

The Autopoiesis of Intelligence Technologies

Review

Bogdan POPOVENIUC, “*Philosophy of Singularity. The Global Brain or an Ethics of the Thinking without Man*”, Eikon Publishing House, 2016.

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As the title of the paper that I am going to dedicate to professor Bogdan Popoveniuc’s book shows – *A Philosophy of Singularity. The Global Brain or an Ethics of the Thinking without Man* (Eikon Publishing House, 2016) –, I will start by recognizing my gratitude for the German sociologist Niklas Luhmann, and especially as regards the theory of autopoietic formation and reproduction of social systems. Although the German sociologist is not mentioned in the book, however the theory of the autopoietic reproduction is tackled, with direct reference to those who inspired him some decades ago, namely Humberto R. Maturana and Francisco Varela (*Autopoiesis and Cognition: The Realization of the Living*, 1980). I believe that the debate proposed by Bogdan Popoveniuc on the creation of artificial intelligence, on a *Global Brain* takes over this idea long substantiated in his studies by Niklas Luhmann – *communication is the foundation of social systems, it is the driving force of their development*. Or, as long as the new knowledge and communication technologies have become a system that tends or threatens to become autonomous in relation to their creator, it becomes clear that the luhmannian model of the autopoietic reproduction of social systems can be implemented in communication systems or, if we will, of Communication as a system.

Let us see now the elements on which Bogdan Popoveniuc builds his philosophical analysis of the theme of Technological Singularity (TS) and into which he leads it. First, what is it? The explicit articulation of the idea of the kinds of technologies that rely upon the adepts of the singularity theory, is first conveyed by Irving John Good, who in 1965 was talking about ultra-intelligent machines that could outclass the intellectual performances of the smartest people, while pointing out that these are the latest toys that man should try. In order to develop

an “autopoietic” model (n.n.) of intelligence, eventually assimilated to the universal Spirit of Hegel’s philosophy, contributed theoretically Charles S. Peirce, with his evolutionary cosmology, the theologian Teilhard du Chardin, with a vision of universal becoming towards an Omega Point, the highest possible level of complexity of conscience and knowledge. Writers such as Samuel Butler (with *Darwin among the Machines*, 1863, and *Erewhon*, 1872), Henry Adams (with *The Law of Acceleration*, 1904, and *The Rule of Phase*, 1909), George Harry Stine (with *Science-fiction is too Conservative*, 1961), Alvin Tofler (with *The Shock of the Future*, 1970), Ray Kurzweil (with *The Age of Spiritual Machines*, 1999, and *Singularity is Near*, 2005) imagined in different ways models of a new technical intelligence.

The idea that there might be a unitary intelligence or extra-human forms of intelligence is by no means new. The Universal Intellect of Neoplatonists, as an autonomous sphere of reality in which the human intelligence is participating in a synergistic way, is Intelligence in its absolute infallible coordinates, but it has a transcendent status and benefits from the articulation of the divine. Now that the invention of artificial intelligence is at stake an elaborate instrumental form of human intelligence, fueled by human intentions and instincts, without transcendent nature and divine reason appears. I would consider it appropriate to characterize it by using these terms – *Luciferian* intelligence in respect of Blaga, or *Faustian* intelligence, referring to Goethe. Both models are heteronomous, relative to the authorizing divine principle, as both have the character of *temptation and transgression*, in short, variations of *hubris*. Usually *hubris* – reckless intelligence or crazy courage of a mind enlightened by blind ambitions – is the mechanism by which man draws his punishment in a universe dominated by divine reasons, in which not everything is allowed and not everything is well received.

But let us get back to defining the theme of Singularity. The most enlightening answer to our question – What is Singularity? – is given by Ray Kurzweil, the founding father of Singularitarianism, as follows:

Singularity will mean the culmination of the merger of our biological thinking and existence with our technology, resulting in a world which, though still human, transcends our biological roots. There will be no distinction, in post-Singularity, between human and machine, nor between physical and virtual reality (...)What is Singularity then? It is a future period in which the pace of technological change will be so rapid, its impact so deep, that human life will be irreversibly transformed. Although neither utopian nor dystopian, this epoch will transform the concepts on which we rely to give a meaning to our lives, from our business models to the cycle of human life, including death itself. Understanding Singularity will change our perspective on the

*significance of our past and our future. In order to really understand it, man should change his perspective on life in general and in particular on his own life.*¹

The effect of “explosion” of artificial intelligence, given by the pace of its development, would make the role and the effectiveness of natural human intelligence to regress immediately and in an inversely proportional way, generating unpredictable and uncontrollable developments. The support of the idea is constituted by the proof that technology has assumed the role of ontological component in the contemporary human existence, taking the place of nature for the archaic and premodern societies. In the horizon of technology is conducted the greatest part of the individual, social and cultural experience of the human living over the past few decades, with the vector of the technological conditioning indicating a steady increase from decade to decade. Life itself, meeting the food and security needs, maintaining healthcare, achieving personal aspirations, as well as keeping and proliferating cultural patterns depend at an increasingly higher level on technology. Moreover, from a product of inventiveness, of human creativity, technology has slowly turned into an alternate condition of creativity, including in art and literature. Paradoxically, the “natural” itself came to be produced by technologies.

Then, we should understand the challenge that could represent the formation of Singularity for the cultural, moral and religious horizons of the modern man, who lacks real historical experience, cultural data necessary to interpret the revolution of technical thinking, that took place in front of him, simply because it is unprecedented. There were, of course, innovations that have revolutionized human civilization in a particular era, but now it is a revolution of mechanisms and technologies producing thought, and not effects of thinking/creativity. Invested with almost unlimited power, technology tends to play the attribute of the divine omnipotence, thereby winning the human attention and beliefs in their religious coordinates. Technology is literally deified, being placed above human and nature. We are expecting everything from it. Technology is the easiest version of magical practices, whose goal was and remained the fact of manipulating reality, targeting phenomena towards purposes for which human intelligence and natural powers are not enough.

Professor Popoveniuc integrates the thesis of putting a spell on the world in its explanatory system, arguing that technology acts as the medium of *captivation, fascination and seduction* for human consciousness, impacting its cognitive and

¹ Bogdan Popoveniuc, *Filosofia Singularității. Creierul global, o etică a gândirii fără om* (Eikon Publishing House, 2016), 79.

spiritual field, after having recognized its contribution to human phylogenesis as a species with genetic mutations and the action of the natural environment. Obvious practical advantages of technology and utopias that generated from it make up the ontological horizon of magical controllability of the world that expects increasingly more, finally the eternal life or a divine status. Transferring onto technology the principle of antropoc conservation of the Creation indicates the sense of a kind of quasi-religious utopianism that renders insufficient the technological nihilism of the philosophy of Singularity. This insidious formula of nihilism is hard to ignore, as long as the pace of transformation generated by technology, including in personal life, leads to a diversification of forms of communication and information whose immediate effect, the gain of information, takes all the time necessary for the mind to produce summaries of understanding, systematic comprehension of the world we live in. It seems paradoxical, but the over-informing destroys the thorough understanding, fundamentally philosophical of the world and our lives. From this point of view, the knowledge technologies lead to the entropy of the process of Systematic Knowledge. The problem is, at this point, can a Global Brain take over the task of Knowledge? If yes, then what is the role of natural human thinking in the development of that Knowledge System, but more importantly, what is the practical purpose of that knowledge?

Finally, I believe that the stake of the analysis of the theme of Singularity is the following: if it is possible to get a level where the technical intelligence, concentrated in a Global Brain, can reproduce itself in a way which is unknown to the human intelligence and intentions, that is an autopoietic of it. Professor Popoveniuc does not respond to this question, but points to the possibility that artificial intelligence and the Global Brain can be created, and we do not realize it for the simple reason that we are not part of the process. If it is true that there is a network of all beings and then a network of intelligent beings connected via all media, the product of this constant interplay of knowledge / intelligence would be the Mind of the Global Brain and we are all already part of this mind ever since its creation. We have to note that, at this point, there is an essential distinction between mechanism and product. How are we supposed to do that? Previous cultural revolutions, such as the discovery of the printing press for example, meant products then people used to do something better (to write, to publish, to multiply messages and codes), while creating artificial intelligence, carried to the level of Singularity, allows the *transforming of the product in mechanism or production technology*. It is the point in which technical intelligence can enter into an

autopoietic process of reproduction, and the human intentions and activities can be either employed or subordinated, or even useless to that reproduction.

Under the threat of this possibility, Bogdan Popoveniuc believes that it takes a major leap at the cognitive and moral level of human consciousness as a phenomenon, to manage the reality of Singularity, in order to prevent the tool from becoming a weapon, in order to prevent technology from becoming a trap. While postulating the need for such a major mental mutation, the author redefines actually the sense of the theme discussed upon, of Singularity, by subtly baffling its technical meaning:

The technological progress needs an adequate cognitive development, as not to create a fatal planetary imbalance. Autoreflexivity at the level of the species and of the global intelligence represents the true Singularity towards which the culture of the humankind should head for (...) The Singularity of global self-reflexivity of the self-reflexive agents is the finality towards which converges the technological development and human evolution, the point of agglutination of biological and artificial intelligence. Mankind will also move towards a trans-human self-reflexive Singularity or will be consumed in a destructive ST...²

By redefining its meaning for reasons of human ecology, Bogdan Popoveniuc makes out of Singularity a spiritual apex, passing in the background, in a sharply argumentative manner, its technological ideal. That is, instead of believing that the creation of a Global Brain, which will threaten to dismantle the human natural intelligence, would be the last step in our evolution to the point of Singularity, the author diverts the potential threat bidding a new target, imposing another objective that Singularitarians have not taken seriously into account. He grants to the technological progression of intelligence the status of condition of a new spiritual achievement, he turns it into a foundation for a quality leap of human consciousness. If we want to find a term for it, we could call it the condition and the path towards a global necessary *metanoia*.

Bibliography:

1. Popoveniuc, Bogdan. *Filosofia Singularității. Creierul global, o etică a gândirii fără om.* (Philosophy of Singularity. The Global Brain or an Ethics of the Thinking without Man). Bucharest: Eikon Publishing House, 2016.

² Popoveniuc, *Filosofia Singularității*, 260-261.