

Hon Kris Faafoi  
Minister for Government Digital Services

Hon James Shaw  
Minister of Statistics

### **Aotearoa's Digital Landscape Beyond the Covid-19 Response**

Dear Ministers,

In a crisis there needs to be an immediate response to the urgency of the situation. Governments must rightly strive to secure the immediate health, safety, and wellbeing of all citizens. However when a crisis is large in magnitude, many 'temporary' decisions outlast their intended lifespan. At the same time opportunities to work differently, and more effectively, can be lost in the desire to return to 'normal.'

While the Government continues to navigate the response to the Covid-19 crisis, the Digital Council for Aotearoa New Zealand has engaged with stakeholders (in business, education, welfare, advocacy, tech and various sectors<sup>1</sup>) to explore the medium to long-term opportunities and threats the Covid-19 crisis presents for the digital environment in New Zealand.

We write to you today with the aspiration of helping you, as responsible Ministers, and your departments, to think about the future as the Government's focus shifts to post-Covid recovery. To support you in identifying the key issues and to ask the right questions to ensure the actions being taken now set us on a path to a fairer future.

We have identified four key areas that emerged from our engagement that we consider should be prioritised by the Government as it considers digital and data issues post-Covid.

#### **1) Social and Digital Inclusion**

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<sup>1</sup> In the interests of providing you with timely information, our approach to engagement was light-touch and undertaken quickly. As such, the feedback we received is not fully representative of all sectors and communities across New Zealand.

With little warning, many people have quickly learned new ways of communicating and working. We heard how this sudden change has seemingly overnight transformed society, and our workforce, with many businesses leaning into the work-from-home wero (challenge). Unfortunately too, it has highlighted many issues. From what we have heard and seen, we believe there are three specific areas that need highlighting.

Firstly, the change to a digital working environment has created opportunities for some groups, such as those with mobility issues, and this is a welcome change on which we should capitalise. The normalising of remote working and the increase in arts, music and other events moving online has increased access and opportunity for many where physical access has previously been a crucial barrier. Acknowledging the role that technology can play to increase social and economic participation, and ensuring these opportunities become part of our 'new normal' by applying an accessibility lens to our post-Covid recovery, will help all New Zealanders to thrive and prosper.

Secondly, the crisis has shown that it is possible for the Government to move fast, and action transformation when necessary. In the digital realm, this has meant that 17,000 devices were distributed to hundreds of schools at short notice to mitigate the risk of children being excluded from online learning during the lockdown.

However there are caveats to fast reaction. In this example, supplying a device should not be categorised as digital inclusion any more than supplying a car to a unlicensed teenager would be seen as providing transport. Digital inclusion requires a coherent, sustainable response that addresses connectivity, training and support, and this requires significantly more ongoing effort. Schools are a natural place to begin this journey, however we heard that the Ministry of Education alone should not be responsible for this task and that private sector, and community partnerships should be encouraged.

Lastly, we have heard that the crisis has highlighted that for some vulnerable people, the increased provision of digital government services further excludes them from society because they don't have access to connectivity or a device, the skills needed to engage online, cannot afford to pay for connectivity, or are inherently excluded due to digital spaces and processes being inaccessible to those with additional needs. As New Zealand emerges from this crisis, it is critical to guard against the risk of digitalisation further marginalising people that are already vulnerable to being left behind.

The introduction of the non-clinical 0800 number set up during the crisis is a good step on this path, but we must further consider how we can continue to digitally innovate for the many, while putting in place the necessary offline support solutions for the few.

In line with the recommendations in the Citizen's Advice Bureau report '[Face to Face with Digital Exclusion](#)', we agree that digital inclusion needs to be considered in the wider context of social inclusion; that an integrated strategy is needed to address the barriers to inclusion; and that the Government needs to provide genuine choice in how people interact with it to access services and support.

But achieving this will take time. Time that the most vulnerable New Zealanders don't have without falling further behind. In the short term, we encourage the Government to accelerate the implementation of its [Digital Inclusion Blueprint](#) and adopt the recommendations in [Internet NZ's Five Point Plan](#) which address:

- Affordable connectivity
- Devices for those that can't afford them
- Wrap around support for the newly connected
- Digital skills for displaced workers and SMEs
- Shovel-ready investment in telecommunications infrastructure

On this last point, we also endorse the exploration of "*the best definition for shovel ready infrastructure that will serve us both now and into the future*" posed by The Lever Room in its [Build Back Better Framework](#), which identifies digital infrastructure as one area to be prioritised.

Given the role that telecommunications infrastructure increasingly plays in positive social (inclusion, participation, connection) and economic (business, global trade, productivity) outcomes, the Government should consider how it can accelerate the nationwide rollout of resilient telecommunications networks, including the further roll-out of fibre, and a coordinated approach to 5G both to provide jobs in the short-term and equitable prosperity for all New Zealanders in the long-term.

Access to connectivity should not be contingent on commercial returns for private operators. Indeed, we have heard, and echo, the call on the Government to measure impact, investment and success using a broader range of indicators. For example, while it may cost more in the short term to roll out broadband infrastructure into rural communities or social housing, the

longer-term benefits of digital inclusion and the likely increased societal costs arising from digital exclusion may well justify that initial investment.

## **2) Leveraging Technology to Empower Business**

97 percent of New Zealand businesses operate with less than 20 staff, and it is these small organisations that urgently need extra support to help them make the best use of digital tools to boost productivity in a contactless environment. We heard that many SMEs are currently turning to international e-commerce platforms (such as Shopify or Amazon) to continue exporting, due to lack of a local equivalent and accessible expert advice to provide guidance in this area. We heard of support for a local equivalent, even receiving offers to facilitate this, and that digital capability training for SMEs, along with incentives to adopt cloud-based technologies, will be essential to not only help small businesses survive in a post-Covid world, but also to help cement New Zealand's reputation as a leading digital nation.

At the same time there is significant opportunity for larger organisations to adopt digital tools. For example, infrastructure investment projects should be re-framed from being 'shovel ready' to being 'sensor ready.'

Taking this approach would support the development of digital twins for infrastructure, and provide several benefits. This would include the creation of an evidence base to understand our infrastructure debt, better planning and needs analysis, and the promotion of efficiency and innovation throughout the sector. These outcomes could also lead to the creation of new, high-margin, export-ready businesses to manage this data.

The Government should not underestimate the role that innovation and entrepreneurship will play in our post-Covid recovery. New Zealand's resounding entrepreneurial nature is one of our major assets, and with the right leadership by government, digital and data-driven innovation can revitalise the sectors hardest hit, such as tourism, hospitality and the primary industries, as well as create new industries and ways of working. When considering longer-term measures to support existing industries beyond the immediate crisis, the Government should engage the technology, innovation and entrepreneurial sectors to explore how to both save jobs while creating new roles in new, adjacent industries. We stand ready to assist in making those connections where needed.

As one of the few countries emerging from lockdown early on, New Zealand has a first mover advantage. This presents an opportunity to lead the way if we select one or two specific areas to hone in on and support. We heard of, or saw, a number of large-scale initiatives that have

transformation and innovation at their core. TORO, conceptualised during the Level Four lockdown, is a Tairāwhiti-based production, animation, training and technology centre set to attract international production business. With commitments from over 20 creative technology and production businesses to relocate to Tairāwhiti to operate from within TORO, the centre will create 50 new jobs and 20 internships immediately. This is just one example of a local solution, creating regional jobs, capitalising on international and export opportunity through our first mover status.

### **3) Enhanced Tech Sector Employment**

The technology industry now generates more export revenue than the wine industry. The Covid-19 crisis is likely to increase the acceleration of many digital technologies, and the Government therefore has an opportunity to invest in digital skills - a viewpoint shared by stakeholders.

Given the expected rise in job displacement and losses, investing in the provision of digital education pathways into tech-enabled careers constitutes a significant opportunity for Aotearoa. With technology skills and capability in global demand, and tech, tech-adjacent, and tech-enabled careers being relatively insulated from automation and skill redundancy, it would provide us with the opportunity not only to see a broader, more diverse cohort of New Zealanders reenter the workforce, but do so at a higher pay rate, with a resilient skill set. Whether that investment is retraining individuals into technology production, or assisting traditional industries/career paths to join the digitally-enabled economy, in totality the result will be a progressive, effective, and diverse workforce.

Greater diversity in our tech workforce will also support more equitable technology developments: reduced algorithmic bias (such as association bias, interaction bias, and confirmation bias<sup>2</sup>), more assistive and Māori-driven tech, among other examples. We urge the Government to focus on the opportunities here for women, Māori, Pacific peoples, people with disabilities and other communities traditionally underrepresented in the tech sector to provide social and economic empowerment while addressing the growing skills shortage and historical reliance on importing talent from overseas.

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<sup>2</sup> Association bias refers to one value correlating to another and is particularly dangerous when applied to people's attributes, often gender. Interaction bias is when technology learns from harmful interactions. For example a chatbot who learns to communicate in a sexist manner due to user engagement without the barriers needed to prevent this. Confirmation bias risks the complete exclusion of initially less popular ideas, decisions, or thoughts by making oversimplified assumptions for an individual. This can often happen in e-commerce, and media.

Providing pathways into technology is probably best achieved through partnerships with the private sector to ensure that the required skills are taught with speed and in response to real-world needs. We can look at local models already successfully helping people shift industries in a short time-period, with inclusion at their heart ([Enspiral Dev Academy](#), [Whitecliffe](#), and [Tech Futures Lab](#) are just a few examples). When assessing who is best placed to action this opportunity, we should look to those who have the framework, the capabilities, and the community - rather than starting from scratch.

We strongly feel an investment that would see thousands of New Zealanders re-trained in technology, or enhancing their tech competency, and working again by the end of the year would represent an inclusive approach to radically shift our society, and our nation's capabilities.

#### **4) Privacy and Trust**

New Zealanders have responded well to the drastic and necessary requests made by the Government to contain the virus. However concerns remain about how easy it would be for the country to accidentally get caught on a slippery slope to mass state surveillance. For example, consider the issue of contact tracing for Covid-19.

While manual tracing has its place, a digital solution provides the necessary speed, scale and accuracy to effectively control any future spread. However, several crucial decisions need to be made, including how to store the data that tracks who a person has been in contact with. In this situation the Government has to weigh up privacy concerns with the overriding health imperative. The jury is still out on whether the right balance has been struck here in New Zealand, and we recommend that further discussions about contact tracing are held openly to avoid the risk of setting a precedent from which it is difficult to return.

In this regard, to help the Government and its agencies maintain the current high levels of trust and confidence built through the crisis response, and in addition to the Office of the Privacy Commissioner, we see an important role for StatsNZ's Data Ethics Advisory Group. Recent announcements (such as the approach to contact tracing, cloud storage and data as tāonga, along with the consideration of automated decision-making to tackle the expected rise in beneficiaries) raise complex issues on which this group is well-placed to provide thoughtful advice to help preserve public confidence. Our own work programme is focused on trust and while we may explore some of the issues outlined above, we also look forward to working closely with the Data Ethics Advisory Group as our thinking develops.

## **Conclusion**

As a nation, we have an unprecedented opportunity to take stock and reshape our society and economy. Digital and data-driven technologies will inevitably play a significant role in doing this.

It is overly simplistic to consider digital and data as a sole workstream - these technologies are woven through all sectors of the economy, and our society. As such, we urge the Government to apply a digital lens across all of its post-Covid recovery policies. To identify where technology can breathe new life into struggling traditional sectors, and where it has the potential to allow the social and economic participation of a wider cohort of New Zealanders who were being left behind.

As the Digital Council for Aotearoa New Zealand, we are thrilled to be in a position to help support and guide you, as responsible Ministers, and stand ready to undertake any further work to collectively build our digital and data 'new normal'.

Yours sincerely,

A handwritten signature in black ink that reads "Mitchell". The signature is written in a cursive style and is underlined with a single horizontal line.

Mitchell Pham  
Chair, Digital Council for Aotearoa New Zealand

Signed on behalf of members: Roger Dennis, Marianne Elliott, Kendall Flutey, Colin Gavaghan, Rachel Kelly and Nikora Ngaropo