

Time for Canada to Catch Up on Technological Transformation

By [JOEL BLIT](#) MARCH 24, 2021

As we near the back end of the pandemic, we must embrace change, lest we find ourselves with a 20th century economy trying to compete with artificial-intelligence- and robotics-powered multinationals

Nobel-prize winning economist Paul Krugman once quipped that “productivity isn’t everything, but in the long run it is almost everything.” He was referring to the fact that the wages of workers are intrinsically linked to productivity and that a country’s standard of living depends almost entirely on its ability to increase output per worker. Other issues, such as how to allocate public funds, become secondary because by increasing productivity a country can afford to invest across the board.

Canadians, and our representatives in government, should therefore be extremely concerned about our large and growing productivity gap. According to [data from the OECD](#), while fifty years ago Canada stood second among G7 countries in labour productivity, behind only the United States, today Canada stands second-last with but Japan behind us. Canada is the only G7 country that has failed to double its output per hour of work over the last half century.

One reason for our large and growing productivity gap is Canada’s relative lack of investment in R&D and innovation. Another important factor is our business sector’s slow adoption of technology. When workers have access to more advanced machines and technologies, whether it be computers that facilitate bookkeeping in an office, robots that move packages in a fulfilment centre, or artificial intelligence that helps radiologists make diagnoses in a hospital, they are able to produce more in an hour of work.

Canada perennially lags our southern neighbour in the adoption of technology. According to a [report](#) by the Centre for the Study of Living Standards, Canadian investments in information and communications technology (ICT) were 2.14% of GDP in 2014, relative to 3.11% of GDP for the United States. The large gap was due in part to differing investment trajectories during the Great Recession and subsequent years. Between 2008 and 2014 real ICT spending fell 1.0% per year in Canada, while increasing 2.9% per year in the United States.

This experience highlights the crucial role that economic crises can play in the adoption of technology. Recent [evidence](#) for the U.S. shows that areas that were hardest hit by the Great Recession also saw the greatest adoption of technology, loss of easily automatable routine jobs, and increase in job skill requirements. Indeed, since the beginning of the ICT Revolution in the mid-1980s, but not before, [every U.S. recession](#) resulted in the permanent loss of routine jobs. A [similar pattern](#) emerges in Canada, suggesting that crises are important periods of technology adoption.

Our current crisis has the potential to completely transform our economy. Not only is the scale of the economic downturn unprecedented, but health concerns are in addition forcing new and

often better ways of doing business. The best way for managers to mitigate health risks to workers and operations is to digitize processes or to adopt robots. We are living through a period of unprecedented pressures for operational change.

Unfortunately, Canada seems aloof to this historic opportunity to narrow our productivity gap. With the exception of green technology, Innovation and productivity have entirely fallen off our national agenda. Ottawa's priorities can best be summarized as aiming to maintain the status-quo, not of embracing a more prosperous future. Instead of encouraging businesses to adopt technology through financial incentives and the sharing of technical know-how, we are actively [stifling investments in innovation and automation](#) through a wage subsidy that in [peer countries](#) was either never implemented or was long-ago phased out.

Canada must do better. As we near the back end of the pandemic, we must embrace change, lest we find ourselves with a 20th century economy trying to compete with artificial intelligence and robotics powered multinationals. 5G technology will create new industries and business models, and Canada cannot afford to arrive last to the party to pick up the crumbs. If we are to seize this historical opportunity, we must establish an innovation advisory group to work alongside other COVID-19 advisory bodies in charting the best path through the pandemic. The transformation to a new economy, through innovation, automation and reallocation is one that we must urgently embark on. The transition won't be easy, and Ottawa will need to play an important role in supporting Canadians through it, and beyond.

Canada cannot afford a repeat of the Great Recession where our technology and productivity gap only widened. We must embrace technological change to ensure the future prosperity of our country and to generate the resources that will help us overcome the next crisis.

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