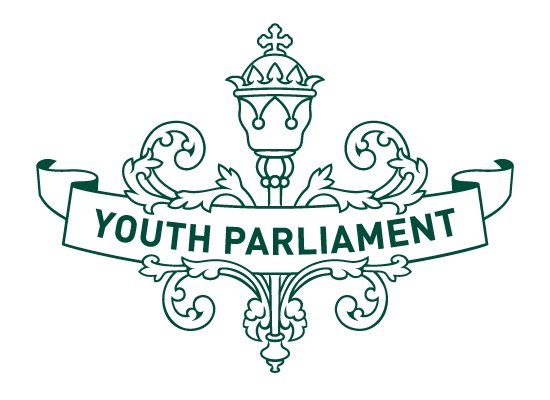
  
Youth Parliament 2016

Record of Proceedings:  
Commerce Select Committee report





Commerce Select Committee

**Inquiry into how New Zealand’s information technology infrastructure could be developed to support the wider ’digital economy’**

**Recommendations**

The **Commerce** Select Committee recommends to the Government that it:

make a commitment to accelerate rural internet access by

* working with providers to review cell phone tower placement to optimise rural mobile access
* committing to substantially higher quality of connectivity for rural populations but less frequently (every 10 years instead of 5 years to minimise the cost of investment costs)

invest in the promotion of existing educational services and vocational training to enhance digital literacy for all of the present working population

fund and run a website which offers support for people and businesses wanting to increase their digital literacy

investigate how the Government could better use libraries to facilitate more targeted training for digital inclusion

establish internship programmes that create partnerships between schools and businesses to upskill the workforce, utilise local talent and encourage businesses to embrace new technologies, including by:

* offering NCEA courses that place high school students with local businesses
* placing tertiary students with businesses to encourage the usage of available technologies.

**Introduction**

The purpose of this report is to summarise our consideration of how the New Zealand Government can best enhance the development of information technology (IT) infrastructure to support the wider digital economy. We heard from industry organisations and the Ministry of Business, Innovation and Employment and a Northland agricultural worker. We have identified key areas where the Government could invest to enhance development of the digital economy.

Access to, and the quality of, internet connectivity have substantially increased since the first broadband package was offered in 1999, but so has the demand for ever more connectivity.

**Accessibility and connectivity**

We agree that a fundamental obstacle to the enhancement of New Zealand’s ‘digital economy’ is access to quality connectivity to IT infrastructure. The Government is currently committed to three programmes that would dramatically enhance the level of internet access, to the advantage of most New Zealanders. The urban-oriented Ultra-Fast Broadband (UFB) initiative, the Rural Broadband Initiative (RBI), and the Mobile Black Spot Fund (MBSF) are all intended to address gaps in the current IT infrastructure. The Government aims to deliver:

* UFB to 80 percent of the population within designated urban areas by 2019
* RBI to 90 percent of the population outside the designated UFB areas by 2016
* MBSF funding of $100 million to extend mobile connectivity for rural and remote areas that are popular tourist destinations but lightly populated
* a recently announced overall target of 50Mbps to 99 percent of the overall population by 2025

We asked about the priority of the Government and were assured that access is the Government’s primary focus, as reflected in these investments, but there are other areas of action and investment. We were advised that the goal for 2025 is “bare-minimum targets” and that long-term planning beyond this goal would be difficult because we cannot be certain of the development of technologies that could contribute to improved delivery of access and quality of connectivity.

We heard from Andrew Cushen of InternetNZ who suggested that there is sufficient investment in IT infrastructure, and that future spending should now focus on promoting awareness of options for access, on education and vocational training, and on New Zealand innovation in online security. We disagreed that current investment is adequate as we believe that direct investment in training could be addressed at low cost by implementing alternative strategies, which we discuss later. However we agreed that there is a need to promote education and training as there is not enough awareness of these services.

**Focus on rural investment**

We agree that the delivery of these services to rural areas is key, but also recognise that speed must be maximised in a cost-effective way. We heard that further extensions to mobile network infrastructure could be used to reduce the pressure on fixed lines or provide access to areas where it would be excessively costly to install fibre. This would reduce costs, which consumers would likely benefit from. However, we noted that although 4G and 5G networks could deliver fibre-like speeds in 5-10 years they do not provide extensive coverage.

We understand that expanding mobile networks alone would not fully resolve the current rural access limitations. We are therefore interested in innovative practices of other comparable countries. The most comparable countries in terms of population and geography are Scandinavian countries which, we were told, we are on par with. We heard from a worker in the agricultural sector, Grant McCallum, that New Zealand can develop its wireless structure in a more innovative way. One such example is Google’s innovative, unique, and low-cost air balloons which provide wifi access and have been successfully trialled in New Zealand. This is the kind of off-the-wall solution that the Government could consider. We agree that pressure should be applied to speed up the availability of access for rural populations, but we realise that there are other barriers to encouraging development of the New Zealand digital economy.

**Digital inclusion**

We acknowledge the challenges New Zealand faces with an ageing population and the pressure to upskill workers to prepare the workforce for the next industrial revolution as referenced by the 2014 Organisation for Economic Co-operation and Development (OECD) report *Measuring the Digital Economy: a New Perspective*.

The concept of ‘digital inclusion’ involves minimising or removing the barriers for people to participate in information technologies so that they get the social, educational, cultural, and economic benefits. A lack of awareness of the benefits of access and the possible uses of digital technologies, both by individuals and businesses, can prevent the potential gains from being realised.

The Government has been investing in access as well as in its online presence. We were informed of Government efforts to move many departments’ services online in order to simplify and reduce the public’s face-to-face interactions with them. We noted that there was space for the Government to develop webpages and apps that cater to the needs of those with disabilities. We were assured that if there was sufficient demand, the Government would approach their technology sector partners around delivery of these services.

**Adoption by businesses**

We were advised that New Zealand businesses were slow to invest their resources in information technologies and that they could be 30-40 percent more effective if they did. Some New Zealand businesses have utilised IT infrastructure as part of the digital economy to offer weightless products, such as the accounting software of Xero. Other international companies have successfully disrupted existing business models across the world, such as Uber. It is not the larger companies that have been failing to recognise and exploit the benefits of using current technologies and IT infrastructure; it is the small businesses across the country.

We were told that the weakest adopters are small businesses, especially in the tourism, agriculture, trade, construction, and retail industries. There are some limited Government-funded services that help businesses to adopt and apply information technologies, such as Digital Journeys and business mentors, but we consider that the Government could do more to support small businesses. We asked what the Government is doing to encourage IT graduates and upskill workers. We were advised that workers need to adapt but the Ministry for Business, Innovation and Employment is currently working with the Ministry of Social Development on ideas to encourage more people to study and work in this industry. We agreed that the Government should improve employment pathways for students pursuing computer science and the retraining of digitally challenged or digitally illiterate workers.

**Education and training**

Schools are increasingly embracing emerging technologies in classrooms, and students tend to adapt quickly and learn how to use them. For this reason young people are usually the most digitally literate demographic and it is older generations or workers who have limited contact with IT that are more likely to be unfamiliar with them.

We suggest that an NCEA course be established with a focus on IT and training the digitally illiterate in local businesses. We believe that high-school students’ proficiency with new technology is an untapped resource that could be used cost effectively and to mutual benefit to give digitally illiterate workers confidence in online platforms. We recommend the establishment of an internship programme that partners schools with businesses, and students with workers, to address digital literacy by upskilling workforces.

We were informed that many small businesses are not adopting available technology and utilising the infrastructure for a digital economy, but this would be one step towards encouraging them to embrace new IT. Another step would be for the Government to encourage tertiary students with any skills related to IT, such as computer science students, to be placed with businesses with credits going towards their studies. The Government could coordinate these internships so that the business gets an IT service they would not have otherwise, and the student gets work experience within their field before the completion of their studies. This would not only raise the confidence and ability of students, it would allow businesses to use the advantages of these technologies and even encourage technology users to become creators.

In addition to these internships, the Government should fund and run a website, in addition to the promotion of existing resources, which offers support for people and businesses wanting to increase their digital literacy. We are aware that libraries currently offer services to support digital inclusion and the Government could do more to use them to facilitate more targeted training.

**Appendix to Commerce Select Committee report**

**Committee procedure**

The committee met on 19 and 20 July 2016 to consider the inquiry. The committee received and heard three submissions. Evidence was heard from Andrew Cushen, InternetNZ, Craig Young, Telecommunications Users Association of New Zealand, Kim Connolly-Stone, Ministry of Business, Innovation and Employment, and Grant McCallum, Northland agricultural worker.

**Committee members**

Charlie Wang (Chairperson)

Bella Biggs

Ngahaki Gardiner

Tim Marshall

Kaleb Reid

Samir Loumachi

Dion Mahoney

Eve McCallum

Stefan McClean

Timothy Rowe

Britnee Tapara