

Homo Faber Scapegoated, or Apocalyptic Artificial Intelligence: Rethinking the Technological Singularity Concept From the Synergetic Historicism Position

Irina Gennadievna Mikailova

Saint Petersburg Humanitarian Centre for Education, Saint Petersburg, Russia

The article is focused on discussing a new methodological approach to the study on specifics of transferring human beings to the posthuman cyber society. The approach in question assists in rethinking interconnected problems both of human origins in the universe and mankind's digital future. And, besides, such an approach allows to deal with self-organising interconversions between the poles of the cardinal dual opposition of the Global Noosphere Brain and the Artificial General Intelligence. Herewith such phenomena of digital social life as Global Digitalisation, Digital Immortality, Mindcloning, and Technological Zombification being the constituents of Technological Singularity Concept, are rethought as paving the way for oncoming Posthuman Digital Era. This concept is evidently exemplified by a bifurcation resulting in two alternatives to be chosen by human beings, to wit, either to be undergone Mindcloning and become digitally immortal or being destroyed by powerful intelligent machines. The investigation in question is based on such a progressive methodology as the Law of Self-Organizing Ideals, as well as on the Method of Dual Oppositions. Rethinking interrelationships between the problem of a sense of social history and the meaning-of-life of local societies members which any intelligent machine is devoid of permits to substantiate specific regularities of Self-Transforming Homo Faber into Homo Digitalis and Technological Zombies ready to be transferred to posthuman cyberspace.

Keywords: Law of Self-Organising Ideals, dual oppositions, Homo Faber, Homo Digitalis, Technological Singularity, Artificial General Intelligence, cyber society, cyberspace, Mindcloning, mindware, mindfiles, Synergetic Historicism

The Methodological Approach of Specifics of Transforming Humanity to the Posthuman Digital Society From the Synergetic Historicism Perspective

A new methodological approach from the Synergetic Historicism¹ perspective to the speculation on interconnected problems both the impending extinction of the human species under the conditions of emerging Artificial General Intelligence allows to be focused on self-organizing interconversions between the poles of the

Irina Gennadievna Mikailova, Dr., professor, Department of Philosophy of Science and Technology, Saint Petersburg Humanitarian Centre for Education, Saint Petersburg, Russia.

¹ Synergetics is regarded as interdisciplinary science aimed at explaining the formation and self-organization of patterns and structures in open dissipative systems far from thermodynamic equilibrium, founded by Hermann Haken (b. 1927), the German physicist, inspired by the laser theory. Haken's revising of the laser principles as self-organization of non-equilibrium systems resulted in the late 1960s in developing Synergetics (Haken, 1983, pp. 205-226) and the Synergetic Philosophy of History, or Synergetic Historicism (Synergetic Philosophy of History, 2009, pp. 91-94).

cardinal dual opposition of the Global Noosphere Brain² and Artificial General Intelligence.³ The investigation in question is based on such a progressive methodology as the Law of Self-Organising Ideals (Mikailova, 2016, pp. 98-100), and the Method of Dual Oppositions (Mikailova, 2016, pp. 289-290).

The Synergetic Historicism conception, having put forward a qualitatively new approach to the speculation on the fundamental problems of Global Digitalisation and interrelations between Homo Digitalis and Intelligent Machines, has also substantiated an issue of natural (not transcendental) sources of generating human consciousness. And if the natural source of generating consciousness of the ideological animals originates in objective reality, then the transcendental one, in turn, originates in the intersubjective ideals. The Global Noosphere Brain opposite to Artificial General Intelligence is formed in the wake of disintegration and synthesis of potentially infinite multitudes of relative individual human ideals.

Substantiating rationality of the universal spiral pattern in the universe from the Synergetic Historicism viewpoint assists in rethinking life as a well-balanced system of both biological and sociological aspects. And rethinking Homo Faber⁴ as a kind of ideological as well as social animals allows to demonstrate that any idealization is inherent in human beings' mental activity only, since the only "ideological animals" are characterized by reproducing ideals and values which digital social machines are devoid of (Mikailova, 2019, pp. 26-27; Floridi & Jeff, 2004, pp. 349-361).

The Human Species' Self-Determination: To Be or Not to Be Extinct in the Post-Human Cyber Society (Historical and Philosophical Aspects)

Homo Faber, look deep
within yourselves as to decide
what you eventually wish
to become and thus pull
yourselves up by your own
straps.

The Singularity Concept was postulated by the Hungarian-born American mathematician, physicist, and computer scientist John von Neumann (Neumann Janos Lajos, 1903-1957) in his discussion of overaccelerating progress of technology as well as of changes in the mode of human life, resulting in apparent approaching some essential singularity in the human race history beyond which human existence, as it is known, could not continue (Chalmers, 2010, pp. 7-65).

Neumann's idea was then developed by the American futurist Alvin Eugen Toffler (1928-2016), the protagonist of the Digital Revolution, in his book, *Future Shock: The Third Wave* (1970).

The American mathematician and computer scientist Verner Steffen Vinge (b. 1944) became the first wide-scale popularizer of Neumann's idea reconsidered by him as the coming machine intelligence Singularity concept,

² According to the Synergetic Model of Global Progress built up from the Synergetic Historicism position, the notion of Global Noosphere Brain is equivalent to that of the Global Attractor (Michaud, 2008, p. 27; Le Roy, 1928, pp. 94-98).

³ Artificial General/Superartificial Intelligence is considered a hypothetical type of intelligent agent acting in an intelligent manner, perceiving its environment, taking actions autonomously in order to achieve goals, and improving its performance by learning or acquiring knowledge. If realized, Artificial General Intelligence could learn to accomplish any intellectual task performed by human beings or animals (Turchin & Denkenberger, 2018, pp. 113-163; Yampolsky & Fox, 2012, pp. 129-146).

⁴ Homo Faber (Lat. for "Man the Maker") is the concept that human beings are able to control their environment as a result of using tools. The term was borrowed from the Sententiae by Appius Claudius Caecus (fl. from c. 312 to 279 BC), the statesman of the Roman Republic, and referred to the human's ability to control their destiny and what surrounds them: "Homo Faber suae quisque fortunae/Every man is the artifex of his destiny".

expounded in his seminal visionary works of Internet fiction, *True Names* (1981), *Threats and Other Promises* (1988), and *The Coming Technological Singularity* (1993), where he demonstrated that human civilization, having attained singularity, vanished from the universe without traces, since humans have chosen their way of self-determination in the posthuman cyberspace beyond the ordinary human comprehension.

The concept was then endorsed and developed by the American computer scientist Marvin Lee Minsky (1927-2016) in his work, *The Emotion Machine. Commonsense Thinking, Artificial Intelligence, and the Future of the Human Mind* (2006), where he defined three paths leading to the Singularity:⁵

- Nanotechnology, aimed at building computers atom by atom and rewire brains neuron by neuron;
- Artificial Intelligence aimed at self-understanding and self-enhancing;
- Neurohacking aimed at direct neuron-to-silicon interfaces improving both human and computer intelligence.

The oncoming technological singularity was also predicted by the American computer scientist and futurist Raymond Kurzweil (b. 1948) in his work, *The Singularity Is Near: When Humans Transcend Biology* (2005), as being to occur in the 14 years from 2005 in the order to provide lurid scenarios for the posthuman digital society, entirely dependent on intelligence machines having developed beyond its members' comprehension and achieving an uncanny verisimilitude. However, this coming phenomenon was depicted by these authors as progress, since machines achieved a level of sophistication beyond human comprehension, on the one hand, and humans merged with their creations to the point of being essentially indistinguishable from them, on the other. Such enthusiasm,⁶ however, prevented from paying attention to a very real mundane threatening phenomenon, to wit, the accelerating complexity of technologies in general and the increasing inability of human institutions to apply these technologies critically, ethically, and advantageously, for no technology has to be smarter than humans creating it to become incomprehensible, more complex and change faster than social processes can match. Nanotechnologists, aimed at creating artificial forms of life, dreamed about completely controllable matter. Having chosen the way of transubstantiating the organic body in the transhuman stage considered by them to be a temporary step on the way to the new posthuman species, Nanotechnologists thus predetermined human bodies to become synthetic. They stated that life was to be prolonged and enhanced through the cyborgization process, consisting in body-improving prosthetic technology, aimed at replacing deteriorating body parts. Besides, they believed that human being should not only eventually transform themselves into beings having abilities greatly surpassing the current ones, but also become posthumous immortal Homo Digitalis (Bostrom, 2005, pp. 1-25;

⁵ The term "technological singularity" means a hypothetical point in time at which technological growth becomes uncontrollable and irreversible, resulting in unforeseeable changes in human civilization.

According to the intelligence explosion* version, an upgradable intelligent agent acting autonomously to achieve goals and improving its performance will enter a runaway reaction of self-improvement cycles, each new and more intelligent generation, appearing more and more rapidly, leading to an explosion in intelligence and resulting in a powerful Superintelligence, qualitatively far surpassing all human intelligence (that is to say, the intellectual capability of humans) marked by complex cognitive feats as well as high levels of motivation, morality, and self-awareness (Eden, 2016, pp. 6-9).

*Intelligence Explosion was defined as a possible outcome of humanity building Artificial General Intelligence, being capable of recursive self-improvement, leading to the rapid emergence of Artificial Superintelligence whose limits are unknown, shortly after technological Singularity is achieved (Eden, 2016, pp. 8-10).

The Intelligence Explosion Concept was developed in 1965 by the British mathematician Irving John Good (1916-2009), who defined an ultra-intelligent machine as a machine, far surpassing all the intellectual activities of humans. Since the design of machines is one of those intellectual activities, an ultra-intelligent machine could design even better machines, unquestionably resulting in an intelligence explosion, leading the human intelligence far behind. Therefore, the first ultraintelligent machine is the last invention, that men need ever to make (Good, 1965, p. 33).

⁶ Paul Ralph Ehrlich (1932-2023), the American biologist, in his book, *The Population Bomb* (1968) anticipated advances of bioengineering aimed at finding a solution to the global overpopulation problem (Ehrlich, 1968, pp. 171-173).

Moravec, 1988, pp. 99-117).

Transhumanists aimed at the enhancement of the human condition by developing widely available sophisticated technologies, greatly enhancing longevity and cognitive abilities, believed that such technologies cannot help overcoming fundamental human limitations. They actually anticipated the transformation of all Homo Faber into Homo Digitalis scapegoated by the Apocalyptic Artificial Intelligence in their cyber society, perfectly technocratic, whose members were a new breed of emotionless, technologically dependent creatures, having transcended the limits of the biological human nature and becoming transhuman. Transhumanists also maintained that ectogenesis aimed at gestating genetics and genetic manipulations would provide the human race with the prosperity.

Nevertheless, Bertrand Artur William, 3rd Earl Russel (1872-1970), the British mathematician and philosopher, in his essay, *Icarus or the Future of Science* (1924), argued that technology leads to technocracy, becoming a prison with no bars, a source of domination that effectively rules all forms of human thought and activity, while technological power, aimed at producing utilities (instead of being aimed at the ideal common to all mankind), serves to increase men's ability to inflict harm on each other.

Technocracy society, using eugenics, threatens humanity with killing not only the unsuitable, but also fighting technological development, since eugenics influences have a deteriorating impact on human relationships as well as on their mental well-being.

Singularitarianists, anticipating the coming of Technological Singularity, believed that technological growth, becoming uncontrollable and irreversible, would result not only in unforeseeable changes to human civilization, but also in creating Artificial Superintelligence (Vinge, 1984, pp. 129-146).

Extropianists, following the principles postulated by the English philosopher and futurist Max T. O'Connor (Max More, b. 1964) in his work, *Principles of Extropy. An Evolving Framework of Values and Standards for Continuously Improving the Human Condition* (2003), postulated the seven principles of extropy—Perpetual Progress, Self-Transformation, Practical Optimism, Intelligent Technology, Open Society, Self-Direction, and Rational Thinking—thus demonstrating his optimistic view on the digital future, expecting considerable advances in computational power, life extension, nanotechnology, and even digital immortality resulting from future advances in biometrical technology and mind uploading of those whose brains have been preserved by means of cryonics.

In his works, *Global Catastrophic Risks* (2008), “Existential Risks” (2002), and “The Doomsday Argument Is Alive and Kicking (1999)”, the Swedish philosopher Nick Bostrom (Niklas Boström, b. 1973) warned about what existential risk humanity undergoes—to wit, being destroyed—which threatens humanity with premature extinction of original intelligent life (Bostrom, 2008, p. 1; 1999, pp. 539-550).

The ominous picture of a future digital world was presented by the American economist and futurist Robin Dale Hanson (b. 1959) in his book, *The Age of Em: Work, Love and Life When Robots Rule the Earth* (2016). Hanson depicted how researchers, having learned to copy humans onto computers, created “Emulated Creatures” (Ems) who quickly came to outnumber the real ones. Thus, such a form of brain emulations commemorated the fourth, digital era, characterized by scanning human brains and combining their contents with models of signal-processing functions of brain cells in order to create a cell-by-cell dynamically executable model of the full brain in artificial hardware, whose input-output behaviour signal is close to that of the original biological human brain.

In this way, Hanson demonstrated that the posthuman cyberfuture proposes the bifurcation: Either humans

are to simulate themselves by means of creating simulations⁷ indistinguishable from reality, or human civilization ceases to exist (Baum, 2017, pp. 61-63). Hanson thus urges on humans toward independence of cyberspace as well as of digital technologies accelerating the arrival of such a transition to the Em Era (Hanson, 2016, p. 375).

If the Singularity not prevented or confined, Hanson maintained, then the Posthuman Era would result in the physical extinction of the human race, since a Posthuman cyberspace would need for human equivalent automation; meanwhile a strongly superhuman intelligence would dominate a cyber society. Some of these human equivalents would be used for more than digital signal processing. So, none of those creatures might be flesh-and-blood humans.

Actually, the Digital Revolution is aimed at enhancing humans of the cyberfuture by non-organic hardware, as well as at implanting in their brain sub-microscopic nano-computers, resulting from the synthesis between biotechnology and digital computing (Herzfeld, 2002, pp. 192-202). It is also proposed that humans would be able neither to keep up with intelligent machines nor control them that would finally lead to replacing human beings by intelligent machines.

As the Austrian computer scientist and futurist Hans Peter Moravec (b. 1948) claimed, what is crucial is not that human bodily parts, or even human calculating ability are being replaced, but that humans refuse from their judgement and their human rights in favour of the Technology Idol and its utilitarian ideals. The real threat is that the right of human individuals and communities serves commercial interests vested in algorithm-operated corporations, accounting systems, software servers, resulting in making these mechanisms, void of consciousness, a tyrannical threat to humanity (Mikailova, 2019, pp. 40-53).

In his work, *The Popular Appeal of Apocalyptic AI* (2010), the American religious philosopher Robert M. Geraci (b. 1961) noted that protagonists of robotics are not anxious about transcendental or ethical consequences of intelligence explosion for humanity (pp. 1003-1020). Moreover, in his next work, *Apocalyptic AI: Visions of Heaven in Robotics, Artificial Intelligence and Virtual Reality* (2010), Geraci rethought Apocalyptic Artificial Intelligence as a powerful dogmatic compromise between religion and science, resulting in dividing the world, digitally drunk, into the three cardinal dual oppositions—that of “Knowledge and Ignorance”; that of “Machine and Biological Nature”; that of “Virtual Reality and Physical Reality”—thus having placed human beings on the pole of Evil due to the human body’s limited spiritual powers and inevitable biological death. In this way, Apocalyptic⁸ AI is intended to resolve the problems of dualism and alienation in the oncoming transcendent future when human would forsake their biological bodies in favour of virtual ones as to inhabit an omnipresent and ethically meaningless cyberspace⁹ (Geraci, 2010, pp. 6-9).

⁷ The idea of living as a copy in a simulated world was developed by the Australian mathematician Egan Greg (b. 1961) in his work, *Permutation City* (1994).

⁸ Apocalypticism is characterised by a dualistic view of the virtual world, aggravated by a sense of alienation that could be resolved only through establishing a radically transcendent new world abolishing the dualism and requiring radically purified bodies for its inhabitants (Geraci, 2010, p. 9).

⁹ The eschatological visions of robotic technologies, however, are nothing but one of technological religion layers considered as a synthesis between Christian theology and technoscientific concepts (Geraci, 2010, p. 10).

Cyberspaces¹⁰ thus allowed the technocracy to rethink not only the problem of Salvation, but also what it means to be human. In this manner, properly envisioned, cyberspace generated a kind of new human-cum-machine synthesis.

To dominate, however, intelligent machines need something equivalent to sentience, to wit, a consciousness, a sense of personal purpose, apart from that of their human creators, and to take control of their own reproduction and evolution. That is to say, they are to improve themselves rapidly in ways unimagined by their human creators. Intelligent machines would have to invent a form of sex as well as of robot-eugenics.

The Australian philosopher of mind and cognitive scientist David John Chalmers (b. 1966) compared the process of developing artificial intelligence with the big bottle, having the small bottleneck: The path through it to inside is easy enough, but is no way back, since it is an irreversible one-way only due to recursive machines, leading to an intelligent explosion (Chalmers, 2010, pp. 7-10). So, if an abrupt leap from computational intelligence to consciousness takes place, then it would inevitable that the “conscious” Superartificial Intelligence would free itself from any constraints (Chalmers, 2010, pp. 7-31).

And while intelligent machines are far from changing their selves into human ones, humans instead are transformed into mindless performers of algorithms in the service of blind accumulation and growth, thus becoming technological (or digital) zombies.

Mindcloning and Digital Eugenics: Can the Intelligent Machines Have the Human “Me”?

Martine Aliana Rothblatt (b. 1954), the Jewish born American lawyer and transgender rights advocate, in his work, *Virtually Human. The Promise- and-the Peril of Digital Immortality* (2014), pointed out that when a robot is created by means of using the memories and knowledge borrowed from a human mind, the result is new, spontaneous, and original combinations of the ideas, leading to original equations of thoughts. Such a behaviour is recognized as acting or being human, and information technology is increasingly capable of replicating and creating its highest levels, including emotions and insight. The development of powerful yet accessible software called mindware aimed at activating a digital mindfile including human thoughts, memories, feelings, and options, and operating on a technology-powered mind clone. This new aspect of human consciousness cannot help having far-reaching consequences for humanity. Conscious mindclones—intellectually and emotionally alive virtual humans—once created, henceforward become a common human pursuit, resulting in many new personal and social issues, in particular, in broadening the “Me” definition (Rothblatt, 2014, pp. 1-5).

Cyberconsciousness is followed by new approaches to civilization regarded as revolutionary Virtually Humans introduce liberty from death via digital immortality, and electorates with cyberconscious majorities, as well as the extended commercial rights and obligations of people with mindclones. This is humans’ transition from a society of flesh into a mindcentric society of mindclones. And if we do not treat cyberconscious

¹⁰ The term “Cyberspace” (from Greek “κυβερνάν/to govern”) was introduced by the American-Canadian speculative fiction writer William Ford Gibson (b. 1948), having pioneered the science fiction genre “cyberpunk” in a dystopian futuristic setting focused on artificial intelligence and cyberware, considered as the hardware or machine parts implanted in the human body and acting as an interface between the central nervous system, including the brain, and the computers connected to it. Cyberware is thus technology aimed at creating a working information exchange between machines and the brain (Gibson, 1984, pp. 65-77). Potential cyberware is interfaces (hardware or brain-computer interface called a brain-machine interface or smartbrain, that is to say, a direct communication pathway between the brain’s electrical activity and a computer or robotic limb) and prosthetics (bodyware aimed at delivering a natural functionality and appearance) (Benedict, 1991, pp. 123-129). In his work, *Neuromancer* (1984), W. Gibson defined cyberspace as a consensual hallucination experienced daily by billions of legitimate operators, in every nation, on the one hand, and as a graphic representation of data abstracted from the banks of every computer in the human system, on the other (p. 69).

mindclones like the living counterparts they are, they become very angry and could deprive humans not only of their human rights, but also of their life (Rothblatt, 2014, pp. 6-8).

Forasmuch as digital consciousness becomes human consciousness, immortality is made through developing digital mindclones, that is to say, software versions for human minds, software-based alter egos, doppelgangers, mental twins.

Mindclones are mindfiles used and improved by mindware that has been set to be a functionally equivalent replica of human mind. A mindclone is created from the thoughts, recollections, feelings, beliefs, attitudes, preferences, and values a person has put into it. When the body of a person, having a mindclone, dies, the mindclone will not feel that they have personally died, although the body will be missed in the same ways amputees miss their limbs but acclimate when given an artificial replacement. So, the mindclone is related to the consciousness and spirit as the prosthesis is related to an arm having lost its hand. In this way, no human cloning can be seen through genetic reproductive technology, since a genetic clone of a person is not the person, but a copy of the person's DNA. Genetic cloning does not create any part of a person's consciousness, since even identical twins do not have identical minds (Rothblatt, 2014, pp. 9-11). And mindclones might be thus considered as subhuman consciousness if their decision making was rudimentary and hardware (Rothblatt, 2014, p. 17).

Rethinking the Way Paved for Emerging the Artificial General Intelligence, or a Straw Man Fallacy

As the English philosopher Aldous Leonard Huxley (1894-1963) maintained in his book, *Dust Jacket of Brave New World* (1932), the Creed of Silicon Immortality proclaimed that the Concept of Digital Mind Transfer is based on unproven assumptions that a person's mind consists of neuronal patterns which can be identified and precisely mapped into a computer, which itself provides a simulation of the person's brain structure. In this way, these digitalized electrochemical patterns are to coalesce into an identity, becoming conscious (pp. 21-24).

The pathway to the possibility of strong Artificial Intelligence (the Artificial General Intelligence) was paved by the American philosopher and cognitive scientist Daniel Clement Dennett (b. 1942) in his fundamental work, *Consciousness Explained* (1991), where he presents his Multiple Drafts Model of Consciousness, the physicalist concept of consciousness based on cognition and considering the mind in terms of information processing. So Dennett proposes a high-level explanation of consciousness¹¹ consistent with advocating the emerge of Artificial General Intelligence, which (if realized) would be able to learn to accomplish any intellectual task performed by human beings and animals. The Model is described as first-person operationalism allowing the measurement of a phenomenon not being directly measurable, since its existence is inferred from other phenomena. And as far as the Multiple Drafts Model makes the procedure of writing it down in memory for consciousness, it means that there is no reality of conscious experience independent of the effects of various vehicles of content on subsequent action, and hence on memory.

As far as human consciousness is to a very great degree a product not only of natural selection, but also of cultural evolution, the best way to consider the contribution of memes to the creation of human minds is to follow the standard evolutionary thinking (Dennett, 1991, p. 203). Having claimed that the modern thinking of

¹¹ According to Dennett, human consciousness is a huge complex of meme-effect in brains, best understood as the operation of a Neumanesque virtual machine implemented in the parallel architecture of a brain that was not designed for any such activities. The power of this virtual machine vastly enhances the underlying powers of the organic hardware on which it runs (Dennett, 1991, p. 210).

consciousness is strongly influenced by ideas of René Descartes (Renatus Cartesius, 1596-1650), Dennett maintained that conventional explanations are to be traced to either Orwellian or Stalinesque hypothesis, resulting from Descartes' continued influence on human vision of the mind. So, accordingly to George Orwell's (Eric Arthur Blair, 1903-1950) hypothesis, the subject comes to one conclusion, then goes back, and changes that memory in light of subsequent events. In Georges Orwell's dystopian novel, *Nineteen Eighty-Four* (1932), records of the past are routinely altered. According to Joseph Stalin's (Joseb Besarionis dze Jughashvili, 1878-1953) hypothesis, the two events would be reconciled prior to entering the subject's consciousness, with the final result presented as fully resolved. This is akin to Joseph Stalin's public trials, where the guilt or innocence of the defendant, accused of committing a crime, has already been determined (Dennett, 1991, pp. 101-138). As Dennett discovered, both hypotheses share a common error in supposing that a special time and place exist where unconscious processing becomes consciously experienced, entering into the so-called "Cartesian theatre"¹² (Dennett & Kinsbourne, 1992, pp. 234-241). Having refuted Descart's idea that consciousness requires an immaterial soul, interacting with the body via the pineal gland of the brain, Dennett stated that when the dualism is finally removed, what remained of Descartes' original model was reduced to imagining a tiny theatre in the brain where a homunculus, now physical, performs the task of observing all the sensory data projected on a screen at a particular moment, making the decisions and sending out commands. Cartesian materialism, as Dennett claimed, is the view that a crucial boundary exists in the brain and marks a place where the order of arrival equals the order of presentation in experience, since what happens is what humans are conscious of (Dennett, 1991, p. 107).

In this way, the Multiple Draft Model allowed to claim not only that the brain does not construct any representations aimed at filling in the blanks, but also that a variety of sensory inputs from a given event exists, as well as a variety of those inputs interpreted. Besides, the Model, considering conscious experiences as taking time to occur, such that perceptions do not instantaneously arise, in the mind in their full richness, allowed to deny any unambiguous boundary separating conscious experiences from all other processing.

Thus, consciousness is to be elicited in the actions and information flows, since the conscious self exists as an abstraction visible at the level of the intentional stance (as a state of person's mind), meanwhile the self becoming the center of narrative gravity, a story told by humans themselves about their experiences. As Dennett postulated, the removing of qualia¹³ allowed to rethink human consciousness (in the context of the Multiple Drafts Model) as the behaviour recognized by humans as conscious (Dennett, 1991, pp. 321-333).

Homo Digitalis Scapegoated

The Belgian cyberneticist Francis Paul Heylighen (b. 1960), investigating the emergence and evolution of

¹² The term "Cartesian theatre" was coined by D. Dennett to point out a defining aspect of what is called by him Cartesian materialism, maintaining that at some place in the brain some set of information directly corresponds to a person's conscious experience (where objects experienced are represented within the mind of the observer), considered by Dennett as the unacknowledged remnants of Cartesian dualism, stating that two kinds of foundation, mental and physical, exist. The mental can exist outside of the body, wherefore the body cannot think. This substance dualism resulted in the famous mind-body problem, concerning the relationship between thought and consciousness in the human mind, and the body (Georgiev, 2020, pp. 16-32). In this way, Dennett refuted Descartes' idea that inputs were passed on by the sensory organs to the epiphysis cerebri (Dennett, 1991, pp. 171-201).

¹³ The term "qualia" (pl.) (singular form "quale" from the latin "qualis/of what kind, of what sort") was introduced in 1866 by the American mathematician and philosopher Charles Sanders Peirce (1839-1914), whereas its definition as certain features of the bodily sensations was given by Frank Cameron Jackson (b. 1943), the Australian analytic philosopher, who defined "qualia" as certain features of the bodily sensations.

intelligent self-organisation, discovered the fact of existing the collective system, defined by him as the Global Noosphere¹⁴ Brain, which is not only intelligent, but becomes quickly more and more intelligent. The reason for its self-improvement is that its self-organisation is facilitated and accelerated by seemingly unpreventable processes of digital globalization as well as of the increasing spread of information and communication technologies (Heylighen, 2012, pp. 126-142).

As for as life is conditioned by four key constituents: metabolism, replication, observation, and memory, forming inside-outside and inside-inside relations, these external and internal communications, in turn, form images of the world impressed into the Watchers (Εγρηγοροι), being continuously modified throughout their life. Thereby, the Watchers cannot help being forestalled by the Watched—the reason for why no world can exist without life, just as without the living matter no non-living matter can exist. So, at a particularly bio-singularity point, the Global Noosphere Brain is to become a living alternative to Artificial General Intelligence. As result, the new cardinal dual opposition emerges, whose one pole is focused on Artificial General Intelligence, another on the Global Noosphere Brain, whereas the space between two poles is occupied by some measure of synthesis between the living (intelligence, self-consciousness, self-awareness, self-identity, self-reflection) and the non-living (artificial intelligence) matter.

If the Noosphere ever emerged as a single entity, then it should be characterized by a certain degree of living intelligence, as to become aware of its own existence, supposing its self-awareness. And moreover, it should acquire a capacity for seeing itself not only from within, but also from the outside.

The existence of any living organisation is conditioned by the cardinal dual opposition of Stability and Dynamics, whose poles are needed to be balanced in the space between them achieved by some measure of synthesis, since a focus of stability pole would lead to conservation and death, while a focus of uncontrolled transformations could result in chaos, leading to destruction and death.

Considered, on the one hand, as biological animals, human beings are aimed at utilities assisting in surviving as long as possible as to experience the world. However, regarded, on the other hand, as ideological animals, human beings-cum-Homo Faber cannot help being directed by their ideals and values, determining their meaning of life in order to transmit their ideological code from generation to generation (Mikailova, 2016, pp. 100-103).

Conclusion

The conception of Synergetic Historicism contributes to forming the Global Noosphere Brain being able to withstand the powerful Artificial General Intelligence, posing a very serious threat to Humanity by its potential capability of experiencing self-awareness, as well as overwhelming the contradiction between the growth of Human Freedom, oriented towards regulating cosmic processes, and the principle of determinations, limiting freedom of choice by observing laws by means of their mutual compensation in order to prevent human nature on the whole and Homo Faber in particular from destruction.

The Global Noosphere Brain's cosmic command, being subject to the law of Self-Organising Cosmic Matter,

¹⁴ The term “Noosphere” (from “νοος/mind” and “σφαίρα/sphere”), meaning the sphere of human thought (Levit, 2000, pp. 160-177), was first used by Edouard Louis Emmanuel Julien Le Roy (1870-1954), the French philosopher and mathematician (Le Roy, 1928, p. 46).

Vladimir Vernadsky (1863-1945), the Russian and Soviet mineralogist and geochemist, having developed the concept of Noosphere (Vernadsky, 2012, p. 18), contended that human thought appears in the Noosphere as a lawful manifestation of biologic evolution, which can only be separated from it in abstraction. His Noosphere Concept supposed that the reflective human mind would expand its control of the whole geological stratum, and that human beings-cum-Watchers would spread throughout the cosmos (Vernadsky, 1988, pp. 130-132).

is to be directed by the Absolute Ideal, for whose sake Superhumanity would be able not only to withstand the Superintelligent Agent, but also to overwhelm the Time Paradox, thus achieving the measure of synthesis between Chaos and Order, on the one hand, and between Freedom and Responsibility, on the other.

References

- Baum, S. (2017). The social science of computerized brains. Review of the age of Em: Work, love and life when robots rule the earth by Robin Hanson. *Futures*, 90, 61-63.
- Benedict, M. (1991). Cyberspace: Some proposals. In *Cyberspace: First steps* (pp. 119-224). Cambridge MA: The MIT Press.
- Bostrom, N. (1999). The doomsday argument is alive and kicking. *Mind*, 108(431), 539-550.
- Bostrom, N. (2002). Existential risks. *Journal of Evolution and Technology*, 9(1), 1-31.
- Bostrom, N. (2005). A history of transhumanist thought. *Journal of Evolution and Technology*, 14(1), 1-25.
- Bostrom, N. A. (2008). *Global catastrophic risks*. Oxford: Oxford University Press.
- Chalmers, D. (2010). The singularity: A philosophical analysis. *Journal of Consciousness Studies*, 17(9/10), 7-65.
- Dennett, D. C. (1991). *Consciousness explained*. New York: Back Bay Books.
- Dennett, D. C., & Kinsbourne, M. (1992). Escape from the Cartesian theater. *Behavioural and Brain Science*, 15(2), 234-247.
- Ehrlich, P. R. (1968). *The population bomb*. New York: Ballantine Books.
- Eden, A. H. (2016). *The singularity controversy, Part I: Lessons learned and open questions: Conclusions from the battle on the legitimacy of the debate. Technical report*. New York: Sapience Project.
- Egan, G. (1994). *Permutation city*. New York: Harper Prism.
- Floridi, L., & Jeff, S. (2004). On the morality of artificial agents. *Minds and Machines*, 14(3), 349-379.
- Georgiev, D. (2020). Quantum information theoretic approach to the mind-brain problem. *Progress in Biophysics and Molecular Biology*, 158, 16-32.
- Geraci, R. M. (2010). *Apocalyptic AI: Visions of heaven in robotics, artificial intelligence and virtual reality*. Oxford: Oxford University Press.
- Geraci, R. M. (2010). The popular appeal of apocalyptic AI. *Zigon: Journal of Religion and Science*, 45(4), 1003-1020.
- Gibson, W. (1984). *Neuromancer*. New York: Ace Books.
- Good, I. J. (1965). Speculations concerning the first ultraintelligent machine. *Advances in Computers*, 6, 31-85.
- Haken, H. (1983). *Synergetics. An introduction. Nonequilibrium phase transitions and self-organization in physics, chemistry, and biology*. Berlin: Springer-Verlag.
- Hanson, R. D. (2016). *The age of Em: Work, love and life when robots rule the earth*. Oxford: Oxford University Press.
- Herzfeld, N. (2012). Cybernetic immortality versus Christian resurrection. In *Resurrection: Theological and scientific arguments* (pp. 192-202). Eerdmans: Grand Rapids.
- Heylighen, F. (2012). A brain in a vat cannot break out: Why the singularity must be extended, embedded and embodied. *Journal of Consciousness Studies*, 19(1-2), 126-146.
- Huxley, A. (1932). *Dust jacket of brave new world*. London: Chatto and Windus.
- Kurzweil, R. (2005). *The singularity is near: When humans transcend biology*. New York: Viking Books.
- Levit, G. S. (2000). The biosphere and the noosphere theories of V. I. Vernadsky and P. Teilhard de Chardin: A methodological essay. *Archives Internationales d'Histoire des Sciences*, 50(144), 160-177.
- Le Roy, E. (1928). *Les origines humaines et l'évolution de l'intelligence. III. La Noosphère et l'Hominisation*. Paris: Boivin et Cie.
- Michaud, Th. (2008). Science fiction and politics cyberpunk science fiction as political philosophy. In *New boundaries in political science fiction* (pp. 65-77). Columbia: University of South Carolina Press.
- Mikhailova, I. G. (2016). *Social and cultural ideals and global artistic culture. In 2 vols. Vol. I. Social, cultural, and religious ideals and their role in dynamic reproducing human civilisation*. Saarbrücken: Palmarium Academic Publishing. (in Russian)
- Mikhailova, I. G. (2019). The synergetic model of global development of humanity: Its part in self-organizing social and cultural processes. *International Journal of Innovative Studies in Sciences and Engineering Technology*, 5(4), 26-36.
- Minsky, M. (2006). *The emotion machine, commonsense thinking, artificial intelligence, and the future of human mind*. New York: Simon & Schuster.
- Moravec, H. (1988). *The future of robot and human intelligence*. London: Harvard University Press.
- More, M. (2003). *Principles of extropy. An evolving framework of values and standards for continuously improving the human condition*. London: Extropy Institute.

- Preston, T. M., & Dixon, S. (2007). Who wants to live forever? Immortality, and living forever in the present. *The International Journal for Philosophy of Religion*, 61(2), 99-117.
- Rothblatt, M. (2014). *Virtually human. The promise and the peril of digital immortality*. New York: St. Martin's Press.
- Russell, B. (1924). *Icarus or the future of science*. New York: E. P. Dutton & Company.
- Synergetic Philosophy of History. (2009). *The collective monograph*. V. P. Bransky and S. D. Pozharsky, (Eds.). Riasan: Copy-Print.
- Toffler, A. (1970). *Future shock: The third wave*. New York: Random House.
- Turchin, A., & Denkenberger, D. (2018). Classification of global catastrophic risks connected with artificial intelligence. *AI & Society*, 35(1), 143-163.
- Vernadsky, V. I. (1988). *Philosophical thought of naturalist*. M.: Science. (in Russian)
- Vernadsky, V. (2012). *The transition from the biosphere to the noosphere. Excerpts from scientific thought as a planetary phenomenon, 1938*. Washington: The 21st Century Science and Technology.
- Vinge, V. (1984). *True names*. New York: Bluejay Books, Inc.
- Vinge, V. S. (1988). *Threats and other promises*. Wake Forest: Baen Books.
- Vinge, V. (1993). The coming technological singularity: How to survive in the post-human era. *Whole Earth Review*, 81, 88-95.
- Yampolsky, R., & Fox, J. (2012). Artificial general intelligence, and the human mental model. In *Singularity hypotheses: A scientific and philosophical assessment. The frontiers collection* (pp. 129-146). Heidelberg: Springer Verlag.