

Addressing the digital divide in Aotearoa New Zealand

Welcome

**Tēnā koe Hon Dr David Clark, Minister for the Digital Economy and Communications,
Minister for Statistics**

The Digital Strategy for Aotearoa (DSA) paints a picture of an inclusive digital future. In this future, all of Aotearoa New Zealand's people have the tools, skills and confidence to participate in an increasingly digital society, and digital infrastructure, content and services meet people's diverse needs. High-speed internet connections and digital devices are universally affordable and accessible, and everyone has the tools, skills and confidence they need to be able to 'earn, learn and thrive' online. The Digital Council for Aotearoa New Zealand (Digital Council) shares and supports this important vision, and we are proud to have played a part in its development through our support for public engagement and submission on the DSA's discussion document.

The Digital Council's research report "Addressing the digital divide in Aotearoa New Zealand" looks at where we are now and builds our understanding of the current state of digital inclusion in Aotearoa New Zealand. It also makes the case for why – and how – we need to invest in making the inclusive digital future envisioned by the DSA a reality.

For those of us who are connected, digital technologies are transforming all aspects of our lives, and are increasingly critical to our social and economic participation and wellbeing. They support our relationships with friends, whānau and communities, open up educational and workplace experiences and opportunities, and connect us to international flows of information.

But not everyone is digitally included. Significant numbers of Aotearoa New Zealand's people cannot fully access the opportunities and benefits digital technologies can bring, and as some of us race ever faster ahead, others are left increasingly further behind. This exclusion is a symptom of as well as a contributor to ongoing socioeconomic inequality. It severely impacts those directly affected and has significant repercussions for our society and economy.

Our research makes a strong case that government investment in increasing digital inclusion in Aotearoa New Zealand is both the right thing to do and a prudent financial investment. Investing in digital inclusion is an investment in social inclusion, equity and intergenerational wellbeing. It will also benefit the whole economy through increasing employment, tax revenue, productivity, innovation, and gross domestic product (GDP) growth. The return on investment (ROI) is likely to be significant – as much as two to three dollars' worth of individual and societal benefits in return for each dollar invested.

Pursuing the digital transformation of our society and economy without increasing digital inclusion will not only consolidate and deepen existing societal inequities but will also constrain the potential size and scale of Aotearoa New Zealand's digital economic transformation by limiting the number of people who can participate in and contribute to it. As a society, we cannot afford to live with a widening divide between the included and the excluded.

The Digital Council has used these research findings to develop our advice on how we believe the government should invest in increasing digital inclusion and implement the DSA's vision for an inclusive digital future for Aotearoa New Zealand. This advice also builds on our previous work on how the government can maximise the societal benefits of digital and data-driven technologies.

Our advice on [Aotearoa's Digital Landscape beyond the COVID-19 Response](#) put social and digital inclusion front and centre, highlighting the issues raised by New Zealand's rapid digital transformation in response to the pandemic. We noted that increasing digital inclusion will require a coherent and sustained response that addresses skills as well as access, and that government needs to ensure it does not further marginalise vulnerable people by moving all services online.

Our [briefing](#) to you as incoming Minister also highlighted the potential for digital and data-driven technologies to amplify existing inequalities, and the need for a coherent response. We called for the government to take a joined-up and innovative approach to ensure that all of New Zealand's people can participate in, benefit from, feel safe in, and contribute to our increasingly digital world.

An inclusive approach is also key to building greater trust in the government's use of Automated Decision-Making (ADM) technologies. Participants in [our research](#) were clear – they want 'people like them' to be involved in the development of decision-making systems and interventions to ensure they meet the needs and reflect the values of the communities impacted.

We are delighted to deliver this research and advice and consolidate our case for investment in digital inclusion. Without inclusion, we cannot build trust or achieve our goals for digital economic growth. Everyone needs to be able to ride the digital wave for Aotearoa New Zealand to reach its full potential.

This is not a simple problem to solve. However, the government does not need to – and should not try to – do this mahi alone. Effective and sustainable change will only happen through the government working with communities and other key partners. Together, we can achieve the thriving and inclusive digital future envisioned by the Digital Strategy for Aotearoa.

The stakes are huge, so let's get started.

Summary of findings and recommendations from the Digital Council

This research report shows how digital inclusion is intertwined with individual, societal and economic inclusion and wellbeing, and provides a significant contribution to the evidence base on the contours and characteristics of digital inclusion in Aotearoa New Zealand. It provides the government with a clear social and economic rationale for investing in increasing digital inclusion and suggests how to realise the greatest return on this investment.

The research uses national and international evidence and a range of primary and secondary research methods to identify:

- who is most at risk of digital exclusion in Aotearoa New Zealand,
- the individual, social and economic benefits that arise from digital inclusion in Aotearoa New Zealand, and
- the characteristics of promising interventions to increase digital inclusion.

The research also considers how we might place an economic value on increasing digital inclusion within Aotearoa New Zealand and explores what the return on investment (ROI) might be for different intervention approaches.

The research considers Aotearoa New Zealand's unique context throughout and has benefited significantly from engagement with Māori research and policy experts.

We have used the key findings and messages from the report to develop our recommendations to the government. We have also considered how the government can build on, support, and connect work already underway, including work being led by civil society and the technology industry. We believe that this joined-up approach is the key to achieving the inclusive and thriving digital future envisioned by the Digital Strategy for Aotearoa.

Our recommendations align with three overarching objectives:

Objective 1: Reduce barriers to access that are increasing the level of under-inclusion in Aotearoa New Zealand. Increase access to improve digital inclusion in Aotearoa New Zealand.

Recommendation 1: Invest in providing low-income multi-person households with access to internet connections, digital devices, and basic digital skills, especially those households which contain children and Māori and Pacific peoples

Recommendation 2: Ensure non-digital public service channels and supports are maintained for those who cannot or choose not to engage digitally

Recommendation 3: Strengthen and assure the use of the government's digital service design and web standards

Objective 2: Produce measurable improvement in inclusion by engaging communities and aligning initiatives. Engage and work with communities and create and share data to enable measurable improvement.

Recommendation 4: Develop strong relationships and work with communities and community organisations to co-design and co-deliver interventions that increase digital inclusion

Recommendation 5: Regularly gather and release more comprehensive population-level data on all facets of digital inclusion and establish baselines to measure progress over time

Recommendation 6: Make robust, sustainable and culturally inclusive evaluations an integral part of government-supported interventions

Objective 3: Ensure all New Zealand’s people understand why digital inclusion matters and share and support the creation of knowledge and expertise. Empower, activate and support communities to be recognised/seen as and to see themselves as part of our digital future.

Recommendation 7: Enable under-included populations to see themselves as part of Aotearoa New Zealand’s digital future by amplifying their voices

Recommendation 8: Develop and promote case studies and guidance based on successful interventions within the Aotearoa New Zealand context

Recommendation 9: Support and promote research that builds out our understanding of digital inclusion and exclusion in Aotearoa New Zealand

About the research

The Digital Council commissioned the New Zealand Institute for Economic Research (NZIER) to explore the rationale for government investment in digital inclusion.

We asked NZIER to focus on several interconnected research questions:

- Who is at most risk of digital exclusion in Aotearoa New Zealand?
- What is the value of increasing digital inclusion in Aotearoa New Zealand, and why should the government invest in it?
- What are the key characteristics of and barriers to successful digital inclusion interventions, and how can we optimise investment in digital inclusion interventions?

We also asked that the research consider and incorporate a te ao Māori perspective throughout, in recognition of Te Tiriti and of Māori as tangata whenua and because Māori are at disproportionately high risk of digital under-inclusion.

Key terminology

The research considers digital inclusion as a spectrum rather than seeing it as a binary condition. The most extreme form of exclusion is when people live their lives completely offline, but less absolute forms of under-inclusion also prevent people from realising the full benefits digital technologies can bring.

People are considered to be digitally included if they have the capability, opportunity and motivation to use the internet to pursue and realise meaningful social and economic outcomes. The term 'under-inclusion' is used to describe people who lack fulfilment of these conditions and are therefore unable to realise some or all of the social and economic benefits associated with full digital inclusion.

Who is at most risk of digital under-inclusion in Aotearoa New Zealand?

Previous research has identified a wide range of groups at risk of digital under-inclusion, including disabled people, people living in social housing and those with low housing stability, migrants and refugees with English as a second language, people living in rural locations, unemployed people and those not actively seeking work. Overlaps between these groups have been assumed but not fully evidenced.

This research uses existing evidence as well as an analysis of data sources available through Stats NZ's Integrated Data Infrastructure (IDI) to build our understanding of which population groups are most at risk of digital under-inclusion in Aotearoa New Zealand.

Using home internet access as proxy for inclusion, the research interrogated the latest census data held in the IDI to identify and characterise two key groups at most risk of digital under-inclusion:

- The first group, those in single-person households without internet, are more likely to be older and New Zealand European and have roughly the same income as their counterparts with home internet.
- The second group, those in multi-person households without the internet, are more likely to be Pacific peoples or Māori in crowded households (which frequently include children) and have lower incomes.

In New Zealand, nearly a quarter of Pacific peoples lack home internet – three times the rate for New Zealand Europeans and almost twice the rate for Māori. Māori and Pacific peoples are also over-represented amongst younger people without internet access. It is likely that increasing digital inclusion for these groups of young people would unlock significant social and economic benefits across their lifetimes.

What is the value of increasing digital inclusion in Aotearoa New Zealand, and why should the government invest in it?

The research shows that digital inclusion provides significant benefits to people, whānau, communities and society. Being digitally included helps people and communities stay connected, broadens their horizons, increases their access to goods and services, and opens doors to new economic and social opportunities.

Individuals and communities also use the internet and digital technologies to meet their specific needs. For Māori and Pacific communities this might mean carrying out cultural practices online, such as attending tangihanga or church services during lockdowns. For people with disabilities, it might mean increased independence through shopping or accessing government services online. Digital inclusion essentially delivers a form of self-afforded mana motuhake by empowering people and communities to control their own affairs and take advantage of the rights and responsibilities that have been afforded to them.

Digital inclusion also contributes to societal and economic wellbeing. It can help reduce socioeconomic inequality and bring economic benefits through GDP growth, higher tax revenue, and increased employment, innovation and productivity.

Taking all these factors into account, the research suggests that the return on any government investment in increasing digital inclusion is likely to be significant. The research found evidence for a potential ROI ranging between 1:2 and 1:3 – that is, for every dollar the government invests in increasing digital inclusion through the provision of internet, devices and basic skills training, it can expect to see two to three dollars' worth of individual and societal benefits in return.

It is tempting to want to look forward and focus on investing in digital economic transformation through supporting businesses and providing advanced digital skills training. However, the research shows that growing digital inclusion is an essential foundation for economic transformation. Investing in transformation without ensuring inclusion risks widening the digital divide and limiting the economic benefits of transformation by limiting the number of people who can participate and contribute.

What are the key characteristics of and barriers to successful digital inclusion interventions?

The research found that interventions to increase digital inclusion are most effective when they:

- Combine the provision of connections and devices with the provision of digital skills training and technical support;
- Incorporate strategic oversight and have consistent standards, outcomes and goals; and
- Are led and delivered by trusted community partners and organisations and are focused on communities' needs and aspirations.

Community centres that provide devices and internet access for public use and support users to access services through both digital and non-digital channels were also found to be a component of successful interventions.

How can we optimise investment in digital inclusion interventions?

Providing internet, devices and skills training helps increase digital inclusion. But the research suggests that interventions designed and delivered with and by communities, for communities, are likely to reach more people with longer-lasting effects and at a similar cost, significantly increasing ROI.

The research found that if the government invested \$1 billion in providing under-included households with connections, devices and skills training, it is likely to realise benefits valued at around \$2 billion – an ROI of 1:2 (i.e., 100%). If the government invests the same amount and delivers connections, devices and skills training through co-designing and collaborating on the intervention with the communities it is intended to serve, the ROI is likely to rise to 1:3 (i.e., the return is doubled, at 200%).

The costs of both intervention scenarios remain similar because co-designed interventions are likely to result in more targeted and efficient delivery, directing devices, connections and training to those who are most receptive and who are therefore most likely to make use of them.

Additional findings

The research also identified significant shortcomings in our national data collection, monitoring and evaluation of digital inclusion. We need better data, indicator monitoring and evidence on the effectiveness of interventions. These need to go beyond measuring the internet in the home to understanding digital skills and confidence, and trust in digital technologies.

This data also needs to keep pace with change. Digital inclusion is not a stable state. Technological innovation, infrastructure and hardware upgrades evolving learning and accessibility requirements will contribute to new waves of digital under-inclusion.

Objectives and recommendations

Our nine recommendations are clear and achievable, but they are also ambitious. The government needs to invest funding, time and resources, and be open to doing things differently.

Objective 1: Reduce barriers to access that are increasing the level of under-inclusion in Aotearoa New Zealand. Increase access to improve digital inclusion in Aotearoa New Zealand.

Our first three recommendations build on the research report's findings about the population groups at most risk of under-inclusion to provide advice on *who* and *what* should be the focus of the government's efforts. These three core recommendations are top priorities that need to be implemented with urgency. Not doing so risks vulnerable people and communities falling even further behind.

Objective 2: Produce measurable improvement in inclusion by engaging communities and aligning initiatives. Engage and work with communities and create and share data to enable measurable improvement.

Recommendations four to six focus on *how* the government should work to increase digital inclusion in Aotearoa New Zealand. These recommendations are critical success factors for the implementation of our first three recommendations, but they are long-term projects. They need to be worked on steadily and consistently, with their full benefits emerging and accruing over time.

Objective 3: Ensure all New Zealand's people understand why digital inclusion matters and share and support the creation of knowledge and expertise. Empower, activate and support communities to be recognised/seen as and to see themselves as part of our digital future.

Recommendations seven to nine relate to telling compelling stories about our shared digital future and creating and sharing knowledge and successes. They are enablers that we believe will support the successful implementation of recommendations one to six and are also long-term projects to be built out over time. They should support and be informed by the activities that will emerge from the implementation of the first six recommendations.

Two key themes

We are not talking about starting from scratch. **The importance of building on past, current and future initiatives and sharing key insights and guidance** is a key theme underpinning our advice.

We know the government is already working to increase digital inclusion and that these efforts ramped up in response to the COVID-19 pandemic. We advise the government to maintain and build on the momentum created over the past few years, and to leverage and extend upon initiatives already underway, whether they are being led by government, by communities or civil society organisations, or by the technology sector.

Our other key message is that the government does not need to and should not try to do this mahi alone. The evidence in the research report is clear – **more effective and sustainable change will be made through government, communities and other key partners and stakeholders working together**. The approach needs to be relationship-based and networked – not disjointed and transactional.

Objective 1: Reduce barriers to access that are increasing the level of under-inclusion in Aotearoa New Zealand. Increase access to improve digital inclusion in Aotearoa New Zealand.

Recommendation 1: Invest in providing low-income multi-person households with access to internet connections, digital devices, and basic digital skills, especially those households which contain children and Māori and Pacific peoples.

Why this recommendation

Our research identifies two main population groups at most risk of digital under-inclusion in Aotearoa New Zealand. One of these groups is multi-person households without home internet. These households are more likely to be crowded households (which frequently include children), to contain Pacific peoples or Māori, and to have lower incomes.

Government needs to commit to sustained investment in supporting these households to become part of our digital future by providing them with connections, devices, basic skills training and technical support. Making sure all our rangatahi are digitally included is likely to unlock significant social and economic benefits across their lifetimes and help to reduce intergenerational inequity. Focusing on Māori and Pacific peoples will also help address the injustices resulting from colonisation and uphold the government's Te Tiriti obligations.

Without support, these households and their children risk falling further and further behind the ever-advancing digital frontier. Many will never catch up. This is terrible for these households and people, and a huge loss for New Zealand's society and economy. The more of us who are able to participate and contribute, the greater the societal and economic benefits will be. In our opinion, investing in these households and in our collective future is a no brainer. The social and economic benefits that will arise from this investment are clear, as are the risks of failing to act.

How to begin

The work led by the Ministry of Education to provide students with connections and devices to support online learning throughout the COVID-19 lockdowns provides a solid foundation to build on. Lockdowns may be unlikely to return, but home internet access remains essential to helping our rangatahi realise their full potential. Government organisations like Kāinga Ora, the Ministry for Social Development and Oranga Tamariki could also help channel support towards those families and households most in need, and the tech sector could help to provide lower cost connections and devices.

Basic digital skills training and technical support needs to be provided alongside connections and devices to give people the skills and confidence they need to make the most of digital technology. Omitting skills and support is likely to lower government's return on investment, with devices and connections remaining unused, being underutilised, or being used in ways that potentially expose users to digital harms.

The government could take a phased approach to implementing this recommendation. You could start small by focusing on one or more of the most severe geographical pockets of deprivation before scaling up to a national level of operation – but you must maintain and build upon the momentum created over the last few years. The current cost-of-living crisis makes urgent action especially necessary.

We cannot overstate how important it is for the government to work with communities and community/civil society organisations on this recommendation. We address this critical success factor in recommendation four.

Recommendation 2: Ensure non-digital public service channels and supports are maintained for those who cannot or choose not to engage digitally.

Why this recommendation

Digital is not always best for every person or every situation. We know that due to a lack of access, skills, and/or confidence, many people in Aotearoa New Zealand struggle to access the government services and support they need and are entitled to through digital channels. Vulnerable people with complex needs that span multiple government departments are especially at risk.

Other people just don't want to engage with the government online – they have been doing things over the phone or face-to-face their whole lives and prefer to keep it that way. This is especially likely to be the case for older people, including the second group of households our research found to be at higher risk of digital under-inclusion. People in this group of single-person households are more likely to be older Pākehā with roughly the same income as their counterparts with home internet.

While we want full digital inclusion for all our seniors, the fact that this group of households tends to have similar incomes to their digitally included peers suggests motivation rather than cost may be the primary factor at play. The number of older people without internet is also likely to reduce over time. Helping this group of households see the value in digital technology and connecting them with communities who can help them use it is likely to be the best way to increase their digital inclusion. We address this in more detail in recommendation seven.

But as long as digital under-inclusion exists, we need to make sure that people who are unable to, struggle to or choose not to use the internet can still access the government information and services they need and are entitled to. We are certainly not asking for brakes to be put on the government's digital transformation, but this transformation must not leave vulnerable (or simply reluctant) people and communities behind.

How to begin

The government needs to take a human-centred design approach to designing public services. People should have a range of choices about how they interact with the government – be it online, on the phone, face-to-face, or through intermediaries. Community and user needs must be put at the centre of the service design process when new or existing services are being designed or redesigned.

The government's service design capabilities and capacity should be invested in and developed in partnership with the non-government and industry sectors, both of which have a wealth of expertise to offer. User research and service design teams should surface user needs through comprehensive engagement processes. Prototyping, iterative development, and user testing and feedback should be used to ensure that services respond adequately to user needs.

Key third party service providers such as the Citizens Advice Bureau (CAB) should be sustainably supported to help bridge any gaps and connect users with the government departments they require assistance from. Government needs to partner more closely with organisations like the CAB and with community organisations, including iwi/Māori, to support them to help deliver government services to the communities they represent.

Recommendation 3: Strengthen and assure the use of the government’s digital service design and web standards.

Why this recommendation

Digital government services need to be as user friendly, intuitive, and accessible as possible. People with internet connections and devices but who lack digital skills and confidence should be able to use them with ease. So should people with disabilities or with English as a second language.

Services should also be designed so that people can easily access support provided by multiple agencies when they have complex or interconnected service needs. The Public Service Act 2020 calls for the government to work in a unified way, and this needs to apply in front of as well as behind the scenes.

Where to begin

Government should invest in strengthening the [NZ Government Web Standards](#) (for Accessibility and Usability) and [Digital Service Design Standard](#). The Web Standards should keep up to date with international best practice, and as the Digital Service Design Standard already acknowledges the need for non-digital service channels, it should be expanded into a full omnichannel Service Design Standard covering both digital and non-digital service channels.

Government should also invest more in supporting and enforcing the use of these Standards, as their adoption across government is uneven at best. Agencies should be regularly assessed for conformance, and where necessary, supported to bring their service offerings up to standard. These assessments and progress towards improvement should be made publicly available.

Objective 2: Produce measurable improvement in inclusion by engaging communities and aligning initiatives. Engage and work with communities and create and share data to enable measurable improvement.

Recommendation 4: Develop strong relationships and work with communities and community organisations to co-design and co-deliver interventions that increase digital inclusion.

Why this recommendation

This research report provides a compelling case for the government to collaborate on, co-design and co-deliver interventions with the communities they are intended to serve. The evidence tells us that these types of interventions are not just better received but are more successful. They have wider reach and greater 'stickiness', unlocking sustainable long-term outcomes.

There are numerous reasons for this increased effectiveness and ROI. Co-designed and co-delivered interventions:

- Tend to include community leaders in both design and delivery phases, enabling these leaders to articulate and embed their communities' unique needs and aspirations.
- Are trusted and engaged with more by participants, because they know their needs have been put front and centre, and because they are engaging with people they know and trust. This is especially important for participants who may feel vulnerable and whakamā (ashamed) about lacking money and skills.
- Can minimise wastage and maximise efficiency by ensuring resources go where they are needed most and will be made best use of.
- Can identify and reduce participation barriers much more effectively than those designed and delivered by 'outsiders'.
- Can draw on the support and connections provided by other social and economic support networks operating within the community.

How to begin

Government needs to build strong relationships and work closely with communities, community/civil society organisations and industry organisations to collaborate on, co-design and co-deliver localised interventions based around the needs and priorities of the communities. These relationships must be authentic and based upon mutual and earned trust and respect. Power and resources need to be redistributed and devolved from the centre to the margins, with communities empowered to develop and deliver solutions for themselves.

Collaboration and co-design are particularly important in the Aotearoa New Zealand context. Many of the whānau and communities in most need of digital inclusion interventions have Māori at their centre, and Māori have identified co-design as core to developing these interventions.

Te Arawhiti's [Crown engagement with Māori framework](#) provides the definitions of collaboration and co-design we have drawn on throughout our advice. We see the framework's 'Collaborate' model as the bare minimum way in which the government should engage on digital inclusion with all community partners – not just with Māori. Co-designing interventions with communities is even better and should be done wherever possible. Our key point is that simply consulting with or informing communities is not enough.

Interventions to improve digital inclusion for Māori need to be developed with Māori; interventions to improve digital inclusion for Pacific people need to be developed with Pacific people, and so on. This approach will deliver benefits outside of specific communities. For example, the collective, localised and intergenerational approach taken by Māori and Pacific communities is likely to benefit many other communities as well.

Government needs to be a trustworthy and respectful partner

Government has work to do in terms of earning trust and respect. For many communities – and especially for Māori and Pacific people – the government represents trauma, broken promises, and injustice. Trust needs to be earned back through sustained effort and engagement, and through listening to, respecting and learning from community knowledge and expertise.

Government also needs to collaborate internally and with communities in a coherent and sustainable way. Multiple agencies are repeatedly engaging communities and community/civil society organisations on the same issues, often in parallel. As a result, many communities and organisations feel like they are not truly being listened to, and are frustrated, tired and overstretched. This is especially damaging for communities who already distrust the government due to historical factors such as colonisation.

Government needs to establish and resource a clear lead to coordinate all-of-government work on digital inclusion, and map and clarify the supporting roles to be played by all agencies working in this space. We recommended that the Department of Internal Affairs' current lead role be bolstered and resourced to be responsible for:

- providing strategic oversight and establishing consistent standards, outcomes and goals,
- leading multi-agency and multi-partner bids for investment in digital inclusion initiatives,
- managing government's relationships and providing coordination and oversight for government's engagement with partners and stakeholders on digital inclusion, and
- providing and sourcing subject matter expertise for the government's digital inclusion data gathering, evaluation and research and analysis activities.

We also advise the government to help connect and coordinate work being done across the wider digital inclusion landscape, not just within government. There are numerous organisations and entities doing impactful work across the motu, but again, effort is being duplicated and successes (and failures) are not always being shared and learnt from as well as they could be. The government can play a vital role in maintaining a map of who is working in this space (and on what), supporting a community of practice, and helping to amplify the knowledge and expertise embedded in communities and civil society organisations.

We have included a list of some of the impactful organisations and groups we think the government should (in many cases, continue to) work with at the end of this advice.

Recommendation 5: Regularly gather and release more comprehensive population-level data on all facets of digital inclusion and establish baselines to measure progress over time.

Why this recommendation

Our research shows that our national data collection and monitoring of digital inclusion metrics is not yet fit for purpose. Without good data it is difficult to know where we need to focus our efforts or whether we are even heading in the right direction.

Government must invest in gathering more data, more often, on what digital inclusion and exclusion looks like for individuals, households, and communities across the motu. The data needs to:

- Establish a comprehensive understanding of our current state and allow progress to be measured over time.
- Be broad, deep and allow intersectional analysis that can be used to develop more targeted interventions that reach the people in most need.
- Keep pace with change, as digital technologies and the ways we use them are continually evolving and contributing to new forms of digital under-inclusion.

Measurable baselines and targets are also critical tools for transparency and accountability. Government needs to publish a range of current baselines and set ambitious future targets and timeframes for achievement, and to make digital inclusion data available and accessible not only to government, but to anyone with an interest, using platforms such as the Statistics NZ website, the IDI and data.govt.nz. Communities and organisations should be able to access and use this data to support their own mahi, help shape initiatives, and hold the government accountable for progress.

How to begin

Government should add questions to the Census and General Social Survey administered by Statistics NZ and establish and fund a specialised annual survey akin to the [Australian Digital Inclusion Index](#) to measure digital inclusion indicators and set baselines across a range of dimensions, including access, affordability, skills, and motivation. Statistics NZ seems a natural owner for such a survey, with relevant expertise provided by other agencies working on digital inclusion.

There are opportunities for the government to borrow from and leverage data gathered by the private sector, such as the Bank of New Zealand “Digital Skills for Life in Aotearoa” report. Wherever possible, the government should work with industry and civil society organisations to make the most of New Zealand’s pool of data gathering and analysis expertise and capability.

Care must be taken to avoid the issues of the 2018 census, which resulted in low response rates from some of the groups at most at risk of digital exclusion. Data gathering needs to incorporate non-digital methods to ensure it reaches the very people who are suffering from digital under-inclusion.

Recommendation 6: Make robust, sustainable and culturally inclusive evaluations an integral part of government-supported interventions

Why this recommendation

Our research also found that we lack evaluative data and evidence on digital inclusion interventions. This applies to local and international interventions, and to those led by the government as well as by other parties.

What evaluation does exist is generally qualitative, with a focus on inputs and outputs, such as numbers of participants engaged, and on superficial measures of success, such as participant satisfaction. There are few attempts to measure and monitor more sustained and meaningful outcomes, such as the benefits experienced by participants over time and how these individual benefits translate into wider societal and economic gains. This makes it very difficult to establish whether interventions to date have provided permanent or merely temporary benefits and outcomes.

As the research report notes, anecdotal evidence suggests that many interventions that provide connections and devices only have a temporary impact. For as long as the intervention runs, participants are digitally included – but once support ends, they move back into a state of under-inclusion. This is a poor outcome for individuals and for society and represents a very poor return on investment.

There is also a lack of expertise in and use of culturally inclusive evaluations. For example, many evaluations focus on the individual and fail to consider whānau- or community-based dynamics and outcomes. This impedes our understanding of how tangata whenua and ethnic communities perceive and benefit (or fail to benefit) from various types of intervention – once more, excluding the voices of those who are already excluded.

How to begin

Any digital inclusion initiatives led by government, in partnership with government, or receiving funding from government should include a plan for robust and comprehensive evaluation, as well as funding and support for its implementation. Evaluation should not come at the expense of delivery, or vice versa. These plans should specify pre-determined research questions and data collection methodologies but must include the flexibility to adjust to any changes to the initiative.

Evaluations should be designed to provide a comprehensive and clear assessment of the effectiveness of interventions. They should:

- Utilise inclusive qualitative and quantitative methodologies to capture user experiences as well as measurable outcomes. Outcomes measured should look beyond the level of the individual and consider whānau, community and societal impacts and benefits. Communities should be involved in co-design and co-delivery, and indigenous and ethnic expertise from the non-governmental sector should be leveraged wherever possible.
- Begin in a timely fashion so they can support and inform iteration on and adjustment of in-train interventions if they are found to be ineffective. Wherever possible, outcomes should be monitored and measured beyond the duration of the intervention proper.

Improving the quality and consistency of evaluations will help build a stronger community of practice that spans government, civil society and industry and allow the creation and sharing of models and guidance which others can build upon.

Objective 3: Ensure all New Zealand’s people understand why digital inclusion matters and share and support the creation of knowledge and expertise. Empower, activate and support communities to be recognised/seen as and to see themselves as part of our digital future.

Recommendation 7: Help under-included populations see themselves as key participants in Aotearoa New Zealand’s digital future by amplifying their voices.

Why this recommendation

Providing under-included people, whānau and communities with internet connections, devices and basic skills is just the beginning. We need to ensure that all New Zealand’s people see themselves as key participants in Aotearoa New Zealand’s digital future.

We need to excite people who are new to or unsure about digital technology and cultivate their aspirations of being innovators, content creators, technologists and leaders. This is especially important for our rangatahi, and for Māori and Pacific peoples, women, and other population groups under-represented in the technology sector.

We also need to help under-included populations see how they can use digital technologies to make their lives easier and maintain connections with families and friends. This rationale is likely to be especially compelling for those seniors who can afford digital devices and connections but do not see the value in having and using them.

How to begin

We advise the government to support community storytelling. Rather than government or large organisations controlling the narrative, we want them to use their platforms to amplify the voices of people and communities on the ground. We believe more ground-up storytelling will be especially compelling to those who are new to the digital space and who may be put off or alienated by government-led strategies and narratives.

We also want communities and community organisations to be resourced to share their stories directly with one another and to deliver skills training. This will allow those who are further ahead to share their success and lend a helping hand to those who are still at the beginning of their journeys. This kind of interaction will bolster the confidence and mana of the givers, and show the recipients that ‘people like them’ can be digital leaders too.

Government also needs to back this excitement and motivation up by making digital skills training and education (at basic and advanced levels) visible and accessible to those who want it. The implementation of the [Skills Pipeline workstream](#) of the draft Digital Technologies Industry Transformation Programme will be critical to achieving this outcome.

Recommendation 8: Develop and promote case studies and guidance based on successful interventions within the Aotearoa New Zealand context.

Why this recommendation

Digital inclusion is a complex and challenging terrain, and we need to make the most of the knowledge and evidence we have about what works and what does not. As the government builds out this knowledge, it needs to create resources that can be used by others and celebrate and share success stories through the development of detailed case studies.

How to begin

Government should focus on transferring knowledge on community partnership and evaluation by:

- Creating guidance on and models for how co-design and co-delivery can work effectively in practice. This could include providing templates for funding agreements, project management and reporting, and advice on navigating common challenges. This is likely to require the government to be honest and transparent about some of its weaknesses.
- Sharing knowledge and expertise on how to plan and implement high quality evaluations of digital inclusion initiatives. This could include supporting a community of practice, creating templates for evaluation plans and reports, making completed evaluation reports publicly available and identifying success stories, gathering and publishing lists of effective research questions, and curating training and knowledge resources.

This needs to go beyond the government ‘tooting its own horn’. Where expertise and excellence is embedded in communities and non-governmental organisations, the government needs to lift those communities and organisations up as examples of best practice.

Recommendation 9: Support and promote research that builds out our understanding of digital inclusion and exclusion in Aotearoa New Zealand.

Why this recommendation

Beyond the backbone of improved data gathering by the government, we need more research and analysis that helps us understand the contours of digital inclusion in the New Zealand context.

How to begin

There are numerous topics and directions for research. We advise the government to canvas its partners and stakeholders to surface ideas. However, we think two projects especially deserve to be scoped, commissioned and resourced.

- Further research based on kaupapa Māori research principles needs to be undertaken for Māori voices to be ‘heard’ and to fully understand the disproportionate impact that digital inclusion has on Māori. It needs to:
 - Be led by Māori experts and providers,
 - Draw on mātauranga Māori to consider digital technology and digital inclusion in the context of social, cultural, economic and environmental spheres, and

- embed consideration of frameworks such as Haemata Ltd’s Three Cs (colonisation, culture and collective experience) and Three Ds (disparity of income and housing, demography, and distrust) and Statistics NZ’s [Ngā Tikanga Paihere](#) into research design and practice.
- We also think that there is a need for research that explores how different dimensions of inclusion and exclusion play out at various stages of the ‘skills pipeline’ in Aotearoa New Zealand. Inclusion is not a fixed or permanent state – it is constantly at risk. We would specifically like to see more research on why and how population groups such women, Māori and Pacific people drop (or are pushed) out of the pipeline when they are at school, at university and other tertiary educational institutions and in employment. This research should deliver insights that shape effective government and industry-led interventions to level the playing field.

Living our values: Accessible versions of this report

We have released our previous research in a range of formats to make the research findings as accessible and useful as possible for the greatest number of people.

We believe taking the same approach with this research is essential, given its focus. We would like to see the following formats developed and released alongside the PDF version of the full report within a year of the main report’s publication:

- A Microsoft Word version of the full report that conforms to document accessibility standards
- An ‘Easy Read’ version of the Executive Summary in both accessible Microsoft Word and PDF formats
- A Large Print version of the Executive Summary in both accessible Microsoft Word and PDF formats
- A Braille version of the Executive Summary
- An audio-visual version of the Executive Summary that includes New Zealand Sign Language

What we expect to see over time

Our recommendations provide a roadmap towards the realisation of the vision set by the Digital Strategy for Aotearoa.

In the short term (1-5 years), we expect to see the government:

- Invest in initiatives that ensure low-income multi-person households, especially those with rangatahi, Māori and Pacific peoples, have internet connections, digital devices and basic digital skills.
- Grow its internal service design capability, ensure that all agencies understand that services must be built around user needs and delivered through a range of channels (omnichannel), and start bringing all government services up to the Web and Service Design Standards.
- Develop strong and enduring relationships with a wide range of partners from civil society and industry, including Te Tiriti partners, and increase its familiarity with and confidence in collaborating on and co-designing initiatives with these partners.
- Establish a range of comprehensive digital inclusion data gathering processes and key baselines and indicators, and set ambitious targets relating to access, affordability, skills, and motivation.
- Establish processes and guidelines to ensure that all government-supported digital inclusion initiatives have robust and culturally inclusive evaluations built into them and grow evaluation capability across government and civil society.
- Develop clear roles and responsibilities for agencies across the digital inclusion space and engage with civil society and industry partners in a unified and consistent way.
- Support under-included communities to grow their digital aspirations and see themselves as part of Aotearoa New Zealand's digital future.
- Apply a digital inclusion lens to all major digital work programmes and initiatives, including all government digital and technology events and conferences.

In the medium term (5-10 years), we expect that the government will have:

- Developed a robust body of digital inclusion data that is providing evidence of strong progress towards targets. This data will have been made publicly available, and additional research will have provided depth and detail to our understanding of, and responses to, the myriad forms of digital under-inclusion.
- Maintained and matured its relationships with civil society and industry partners, and grown community capability and self-sufficiency. The relationship between the government and Te Tiriti partners working on digital inclusion will be strong and authentic.
- Built a strong understanding of what works best based on the comprehensive evaluation of past and current initiatives. Initiatives will be adjusted and improved as they are delivered based on what their evaluations show is working/not working.
- Shifted its focus towards investing in digital inclusion initiatives that provide previously under-included people with more advanced digital skills and respond to their high aspirations. There will be a diminished need for initiatives that focus on access as almost everyone will be able to access the internet at home.

- Developed strong service design capability, with most agencies taking an omnichannel approach and delivering services through multiple user-centric channels as a matter of course. All government information and services will conform to the Web and Service Design standards.
- Published a range of resources showcasing successful digital inclusion initiatives and what made them successful, and will be sharing how to get the most out of collaboration and co-design between government and partners and supporting high quality and inclusive evaluation design and practice.

In the long term (2032 and beyond) ...

We expect the Digital Strategy for Aotearoa’s ambitious vision for an inclusive digital future to have been realised. The digital inclusion milestones and targets set in previous years will have been achieved – and we will have solid evidence and data to show that this is the case. All of New Zealand’s people will be able to access the internet at home and use digital technologies in ways that work best for them and enable them to ‘earn, learn and thrive’ online. Our society and economy will have been digitally transformed, as will have the government itself.

That is not to say that the government's work will be done. More advanced permutations of digital inclusion and under-inclusion will likely persist and there will be new forms to understand and contend with. There will also be systemic challenges to deal with, such as the accelerating effects of climate change. However, the government will have the structures, expertise and relationships in place to continue its work on digital inclusion and be resilient and responsive in the face of ongoing change.

This is a marathon, not a sprint

Increasing digital inclusion is a long game – and long games require a certain type of mindset. Government will need to:

- Communicate clearly with citizens the imperative and rationale for increasing digital inclusion.
- Think carefully and strategically about how actions taken now can create a strong foundation for the next steps.
- Identify what needs to be done first and make a start on it.
- Be ready and willing to regularly remap and redraw both the landscape and the roadmap.
- Consider how activities can be phased and aligned to mutually reinforce one another and generate synergies.
- Ensure there is a clear understanding of the roles that will be played by different parts of the government, both internally and by partners, and of how all parties will work together.
- Accept that despite best efforts, there will be frustrations from obstacles and setbacks, and consider ways to keep everyone’s eyes on the end goal.
- Ensure that digital inclusion investments have continuity and survive any change of government.

Conclusion

Government must take urgent action to increase digital inclusion. Doing so is an investment in intergenerational social inclusion, equality and wellbeing, and will maximise the size and scale of Aotearoa New Zealand's digital social and economic transformation. Failing to address the digital divide and pursuing digital transformation without increasing digital inclusion will exacerbate socioeconomic inequities.

As the Digital Council for Aotearoa New Zealand, we are thrilled to have had the opportunity to support and guide the government in how to maximise the societal benefits of digital and data-driven technologies. We know that Aotearoa New Zealand has a bright digital future, but we also know that this future will be bigger as well as brighter if all our people have the tools, skills and confidence to participate in building it.

Nāu te rourou, nāku te rourou, ka ora ai te iwi

With your food basket and my food basket the people will thrive

Ngā mihi,



Mitchell Pham

Chair, Digital Council for Aotearoa New Zealand


Julia Arnott-Neenee (Dec 14, 2022 09:12 GMT+13)

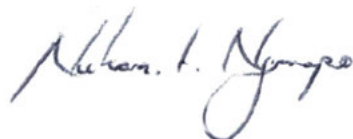
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Kevin Ross



Nikora Ngaropo

Members, Digital Council for Aotearoa New Zealand

Appendix A: Organisations and groups working on digital inclusion in Aotearoa New Zealand

This appendix provides a list of some of the organisations and groups we think government should (in many cases, continue to) work with on digital inclusion:

- Citizens Advice Bureau
- Data Iwi Leaders Group
- Digital Equity Coalition Aotearoa (DECA)
- Digital Inclusion Alliance Aotearoa (DIAA)
- Digital Natives Academy
- Fibre Fale
- InternetNZ
- IT Professionals New Zealand
- Manaiakalani Education Trust
- Mātauranga Iwi Leaders Group
- New Zealand Technology Industry Association Inc. (NZTech)
- Telecommunications Forum