The digital transformation and inequality: technology, institutions and the redistribution of agency

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Last month, Counterpoint and OSEPI convened a workshop with a select group of policymakers from across Europe to consider and debate the ways in which the digital transformation is shaping and fuelling inequality in our societies. But the discussion went much further than this, as we examined the potential psychological and socioeconomic effects of the digital transformation, and how these would change human beings, as citizens and members of a society in a democratic political framework. We exchanged views on how citizens will connect with one another, and what they will expect of their politicians and the democratic institutions that govern them. Our workshop ended with a fascinating exploration of how public institutions and governments will need to change in order to meet these expectations and the many resulting challenges brought about by the digital revolution. We also discussed how public institutions can take advantage of the potential of this revolution to revisit concepts like citizenship and justice, and to restore social trust.

How to conceive of the digital transformation

The workshop opened with a presentation from Alastair Parvin, founder of WikiHouse. Alastair has thought extensively about how the digital revolution will affect cities, societies, markets and development policies. He encouraged all participants to reconceive of the digital revolution: it is not about social media, start-ups, new apps, the sharing economy, blockchain or smart fridges. It is also not just affecting the private sector.

The digital revolution is not merely about the technology itself but is more about the kind of world we are already entering. We are moving into a world where processes, governance and communication will no longer happen on paper, even though our current systems and institutions were designed for a world that functioned on paper. We need to ask ourselves what this means for democracy, how the notion of agency is changing profoundly, how agency itself is being redistributed by the digital transformation.

In sum, we – the whole of society – need to spend less time talking about technology and more focusing on the world we are arriving in and what it means for agency and innovation. But it is important to remain open-minded: there is no one single way to frame this conversation and debate. And we need to be open to very basic questions about the impact of the digital transformation.

That is partly because we need to radically rethink some of our current institutions, systems and processes, but also because people are confused. This confusion is exemplified by people having mixed views on companies such as Uber – is it a great innovation that makes it simple for people to take taxis, ensures safe transportation options in cities and helps the environment by reducing the need for private car ownership? Or is it a malicious company that exploits its workers and reduces safety standards for taxis? In any case, the usual left-right political split no longer functions as an easy way to orient oneself in today's digital world.

The digital transformation and inequality

We are aware of many of the potential benefits the digital transformation will bring: more convenience, greater access to knowledge, better solutions to common problems. The digital

revolution is rapidly driving down the marginal cost of producing goods. But we must also be aware of the potential negative effects of this digital revolution, so that we can build mitigation into the design of new systems and processes from the beginning.

For example, digital platforms and algorithms can exacerbate inequality by eliminating an entire group of jobholders, such as back office staff in taxi companies. Many of the platforms that will eliminate the need for certain jobs have not been built yet, but they will be. For example, in the near future, it is likely that truck drivers will no longer be needed as conventional trucks are replaced by autonomous vehicles. However, the company that owns the driverless truck algorithm may not be paying taxes in the country where those truck drivers will become unemployed. So, who will be responsible for retraining and supporting these people? The company or the government of the country where the former drivers reside?

The digital revolution will also enable us to form a more – if not entirely – accurate understanding of the world as it really is, rather than having to generate and test a theory. Data plus algorithms produce better predictions. But we need to be aware that these predictions can also amplify our existing prejudices and social inequalities. For example, simple predictions on crime rates could target members of a specific ethnic minority, without taking a host of other factors into account.

Digitisation does democratise by lowering costs, but it is also a massive centralisation of power and will continue to have a profound impact on jobs, the nature of work and social cohesion.

New forms of ownership and power

The digital transformation is also creating new forms of ownership and power structures. Certain hard assets will remain of great value, such as land and raw materials. Land reform will be vital in helping to mitigate the potential rises in inequality brought about by this transformation: for example, a universal basic income programme designed to mitigate the adverse impact on jobs brought about by the digital transformation can only work if land reform is introduced, otherwise this extra income will be swallowed up by landlords in the form of higher rents. Competition for ownership of raw materials is already becoming intense, with companies such as Apple and IKEA buying up large swathes of forest.

Significant power already resides with those who own soft assets, and this trend will only continue to grow if left unregulated. Owners of certain databases and platforms will be able to make the behaviour and mental health of citizens saleable commodities. Democracies have never been confronted with this type of challenge before, but new forms of regulation will be required to protect citizens from this kind of manipulation. But citizens may also need to be protected from governments: China is currently experimenting with a system that grants or denies access to public services, credit and jobs based on a patriotism score ("*sesame credit*") awarded to each citizen derived from their online presence – a mass control of minds through the gamification of patriotic sentiment.

There may be new intellectual property rights that can be owned in the future, for example the ability to own DNA strands and control the ageing process. Will it be possible to own specific genes, blurring the lines between biology and technology? Government may also be subject to ownership: technological manipulation of elections through social media is already emerging as a threat. Private services can already outperform state-run healthcare on how they use data. Meanwhile, not all currencies will remain state-controlled.

The traditional separation between the public and private sector is now a myth. The private, public, third sector and citizen spheres are no longer sharply divided. But they all require a democratic framework of rights, rules and responsibilities. So far, we have allowed the private sector to create the infrastructure for our new society, without a sufficiently robust democratic framework of rights

and rules. As such, the internet is privately owned infrastructure and it develops according to commercial logic. But companies do not necessarily make choices in the public interest. Furthermore, the norms set by private companies can affect governments: Facebook captures data to score its users, and now the Chinese government is merely doing the same thing by scoring its citizens. Democracy is potentially running on a market platform, rather than the market running on a democratic platform.

Exploration of possible policy responses

We are currently at the beginning of a major transformation in our societies and the way in which they will be governed. The rights guaranteed by the democratic framework, including access to justice, privacy, security and citizenship will be completely reshaped by digitisation, even if it is not yet clear how. Governments and policymakers should be making the most of this period of transition and thinking about effective ways to prepare for and shape the era brought about by the digital transformation.

As a priority, policymakers must think about how to prepare the workforce for the future. Artificial intelligence will make some jobs redundant, acting as a source of distress and inequality in society. Governments will need innovative fiscal policies for redistribution: states must redistribute the rents from falling marginal costs, but this is difficult and costly. For example, it is complex to collect taxes on advertising revenue generated on website across country domains. Network effects will give greater advantages to large companies, so they will consolidate even further to collect rents from these activities. States cannot replicate this infrastructure, but they must think about how to collaborate on solutions for taxation of cross-jurisdictional revenue generation.

There will continue to be a need for robust welfare policies to support people in periods of unemployment that will inevitably arise from technological advances. Education policies need to ensure that people have the skills to take up the jobs created by the digital transformation. This will include teaching tech skills at school, but the pace of change also makes a strong case for life-long learning programmes.

Divisions will be created by technology, for example along age lines or rural and urban divides. Good industrial policies will look to distribute the benefits of technology to smaller companies and people living in rural areas. And digitised public services will need to be accessible to all, including older citizens less familiar with current technologies.

Governments need to shape the new era with the protection of citizens in mind. They must ensure that a desire for profits does not create major adverse effects on society. They need to think about how to structure the rules of the game and allow companies to innovate and test new ideas, as long as they abide by these rules. As such, governments should not be telling companies how to operate, but rather set a framework: for example, companies need to abide by certain data security standards, but governments should not insist on a particular way of doing this (e.g. end-to-end encryption), because new technologies that do a better job at protecting data from unauthorised access will emerge in future. Equally, private companies can also become gatekeepers, protecting their users' data from unauthorised access by governments, further blurring the traditional lines between the public and private sectors.

Future considerations

Our workshop explored some fascinating and complex overarching issues and challenges. By broadening the scope of the digital revolution beyond technology, data and platforms to a wider definition that includes the shape of society and the relations within it, we were able to pose some fundamental and important questions: what basic digital, social and political infrastructure will we

need and who will provide it? What kind of public institutions will we need in future to safeguard a democratic system of government? How should we redefine the market? Should algorithms that are used, for example to predict human behaviour or inform policy decisions, be open to the public? How can data feed into policy responses, ensuring private data is used for the public good? What safeguards and regulations do we need to consider?

In the digital age, progress will be about expanding liberties and capabilities of people. The capacity to connect and collaborate is crucial. Public institutions need to support an optimal combination of digital and physical encounters to ensure that societies develop positively, and that people are able to benefit from all the possibilities opened up by the digital transformation.

The Bridges project will be examining these questions in much greater detail in the coming year to provide policymakers with fresh ways of looking at the impact of digital transformation on open societies.