

▶ GOVERNING IN THE DIGITAL AGE

The digitizing of the world is creating some interesting challenges. In the first instance, it is changing what we can do and how we can do things. There are some things that we were not able to do in the past, in terms of finding meaning and value in what groups of people do. This creates all kinds of business opportunities, some of which may be exploitive, or may actually hurt the people that have generated the data. It could be in the field of digital agriculture, or your online presence, as people figure out how to use your Amazon and Facebook posts to market more effectively to you. So there is a potential risk here.

The digitization of the world also changes what we can do. Theorists say a lot of the things we are now digitizing will, over time, move away from humans doing things to humans doing things aided by computers. In one endgame, humans may no longer be part of the creation process. This raises big questions about how we ensure that what emerges from those semi-autonomous and fully autonomous systems, are useful to us. This creates all kinds of governing challenges. Sometimes, the problem is that the action and the people that seem to own, control, and benefit from these new applications, are beyond our reach. For instance, WikiLeaks or Facebook problems and the potential interference in democratic processes by interested parties that are outside of any individual or electoral systems countries are all concerns for us.

There is the risk that some of these things just put the act of choice beyond any individual's or institution's control. There are questions around how to set up rules and structures that govern semi-autonomous machinery, on our roads, in our hospitals, or in our research spaces. Digitization has created particular

challenges for governments and non-government actors who govern part of the risk and returns in those spaces.

The flipside is that digitization changes how we can govern. Now, we have a lot more ability to connect to people and this, in theory, creates some opportunity for states and other actors, such as NGOs and corporations, to involve more people in decision-making. However, we are having trouble figuring out how to make this work. Involving more people does not necessarily lead to better decisions. This space is now ripe for research. Nobody has all the answers. I am not even sure anybody has all the questions, but it is an opportunity for scholars and practitioners to come together, and identify some things to work on jointly.

Implication of the pace of digitization on governance and policy

One of the challenges of digitization is that it moves at a whole variety of speeds, sometimes fast but also, sometimes very slow. For instance, in the area of digital agriculture where I work, there is a big impediment to actually getting the value people project out of their efforts. It takes a lot of time and energy to sample the soils, build datasets, and talk to each other, so that somebody can find some value. So at one level digitization is very slow.


At other levels, the creation of autonomous sensing and data manipulation is allowing things to happen in time scales that our formal governing systems could not comprehend. While some of it is very long and slow, and it's hard to see anything happening, another part of it is so quick that it complicates how we govern. Our earliest

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example of getting more digital was in the financial world, where flows of money sped up as we digitized the clearing and banking system. Now, we have around-the-clock trading in commodity markets, financial markets, and capital markets. On one hand, there are fewer random shocks in the system as systems tighten the margins, but at the other level, everything is integrated such that no one is isolated from the risks or problems in other part of the world spilling into our lives.

Additional Reading:

Peter W.B. Phillips, et al., Configuring the new digital landscape in western Canadian agriculture, *NJAS - Wageningen Journal of Life Sciences*, <https://doi.org/10.1016/j.njas.2019.04.001>



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