

GEOPOLITICA DELL'INFOSFERA - SYNOPSIS

According to recent studies, in recent decades, Intelligence Quotient (IQ) scores have steadily declined worldwide. The many reasons are decreased scientific discoveries, stagnating world economies, and widespread pessimism concerning the collective future. In a world in which IQ scores continue to fall, even using experience (as a proxy) to cushion the social impact, the gloomier scenario implies a global crisis in humanity's ability to solve problems that leaves humans ill-equipped to deal with the complex challenges posed by Artificial Intelligence and technology in general.

The book "Geopolitics of the Infosphere" by Paolo Savona and Fabio Vanorio insinuates itself into this ominous perspective that has consequences in every field of an individual's life and on decisions about the present and future of human beings.

Editing the work required the in-depth analysis of nearly 280 works cited against a complete bibliography of more than 600 bibliographic sources read and dissected over two years by two first-rate authors.

Professor Savona, former co-author in 1970 of the first econometric model of the Italian economy developed at the Bank of Italy, as well as Franco Modigliani's collaborator in monetary economics and econometrics at the Massachusetts Institute of Technology (MIT), as well as a former founder of the Guido Carli Libera Università Internazionale degli Studi Sociali (LUISS), as well as Minister of Industry, Minister for European Affairs and now President of Consob. Fabio Vanorio, a Government executive, former economic-financial analyst of the international system in delicate positions at the Presidency of the Council of Ministers, lecturer in Economics of National Security in New York, Alumnus of Saint John's University in New York in Government and Politics, Tech Lead in the Analysis Unit of the Ministry of Foreign Affairs and International Cooperation and, today, Administrative Director at the Italian Embassy in Brussels.

These two committed authors are highly concerned about the discontinuity of humanity's ways of being in a new technological era where a closer relationship is established between humans and machines, which involves a reversal in knowledge acquisition.

Past industrial revolutions involved interaction between scientists (who developed technologies or products) and machines (who replicated and automated the process). The Fourth Industrial Revolution gives devices the role of innovators by relegating the human being to the position of replicant. The shift in the part of the human being from innovator to doer likely entails, over time, a lowering of the average IQ threshold due to the individual's cognitive development becoming increasingly limited and focused (on average) on a few activities, mostly playful and disengaged. This, then, is their explanation of the phenomenon mentioned at the beginning.

In the Renaissance, invention triggered more invention and generated wealth but did not accelerate the pace of economic expansion. With the Industrial Revolution, innovation benefited from the "externalities" that emerged in Marshallian-style "industrial districts." In these forges of creation, new inventions emerged from combinations of previous designs. In the modern context, we are witnessing a further acceleration in the pace of innovation due to the advent of Machine Learning, creating a joint operational center between the human mind and machines. This makes innovation available to any economy willing to invest in the infrastructure and computational capacity to create Artificial Intelligence (AI) applications.

Blurred boundaries between the physical, virtual, and biological worlds characterize the Fourth Industrial Revolution. As technological progress always outpaces the pace of government policy,

the Fourth Industrial Revolution, with its disruptiveness, is forcing states and individuals to incorporate new modes of interaction into the domestic social system and international relations.

The trajectory of such an epochal transformation is shaped by organizational and social contexts evolving synergistically. There are three main spheres in which the future course of digital transformation will reflect changes: technology, organization, and domestic and international politics. In particular, disruptive technologies change the basis of geopolitics and make its reference system obsolete in the New World Order.

The Infosphere (i.e., the IT sphere of the Fourth Industrial Revolution composed of Artificial Intelligence (AI), the Internet of Things (IoT-Internet of Things), Big Data, Cloud Computing, robotics, digital platforms, social media, Blockchain, cryptocurrencies, and additive manufacturing) is transforming the entire human activity by creating a marketplace made by new individuals.

Technological innovation has also "attacked" the conventional structures of financial system architecture, proposing Decentralized Finance (DeFi) networks for peer-to-peer (P2P) transactions and interactions through blockchain-based crypto-applications. Relying on individual consensus, decentralized and encrypted ledgers are revolutionary by enabling interaction between distant and unknown agents, exchanging and concluding contracts securely without the need for third parties such as trustees or clearinghouses.

With the consolidation of a black-box economy, i.e., an economic system whose workings are unknown to those seeking to exercise policy-making functions, the relationship between the state, market, and new government elites will change with high speed and uncertain outcomes.

In the face of this, quite unconsciously, the political class and ruling class (public and private) go hand in hand (sometimes colluding) by deeming the set of technologies that broadly define the Fourth Industrial Revolution to be excessively advanced and not strictly necessary for their purposes of (supposedly) collective welfare. In reality, individual fears translate at the aggregate level into obstructionist strategies led by powerful rentiers and corporations, who see the technological tool as a risk of having to abdicate from their roles in governing humanity because of their inability to manage it directly.

Hence the book's primary purpose is to provide a guide to travel among the underpinnings of these changes, to prepare for them culturally and geopolitically, or to be aware of how, and in the face of what, one will have to succumb.

The book firmly states how the problem requires careful specification that places human behavior at the center of the process, transforming it into one having a cultural rather than a physical-mechanistic matrix. In this sense, the author's decision to dedicate the book to Carabinieri General Stefano Orlando is a way of recalling one of his most recurrent teachings, namely, "first of all, the human being." In the evolution of AI, human being represents the weak link because of their biases that slow the diffusion of new technologies, affecting the development and improvement of organizational systems. Therefore, attention needs to be placed on them, not on how to foster it but on improving it.

The physiological aversion of human beings to technological progress is due to the substantial change of existing hierarchies in society and the need to update their skills and work methods. Modern technology requires an increasing demand for new knowledge, a smaller workforce for the same productivity, and continuous upgrading of existing infrastructure. All of these events create cultural resistance for those in the workforce. The most significant risk is that technological innovations will produce unemployment due to human reluctance to embrace them, seeing them as an endogenous threat to the organization.

Defending humans against technological obsolescence becomes a complicated process if humans themselves do nothing to respond. Much of the debate on technological innovations focus on their

effects on human coexistence, pitting the human brain against the artificial brain. Along these lines are those who reject computer applications because they do not intend to subject the human being to the will of a machine or run the risk of a robot rebellion, ignoring the fact that the artificial brain arises from applications of how the human brain functions, to enhance it and, if it rebels, it means it has been instructed to do so.

It is humanity's crooked wood, not the machines he invents.

Big Data, i.e., colossal data assets, is critical to a second Enlightenment by opening up to higher uses of the human intellect and freeing human knowledge from subjective arbitrariness, even if this remains a discursive fiction amid a reality of dense interpenetration between data and its social, cultural and political contexts. Big Data-driven platforms open up new potential for intervening and reshaping the institutional choice architectures that market actors face in algorithmic decision-making.

Paraphrasing Frederick the Great, who commented that in battle, "God is always with the strongest battalions," in today's data-driven economy, "God is always with the strongest servers." The accelerated pace of innovation has inevitably transformed the perception that economies are status quo actors (those technologically backward) and those reformist powers (those technologically advanced).

By reducing humans to data, Big Data makes humanity readable. But if something can be made legible, it can also be manipulated.

Resurfacing, in a new form of biosupremacy, is the eternal struggle between state and individual. Biosupremacy is monopoly power over human behavior in the digital age. Whereas traditional monopoly power allows the state and corporations to exclude competitors from specific markets through the price mechanism, biosupremacy enables them to exert control over broad swaths of human behavior, altering social norms and gaining influence that cuts across entire sectors of the economy and the community.

The state thus imposes a new world order established on a cognitive basis, to which the individual rebels by attempting to hinder or manipulate the development of the Infosphere but finding himself crushed in the conflict between the digital power of corporations and the automated surveillance power of the state, transforming traditional state-market-individual relations into state-market-individual relations, in which the market is no longer a sum of individual behaviors, but a social arrangement that tends to establish a dominance relationship in which individual beneficiaries remain few and well professionalized.

Algorithms are the product of an achievement of human intelligence, inherently destined to the expulsion of human beings themselves from all decision-making. The second phase of AI has as its terminal point the so-called "singularity," when the machine surpasses human performance, producing reasoning and logic that it is in no condition to make without it. In the last century, mathematician John von Neumann asserted that technological progress would lead us to a crucial moment in human history, beyond which activities could no longer be considered as known to us. He was the first to call this event "singularity," a status that removes humans from the decision-making cycle the moment AI produces a feedback loop: when what is engineered is human brain intelligence, that is, the basis of engineering, AI improves itself autonomously.

How to defend against this?

The transition from technological supremacy to cognitive supremacy becomes essential. The modes of conflict in the mental sphere are based on ideas, stories, narratives, and evolutionary viruses. New types of cognitive warfare are deliberately designed to confuse analysts and social forces, to exploit the weaknesses of rulers and analysts themselves, institutions, and societies as a whole. Mental warfare integrates cybernetic, informational, psychological, and social engineering

capabilities to achieve its ends. It exploits the Internet and social media to sow doubt, introduce conflicting narratives, polarize opinion, radicalize groups, and motivate them to acts that can disrupt or fragment an otherwise cohesive society.

The goal is to change people's thoughts and how they feel and act to shape and influence individual and group behaviors to foster social fractures and fragmentation to annihilate collective wills to resist an adversary's intentions. Fake news, deep fakes, Trojan horses, and digital avatars help create new suspicions that anyone can exploit, reducing the ability of humans to question any data/information presented, with a growing trend toward bias at the expense of free decision-making.

If the human mind becomes the battleground, its atrophy is unacceptable as it would be tantamount to surrender. But alone, the human being cannot cope. Here, the construction of AI systems that, like biological organisms, are endowed with autonomy introduces the so-called "integrated intelligence" of the Fourth Industrial Revolution. Licklider's human-machine symbiosis, the only way to prevent humans from being placed out of the loop, is not only an opportunity for humanity's evolution but a moral duty to future generations.

Let's think about what the metaverse, i.e., transforming all realities into virtuality in the Infosphere, and chatbots, i.e., algorithmic Q&A, mean. The problem shifts to the educational level, a problem we have faced for centuries, at least since the beginning of the industrial revolution, that changed ways of life and social organizations.

Technological innovations can be delayed but not eliminated. There will always be someone to carry them forward. Instead, we need scientists and entrepreneurs, but we also need as many educators. It will be on education and not just machines that the future of humanity will be based on.

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