05 June 2019

New Zealand Productivity Commission
141 The Terrace
PO Box 8036
WELLINGTON 6143

Tenā koutou katoa

Submission on technological change and the future of work

The National Library welcomes the opportunity to respond to the issues paper on technological change and the future of work, published by the NZ Productivity Commission in April 2019. Our mission is to create cultural and economic value for New Zealanders through our leadership and collaborations. This encompasses our statutory role to supplement and further the work of other libraries in New Zealand.

We draw your attention to two aspects of the work of libraries of particular relevance to positioning New Zealand and New Zealanders to take advantage of innovation and technological change in terms of productivity, labour-market participation and the nature of work. One is the importance of literacy as a fundamental skill for a productive workforce and the role that school and public libraries can play in supporting literacy development that is too often overlooked. The other is the role of libraries as community hubs providing access to practical tools, meeting spaces, digital literacy programmes and information in ways that are meaningful and relevant to their local communities.

Libraries provide opportunities for New Zealanders to engage with new technologies and support new ways of working in local contexts. There are 318 public libraries employing over 3,000 people[1] embedded in communities nationwide and online, along with state funded school, tertiary and special libraries, all interconnected through the network of New Zealand libraries.

The National Library, through our leadership in the New Zealand library sector, supports and influences this substantial national asset to foster innovation, removing barriers to access and ensuring New Zealanders have the skills to use knowledge and information technology. By leveraging this capability New Zealand can maximise the opportunities and manage the risks of disruptive technological change and its impact on the future of work and the workforce.

---

[1] Public Library Statistics 2016-17, Public Libraries of New Zealand
http://www.publiclibraries.org.nz/LibrariesToday/PublicLibraryStatistics.aspx

Technology change, productivity and living standards

We note that the issues paper emphasises human capital (skills and training) and financial and physical capital (capital productivity, labour supply and wages). We consider that community stocks of social capital in particular will impact directly on motivation, access, skills and trust which are known factors for digital inclusion and the adoption of new technologies. The resilience of all four capitals in the Living Standards Framework will affect the conditions described in the four scenarios for the impact of technology on the future of work in the face of disruptive technological change.

Looking to the future

Q2 What other consequences might be expected under each scenario?

We consider that individual and collective wellbeing will be impacted under all 4 scenarios and that impacts will be distributed unevenly across different demographic groups and geographic locations. There is likely to be a compounding effect and a concentration of impacts within specific communities. We think that locally relevant responses are most likely to improve conditions for resilience in the face of disruptive technological change and that the worst impacts of change can be mitigated by investment in social infrastructure such as the national network of libraries.

Education and skills

Q 17 How well do the current outcomes from the education and skills system position New Zealand to respond to changing technology and different future scenarios?

For education, the need to respond to changing technology and different future scenarios needs to be balanced with other aims and objectives, for example, helping learners develop as individuals and citizens.

Some aspects of the NZ Curriculum focus on transferable attitudes and skills (for example the Key Competencies), working to enable learners to continue to learn throughout their lives and careers and to transfer what they know to a variety of contexts. Given the rapidly changing nature of technology and work this is a sensible approach.

Current senior assessment approaches (for example NCEA) can be problematic. In some schools the unit and/or achievement standards have become the curriculum and learners are essentially 'taught to the test' bypassing more robust and transferable learning opportunities. The current review of NCEA may address this.

Q19 What, if any, further measures are needed to improve skills among adults with low proficiency to enable them to successfully participate in any future labour market?

An emphasis on literacy development is needed, in particular reading, writing and numeracy. These fundamental literacies are the basis for almost all other kinds of learning, and the development of more context-specific literacies (for example, critical and digital).

Research shows 2 a sustained focus on reading for pleasure provides a platform for literacy development but also assists in wellbeing and improved social, cultural, work and life outcomes.

Q21 What, if any, further measures are needed to address any digital divides in New Zealand?

Within education the term 'digital divide' is currently used in two main ways. The first, and most commonly understood definition refers to those who do not have 'access' to digital technologies. This includes physical access to devices or infrastructure, but also intellectual access via a lack of literacy, appropriate mental models etc.

The second newer definition of 'digital divide' refers to increasing awareness of the limited utility of digital technologies (and their potential harm) and those schools that see the need to balance their use with other kinds of physical and aesthetic learning opportunities, and those schools that don't (i.e. where a large proportion of learning is spent on computers and learners are perhaps starved of other kinds of experiences).

To address both types of divide requires educators to emphasise literacies, critical thinking, and understanding as a means of 'access' to digital technologies; as well as an understanding of the pedagogical, intellectual, social and cultural impacts of technologies and the need to recognise them as just one part of a broader education encompassing a range of multi-modal experiences.

Q26 How well equipped is New Zealand's education and skills system to support people to adapt to technological change over the course of their careers?

Please see response to Q17.

Q28 What changes are needed to provide prospective students, including adults and those already part-way through a career, with the skills needed to make informed decisions about education and careers?

For learners, the approach to this advice varies significantly from institution to institution. The most effective approaches involve the family/whanau of the learner, provide lots of opportunities for discussion and advice.

---

[2] Department for Education, UK. Education Standards Research Team. (2012). Research evidence on reading for pleasure.

We would be happy to discuss this submission with you further. We urge the NZ Productivity Commission to explore possibilities for capitalising on the infrastructure that exists in the nationwide network of libraries to deliver programmes at scale in partnership with communities across the country in support of increased productivity, labour-market participation and new ways of working.

Yours sincerely

Alison McIntyre
Principal Advisor
Office of the National Librarian