Technology Can Help to Right Technology's Social Wrongs: Elements for a New Social Compact for Digitalisation

Andrés Ortega (Elcano Royal Institute, Madrid, Spain)
Miguel Otero (Elcano Royal Institute, Madrid, Spain)
Federico Steinberg (Elcano Royal Institute, Madrid, Spain)
Francisco Andrés (Elcano Royal Institute, Madrid, Spain)

Abstract

The technological revolution is causing economic, social and political disruptions. But it can also be used to improve welfare systems. It can help to fulfil the 2030 Agenda of Sustainable Development Goals (SDGs), on which there is a global consensus. We propose to use Education Technologies at different stages of life –including the possibility of funds for the adaptation to digitalisation and large public-private partnerships for skilling, re-skilling and up-skilling– as a central element of the new social compact. In order to finance these programmes, G20 countries should establish a multilateral common framework for taxing the revenues of large digital corporations.

Challenge

Almost all countries have some kind of welfare system, based on a social contract, although their scope varies enormously: broader in Europe and sizeable in the US. However, welfare systems –especially health insurance schemes– have also increased in developing countries, particularly in Asia and also in Latin America, but much less so in Africa.

The digital economy, understood in its broad sense of the 4th Industrial Revolution (4IR) and the effects of the recent economic and financial crisis are producing both winners and losers, a decoupling between countries and between people. Also between the economy and societies and polities, undermining social and political cohesion, in different but not dissimilar, ways in both mature and emerging welfare states.

There is a need to re-think the social contract, also as a way of providing an answer to populisms by taking into account those who feel left behind or pushed aside by technological progress, globalisation and the long-term effects of the crisis. By doing so, the technological approach can be useful to undo some of the wrongs caused by technology itself. In other words, technology can contribute to social good.

Although there are differences between developed and developing economies, there are common issues and solutions. The 2030 Agenda and its Sustainable Development Goals can provide a common point of departure for G20 members to devise a new social compact, and technology can also help to pursue and fulfil them.

We build on the idea of 'technological justice' that we proposed for a brief at T20 Argentina (Ortega, Andrés Pérez & Turiansky, 2018) and on other contributions and ideas that are sometimes waylaid from one T20 presidency to the next.

In this paper we do not intend to look in detail at the issues of job destruction and creation due to the 4IR. However. it is important to point out that, even if the overall result proves to be positive, there will a transition period, with geoeconomic, geopolitical and social disruptions between and within countries,

in which those who lose their employment because of the impact of technology will not be in a position to opt for the better jobs and tasks generated by the 4IR.

Thus, the purpose of the new social compact should be to ensure a smoother transition and "to protect people rather than protect jobs", as the French President Emmanuel Macron and others have noted. Or, indeed, to go from job security to economic security (Saran et al., 2018) and to aim for an inclusive supersmart society (as the Japanese Society 5.0 concept and other human-centred Artificial Intelligence national strategies propose) in which no one is left behind.

Proposal

AI and other technological advances may be applied to supporting social outcomes (AI Forum New Zealand, 2018). Artificial Intelligence has been defined by the EU as a Key Enabling Technology (KET) (European Commission, 2018c). The development of AI, and in general of technology, cannot be separated from the ethical and humanistic discussions on how society should accept and integrate the role of technology in the organisation of economic and political life. From a European perspective, the Barcelona declaration for the proper development and use of AI (Steels & López Mántara, 2018) may be, among other similar manifestos, a contribution based on Europe's ethical tradition for the construction of a global standard of rules and norms. In this respect, the narratives of AI and technology in general, and its role for social good, will shape the perceptions of how society will accept its role.

We intend to focus on certain specific aspects. The baseline should be the 2030 Agenda and the SDGS, but also how to approach the situation before and during work (training, skilling and re-skilling) and after work (mainly how to help finance social services and pensions). By working together and in a coordinated way in these fields, like-minded countries can contribute to create global standards.

Use of technology for social good

Technological progress, especially digitalisation and AI, can be at the source of some of today's social wrongs, but can also be put to good use to contribute decisively to social advancement. Some recent research and policy papers (McKinsey, 2018; Keidanren, 2018) point out that technology can be applied to welfare systems, and, more generally, serve as an accelerator for the fulfilment of SDGs and in general for the achievement better human wellbeing. We are still in the early days of this discussion, but technological solutions need to be thought out in advance.

The main trends for the use of technology for social good include the construction of cooperative networks, the use of Big Data and AI for health at a local, national, regional and global level; the use of AI models to improve financial inclusiveness in emerging economies; and the use of AI and digitalisation to increase labour demand. Also, workers should be able to engage in activities that were previously out of reach for them (Rodrik, 2019; Acemoğlu & Restrepo, 2018).

The fact is that the use of new technologies, especially AI, could accelerate progress on the 17 SDGs. The Technological Revolution can be put to good use in domains aligned with the SDGs, such as health-care and the fight against hunger, equality and inclusion, security and justice, education, economic empowerment, agriculture and food, public administration and public services, education, smart and sustainable cities, natural resources, energy and the environment, connected industries, tourism and creative and cultural industries, attention to the elderly, disaster prevention and mitigation, logistics, manufacturing and services, and alliances or partnerships to achieve these objectives. There is a need to commission further studies on the issue, as the Spanish government is now doing.

There are, nonetheless, some shortcomings. Depending on how they are interpreted and applied, there may be a trade-off between compliance of the objectives of innovation and technology and all the others (something that falls squarely in the very debate on the internal coherence of the SDGs). That is why we proposed policies for 'technological justice'.

Also, the necessary expert talent is in short supply in developed and developing countries. That is one reason why education should be put at the forefront of this endeavour.

Using EdTech at different stages of life

A new social compact should include a universal entitlement to lifelong learning that enables people to acquire skills and to re-skill and up-skill (ILO, 2019). For this, the creation of funds like the one for the Adaptation to Automation (based on the model of the European Fund of Adaptation to Globalisation, EGF) could be useful. It includes temporary funding to seek and train for new jobs. The European Commission proposes to broaden it from adaptation to globalisation to adaptation to digitalisation and Artificial Intelligence (Ortega, 2019).

The Interamerican Development Bank (IDB, 2017) has calculated that 80% of what is learnt after the age of 30 is acquired at the workplace. The World Economic Forum (2019) estimates that by 2022, 54% of all workers will have to re-skill or up-skill, and all will have to devote 101 days per year to learning and studying. Skilling and re-skilling will be central and will depend more than ever on public-private cooperation, as neither one nor the other sector will have sufficient financing power or technical capabilities to cover the needs.

The use of technology in education (Edtech) at all levels (primary, secondary, tertiary and re-skilling at work) can be key to facilitate access to some of the best education systems via massive online open courses (MOOCs). Furthermore, it can also help improve public policy in two ways: (1) by helping to better coordinate different Ministries involved in the delivery of the necessary skills for the 21st century (Ministries of Education, Social Support, Industry, Labour, Economics, Science and Education, the Treasury, etc.); and (2) by generating the necessary data to develop evidence-based education and training programmes.

At the micro level, the use of technology in the classroom can be key to identify failing or struggling students. Cloud-based technology can also overcome the gap between the 'haves' and the 'have nots' by making the latest textbooks, materials and journals cheaper and more easily accessible to all students. Language software can also be extremely useful for immigrant students

(usually from lower socioeconomic backgrounds) to overcome their grammar, spelling and lexical deficiencies and thus facilitate their integration.

The use of technology can also be of great importance at home for students with parents with low educational levels. There is a large gap between children that hear bed-time stories read by their parents (and are thus introduced to the habit of reading) and those that do not. New technologies like tablets with tailored stories for all possible literary tastes can fill the void.

However, the introduction of technology in education needs to be done correctly. Studies have shown that providing laptops to students does not improve by itself their skills (IDB, 2014). Here, again starting at the macro level, having more students studying science, technology, engineering and maths (STEM) might be good for a society but without the social and arts component (the so-called STEAM trend) the knowledge may not be put to good use (OECD, 2018). Specifically, it is important for teachers to know how to use the new technologies effectively in the classroom. Usually, the employment of technology needs to be guided: more is not always better. In Finland and Japan the use of technology in the classroom is limited but both countries have high PISA evaluation scores.

It is also very important for students to know how to use new technology and new devices correctly both in the classroom, at school and at home. According to PISA data, advanced students say they use ITC outside school mostly for reading news (70%) and practical information (74%). The percentages drop to 55% and 56%, respectively, for disadvantaged students. The difference shows the potential of technology as a tool for equality but also its limitations (OECDE, 2018). The approach needs to be holistic.

Increase public revenues: digital tax

Digitalisation automation may have an impact on the way social protection and improvement are financed, requiring serious reflection on the sustainability and adequacy of social security systems. Rents from work are falling in relation to rents from capital, and taxation must be revised also in the light of tax competition between countries.

Day by day, it is becoming clearer that 21st century taxation systems –which

are based on the idea that taxes should be collected where value is created– are not capable of adequately raising income from digital companies. The problem of tax elusion or evasion is not limited to these corporations. However, the fact that they do most of their business on the Internet, remotely, with a limited physical presence and with an extensive use of intangible assets, creates a tax evasion or elusion problem which is different to those that traditional companies generate (according to the European Commission, digital companies pay 9.2% of their profits in tax, compared with 23.2% for other companies). Moreover, nine of the world's top 20 companies by market capitalisation are now digital, compared to one in 20 only 10 years ago, which makes the problem more acute. Because in the 4IR, size counts in market power, and eventually in political and social influence.

Ideally, G20 countries should establish a multilateral common framework for taxing the profits or sales/revenues of large digital corporations, ensuring fairness and progressivity and preventing free-riding from specific countries. However, despite OECD and G-20 efforts to tackle Base Erosion and Profit Shifting (BEPS), progress has been limited. The US, home of the most dynamic digital giants, is reluctant to support the effort, but even the present Trump Administration is looking at it with greater sympathy. But the current 'America First' strategy of the Trump Administration makes it even more difficult to achieve progress at the multilateral level. Even in the EU, where countries have agreed on a strategy to foster a digital union that works hand in hand with the single market, it has not been possible to achieve a harmonisation of profit tax bases.

The EU has recently looked at a new tax to address the issue (European Commission, 2018b), but due to the need to approve it by unanimous consent, the proposals has been put on ice while the OECD and the G20 try to reach a broader agreement. We believe that the EU initiative is a useful template for a G-20 proposal that could be adopted more globally. This indirect sales-based tax will amount to 3% of the revenues of digital companies that sell more than €750 million (and more than €50 million in Europe). The European Commission estimates that it can raise around €5 billion per year with the tax. Even if unable to set it for itself, the EU has provided a proposal for raising more revenue from one of the most profitable sectors of the new economy.

A plurality of actors

The technological dimension for social good will "depend on the willingness of a large group of stakeholders –including collectors and generators of data, as well as governments and NGOs– to engage" (McKinsey, 2018) in the initiative. Public authorities are no longer the only ones responsible for welfare policies or public goods, be they global or local. Private firms produce public goods and are in the driving seat of much of the technological change. States or public sectors cannot be the only agents, even though they are still the guarantors. State, local authorities, international bodies, firms and citizens (NGOs, foundations, etc) are also responsible. We should be able to devise a welfare system and produce social good that is not only top-down but also bottom-up or 'inductive' (Ortega, Pérez & Saz-Carranza, 2018; Saran, Chapman & Sharma, 2018). To sum up, the new social compact for digitalisation has to be between citizens, consumers, users, the employed, workers, public institutions (including international) and firms and corporations.

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