The new Leviathan is an autonomous digital machine

*Leviathan, a mythical creature in Judaism, was used by philosopher Thomas Hobbes to symbolise the rule of law standing above all other human powers. **Szymon Wróbel** writes that the automation of technology risks becoming a new Leviathan. As autonomous technology removes humans from interactions or transactions loops, a political economy running on asymmetries of information as a form of control is being born before our eyes. The new ruling class owns neither land or factories but instead owns the algorithms with which information is gathered and used.*

At the beginning of the 17th century, the philosopher Thomas Hobbes created an important symbol to capture our political imagination for the next few centuries. This artificial creation, called Leviathan or Commonwealth, personified mortal God. This new political God, made up from many individuals, became a rule of law that stood above all other human including ecclesiastical, powers. Today this God seems to be in danger. The threat comes not from the state, but from the new, artificial, digitally managed corporations, platforms, and banks that make the Leviathan dependent on them. The "tax state" was transformed into a "debt state". As nation-states became ever more indebted to financial markets, their sovereignty declined, and they became increasingly subject to international pressures from creditors and international organs of control. The funny thing is that, for Hobbes, all automata—engines that move themselves by springs and wheels, such as watches—have a fully artificial life.

There is, however, another more serious risk of Leviathan coming from the automation of technology. As almost unanimously noted by such different theorists as Luciano Floridi, Bernard Stiegler, Sherry Turkle**,** MacKenzie Wark, Shoshana Zuboff, or Katharina Pistor, technology, which for a century was only a tool, the mediator between man and nature, today gains an advantage and becomes autonomous. The era of third-order technology has come, where the human seems to be only a "user" or a "resource", necessary to supply energy, new data or approval of adhesion contracts that impose take-it-or-leave-it conditions. These fully autonomous technologies are about removing us, the troublesome humans, from interactions or transactions loops. With a fully integrated infosphere, invisible coordination between devices will be as fluid as how the smartphone interacts with the laptop, and the latter interacts with the printer. Pistor claims that for centuries "law was code", which means that **law** turns a simple asset into a capital asset by bestowing on it the attributes of priority, durability, universality, and convertibility. Today, it is rather "code is law", which means that we are witnessing the rapid digital enclosure of social, political, and economic life in the cybernetic digital space. In a nutshell: digital technologies transform everything, including our lives, into an abstract code.

Over the past decade, we have become accustomed to interpreting our online lives as a mixture of freedom and enslavement: the internet as freedom from physical constraints, with fluidity and speed of communication and transactions (internet as an island of freedom), but also digital colonisation of human spheres of experience and their privacy (internet as control and panopticon). This is probably already a fallacy. As interfaces become less and less visible, the threshold between two styles of functioning—the "old, analogue, offline life", based on carbon, and the "new digital life", based on silicone, IC technology, constant interactions—is rapidly blurring. Perhaps systematically the infosphere is conquering its inventors and former masters. In this way, the famous dialectic of Hegel's master and slave is recreated: by eliminating the former master, the slave takes his/her place. The digital-online world penetrates and painlessly connects to the analogue-offline world. The latter phenomenon is known as "ubiquitous computing", "ambient intelligence", "the internet of things", or "web-augmented things". Whatever the name, we are increasingly living online, immersed in a new artificial living environment.

Like the real world, the digital one too is populated by utopians and realists. In the eyes of social utopians, one of the greatest attractions of the digital code is that it can be designed as a decentralized governance system that will place control over all aspects of life in individuals' hands. Using digits rather than law to code commitments and social relations is not synonymous with decentralization, but utopians believe that the digital code will create the conditions for a perfect market. A world with close to zero transaction and information costs, and little if any need for institutions, such as contract, property, or corporate law, for humans to govern themselves and others, even as they might abuse their powers for their own personal benefit from time to time. This is the world of smart contracts with a promise of full automation, simplicity, directness, and speed without the cost of most transactions.

Sceptics respond to these euphoric announcements with a diagnosis that someone has to write the code, watch it, and fix its bugs; and someone must find an answer to the question of whose interests the code serves, or perhaps ought to serve. Indeed, some coders have already conceded that the digital space needs institutions akin to property rights and have made proposals for creating them. But the greatest source of the hierarchy may well be the coders themselves. They make the rules for the digital platforms they create, for the digital contracts, property rights, and coins they produce. The digital code may be a meritocracy, but meritocracies are, by definition, hierarchical, as those with superior skills make the rules that the others must follow.

According to Hobbes, "the greatest of human powers is that which is compounded of the powers of most men, united by consent, in one person who has the use of all their powers depending on his will [...]". The trouble is that the New Digital Leviathan no longer requires any will and establishes new class relationships. To understand this, let's try to figure out what kind of technology "information technology" is. These are specific kinds of apparatus that gather, sort, manage, and process information so that they can then be used to control other things in the world. Information technology is a sort of meta-technology, designed to observe, measure, record, control, and predict what things, people, or indeed other information can or will or should do. These technologies made information cheap and abundant. They gave rise to a strange kind of political economy, one based not only on the scarcity of things but also on the excess of information. This generated quite novel kinds of problems for those who had power: how to maintain class inequality, domination, and exploitation, based on something that, in principle, is abundant?

Perhaps there are reasons to argue that a whole political economy, running on asymmetries of information as a form of control, is being born before our eyes. Of course, there is still a landlord class that owns the land and a capitalist class that owns the factories, but now there's another kind of ruling class as well – one that owns neither of those things but instead owns the algorithms with which information is gathered and used. Perhaps, "after capitalism" aimed at the extraction of energy and matter from nature, and after "extraction of work" from a society organised by class, gender and race, capitalism based on information extractivism is coming. This capitalism feeds on information extracted directly from our brains. We are slowly getting new messages that data is the same raw material as energy resources (coal, lignite, crude oil, natural gas) or metals (iron, copper, zinc, lead, cobalt). In *German Ideology*, Karl Marx wrote that "The ideas of the ruling class are in every epoch the ruling ideas, i.e., the class that is the material ruling force of society is at the same time its ruling intellectual force". What does this mean? This means that the ruling ideas are nothing more than the ideal expression of the dominant material relationships. This also means that the ruling ideas are those of people who have access to the means of production of these ideas, and resources to control and evaluate them. In this sense: there is nothing new under the sun about the idea of cognitive or surveillance capitalism.

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Notes:

- *This blog post is based on [The Question Concerning Techno-Utopia](#)*
- *The post gives the views of its authors, not the position of LSE Business Review or the London School of Economics.*
- *Featured [image](#): Leviathan by Thomas Hobbes, engraving by Abraham Bosse, 1651, [Public domain](#)*