

# Re-booting government as a bridge to the digital age

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**Digitalisation has already been under way for about half a century, yet it is only now that everyone is talking about a digital revolution. Why? One reason is the spread of faster and better connectivity. In 2013, about 80% of OECD countries had complete broadband coverage, fixed or wireless. Another reason is the global surge of smartphones—today, many millions of people walk around with constantly connected mini-supercomputers in their pockets. With these changes, the transformation morphs from being economic to being social as well.**

Digitalisation does not affect fundamental policy objectives such as the need for good jobs, mobility or clean air but it does affect how we seek to achieve such

goals. In transportation for instance, policy must factor in automated vehicles that provide a different set of choices and opportunities, as well as risks. In education, digitalisation enables a new learning potential that really is lifelong and accessible to everyone. And with respect to funding of government (taxation), digital tools can help tax administrations broaden the base for tax revenue.

It is perhaps inevitable that our policymaking institutions lag behind the technological developments that fuel the digital transformation, but the gap is widening and with it the opportunity to shape the transformation to address long-standing concerns such as low productivity, age dependency and access to healthcare. A key objective of the OECD's "Going Digital" project is to close the gap by improving awareness and understanding of the issues, helping governments learn from each other and sharing the fruits of the active experimentation presently under way. But it's a challenge for governments for two reasons.


First, the speed at which the transformation is happening fundamentally challenges the existing institutions we have for policymaking. The industrial revolution took place over the course of a century, but the digital revolution, especially the current phase that is transforming society, is taking place over the course of a generation and could accelerate still. Our institutions, whether in employment or education for instance, have not adjusted to these changes very well, leading to a loss of confidence among citizens and concerns about not having a roadmap to help them navigate the future.

The second big difficulty is the multi-disciplinary nature of digital transformation, which requires policymaking to rise above the ministerial silos we have today and think across government and across boundaries. In a networked environment where torrents of data are generated, every policy has to consider issues of data security, privacy, access and stewardship. Who has access to the data in the "black box" of an automated vehicle involved in an accident? Is it public, or proprietary? This issue will arise in every policy area from science to farming, and we are only at the beginning. It is clear that data are the hallmark of this new phase of digitalisation. From smartphones to the "internet of things", new devices will increasingly have sensors to store data, which will allow us to engage in big data analytics, as well as enabling more artificial intelligence (AI) and machine learning. It is hard to predict where we are going with all of this, but it is clear that governments need to accept that the times have changed, and that they should use these tools to improve policy design, deployment and evaluation.



Governments at all levels are beginning to rise to the challenge. We are starting to see examples across the OECD of how national and local governments are using technology as a tool to do better policy, from Germany with its “Industry 4.0” and Estonia which is beginning to use blockchain for government services, to Mexico, which is beginning to use electronic invoice verification to guard against tax evasion and India with its biometric identification. Cities like New York are using digital technologies to help manage water supply, and in Paris people are using technology to rent electric vehicles for use in the city. In Africa, small firms are connecting with global markets using digital technology and a thriving fintech sector is beginning to emerge as digital payments substitute for cash.

There is so much that can be done. Infrastructure, especially broadband connectivity (mobile and backhaul fibre), is fundamental, and governments need to provide access to build the economy on modernised infrastructure. But having the gear is not enough. Governments need to be proactive, and not be held back by legacy policies that pre-date the digital world and hamper progress in the digital era. For example, governments can lower the cost of providing access by allowing operators to use public buildings and infrastructure for the siting of transmission towers.

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The digital transformation requires that governments do some forward planning. First, it’s about the people themselves, about human capital, and equipping people with the necessary skills and an ability to upgrade quickly, as these skills will be constantly evolving. Change is a fact we have to get used to and people cannot assume that a certain level of educational attainment will be sufficient for

their careers. Second, governments need to prepare transition policies. There are going to be winners but also losers. This means building support plans that cushion the transition.

It is clear that jobs and skills will be directly affected, not just in factories but in sectors that have not yet seen much automation, such as law, education, health and finance. STEM skills will be important, but increasingly it will be the blending of this know-how with cognitive problem solving capabilities with complementary “soft” social skills—teamwork, collaboration and oral communication skills. This bundle of skills is essential for adaptation and the organisational change that is required to fully harness technology.

As an institution that grew out of World War II that saw the early flickers of the digital era with computing used to break secret codes and “big data” used to target submarines, the OECD has been working on digital projects for some 35 years, having set up a committee to focus on the issues back in 1982. What started as a “sectoral” issue has evolved into a transformation that is affecting every part of the economy, and much of society. The breadth of OECD policy contained under one relatively small roof in Paris, provides a unique capability for analysing this issue in a transversal and multidisciplinary manner across 14 different policy domains. Given that we live in an era of hyper-connectivity, this whole-of-government perspective is essential because a policy made in one area can have unintended consequences in another: ban ride-sharing because it violates rules governing taxis and you may make it difficult for poor people to get to work; overly limit data flows because of privacy concerns and you may cut off promising avenues of research on dementia; regulate what constitutes a lawyer to a person with a law degree and you might deprive the poor of law services based on AI.

Businesses want some policy certainty so that they can plan, invest and innovate, and the best way to achieve this is for governments to be proactive with a coordinated strategy that involves the various stakeholders. Getting this right by making it genuine is difficult but will determine success. Most importantly, the digital transformation should not be cast as a challenge or threat. It does pose serious concerns that need to be directly addressed and not minimised such as security and worker displacement, but it also presents a huge opportunity for achieving long-held policy goals.

If you think back to the industrial revolution and the rise of automobiles and mass production, we had leading people like Henry Ford and Walter Luther who came together and shortened the work week, institutionalised weekends and made annual paid vacation part of the package, along with other benefits. Could Steve Jobs iPhone be remembered in the same way as a levelling force that empowered individuals and allowed all of us to benefit as opposed to just a handful? In this sense, successfully navigating the digital transformation may be less about technology policy and more about distributional policy. How do we ensure that the opportunities are available to all to benefit from? How do the winners lend a

helping hand to the losers, and those struggling? If today's leaders can make the decisions that allow a promising and inclusive digitalised future to emerge, then everyone will benefit.

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## References

[www.oecd.org/sti/ieconomy](http://www.oecd.org/sti/ieconomy) [www.oecd.org/sti/ieconomy](http://www.oecd.org/sti/ieconomy)

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