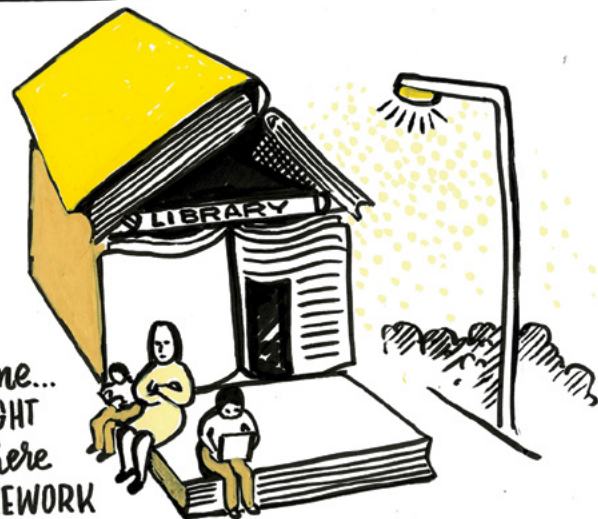
A tertiary education provider in Kawerau did the same thing, although they had started turning the wifi off after 10pm to prevent young people from hanging around the campus late at night.

Parents of young and school-age children, in particular, told us it is often hard for them to get to places where free Internet was provided.

They won't give you access in your home so you have to go out, but what if you have babies?

Women's refuge group, Auckland

I take my kids to the LIBRARY. We sit OUTSIDE because we got NO WIFI at home... It could be LATE AT NIGHT and we'd be sitting there while he does his HOMEWORK



Accessing free Internet is also difficult for people with mobility issues, whether because of illness or disability.

It's free, but not in your home. You have to walk to a pay phone or to the library. I couldn't even fricken walk a couple of months ago. How could I go outside to find a free WiFi?

Women's refuge group, Auckland

One woman told us that when she was going through chemotherapy treatment, she lost the ability to access free Internet at the local library.

When I'm on chemo I can't just go out and be around everyone else because I'm immunosuppressed. I don't want to get sick!

Women's refuge group, Auckland

Another participant relied on free Internet at the library to do her school work and to talk with her family in Colombia, and found this was challenging because of the time difference.

[If I had Internet] I wouldn't have to be going out rain or shine to do homework at the library, you know? I could adjust the times in a more suitable way to be able to talk to my family [at a time when they are awake].

Former refugee, Wellington

People also cited bad weather and lack of transport as other barriers to accessing the free wifi provided in their communities.

Yeah, and when you really need to get hold of someone and then you have no credit, and it's raining and you don't have a car.

Women's refuge group, Auckland

In summary, most of the people we heard from appreciated having access to free Internet and used it regularly. But certain groups faced significant barriers to accessing these services including timing, transport, mobility and family-needs.

Accessible technology

In the conversations with young people with disabilities, financial barriers came up in relation to the cost of adaptive devices and software. The disabled youth we heard from felt very comfortable in their ability to get online when they had accessible technology. Most of the participants had received digital teaching at school, and some through resource teachers of vision or hearing (RTVs/RTHs).

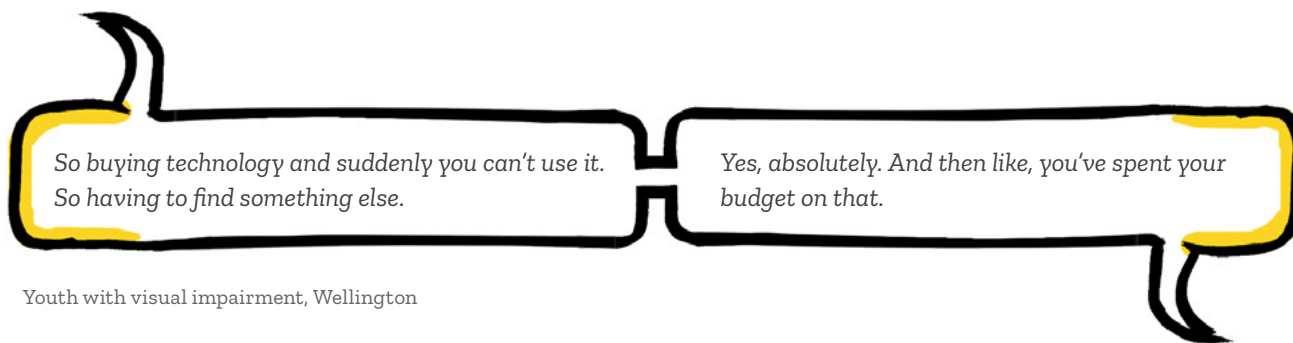
In general, a theme of the discussions with young people with disabilities was the challenge of accessing funding in order to keep connected via devices and software that was adapted to their impairments.

I have a beautiful, beautiful Surface Pro, which I got when I was first losing visual ability. Now I can't fricken use it, because it's not accessible. Like we can't make it large enough without too much movement. So I have a very expensive paperweight!

Youth with visual impairment, Wellington

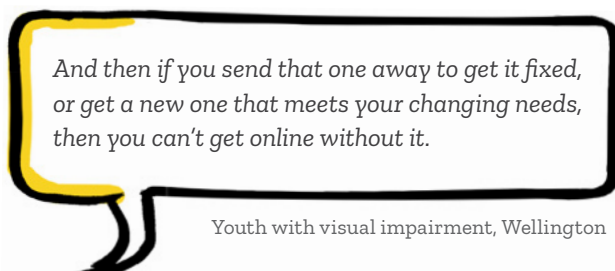
If young people required adaptive software such as a screen reader or magnification programme or a device such as a headwand, they had usually received it. Although sometimes this was after a long wait, assessment period or going through multiple devices to find a good fit.

For people whose conditions change, for example a young woman with a degenerative visual impairment, their adaptive technology requirements changed as their condition changed, and this made the cost of digital access more difficult to meet, even where there is some funding available.



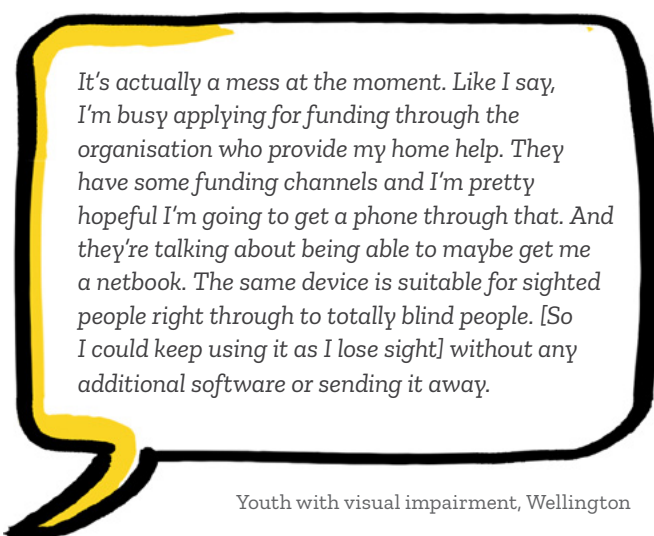
Youth with visual impairment, Wellington

Another challenge for people whose adaptive technology needs changed as their conditions changed is that if they did send their current, no longer suitable, device away for upgrading or replacement through publicly funded processes, they found themselves unable to get online in the meantime. Often borrowing technology was not an option as devices are not universally accessible.



Youth with visual impairment, Wellington

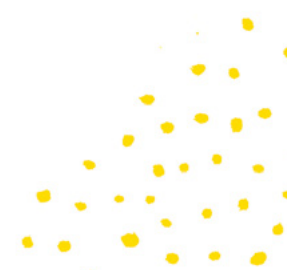
Participants did, however, tell us that there were new devices becoming available which would allow them to continue using the same device even as their conditions changed, the challenge was just going to be securing the funding for these devices.



Youth with visual impairment, Wellington

Difficulties arose when specialist technology malfunctioned or broke. Factors such as cost of repair, limited grants and no spare technology being readily available to loan resulted in youth not being able to be online for periods of time. This had more implications than the same issue for their non-disabled peers because it could feel more isolating when you are fully reliant on technology to schedule your day, navigate, communicate and socialise. Some youth struggled at a slower pace and compromised other parts of life because there was no alternative.

Once online, people with disabilities continue to face barriers caused by inaccessible software, websites, platforms and content. This can range from a lack of closed captions on video content to apps and websites that are incompatible with speech and magnification software used by people with visual impairments. For speech software that might be not including alternative text to describe images or labels for heading and other formatting elements, or using inaccessible video or Flash content. For magnification software, it might be low contrast text or buttons, or pop ups or banners which don't account for text magnification. A lack of online content in New Zealand Sign Language also excludes some people.



Motivation

Motivation is a foundation of digital inclusion. Without a reason to get online, it's easy to understand how any barrier could become insurmountable. So we began all our conversations by asking people what they think people use the Internet for, and what they would use the Internet for, assuming they had access to it. An overview of the responses to that question is presented in the section on Internet use, above. In this section we'll explore some of the ways in which a lack of motivation acts as a barrier to digital inclusion.

Lack of general hope and motivation

↓ One of the themes to emerge in discussions was the impact on a person's motivation generally of having little in the way of hope or aspiration for their lives. People told us low motivation and self esteem undermined motivation to learn new skills, including digital skills.



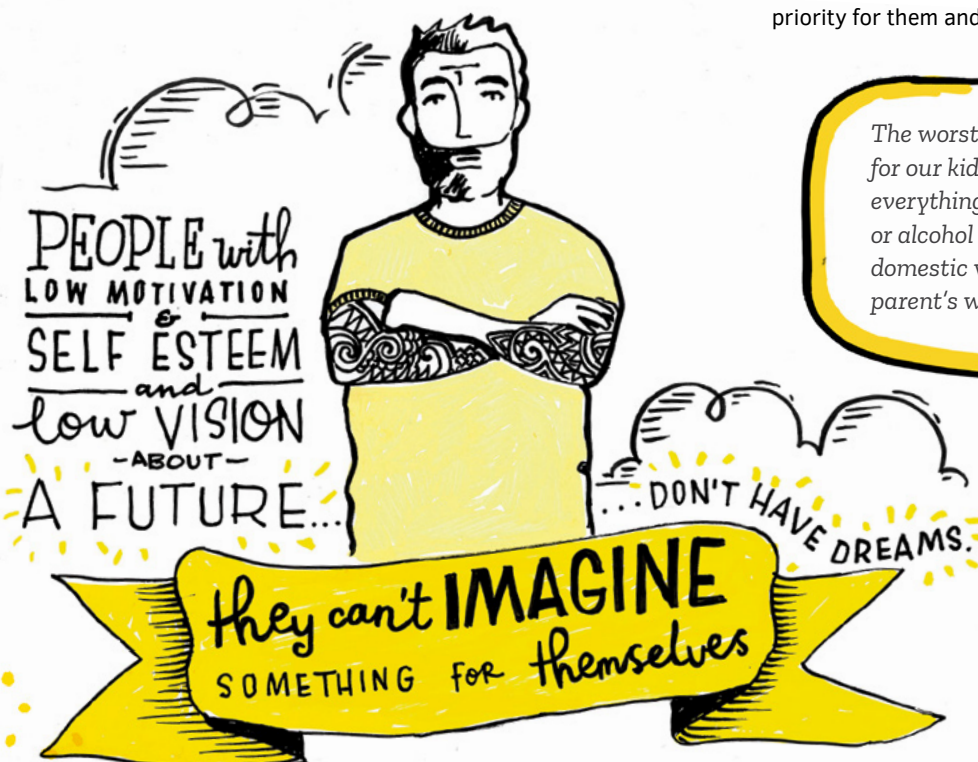
People with low motivation and self esteem and low vision about a future they might have. There is a whole section of our population. ... I'd almost call it hopelessness, but that would imply they had hope. And they didn't have it. I don't think they ever did have hope. ... They don't have dreams, they can't imagine something [for themselves].

Community education advisor, Westport

In a similar vein, a youth worker in Kawerau pointed out that some young people in his community are exposed to a wide range of harmful behaviours, and that this made accessing the Internet - or staying safe online - a low priority for them and their parents.

The worst case end of the spectrum for our kids is that they are exposed to everything in terms of social behaviour, or alcohol or drugs. They're exposed to domestic violence, so the least of the parent's worries is Internet safety.

Kawerau
Wananga



Overall, however, the people we talked to were motivated to access the Internet. The biggest challenges to their motivation came from other people who had influence over their access, or from persistent financial or physical barriers to access which wore down their motivation.

But in all of the communities we heard from people who work with young people and their families who are facing multiple social and economic challenges, we were told that those broader challenges tended to erode and undermine motivation in many areas, including motivation to get online.

Parental motivation to access

One participant proposed that a lack of motivation in children could be influenced by the examples they saw in their parents use of the Internet particularly, whether their parents used the Internet in their employment.

I guess what I mean is that you've got parents that are office workers working in the public sector, or academics, or private sector or whatever, there's that early role modeling and you see it's at least useful for coordinating your work activities. But if you don't have that role modeling at home it's hard to see that world.

Youth worker, Naenae

On this topic, quite a few participants raised a lack of motivation on the part of their parents or guardians, often grandparents, as a barrier to themselves accessing the Internet.

My parents, they grew up without the Internet, so it's a thing they think you don't really need it. It just wasn't a thing in their generation.

Mangere, high school student

Parents don't necessarily value what we do here because technology itself isn't really valued other than for leisure.

Naenae, youth worker

Alongside their guardians' lack of motivation to provide or facilitate access to the Internet, some young people described their caregivers as lacking understanding about the risks of the Internet.

I was raised by my grandparents...they didn't understand what the Internet was, or they weren't aware of the risks so we probably saw a bit too much growing up. It wasn't recently until the last year that they were all like 'the Internet's a crazy place.

Kawerau Wananga

While some young people described a lack of motivation in their parents as a generational issue, others framed it more as a cultural difference.

I'm third generation NZ-Samoan and my grandparents migrated here. For them, due to religious beliefs as well as some cultural beliefs and upbringing, there was a huge barrier, a massive barrier. So there's a bit of cultural barrier as well. New Zealand is very westernised, and my cousins back home are still climbing trees, fishing for their kai. So yeah, I can understand that.

Kawerau Wananga

However, several participants said that their parents' interest in and understanding of the important of the Internet had changed over time.

They're quite old my parents, close to 60, and at first, yeah they were kind of skeptical about the Internet until they took the time out of their lives to try and understand how the Internet works and all the safety and stuff around it.

Kawera, Wananga

Another participant said that if her parents, and others in her community, understood the role that the Internet played in education they might be more motivated to ensure their children had access.

Even the understanding that there is educational value in it and that yeah, I'm doing my homework because that is what a lot of [Pacific] families prioritise but that doesn't look like what it used to look like.

Youth mentor, Mangere

When asked what motivated her parents to learn about the Internet, this young woman from Kawerau said she thought it was them seeing on TV how technology was evolving.

And even seeing their kids and grandkids on there. Their faces stuck in their phones.

Kawerau Wananga



Trust and safety

Many of the participants in this research were concerned about the potential risks or harmful results of being online. The first concerns to be raised by most of the groups of young people were scams, catfishing and cyberbullying.

- Being catfished.
- When they steal your money.
- Bullying.
- Being spied on.
- False advertising.
- Getting scammed.
- Suicide from bullying.
- Viruses.
- False information.
- Propaganda.

A list of things young people in Naenae worried about when they used the Internet



Well I came here under the refugee quota and yes I'm safe here, but my family are in Colombia, and I wouldn't like the people that are the reason for me to be here to find out that I'm well and I'm safe. No, I would like to keep that secret.

Former refugee, Wellington

Physical safety

At the extreme end of the spectrum, young people in several locations shared stories they had heard about people being killed, or almost killed, as a result of Internet use.

Don't use TradeMe cos this guy got killed. Went over to buy an item and he got ambushed, and almost got shot.

Youth, Naenae

Some participants faced very specific risks when using the Internet, in particular some of the women with experience of family violence wanted to avoid contact or being contactable by their ex-partners or their families. Likewise the former refugee we heard from went to considerable length to be sure she could not be located by the people back in Colombia who had threatened her life and forced her to seek refuge in New Zealand in the first place.

All these women were relatively confident in their skill at keeping safe in these specific ways online, although the women who had children with their violent ex-partners did say that they sometimes struggled to keep their children from connecting with their exes online or giving away information that could expose their mothers online.

The former refugee participant, in particular, had very clear practices for maintaining her privacy and safety online. She did not use public social media platforms like Facebook, for example, and only contacted her family via secure messaging services with end to end encryption.

[T]hat's why I limit it to WhatsApp, the platform that I use to communicate with my family, because yeah, it is a bit of a sensitive issue. Yes, I do have those skills. I think that I do a good management of the Internet.

Former refugee, Wellington

Scams and pranks

Participants told us that they were concerned about the risk of financial scams online, and some said they had personally been victims of digital scams or theft.

There was a couple of months back where some money was taken out of my bank account, it was only 40 bucks so it was alright, but it's still money right? That was a concern.

High school mentor, Mangere

One of the most common online risks identified by young people was 'catfishing'. This term was used to cover a wide range of misleading activity online. This included pretending to be someone else at school and using that fake identity to 'prank' someone by pretending to like them, or trick them into agreeing to a date.

The term 'catfishing' was also used to describe an older man assuming the false online identity of a young woman to trick young people into engaging with him, and eventually meeting in person, something that was seen as potentially extremely risky.

Emotional wellbeing

Cyberbullying was a common theme in discussions with young people. Most of the young people we heard from told us that they had witnessed cyberbullying, of varying degrees of seriousness. This included misuse of private information, for the purpose of online harassment.

I had a friend who was in a relationship with someone and they sent pictures to each other and around the time of their breakup the guy sent her pictures around.

Youth, Mangere

Another observation was that there was a lot of negative content online, and being exposed to it, even if it wasn't targeted at you in any way, could have a harmful effect on your emotional well-being.

Exposed to things that are just not positive, that are just there to knock you down not in a targeted way just broad things like news stories and negative information to focus on.

Naenae Youth Group

Some participants also expressed concern at the addictive nature of social media.

I think addiction as well. People are addicted and that's why people are always like 'Oh I'm shutting down my Facebook for exams.'

Mangere, youth

False and misleading information

Another risk identified by participants was that of being misled by false information. Some people said they had been taught at school how to distinguish between good quality and poor quality information online. However, when probed on this, one group of students gave a response which suggests that they may have formed overly simplistic, or simply inaccurate, ideas about how to assess the credibility of information online.

Don't use Wikipedia, and you'll be okay.

Have a look at the website address itself and know that if it's a government website then it's more trusted than Wikipedia.

Both high school students, Mangere

In other conversations, participants said they were aware of the risk of misinformation online, but generally only those who had studied at university had any confidence in their ability to reliably discern which sources of information were credible and which were not.

Overall, despite widespread awareness of the risks of being online, many participants said they hadn't really changed their behaviour as a result of that awareness.

→ Some people said they had taken steps like adjusting the privacy settings on their Facebook accounts and making sure that the content they posted on Facebook could only be accessed by the people they chose. Others said they hadn't really made any changes, despite a lingering sense that they probably should.



I think
PEOPLE WORRY
about
RISKS ONLINE
but
STILL DON'T
UNDERSTAND
how to
PROTECT
themselves
AGAINST IT.

Skills

For the purposes of this research we focused on the following digital skills:

- getting online (e.g. getting connected to the Internet and finding your way to what you want)
- creating content (e.g. writing an email or putting videos or photos online)
- solving problems online (e.g. what do you do if you can't get a webpage or file to open?)
- staying safe (e.g. protecting your identity and private information).

Overall, the participants in this research rated themselves fairly highly on most digital skills, although in keeping with their comments about online safety and trust mentioned above, they tended to give themselves lower rating for their skills in keeping safe online.

In many groups participants also gave a lower rating for content creation skills, and when probed on this, the reason given was generally a low level of literacy rather than specific digital skills.

Yeah, my brother, he doesn't really read.

Teen parent, Kawerau

Huge literacy issues. I mean for instance we work with a local fishing school. Students from all over come to a residential-based school. They can all use a computer but most can't spell or write. They all know how to turn on a computer, go to YouTube. That's the first thing they all want to do. 'Can we go to Facebook?' But basic typing skills? We've lost that. We're losing it very quickly.

Community education coordinator, Westport



The same person expressed concern that young people didn't see basic literacy as being important, because she believed it was affecting their job prospects.

Hugely. Most employers expect reasonable literacy skills. Even when we are doing CV classes, I try to support them to write it rather than expecting them to write it themselves because their literacy skills coming from school are - I hate to say it - quite bad.

Community education coordinator, Westport

In this interview and in other discussions, people pointed out that basic literacy was needed to navigate official websites, and that this wasn't always something they or their peers were able to do.

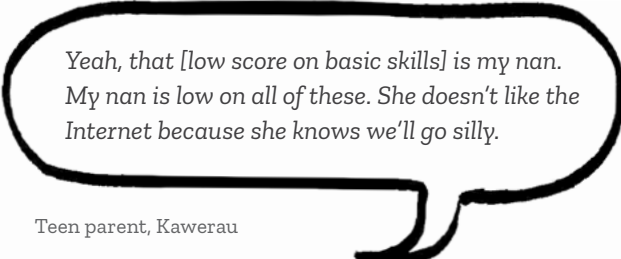
Being able to read those questions. They'll ask me 'What does a full name mean? What is DOB?' We take it for granted. Young people don't have a clue.

Community education coordinator, Westport

It is worth noting that although a lack of skills was not often identified as one of the main barriers to digital inclusion, participants nonetheless often suggested education or training as a solution to digital exclusion. Reasons for this mismatch between the assessment of the problem and the proposed solutions are considered and discussed in the section on systems analysis below.

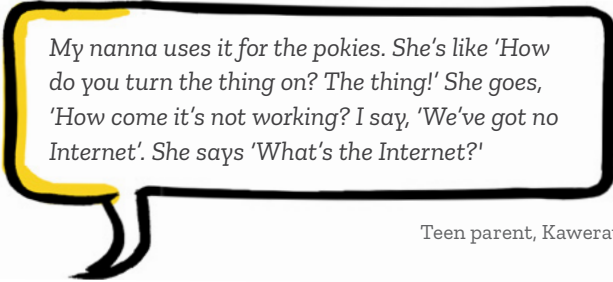
It is also worth pointing out that we didn't test the participants on any of these skills, so this is a reflection of how they rate their own skills. In some instances the discussions did reveal that where participants rated themselves highly on a skill (e.g. distinguishing between good and poor quality information online), when asked to give examples of the skill, they offered either a fairly basic understanding of the issue, or, in some cases, an inaccurate belief.

Some of the younger participants rated their parents, and especially their grandparents, as having less skills in all four of these areas.



Yeah, that [low score on basic skills] is my nan. My nan is low on all of these. She doesn't like the Internet because she knows we'll go silly.

Teen parent, Kawerau



My nanna uses it for the pokies. She's like 'How do you turn the thing on? The thing!' She goes, 'How come it's not working? I say, 'We've got no Internet'. She says 'What's the Internet?'

Teen parent, Kawerau

Capacity

Another theme to emerge from these discussions, which fell outside of the framework we derived from our working definition of digital inclusion, was the barrier to access created by a lack of capacity.

Time

People told us that they didn't have time to keep up with digital platforms and all the new forms of digital communication. For example, we heard from some parents of young children that they found it hard to use the Internet as much as they felt people expected them to, because of the time pressures of parenting, working and generally staying on top of their responsibilities.

One sole parent told us that she struggled to find time to check the updates her son's school posted on Facebook and that she had on several occasions missed out on information about events at his school that she should have known about.

I don't know where people are finding the time, I'm a solo working mum. I've got so much to do. ... there's a whole expectation of being connected and that responsibility falls to you as a parent ... I don't have time in my day.

Mother, Westport



Energy

Capacity was also an issue raised by people with disabilities, whose capacity to access and use digital technology was in some cases limited by the additional drain on their energy caused by chronic health issues, pain, learning to use new adaptive technology and other issues.

Essentially as soon as I'm on a computer, the clock is ticking for how long it'll be till it makes me sick. Cos I don't have the hang of using only a screen reader yet and I'm really struggling with using it on the computer I have access to. ... I pretty much do online what I need to do for coordinating my life and for my sanity and my obsessions when I'm in autistic mode. I'd love to know more, read more about what's happening in the world...but I just don't have the spare-ability.

Young person with disability, Wellington

Resilience and problem-solving

Even if someone is motivated to access the Internet, most people will at some time face difficulties in the process of getting online. Examples could be having to persevere to get hold of a telecommunication company, or facing a delay in getting connected, negotiating their way onto a contract despite a history of insolvency, or encountering technical problems once they are online.

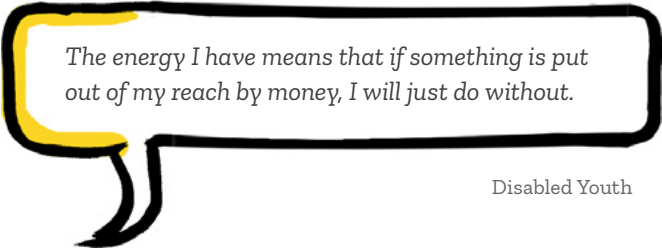


I've been waiting since December [five months] for my WiFi to be connected.

Women's refuge group, Auckland

A person's capacity to recover quickly from those difficulties is often described as resilience. Where difficulties and barriers are significant, resilience also needs to be higher than average. Resilience can therefore have an impact on digital access.

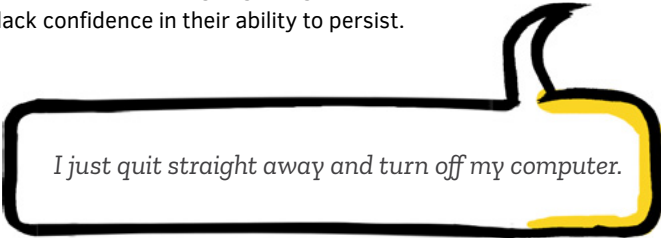
Some of the young people with disabilities told us that their ability to persist in the face of barriers to digital access was reduced by the effect of their disability on their health and energy levels.



The energy I have means that if something is put out of my reach by money, I will just do without.

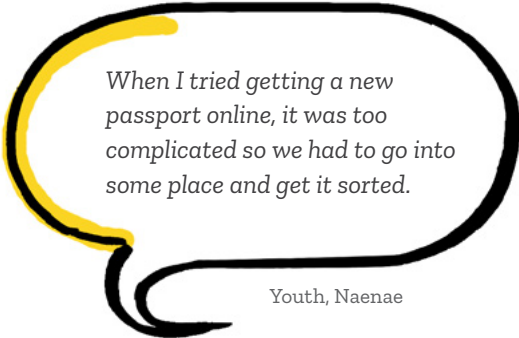
Disabled Youth

In our discussions, we asked people how they would rate their ability to solve problems, or to persevere when they encountered challenges online. What we heard was that while some people are fairly confident in their ability to overcome challenges getting online, others lack confidence in their ability to persist.



I just quit straight away and turn off my computer.

Naenae Youth Group



When I tried getting a new passport online, it was too complicated so we had to go into some place and get it sorted.

Youth, Naenae

Researchers in New Zealand have suggested that resilience is better thought of as a process, rather than an event or trait.

'Resilience also evolves over time, with adversity often leading to responses that lead to further adverse outcomes.'²

This echoes what we heard from participants, which was that the more adversity they faced in accessing the Internet, the more likely they were to respond by stopping, which in turn led to the further adverse outcomes which come from digital exclusion.

2 http://www.superu.govt.nz/sites/default/files/Journeys-of-resilience_0.pdf

The impact of digital exclusion

People described the impact of not being able to access the Internet in terms of exclusion, isolation, powerlessness and limited opportunity.

My kids won't actually come over and stay the night because I don't have wifi and they're so connected.

Women's refuge

MyIR, Realme, they can't access them - [there's an] expectation that that's how they get in the information if they're on the benefit - so unless they go to the library which is free or the Westport hotspot they really struggle with that stuff.

Community education coordinator, Westport

It's the loneliness, stuck at home all the time with two little girls.

Women's refuge

A lot of schooling is done via the Internet. Whether it's school notices or projects at school. Can't do homework if no Internet at home.

Youth worker, Westport

For some groups of participants, losing digital access also meant losing access to other essential activities. For youth with disabilities, a lack of digital access could mean time away from accessible education, which put pressure and stress on the young person and whānau. Likewise, a lack of data and GPS for navigating undermined the independence of disabled youth, and furthered the isolation some feel. Using apps to navigate was particularly important for vision impaired youth. Finding free WiFi spots was an important theme in many conversations across impairment types.

Participants also emphasised that losing the ability to be digitally connected could have a disproportionately disastrous impact on people in vulnerable or tenuous times, or when moving through a life transition.

I can't contact my kids, I can't apply for a benefit. I basically can't do anything without it. I feel disempowered.

Women's refuge

This was a significant theme in the discussions and interviews, and came from people who were referring to their own personal experience, people who had seen this impact on their friends and family and people who worked with people during times of stress and transition. These diverse participants agreed that the very times when you were most likely to lose digital connection - e.g. when leaving a violent relationship or when leaving school with no job to go to - were also the times when that lack of connection could have the most negative impacts.



Digital exclusion and social exclusion

What is social exclusion?

Before we talk more about digital exclusion, it is worth considering the broader context of social exclusion, which has been described as a concept in need of definition.³

“Social exclusion” is a contested term. Not only is it used to refer to a wide range of phenomena and processes related to poverty, deprivation and hardship, but it is also used in relation to a wide range of categories of excluded people and places of exclusion.”

Along with the challenges of a concept being used to refer to a wide range of diverse people and phenomena, the metaphor of exclusion has been identified as problematic because of the way it conceptualises society as “*a bounded space with a normative centre and a problematic periphery*” and the way that this makes moving everyone towards that centre the aim.⁴

Another term which has been used in the past is ‘digital divide’ but this also has limits as a metaphor. A divide presents the image of two groups of people divided by either a gap or a barrier. Whereas in reality the same person can move between states of access/exclusion depending on changes in circumstances including in the form of life crises. An example of this would be a confident young Internet user who moved onto an Independent Youth Benefit, moved in with friends and then had to move out of that home - leaving him with limited access to the Internet and financial difficulties getting data onto his phone.

What is the connection between social and digital exclusion?

In 2016, the Scottish government funded a study⁵ into the role of digital exclusion in social exclusion. The study noted changes in how digital exclusion is defined. Rather than the binary divide between ‘user/non user’ and Internet ‘haves/have nots’ these terms were being replaced with an exploration of the gradations of Internet use.

The study noted that the relationship between digital and social exclusion remains poorly understood.

‘Digital participation can help to mitigate social exclusion by introducing disadvantaged groups access to the benefits of Internet use. However as long as social inequalities remain offline these will translate into inequalities online as those who are socially excluded are less likely to have access to the Internet and lack digital skills.’⁶

This is consistent with the observations made by participants in this research who consistently identified offline social inequalities as barriers to digital inclusion.

3 <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.627.6786&rep=rep1&type=pdf>

4 <http://journals.sagepub.com/doi/abs/10.1177/0957926508088963>

5 https://d1ssu070pg2v9i.cloudfront.net/pex/carnegie_uk_trust/2016/09/LOW-2697-CUKT-Digital-Participation-Report-REVISE.pdf

6 https://d1ssu070pg2v9i.cloudfront.net/pex/carnegie_uk_trust/2016/09/LOW-2697-CUKT-Digital-Participation-Report-REVISE.pdf

For example, participants told us that institutional racism could have an effect on whether they felt comfortable asking Internet providers for more flexible contracts or a restructure of debt repayments. In a discussion between a Pākehā social worker and a group of predominantly Māori women with experience of family violence they spoke about whether they would call a company to ask for a repayment plan.

My question to you would be ... if somebody sent you a letter or whatever and said give us a ring, give us a ring and we'll arrange repayments ... would you do that, would you ring them?

Social worker

No... it's a put off.

Woman with experience of violence

That's our privilege, that's [my] right... cos [I've] got a white people voice right, that's what it's like and we got a culture of, we know how to advocate for ourselves...

Social worker

I agree there.

Woman with experience of violence

Digital exclusion - a systems analysis

To understand the ways in which social exclusion can be at once a driver, a symptom and a result of digital exclusion - and vice versa - it is helpful to consider digital inclusion as part of a wider ecosystem of well-being.

Scientists and researchers from many disciplines over many years have highlighted that wellbeing is the result of interacting and complex factors, but that the wider socio-economic, cultural and economic conditions in which people live are key to understanding differences in economic, social, physical and psychological well being.

A systems analysis of digital exclusion helps us see how the wider conditions of people's lives, for example the economic and political paradigm, gender biases, racism and poverty, set up the living and working conditions people experience, the community resources they have access to, and eventually people's behavioural responses. All of these factors together determine the overall wellbeing of people and their communities.

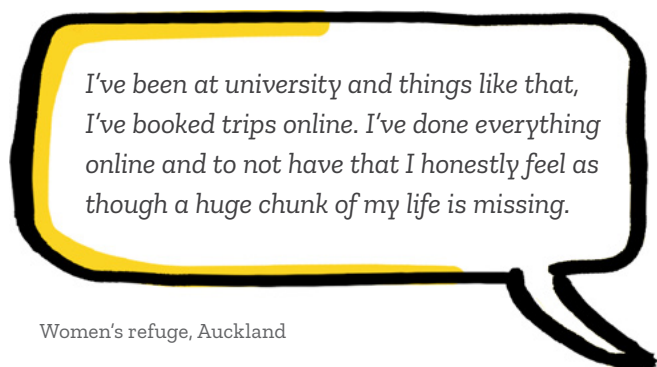
Not only is there a cascading effect of these wider conditions on people's position in society, but there are feedback loops as the wider conditions affect people's willingness to do anything to change those conditions.

Social exclusion is not, alone, a sufficient explanation for digital exclusion, but is an important lens through which to consider and make sense of the information that came through these interviews and discussions.

It was clear in our conversations that some people have the skills, confidence and motivation to use the Internet in ways that would improve their lives - socially and economically - and the main barriers they are facing are specifically around financial or physical access.

An example of this would be the young woman who had come to New Zealand as a refugee. She was confident in her skills, and motivated to use the Internet in specific ways, but because she couldn't afford a connection at home, she relied on public free wifi, which wasn't always convenient because of the time difference between New Zealand and her home country.

Another example would be a woman who had used the Internet regularly and confidently as part of her professional and personal life before her economic and social situation was radically altered by her need to get out of a violent relationship.



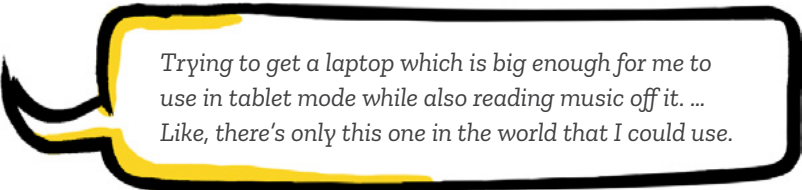
Women's refuge, Auckland

She had the skills, the confidence and the motivation to use the Internet, but faced a variety of financial barriers, which now made it difficult to get online. Those barriers included the front-end costs of getting connected (connection fees and deposits on devices) as well as the ongoing costs of Internet-enabled devices and the Internet itself.

What was striking about her situation was the many ways in which losing digital access had made all the other challenges she was navigating more difficult, including finding secure housing, employment and childcare and accessing health care and income support.

The women we spoke to told us that when they were not able to access the Internet regularly, things often got worse. They might not see an email from WINZ informing them of an appointment which, if they missed it, could result in their income support being suspended. Or they might need data to run the phone app they use to manage their electricity, meaning they can't top up credit for power to heat the house.

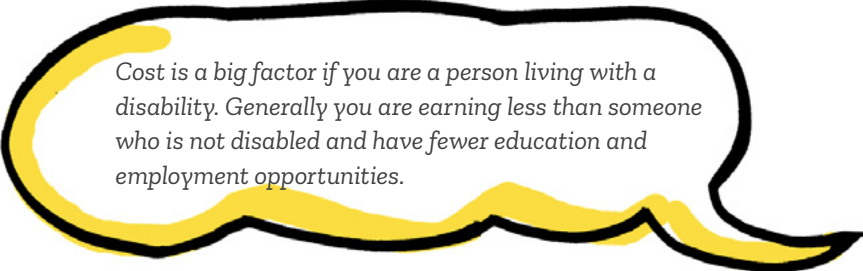
Another example of someone facing primarily financial barriers to her digital inclusion would be a young vision impaired woman who felt motivated, skilled and confident to use the Internet but who could not do so without a specific device which was very expensive in New Zealand.



Trying to get a laptop which is big enough for me to use in tablet mode while also reading music off it. ... Like, there's only this one in the world that I could use.

Vision impaired youth

One of the main challenges identified by youth with disabilities was cost, and being unable to afford the equipment or technology best suited to the impairment someone has. But even the usual costs of Internet access could be a barrier for people with disabilities.



Cost is a big factor if you are a person living with a disability. Generally you are earning less than someone who is not disabled and have fewer education and employment opportunities.

Vision impaired youth, Wellington

These three examples illustrate that even when people have good levels of motivation, confidence and skills and are primarily affected by financial barriers, digital exclusion intersects and overlaps with other forms of social exclusion, sometimes exacerbating the other challenges people are facing.

On the other hand, many people face a complex mix of barriers to accessing the Internet, and are likely to be facing a range of other challenges in their social and economic lives.

Solutions

Overview of solutions

Just as cost was often the first barrier to be identified by participants, reducing or removing the cost of Internet access was often the first suggestion people had to improve digital inclusion. The suggestions here ranged from the broad (reducing poverty or providing free Internet everywhere) to the specific (free 24 hour community Internet spaces or wifi packages for women coming out of refuges).

Other commonly proposed solutions included a whole range of ideas about how to overcome trust, safety and resilience issues. For example we heard a range of proposals for more humane designs for software, like making social media less addictive, pop-up reminders to be kind while using social platforms or messaging apps, integrating information about the reliability of sources in a Google search result or designing software to proactively encourage perseverance.

Another design-based suggestion was for an online directory or portal that young people facing financial or other barriers could use to access important sites and services for free.

If they could have access to a directory of services or resources at their fingertips ... an online correspondence school, ACE programs to do their CVs and their licenses, their numeracy and literacy, these all rely on them being able to access the Internet. A one stop shop program that would allow these youth to access the services they require, the special needs services.

Youth worker, Westport

Lots of participants proposed more training, especially for parents, both on the benefits and importance of the Internet and on ways to ensure that they and their children are using the Internet in healthy ways. Some proposed a nationwide awareness campaign on Internet safety, with a focus on privacy and simple things to do to stay safe online.

People suggested that more could be taught at school about how to use the Internet in a constructive and safe way - including more skills in researching online, identifying mis- and dis- information and discerning between good and poor quality information.

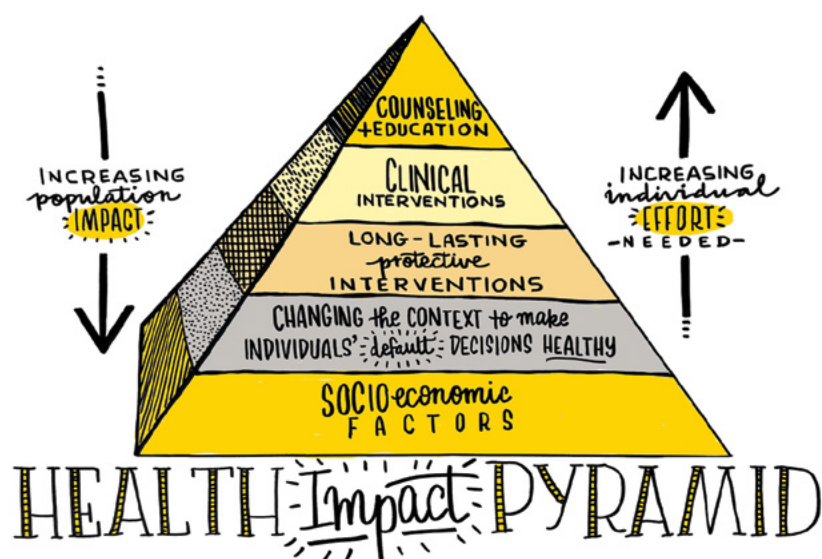
Another set of suggestions were aimed at structural, or systemic, change. People suggested that we needed to address intergenerational trauma in order to reduce family and sexual violence and increase mana and hope in individuals. People also identified the need to address a range of factors that contribute to social exclusion more generally including institutional racism, homelessness, unemployment, disability, mental health and the stigma often attached to all of these experiences.

A pyramid of impact

This Health Impact Pyramid provides a conceptual framework for a systems analysis of where to intervene for greatest impact and least individual effort to increase digital inclusion. It is presented here because it gives us a way to sort and understand the solutions proposed by participants in this research.

This pyramid is based on an analysis of studies across countries and time. What it tells us is that intervention at the individual level, for example parent education, tends to be the hardest to enact and needs to be very comprehensive to have impact (meaning it comes with more cost). On the other hand, interventions to change social conditions - through for example policy, laws and regulation - have the greatest impact on population well being for the least individual effort and generally least cost. Of course, changing social conditions is often not what is easiest politically.

It is also not necessarily what most people think of immediately when you ask them what could be done to improve their lives. Complex systems are hard to see, even when they are impacting the choices and opportunities available to us. People are naturally inclined to see what is in front of us, and when asked what could be done to change our lives, most of us will think about changing the factors we can see playing a direct and concrete role in our well-being. We tend to suggest changes which seem achievable to us for example our knowledge or behaviour. That is not to say that individual behaviours do not need changing, or skills upgrading. These are real issues for people, but the source of those issues are often to be found outside of the individual.



The Health Impact Pyramid by Thomas R. Frieden.

Another factor influencing the solutions people propose to a wide range of social problems - from poverty to family violence - is a pervasive belief in what is known as the knowledge gap. The knowledge gap is a term used to refer to the idea that social problems persist because people do not have enough information to change behaviours. This belief results in a bias for solutions and interventions that involve educating and informing people, even in contexts where there is strong evidence that a lack of information or skill is not the problem.

One example of this could be that many of the people we heard from in this research suggested that more digital skills could be taught in schools, even when they had not identified a lack of digital skills as a significant barrier to digital access.

However, despite these cognitive biases for individually-focused and knowledge-based interventions, the participants in this research also proposed solutions and interventions at a systemic level - both in terms of changing the digital context to make inclusion the default, and in terms of reducing the social and economic factors that contribute to both social and digital exclusion.

Those proposals have been sorted into three broad levels, based on a simplification of Frieden's intervention pyramid.

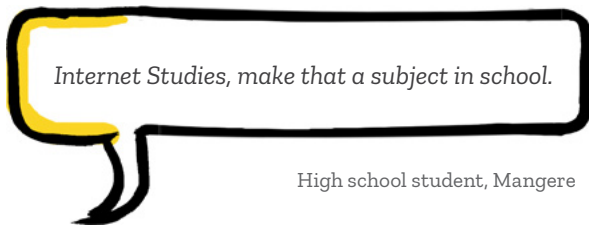
1. change individual skills and behaviours
2. change context (to make inclusion the default)
3. change socio-economic factors.

Change individual skills and behaviour

As mentioned above, almost every group had suggestions for education and training, even where those groups hadn't identified a lack of skills as a problem. While some of this can be attributed to the pervasiveness of the knowledge gap myth, some of the suggestions for training did relate to the barriers that people had identified.

Internet studies at school

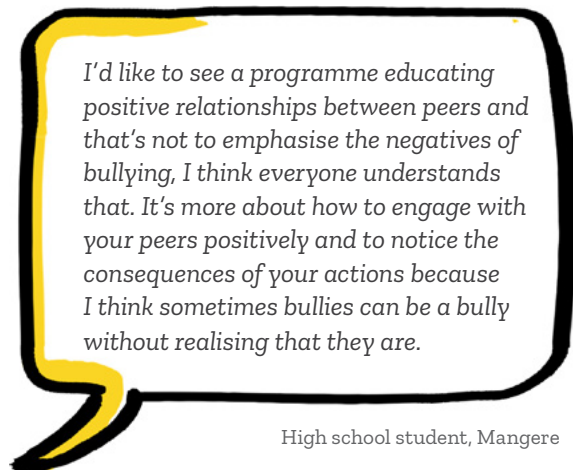
Most school-age participants reported that they already learned some digital skills at school and some felt that their school's digital training was already sufficient. But some proposed there were areas that could be improved. One suggestion was to make 'Internet Studies' a more cohesive curriculum subject, covering a range of issues and skills.



Internet Studies, make that a subject in school.

High school student, Mangere

When asked what he would include in the 'Internet Studies' topic, this participant explained that he was especially interested in programmes to reduce online bullying, by focusing on positive relationships and communication skills.



I'd like to see a programme educating positive relationships between peers and that's not to emphasise the negatives of bullying, I think everyone understands that. It's more about how to engage with your peers positively and to notice the consequences of your actions because I think sometimes bullies can be a bully without realising that they are.

High school student, Mangere

Transitional training for youth leaving school

One young man in Westport had been out of school for several years and wasn't currently in work or formal education, but he was enthusiastic about the benefits of getting online and thought that more people would be too if they were exposed to the opportunities online.

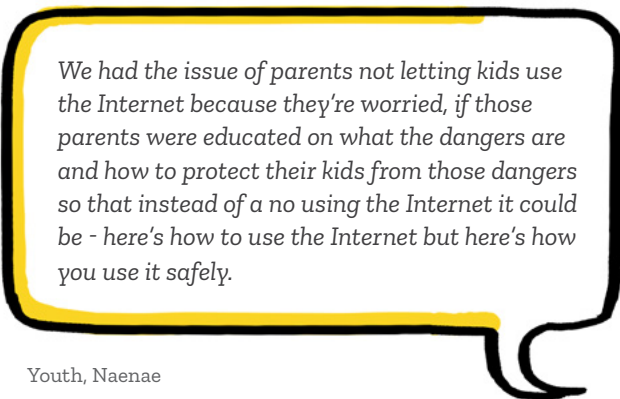


You can use the Internet on all sorts of stuff - if people knew what was out there they'd be more educated and use it more.

Youth, Westport

Training for parents

One of the most common suggestions was training for parents, and in particular courses that would teach parents how to help their kids stay safe online.



We had the issue of parents not letting kids use the Internet because they're worried, if those parents were educated on what the dangers are and how to protect their kids from those dangers so that instead of a no using the Internet it could be - here's how to use the Internet but here's how you use it safely.

Youth, Naenae

Young people also suggested programs and trainings that would help parents see the value of the Internet, which they thought would then result in them seeing the Internet as valuable for their kids. When asked how this would happen, the suggestion was to create opportunities for parents to participate in digital learning and creation alongside their children.

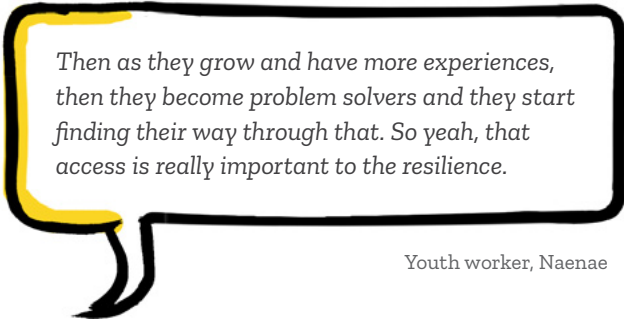
Changing the context

Creating spaces

One suggestion for changing the context was to create new spaces, community hubs and clubhouses.

These suggestions were often not only about the physical spaces themselves, or the technology that would be made available in the space, but also about giving people an opportunity to feel welcomed, included and valued, positive self-regard, hope and possibility. The spaces people proposed would give people the space, time and support to experiment digitally, learn about their own interests and creativity, and meet people who might inspire them.

In Naenae we heard from young people who were already attending the Naenae Clubhouse, and they thought that similar spaces should be made available to other young people at risk of digital exclusion around New Zealand. Staff at the Naenae Clubhouse told us that they had seen children come into their space with low skills, confidence and resilience when it came not only to digital access, but also to communication and learning in general.

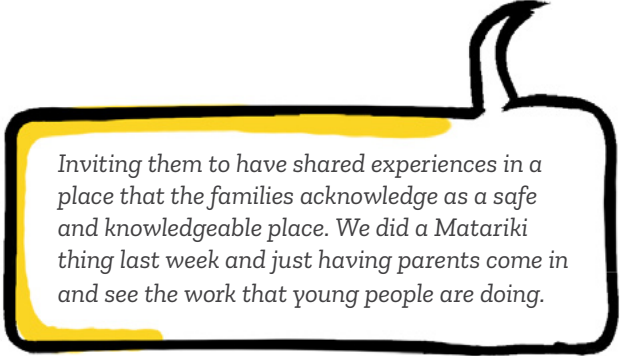


Then as they grow and have more experiences, then they become problem solvers and they start finding their way through that. So yeah, that access is really important to the resilience.

Youth worker, Naenae

In Kawerau, young people were familiar with the Clubhouse model because there was a clubhouse in Whakatane, and they thought it would be good to have something similar in Kawerau.

Another theme was creating spaces where parents and their children could have shared experiences that inspire a sense of self-esteem and possibility, and help build parents motivation not only around digital connection but about creativity and curiosity more generally.

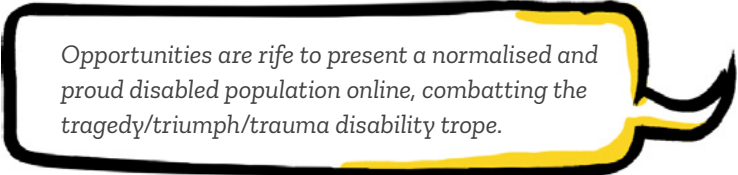


Inviting them to have shared experiences in a place that the families acknowledge as a safe and knowledgeable place. We did a Matariki thing last week and just having parents come in and see the work that young people are doing.

Naenae Clubhouse, youth worker

Young people with disabilities also suggested a specific space, possibly online, where people could ask questions, receive advice and give tips about specific situations. Youth with complex needs often had never met someone in the same position as them and craved a forum or disability specific access point to ask and learn about online accessibility issues.

A more abstract way of creating space, suggested by young people with disabilities, but applicable to other groups of young people more likely to experience digital exclusion, was the need for better representation of people with lived experience of digital exclusion online, including as web developers and frontline digital users.



Opportunities are rife to present a normalised and proud disabled population online, combatting the tragedy/triumph/trauma disability trope.

Disabled young person, Wellington

Accessible and humane tech and regulation of the platforms

People told us digital inclusion could be increased through more accessible and humane design.

Participants in a discussion group of disabled youth said online accessibility (including education for designers and developers and enforceable standards) would benefit everyone, and particularly vision impaired, D/deaf, Hard of Hearing, physically disabled and autistic young people.

Their recommendations for accessible design included:

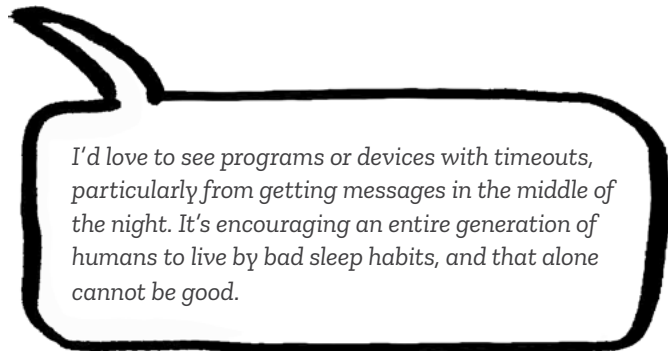
- closed captions on all video content
- more content in New Zealand Sign Language and Māori
- more variety in gaming options for people who cannot participate because of their impairment affecting reaction speed or physical ability/ clicking
- option for audio descriptions for video where the content is visual
- websites and apps where information is presented in a logical order
- option to take away video/animated content and have a 'plain' or 'accessible' version
- apps and websites fully compatible with speech and magnification software.

For screen reader users this means including labels for headings and other elements, descriptive alternative text on all images, reproducing any text within images, and no inaccessible video content or Flash.

For magnification software users this means accessible captions and subtitles, high contrast text and the ability to wrap text to screen no matter the size, ability to turn off pop-ups and banners, ability to make the cursor bigger and good contrast on 'X' buttons.

Participants also recommended further research and development of technology that would help disabled youth gain equitable Internet access. Examples could include more accurate speech recognition software, and validation, awareness and development of other forms of non-verbal communication for people with ASD or other neurodiversity.

Ideas for humane design included altering the design of, for example, social media platforms to make them less addictive, to prevent or stop online harassment, and to encourage timeout. Participants thought that the platforms would be unlikely to alter their design voluntarily and suggested that government regulation might be required to achieve a shift to more humane tech.



I'd love to see programs or devices with timeouts, particularly from getting messages in the middle of the night. It's encouraging an entire generation of humans to live by bad sleep habits, and that alone cannot be good.

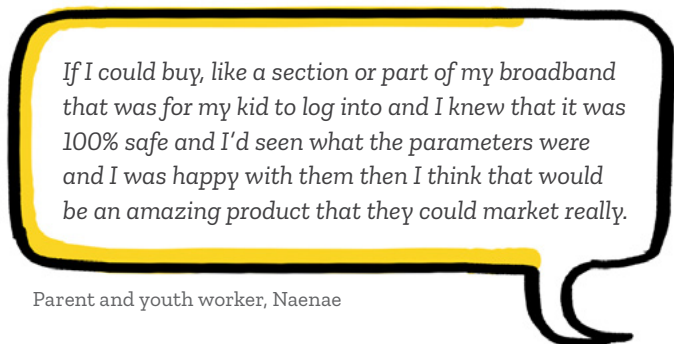
Youth worker, Westport



These are responsibilities [to stop cyberbullying] that should be falling to the government and the organisations that have created these [platforms].

Youth worker, Westport

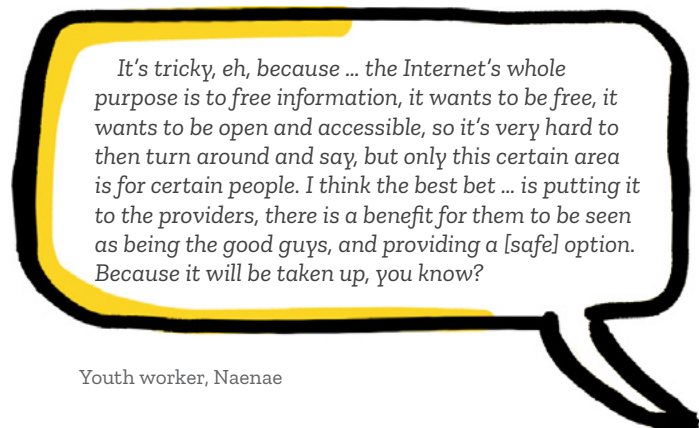
One of the humane design proposals that was raised several times was for a version of the Internet that was safe for kids. This would make it easier for parents who didn't have the confidence and skills to set up those filters themselves to provide digital access for their children without fear of them being exposed to undue risk.



If I could buy, like a section or part of my broadband that was for my kid to log into and I knew that it was 100% safe and I'd seen what the parameters were and I was happy with them then I think that would be an amazing product that they could market really.

Parent and youth worker, Naenae

While participants recognised the challenges of changing the Internet, they also thought that Internet providers and the big platform companies had an opportunity to be seen to be doing good in this area by proactively moving towards more humane, safe and healthy design of software, platforms and access packages.



It's tricky, eh, because ... the Internet's whole purpose is to free information, it wants to be free, it wants to be open and accessible, so it's very hard to then turn around and say, but only this certain area is for certain people. I think the best bet ... is putting it to the providers, there is a benefit for them to be seen as being the good guys, and providing a [safe] option. Because it will be taken up, you know?

Youth worker, Naenae

The view of these participants was that providing ways to access the Internet that were safe for kids would remove a significant barrier to access for those families.

It'd take a lot of barriers away from families because with a trusted brand they would know that their kids were safe online.

Youth worker, Naenae

Cheaper Internet and devices

The first suggestion made by most groups was to reduce the price of an Internet connection, and of Internet enabled devices.

They need to drop the price.

Mother, Auckland

Make it cheaper, so people can afford it.

Youth, Naenae

Bring the prices down. I can't afford to get the Internet and for me applying for a benefit and everything.

Women's refuge group, Auckland

People had a variety of ideas about how to reduce the cost of having Internet access, including low costs devices and plans. Many people made the point that if these low cost plans were also low data plans, they wouldn't solve the problem, since so many of the ways people, and especially children and young people, use the Internet today involves the use of a lot of data.

Some people specifically suggested that connection and set up fees should be dropped, or that penalty fees should not apply if people need to move to a lower cost plan because their circumstances had changed.

Support in times of transition

Some participants in this research told us that the way telecommunications companies structured their contracts, combined with the requirement from WINZ and other government agencies that clients be online and regularly checking their messages, created a kind of maze or trap that kept women like herself in a state of constant disadvantage.

One of the ways they thought this could be changed would be if free wifi contracts could be provided to support people experiencing times of transition and upheaval, whether this involved transitioning out of a women's refuge, or leaving home to begin living on the Independent Youth Benefit. Participants with experience of family violence specifically proposed that every woman leaving a women's refuge be provided with a wifi contract and a data enabled device on which to use it.

In order to prevent yet another hurdle for already stressed women to jump through, they recommended that the administration of a scheme like this could be handled by the refuges or by support groups like The Aunties.

Well you wouldn't want individuals to apply ... cos that would be a pain in the arse and shaming and all the rest of it. You don't wanna go through retriggering, all that bullshit. So it's better to have someone like me go in and ... say, 'Look there's X number of women and these are their circumstances they've all lived in violence or are currently living in violence so I want free Wifi free or whatever for 50 women a year.

Social worker working with women with experience of family violence, Auckland

The women also pointed out that any program like this would need to be structured in a way that it could be used by people without a stable home. In other words, it would need to be mobile.

This was also a point made by the youth worker in Westport who proposed a specially designed free Internet access for young people on the Youth Benefit, which would give them access to essential services.

It would need to be mobile. Because they do change address, they might be going from somewhere that has Internet to one without. It's all very well having a phone, but ... I know our youth - none of them pay for data, being on wifi is the choice over everything. So yeah, I guess that's walking wifi, that moves with them definitely. That would be a bonus.

Youth worker, Westport

Free wifi

Most groups also recommended changing the digital context to make inclusion the default by providing free wifi Internet to all homes in New Zealand.

Free access for New Zealand citizens!

Women's refuge group, Auckland

Give free wifi to their homes instead of going to McDonalds or the payphone, what's the difference for them? Just transfer it. What's so hard about just transferring a system? All these free areas to go to, just take those areas and put it at home so we're not sitting at a payphone, the bus stop, the car.

Women's refuge group, Auckland

Often, however, as soon as someone made this suggestion other people would make comments about why it was unrealistic. But no-one disagreed that it would play a significant role in making digital inclusion the default.

When people thought free wifi for all was unrealistic because of the resources required, they often suggested that an alternative solution would be to target the homes - and people without homes - who needed help most.

Some people thought a good way to target would be based on who was already getting income support.

I think anybody on a benefit should have a subsidised wifi because then you can have an education.v

Women's refuge group, Auckland

Other people suggested targeting sole parent families with school age children or younger.

Mothers and children, babies. ... Unless they can do it for unit housing, so much Internet a day.

Women's refuge group, Auckland

Some participants expressed concern that targeted programs would lead to stigmatisation, which led them to come back around to the idea of a universal provision of free Internet. This discussion amongst women in the women's refuge group in Auckland gives a good flavour for this concern.

The taxpayer would get mad [if only people on a benefit got it.]

*Imagine the Herald!
The Herald would have a field day.*

Letters to the Herald. Yeah. Haha!

It would be ideal if everyone could have it.

*Like they did with the winter payment
so everyone could have warmer homes.*

Women with experience of family violence, Auckland

Not everyone wants to be online

While the prevailing theme of these suggestions was to create an environment in which digital inclusion was the norm, some people also wanted to be clear that it was important to ensure people who chose not to use digital services - especially older New Zealanders - continued to have the option to do things offline.

*Giving people the option of doing it both ways.
There is too much pressure on people having to do it digitally.*

Community education coordinator, Westport

Changing socio-economic factors

When asked to describe the causes of digital exclusion in Aotearoa, people talked about the social and economic conditions experienced by many people in our country. These included poverty, family and sexual violence and intergenerational trauma, institutional racism, homelessness and poor quality housing, unemployment and insecure work.

The worst case end of the spectrum for our kids is that they have access to everything in terms of social behaviour, or alcohol or drugs. They're exposed to domestic violence, so the least of the parent's worries is Internet safety.

Kawerau Wananga

When asked how they would increase digital inclusion, not many people suggested changing these underlying socio-economic factors. When probed on this, the general message we heard was that people had low expectations or hope that the wider conditions driving social exclusion could or would be changed in their communities. In some interviews, this lack of hopefulness was itself identified as a symptom of intergenerational disadvantage.

Some participants had ideas about how people could be better insulated from the stress and stigma that was created by being forced to apply to an institution to meet your daily needs. For example, the approach participants proposed for allocating free wifi packages to women coming out of refuges was designed to avoid forcing these women to repeat their stories, and thereby reduce shame and stigma in a way they thought would improve on the way they have to apply for benefits or other government support.



Conclusions

The people we heard from in this research affirmed what previous research had shown, that having access to affordable and accessible digital devices and services at a time and place convenient to them, as well as the motivation, skills, and trust to use the Internet to pursue and realise meaningful social and economic outcomes, is essential to social inclusion.

They also told us that **losing access can have a disproportionately harmful impact on people who are already experiencing social exclusion** in other ways.

Becoming disconnected can have a devastating impact on people going through times of particular vulnerability or instability. A woman leaving a violent relationship, for example, or a young person leaving home without any family support.

People outlined a range of barriers to digital inclusion, including cost barriers, a range of barriers to physical access, low motivation and resilience to setbacks, mixed levels of skills, a lack of trust or safety online and insufficient capacity.

While most of this was consistent with research in other countries, the conversations in this project have given us a more nuanced and detailed picture of how a variety of different social and economic factors can act together to impact a person's digital inclusion at different times throughout their life, and how becoming disconnected can, in turn, exacerbate existing problems.

The people we heard from made suggestions for improving digital inclusion in New Zealand ranging from changes in national policies through to changes in parental practice. Here are some of the key suggestions for each sector.

Suggestions for policy makers in central government

1. Revisit the baseline for social inclusion and consider whether basic Internet in every home is today's equivalent of last century's landline with free local calls.
2. Ensure a decent standard of living for all families with children.
3. Build a high trust, high care environment for family support, and remove conditions of support that participants experience as shaming and describe as a 'maze'.
4. Reduce transience in housing and reduce energy costs through healthier homes.
5. Ensure equitable support is provided to people with disabilities, irrespective of cause, and ensure all public services are accessible to people with disabilities.
6. Provide free wifi and devices to groups and communities facing economic and other barriers to digital inclusion (could be delivered via trusted community groups).
7. Introduce evidence-based programmes that improve student's ability to evaluate the credibility of online information.
8. Make Internet safety a core part of the curriculum, including evidence-based programmes to help young people have difficult conversations with confidence and care.
9. Invest in the availability of offline services for those who will not make the digital shift or fall through the gaps.

Suggestions for local government and iwi

1. Create, in partnership with communities and excluded groups, the type of safe, welcoming and free spaces people want and will use, where people can come together to access digital devices and services, and develop the skills, motivation and confidence to use them.
2. Extend free wifi to cover more spaces which are safe and easy for people to access and to use outside of business hours, including with children.
3. Ensure all public services are accessible to people with disabilities, and people who don't have digital access - including those who choose not to use digital services.

Suggestions for communications companies

1. Design contracts that allow people to move easily between different plans, without penalty, in response to insecure work and changing income.
2. Make it easy for people to move their contracts and connections to new addresses without additional costs.
3. Provide affordable prepaid packages for mobile devices, which don't charge people without a fixed address a higher rate for data.
4. Create 'kid safe' data plans, which limit access to pre-vetted child-safe sites.
5. Create custom mobile access portals specially designed to ensure that people in times of transition or heightened need can access 'essential services'.
6. Where these services exist, work to increase awareness, accessibility and uptake.

Suggestions for tech companies (including platforms)

1. Proactively move towards more accessible, humane, safe and healthy design of software, digital platforms, content and services.
2. Design more kid-safe platforms and programs, to make it easier for parents to help their children access digital services and devices safely.
3. Take more responsibility for ensuring that the online platforms and spaces they create are safe, that harmful digital behaviours are discouraged and spaces moderated.
4. Take appropriate, timely action when cyberbullying, online harassment and other forms of harmful digital behaviour do happen in their spaces, to reduce future harm.

Suggestions for philanthropic and charitable organisations

1. Fund free wifi, devices and - where needed - training to groups and communities facing economic and other barriers to digital inclusion. This could be delivered via trusted community groups.
2. Fund the creation of custom-made mobile, digital access portals specially designed to ensure that people in times of transition or heightened need can access all 'essential services' including ways to communicate with their friends and family. By working with trusted community groups, this could be delivered in a way that avoids stigma and shame.
3. In partnership with excluded groups, fund safe, welcoming spaces where people can come together to access digital devices and services, and develop the skills, motivation and confidence to use them.



This research was conducted by The Workshop on behalf of InternetNZ and the Vodafone New Zealand Foundation. The lead researcher and author of the report was Marianne Elliott, with research assistance from Ella Brownlie and advice from Dr Jess Berentson-Shaw.

report.digitaldivides.nz