A Digital Strategy for New Zealand

July 2020

This document outlines the three principles that will accelerate the contribution of the local digital sector to New Zealand's economic and social well-being, and will support the longer term development of the industry as a critical plank in our country's future.

Information Technology (IT) is now as essential to our economy and our society as electricity; software is in everything from our homes to our workplaces, and the vehicles we travel in between them. Ensuring that we recognise this, and are actively working to create and capitalise on the opportunities it presents, is critical to our success in the coming decades. Planning for that now, as we re-engineer our economy in a post-pandemic world, is a matter of urgency.

The three principles outlined here together support a range of outcomes, including:

- increasing the value of digital exports,
- the delivery of high value jobs now and for future generations,
- protecting Tikanga Māori and New Zealand culture,
- promoting efficiencies in the public sector, and
- underpinning innovation in our key industries.

The three principles are: **Open**, **Sovereign**, & **Resilient**

Open

Champion transparency

Government data should, by default, be open. Agency data and algorithms should be open to scrutiny to build trust in our democracy. Publicly funded data should be open for re-use and commercialisation to foster innovation.

Interoperate globally

Ensure that New Zealand's public and private sector systems are built on open standards, facilitating the ability to interoperate and integrate with other local and international systems, to deliver benefits for New Zealanders. Build on success stories like Koha, the Library Management system built in Horowhenua and used in tens of thousands of public libraries around the world.

Leverage excellence

Adopt "best of breed" open source solutions and adapt them for local needs and cultural appropriateness, to fuel innovation and opportunities for businesses and communities. Like some of the largest businesses in the world, Google, Amazon and Facebook, the Catalyst Cloud was built on open source–and was the first fully automated cloud in New Zealand, years ahead of its competitors.

Minimise waste

Make open source the default for public sector systems, to encourage re-use and sharing, to maximise the Crown's investment in software, and minimise the reliance on licensing. Favour smaller, more agile public sector IT projects that use Kiwi companies for continuous delivery, not monolithic proprietary systems that deliver cost blow-outs and a fraction of the promised value.

Sovereign

Māori rights

Recognise and protect digital information or knowledge that is about or from Māori people, language, culture, resources or environments. Ensure that tangata whenua are in control of their taonga and are supported to enhance their economic opportunities. Embed Māori values into the culture of the public sector.

Self determination

Ensure that New Zealanders retain control of their data, and their destinies in a world mediated by technology, and increasingly controlled by software. Showcase the innovation happening here, like the project using Artificial Intelligence to monitor the presence of te reo Māori on terrestrial radio, and grow the digital sector's exports to the rest of the world.

Privacy first

Enshrine the right to digital privacy, and protections for it, in New Zealand law, much like the GDPR. Privacy is a non-renewable resource, and one that is significantly undervalued. Ensure that policy decisions honour Kiwis rights to privacy.

Non-exploitative

Encourage a fair market where New Zealand digital services companies are able to compete and operate in a principled fashion: pay their taxes, respect our laws, and not treat our citizens and their data as a resource to be extracted and sold to the highest bidder.

Resilient

High-value jobs

Invest in the local industry so that Kiwis for generations to come are able to continue to work and pursue highly paid and challenging careers in our sector. Acknowledge the multiplier effect where 30c in every dollar spent on local firms is returned to the Crown either directly or indirectly.

Knowledge economy

Focus on building a high-value economy, with weightless exports and multiple career paths for skilled workers. Reform government procurement to recognise value, not just price. Acknowledge the potential for IT to revolutionise our other critical sectors, like agriculture, tourism and health.

Self-sufficiency

Develop the capability and systems to ensure that New Zealand is not reliant on offshore providers and systems to deliver the critical infrastructure we require in the digital age. Ensure that in the event of a natural disaster, we are not reliant on connectivity to the rest of the Internet to deliver critical services to New Zealanders.

Cultural relevance

Ensure software and algorithms deployed in New Zealand encode and reflect our values and do not import more bias and prejudices into our society. Develop guardrails to manage the introduction of emerging technologies, like Artificial Intelligence and facial recognition software, so that they are a fit for our legislative and cultural environment.

Implementation

These principles should form a basis for digital policy that enables us to build a future that is in our best interests. Some of the ways these principles could be delivered include:

- Parliament is streamed on a New Zealand owned and operated platform, with all data kept on shore. Parliamentarians use the platform to engage with their constituents via digital “town halls” and citizens are not required to trade their privacy for access to their elected representatives.
- Cabinet can be conducted remotely via a secure, New Zealand hosted video conferencing service where officials and Kiwis are confident that the data remains in New Zealand. This secure platform is also be used by other public and private sector organisations.
- Crown Research Institutes, in partnership with the digital sector, aggregate real time soil data across New Zealand for farmers and climatologists.
- Schools, polytechnics, universities, and businesses have access to New Zealand based virtual classrooms for remote learning for students and employees, where the data and user’s privacy is protected by default.
- Algorithms for the finance, health, and other sectors are written and run on locally owned platforms, so they are culturally appropriate and reduce, rather than magnify, equity and accessibility gaps.

Working constructively together, we can rebuild New Zealand as a society and economy for the future. Where New Zealanders are in control of their data and their destinies, and our digital sector is vibrant, innovative, and a key platform for our prosperity.