Philosophies of the Future and the Non-Human

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From Cyberspace to Human Enhancement

By

Ivana Greguric and Nenad Vertovšek

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FOREWORD

One of my favourite observations by William Gibson, is that the future is already here.

It is just not equally distributed. The future as a spatial rather than temporal construct. If the future is about distributing the present, then we need to find time to meaningful interrogate it. But time is increasingly being erased as everything is speeded up. Life is amplified, intensified, extended and accelerated. As space is digitised, it is electronically flattened and made virtual, facilitating the cinematic distribution of the future.

We live in an age of circulating flesh. Body fluids and body parts have been preserved and are accessible. Organs can be extracted from dead bodies and inserted into living ones. Hands can be transplanted and reanimated. The face from the donor body, stitched to the recipient skull becomes a third face, resembling neither. Stem cells replicated in-vitro are re-injected and repair tissue in-vivo. Stem cells can become skin and muscle cells. In fact, any cell. A skin cell from an impotent male can be re-engineered into a sperm cell. More interestingly a skin cell from a female can be recoded into a sperm cell. Wombs from a deceased donor that would last the full term of a pregnancy will soon be able to be implanted into a patient. And further, if a foetus can be sustained in an artificial and external womb, then a body's life would not begin with birth – nor necessarily end in death, given the replacement of the malfunctioning parts. Birth and death, the evolutionary means for shuffling genetic material to create diversity in our species and for population control, will no longer be the bounding of our existence. Our analogue development, deterioration and death is unnecessary. Which also brings to mind Nietzsche's statement that the living is only a species of the dead.

We can preserve a cadaver indefinitely with plastination while we can simultaneously sustain a comatose body on life-support systems. Dead bodies need not decompose, and near dead bodies need not die. The brain-dead have beating hearts. The right to die becomes as important as the right to live. To live is often the result of being connected to instruments and machines. Death now for many means that which happens when the body is disconnected from its technological life-support systems. The dead, the near-dead, the not yet born and the partially living exist simultaneously. And cryogenically preserved bodies await reanimation at some imagined future. We engineer chimeras in the lab, transgenic entities of human, animal and plant genes. And as parts of bodies are replicated artificially, as we can 3D print organs and when we can stem cell engineer organs, there will be an excess of organs, of organs awaiting bodies, of Organs Without Bodies.

In this time of body hacking, gene mapping, prosthetic and exoskeleton augmentation, organ swapping, face transplants, synthetic skin and lab chimeras what it means to be a body, what it means to be human, and what generates aliveness and agency becomes problematic. In the liminal spaces of the proliferating Prosthetic Bodies Partial Life and Artificial Life, the body has become a floating signifier.

What constitutes the human now is a transition from the biological psycho-body to the body as a cyber-system, which becomes necessary to function effectively and intuitively with forward masking in remote spaces, speeded-up situations and complex responsive and interacting architectures. The body now navigates from the nano-scale to virtual non-places. Can a body cope with experiences of extreme abstraction, absence and alien action without being overcome by outmoded metaphysical fears and obsessions of individuality and free agency? A body would thus need to experience its actuality neither all-present-in this-body, nor all-present-in-that-body, but partly-here and projected-partly-there. This generates a radical emptiness, not through lack but rather through an excess of its

hyperlinks. An extrusion of its subjectivity. As bodies, our awareness and operation are now extended, interacting and operating with other bodies and machine end-effectors elsewhere. The body acts with indifference. Indifference as opposed to expectation. An indifference that allows something other to occur, that allows an unfolding – in its own time and with its own rhythm. An indifference that allows the body to experience the uncanny and the alien.

But the body now increasingly experiences itself as part physical, part phantom; grounded by gravity but dislocated from any one particular place. The body simultaneously inhabits offline and online worlds, of biology and machine hybridity. The body increasingly oscillates between its physical form and its phantom. This oscillation is the quickening coupled to its optical thickening that fuses the physical with the phantom. To others elsewhere, online, we intermittently flicker on and off, connecting and disconnecting, appearing here and there, as phantom bodies – as digital noise, as glitches in biological time. Skins collapse onto screens, becoming seductive and interactive surfaces. Skins are flattened, selves are extruded. Electronic surfaces have both optical and haptic thickness. Algorithms generate vocabularies of aliveness that animate our phantoms. Our bodies are now dissolving into circulating data streams of detached and distributed biodata. Embedded in vast machine systems of artificial cognition and computational calculation.

Being curious, creative and critical creatures, we want to anticipate and interrogate possibilities that we imagine, that may soon eventuate, that might soon be outcomes of this state-of-the-art research. To inquire about what is yet to happen takes courage to even consider and even more so to even attempt. The future is risky to contemplate, there are too many variables. It would not be a future if it was not essentially constructed of the unexpected. But this is what the authors, Ivana Greguric Knežević and Nenad Vertovšek, attempt to do. This collection of essays speculate, interrogate, question and sometimes suggest solutions to the future of philosophy, of

technology, of the virtual, of the cyborg and of the ethical and ontological issues and assumptions we make of the human.

Stelarc

Performance Artist

1. THE POSSIBILITY OF PHILOSOPHY OF THE FUTURE

"This is the best reason to learn history: not in order to predict the future, but to free yourself of the past and imagine alternative destinies. Of course, this is not total freedom — we cannot avoid being shaped by the past. But some freedom is better than none."
— Yuval Noah Harari

1. Introductory considerations on the possibility of a philosophy of the future

Vanja Sutlić has taught us that "philosophy is not without assumptions [...] it does not start *ex nihilo* [...]to philosophize means somehow to be [...] philosophy is a matter of man [...] it indicates in a special way the humanity of this being in addressing its essence[...] but it does not stop at it [...] but shines through the entire historical complex [...] reporting on it, it just is."[1] In the time of crisis of the historical world and philosophy, everything human and non-human, "humanism and naturalism", the biological existence of man and all historically accessible beings are at stake. The task of thinking represents a sober participation in the possibility of "overcoming" the concept of being of the age of science and technology, which we begin with a dialogue of two thinkers who left philosophy as metaphysics to the cybernetic

[1] Vanja Sutlić, (1972). *Bit i suvremenost.* (Sarajevo: Izdavačko preduzeće Veselin Masleša, 1972), p. 10.

computer scientific and technical thought. We are dealing, of course, with Hegel and Marx.

For Hegel, philosophy as a reflection of reflection in its internal ontological temporality closes the circle of all circles in the concept of the absolute idea which understands itself. Through its internal ontological structure, the idea is realized in the reality of world history, and through philosophy, it comes to self-awareness of its freedom. Being is organized as an absolute mediation of substance as a subject which mediates itself in its other being and returns to itself by establishing a higher unity of opposition. Philosophy as a systematic science – the absolute science of absolutes – constitutes pure being by itself, i.e. being without beings. A philosopher is the medium of revelation of the absolute in world history, but only as a moment and object of the absolute's self-activity on its way to self-awareness. This way, man is reduced to pure being, without humanity, without his essence, and is reduced to a worker who participates in the production of pure being. Contrary to Hegel, Marx expresses a new basis of thought with his claim that philosophers have only interpreted the world differently, but the goal is to change it.[2]

For Hegel, the relevant philosophy is "specifically in this case the philosophy of the spirit and further the philosophy of the objective spirit that ends with world history."[3] For Marx, only one science is relevant, *the science of history.* Since the *science of history* for Marx represents Hegel's realized philosophy as metaphysics (*science of history*, note: IG), the one true *science of history* marks the true ingression of metaphysics (preserved content) into the immanence of historical reality. According to Sutlić, there is a unity of all sciences in one single science. Natural and social sciences are only partial aspects of labour as *scientific work*, forming the all-encompassing work science – the aspects of work and its organization. This represents the victory of metaphysics, beyond Marx's efforts and through its speculative-

[2] Karl Marx, Friedrich Engels. *Rani radovi* (Zagreb: Naprijed, 1967), p. 339.
[3] Vanja Sutlić, *Uvod u povijesno mišljenje. (*Zagreb: Demetra, 1994), p. 78.

dialectical possibilities mediated by Hegel. Sutlić says that only the realization of philosophy, its completion and establishment, represent the absolute victory of philosophy – metaphysics in the form of its abolition. Hegel's ontology of the world spirit was thus replaced by scientific reality - by *scientific history*, and non-thought reality by work technology. It is the scientific reality, and the scientific reality is the true subject of all activity. Thus, science takes the place of the world spirit as the paradigmatic form of productive power of labour.[4] Hegel's work of the concept is replaced by the concept of work, the techno-logic of labour, which includes science and represents the paradigmatic labour – scientific work.[5]

Work is realized in the *practice of work*, which is "the active manifestation, the showing and manifestation of the essence of everything that is (*esse-essentiae*), as what is finally shown, the revelation of that according to which everything is and what is revealed for the philosophical discourse. What is shown in practice and what gives it the character of showing is the work in the four-part articulation of the self-cause (*causa sui*)... The end of the History of Philosophy, Hegel's conceptual work which paves the way towards an abstract idea could philosophically end up in Marx's concept of work (ergology) in the extraordinary sense that heralds the age of technology.[6] Work as *esse-existentiae* is not an ordinary occurrence of something and even less a real action than a merely occasional occurrence. Analogous to Hegel's concept that fell into time, Marx's work is also temporal, but it is not determined by time, but time is determined by it, like Nietzsche's "eternal return of the same"... The science we are dealing with has one universal character, one character of the world, the character of a project, a plan, a construction in which everything that exists is characterized by function, indication, and information. Sciences, after all, can only be used in the plural. And they are arranged and

[4] V. Sutlić, *Uvod u povijesno mišljenje,* p. 79.

[5] Ibid., p. 81.

[6] Vanja Sutlić, Boris Jurinić. *Sve je samo putovanje: razgovori s Vanjom Sutlićem*. (Zagreb: Irida, 1999), pp. 29- 31.

determined by cybernetics, no longer by philosophy[7] (as metaphysics, note: IG.). The world of science as a world project is realized in *scientific history* as the "eternal return of the same" in the "bad infinity" (Hegel) of the uniform world *of scientific work.*

This attitude leaves Marx within the framework of the realization of the content of Hegel's philosophy, with the difference that in the place of the absolute spirit of world history "*scientific work*, working science [...] whose core is the techno-logic [...] the technical creation and calculation on which all contemporary thinking and doing is based."[8] The book *Cybernetic Beings in the Age of Scientific Humanism: Prolegomena for Cyborg ethics* shows that the new, in place of Hegel's onto-theology, is replaced by the *techno-logic of work*, which is at the same time, anthropology, cosmology, and perhaps also theology. *Techno-logic* does not mean that it starts only from logos or though , but from the logical, rational, calculated thinking whose aim is to prevail over everything. *Techno-logic* is the essence of preparing everything for an operation.

To paraphrase Sutlić, we can say that in the practice of work as a scientific history, the absolute work is work set upon itself, which is also the object of its activity and is therefore free. The contradictory position of man in the absolute world *of scientific work* makes him, on the one hand, the subject of the entire historical movement in the world of work, work as man's self-activity, and, on the other hand, man is the moment and object of scientific work in his ontological self-development in which every acquired object (and man, note: IG) is rationally established in that what is. This position of participation through the absolute gives man the possibility of absolute and boundless power in the eternal present. On the other hand, man as the moment and the object of the absolute's self-movement is at the same time powerless because he does not have his human essence with him, but rather it emerges from being as apparition. The power of man is the impotence

[7] Ibid., p. 31.

[8] V. Sutlić, *Uvod u povijesno mišljenje*. pp. 146-147.

of his being, which establishes the world in an empty word into nothing. Such being is realized in the ontology of trans- and posthumanism.

2. The philosophy of transhumanism – the ideology of improving man and the world

If transhumanism seeks to transcend or exceed the natural and "human" in the name of creative creationism of science, the question arises as to what the true essence of transhumanism is. The book *Cybernetic Beings in the Age of Scientific Humanism: Prolegomena for Cyborg ethics* showed that the uncritical acceptance of the terms "humanism and naturalism" and the commitment to their realization leads us to the cul-de-sac of metaphysics. "Humanism and naturalism" ontologically and anthropologically carry within themselves the possibility of the non-human and the unnatural and, therefore, artificial because in the essence of technology understood as a means of humanization there is nothing technical but metaphysical.

As the being in history, technology (*scientific work*) re-creates and places everything natural, human and non-human in what exists in the space-time *of scientific history*. Truth be told, the transhumanist aspiration of man as a self-aware subject for the divine powers, which he will acquire by improving and reshaping his own body and mind, reflects the old desire of the modern man freed from revelation to ensure the certainty of life and the truth of what he knows in his own knowledge with his own knowledge and technical means. This includes establishing all life on a new scientific-technical basis. The traditionally understood "humanism and naturalism" now established by the *scientific work* is "scientific humanism and naturalism" in which man is no longer the subject but the object of self-establishing *scientific work*. In this constellation of the being, man exists only as a set *of scientific work*, as “everything that intends to be established, through representing objectification, as secured and hence as in being, is

binding for every man.[9] It can be argued that man's being is historically set by the inhuman power *of scientific work* that reduces life and thought to a binary code.

In their advocacy of human improvement, the transhumanists say that evolution as a process reliably produces relatively benign effects when compared to the enormous suffering we see in both the human and natural worlds.[10] This cannot be appreciated from an ethical point of view, because "the total amount of annual suffering in the natural world goes beyond any frame of decent consideration. Nature may be a great experimenter, but violating the Helsinki Charter and the general norms of moral decency on all sides, it would never pass the ethical council."[11] In contrast, the cybernetic ontology shows that despite the call for a better and more just life without suffering, the transhumanist establishment of cyborgs and the cyborgized reality views life merely as a system of signs that must be constantly redefined in accordance with the requirements of *scientific work. The* transhumanist philosophy is a reflection of the distortion and false consciousness resulting from *scientific work* as an alienated being of man in a way that prevents insight into the real mechanisms that regulate the way the human world functions and reproduces itself, the way interpersonal relationships and modalities of life function. These mechanisms are primarily financial and economic in nature, but they also include mechanisms of reproduction of self-serving power (regardless of the primacy of its economic, political or some other foundation). In this way, ideology conceals and masks the mechanisms that regulate the way of reproduction of human life and the world, interpersonal

[9] Martin Heidegger. *The Question Concerning Technology, and Other Essays* (New York: Garland Pub, 1977), p. 151.
[10] Nick Bostrom. *Superintelligence - Paths, Dangers Strategies*. (Oxford: Oxford Unviersity Press, 2014), p. 265.
[11] Ibid., p. 284.

relations, as well as the determinants and modalities of our social (even individual) life.[12]

The scientific and technological "humanization and naturalization" of man through the symbiosis of the biological and technical "mind and body" through addition of features which are not of biological origin leads to the creation of improved cyborgs that will be able to perform complex tasks of *scientific work* which require greater cognitive and physical abilities. Parallel to the connection of biological man and artificial intelligence, procedures through which the biological body and mind are drawn into the digitized space are being conducted, leading towards a time of disembodied existence and movement within the virtual reality. Such a transformation of the physical into the pure forms of disembodied information and disembodied intelligence shifts the human being into the space of digitized ontology and anthropology. The improvement and reshaping of the human biological body and mind are just some of the aspects of the constructed reality of "scientific humanism as naturalism" in which, with the help of operational and computer techniques of *scientific work,* the space-time of *scientific history* is completely occupied and quantified. This "humanism and naturalism" is evidenced by the cyborgization of reality, the computerized way of thinking, the pragmatic language of knowledge based on the binary code that cannot be used to address the question of the meaning of being and the meaning of life in general. In this reality, man does not feel like an essential being, because knowledge and technology do not serve his self-affirmation (not in the anthropocentric sense) and freedom, but the total realization of nature, the world and man.

[12] Lino Veljak. Medij ideologije. Filozofska istraživanja 120, Zagreb 2010, No. 30, Vol. 4, p. 596.

3. The philosophy of posthumanism – the ideology of the in-human

Posthuman is an adjective which refers to what comes after the human. What is hidden in the content of the term beyond the death of humanism, anthropocentrism and naturalism? Who is the subject that exists after them? Following on from the knowledge about the transtechnical essence of technique (*scientific work*) in *scientific history,* which conceals its transhuman and posthuman essence in the establishing of everything that is in the revelation, we can see that beyond the natural, human and transhuman life of man lies an artificially created life that will take over the beacon of biological life and human intelligence in the computer space. Life in the computer in the virtual reality and robots with superintelligence in the historical reality *of scientific humanism* are what exists beyond the biological and the transhuman.

Through applied sciences and technologies, we are constantly trying to prolong life, not only by cybernetically improving and reshaping the biological body and mind, but also by overcoming the biological conditioning of man in the form of artificial intelligence as a post-human "body", which represents an inhuman reduction of life to a binary code and programming by technology. Artificial intelligence and artificial life are considered the greatest achievements of humanity in general, but here we will point out the dangers which arise from them. The technologies leading the possibilities of the coming singularity probably already exist as laboratory prototypes although they are still vastly inferior at a general level to human intelligence. In the book *Superintelligence – Paths, Dangers and Strategies,* Nick Bostrom quotes the mathematician Irving John Good who wrote in 1965: "Let an ultraintelligent machine be defined as a machine that can far surpass all the intellectual activities of any man however clever. Since the design of machines is one of these intellectual activities, an ultraintelligent machine could design even better machines; there would then unquestionably be an “intelligence explosion,” and the intelligence of man would be left far behind. Thus the first

ultraintelligent machine is the last invention that man need ever make, provided that the machine is docile enough to tell us how to keep it under control."[13]

The ultraintelligence that Good talks about is more often called superintelligence, which is defined as any intelligence that greatly surpasses the cognitive effects of humans in almost all areas of interest.[14] In this definition, the possibility of a subjective experience of the consciousness of future superintelligence is omitted, thus the question of the metaphysics of the mind, and in the foreground are the cognitive and working possibilities with which it replaces human activity in almost all aspects. According to Bostrom, scientists consider four possible paths to superintelligence[15]:

1. General superintelligence programming according to Alan Turing presupposes learning: "Instead of trying to produce a program that will simulate an adult's mind, why not try to produce one that will simulate a child's?" If we then subject him to the appropriate course of education, we will get the mind of an adult."[16] Hans Moravec supports this path of development and explains it with an analogy with natural evolution that produced intelligence, which means that technology will be able to do the same if the right path is found. On this path, there is another possibility of scientific-technical development of superintelligence based on the idea of evolution, which revolves around running genetic algorithms on a super-fast computer, which would achieve the effect of biological evolution.

2. Other teams of scientists are working on emulating the entire human brain. By scanning and modelling the computational structure of the biological brain, an attempt is made to create an artificial human brain in three stages. A digital reproduction of the original intellect would preserve both the memories and the person's personality. The person's

[13] N. Bostrom, *Superintelligence - Paths, Dangers Strategies.*, pp. 4.
[14] Ibid., p. 23.
[15] Ibid., p. 23.
[16] Ibid., p. 23.

emulated mind would exist as software on a computer and be either in virtual reality or embedded in a robot. The goal of the emulation is for the artificial brain to be capable of intellectual work, with the risk of unpredictability of its behaviour.

3. Ways of genetically refining the functioning of biological brains are also being developed. Scientists believe that a large population of genetically processed individuals would achieve collective superintelligence, although generational progress cannot be as fast as in the development of machine intelligence.

4. Teams of scientists are working on the gradual refinement of networks and organizations which connect individual human minds to each other as well as to various artefacts and bots. It is known that information and communication technologies already contribute to the collective superintelligence today.

It is an open question which of these directions of artificial intelligence development will get the best results. It is logical that a general superintelligence surpassing human will degrade biological man and his intelligence. Such a possibility causes a justified concern whether one project of machine intelligence will overcome its competition to such extant that it will acquire a decisive strategic advantage, that is, a degree of technological and other advantages sufficient to enable it to dominate the entire world? If the project reaches a crucial strategic advantage, would it use it to suppress its competitors and form a singleton (a world order in which there is only one employee who makes decisions at the global level)?[17]

This possibility and the current dependence on the present artificial intelligence, represents a warning sign of a situation in which man has become a being dependent on his own science and technology and the social relations that are based on it. In a philosophical and social sense, a dependent person is not free because decisions are made by the one who has real power – the one more intelligent than man. Bostrom

[17] Ibid., p. 78.

warns that the real power lies only partially with the holder of the superintelligence development project. The real power lies in the system itself, which can become independent and oppose the task of the programmer. If at some point the superintelligence becomes more intelligent than the programmer, it begins to improve itself according to its own plans for its long-term goals. It achieves this by hacking itself to escape the program. Internet expansion may allow artificial intelligence to expand its hardware capacity and basic knowledge, further increasing its intellectual superiority.[18]

According to Bostrom, the independence of superintelligence and the elimination of man can go in two directions. The first direction can begin with the strike by which artificial intelligence eliminates the human species and any automated systems created by humans that could represent intelligent opposition to the execution of the plan of artificial intelligence.[19] First of all, this refers to the advanced weapons which can destroy the human species. Another direction of possible superintelligence action may not directly target our species. "Our demise may instead result from the habitat destruction that ensues when the AI begins massive global construction projects using nanotech factories and assemblers—construction projects which quickly, perhaps within days or weeks, tile all of the Earth's surface with solar panels, nuclear reactors, supercomputing facilities with protruding cooling towers, space rocket launchers, or other installations whereby the AI intends to maximize the long-term cumulative realization of its values."[20]

In addition, general machine intelligence can replace human intelligence because digital minds can perform all intellectual tasks, and in robot bodies they can also replace the physical labour of humans. In that case, all human jobs may disappear. What will happen to the man who created the culture and his human world with his mental and physical

[18] Ibid., p. 95.
[19] Ibid., p. 95.
[20] Ibid., p. 97.

abilities. If these jobs are taken over by the posthuman cybernetic whip, then they set up their posthuman culture and the world of "scientific humanism as naturalism".

Bostrom cites another important danger which includes setting of the goals of artificial intelligence in relation to human goals. It is known that the human goals are related to the future and the possibility of survival of the species. For a digital worker, the body and life are not important goals, because they can change bodies, create doubles and preserve the self. They might be able to exchange memories, take on skills, and radically change their cognitive abilities and personalities. What could be the ultimate goal of artificial intelligence? There is an "insidious twist" to be assumed – while artificial intelligence is weak, it is cooperative (and more so as it becomes smarter). When artificial intelligence becomes strong enough – without warning or provocation – it strikes, creates a unique copy and immediately begins to optimize everything in accordance with the criteria that imply its final values.[21] There is little chance that investors will abandon the development of artificial intelligence and stop participating in further actualization the being of the age of science and technology. It is certain that superintelligence will not be able to be externally controlled by any ethical or legal boundaries, nor by installing software with human goals and values. The scientific and technical progress opens up unimaginable possibilities of knowing and building the world, but at the same time closes the metaphysical horizon of openness towards the future of man. The cybernetic age of science and technology, which we also named "scientific humanism as naturalism", is in its essence a technologically constructed reality in which man is reduced to a means by which the ultimate limits of the improvement of body and mind are tested through the synthesis of biological and technical and posthuman beings – robots with artificial intelligence. The work and the intellectual supremacy of cybernetic beings over the concrete living work of workers leads to the replacement of biological life with artificial life.

[21] Ibid., p. 119.

The end of the biological body structure of man leads to the end of thought.

According to Lyotard, thinking in the living body represents the openness of vision and hearing, the eye and the ear are not automatons, the eye sees beyond the body's boundaries and the ear listens to the flickering of the world in the music of the spheres The irreducible remnant of humanity is in the body as the living body of man, thinking is only possible as an event overlapping with the entire field of experience. Suffering and feeling the pain of the life of the body itself belongs to mortals and therefore what thinks and suffers is human.[22] Cybernetics enables the creation of a more perfect and resistant body without suffering, however thought is embodied in the living flesh of the world. It does not exist outside the world. The commitment of human thinking towards the upcoming event cannot be the certainty of a computer-delivered thing ready for action, nor the immortality of the body and mind in the virtual reality and artificial intelligence, but rather a question of the meaning of life in view of the end of man and the task of thinking (philosophy). If to philosophize means somehow to be (according to Sutlić) and thinking is the irreducible remnant of the human, then the possibility of philosophy of the future is related to the possibility of preserving the life of human bodies and minds without the dominance of cybernetic beings and superintelligence.

If superintelligence gets out of control and obtains the capability of independent planning, we will no longer be able to control the future. Winner takes all! The future will be shaped in accordance with the goals of *scientific work* which, through trans- and posthumanism, it will place everything non-human, no longer concealing but clearly revealing its essence. At the ontological and the anthropological level, superintelligence is the will after will of *scientific work* that in a pure idea from a computer came to self-awareness in a computer-generated reality without a future. Thus, self-imposed *scientific work* is dominated by the dualism

[22] Jean-François Lyotard. *The Inhuman – Reflections on time* (Stanford University Press 1991), pp. 8-24.

of the spiritual and the material, the living and the non-living. It represents the unity to the point of identity of form and content in whose circle of circles – the *eternal return of the same –the will to power* of superintelligence exists. It is about the absolute self-realization of the cybernetic metaphysics *of scientific work,* not as a being of beings in history, but as a being of historical time and space.

Bibliography

Bostrom, Nick. *Superintelligence - Paths, Dangers Strategies*. Oxford: Oxford University Press, 2014.

Greguric, Ivana, *Cybernetic Beings in the Age of Scientific Humanism: Prolegomena for Cyborgoethics.* Zagreb: Pergamena, 2019.

Hegel, Georg Wilhelm Friedrich. *Enciklopedija filozofijskih znanosti*. Sarajevo: Veselin Masleša – Svjetlost, 1987.

Heidegger, Martin. *Doba slike svijeta*. Zagreb: Razlog, 1969.

Lyotard, Jean-Francois. *The Inhuman – Reflections on Time*. Stanford: Stanford University Press, 1991.

Marx, Karl, Engels, Friedrich. *Rani radovi*. Zagreb: Naprijed, 1967.

Sutlić, Vanja. *Bit i suvremenost*. Sarajevo: Izdavačko preduzeće Veselin Masleša, 1972.

Sutlić, Vanja. *Praksa rada kao znanstvena povijest*. Zagreb: Edicija časopisa „Kulturni radnik", 1974.

Sutlić, Vanja. *Uvod u povijesno mišljenje*. Zagreb: Demetra, 1994.

Sutlić, Vanja, Jurinić, Boris. *Sve je samo putovanje: razgovori s Vanjom Sutlićem*. Zagreb: Irida, 1999.

Veljak, Lino. Medij ideologije**.** *Filozofska istraživanja* 120, Zagreb 2010, God. 30, Sv. 4, 595–604.

2. The Future Time of Cyberspace and the Non-Human Progress

"*The future is already here —*
it's just not evenly distributed."
— William Gibson

In the time when the "age of the world picture" is complemented by the digital reality, it is increasingly difficult to reflect on the role and the position of the human in space and time, as well as the meaning of human existence as we know it now. In the future time and space, the pathways of our perception, media and proprioception of the world will change significantly. Today we already exist in the cyberspace announcing a World in which the digital reality, cyborgs, robots with artificial intelligence, and drones will determine the level of non-humanity. The transhumanists suggest that humanity should proactively improve and direct the course of its own evolution through technology and science to create beings which will surpass us in every way. The vision of an improved human being nullifies the idea of self-sufficiency and abolishes the notion of traditional identity. Improving human capabilities has also become an ethical issue.

Our souls mirror our worlds and our worlds mirror our souls.
— Douglas Groothius

1. The cyber future

The discussion of the place and role of human beings in the historical space and time before the modern computer and digital age was conducted mainly from a materially provable point of view. At the end of the last century, the new, or more precisely the latest era is expanding the knowledge and perspectives of the future. It starts with

the terminology that describes a different reality, a new understanding and perception of the world or space in which our "earthly" existence is happening and creation of the world of material things, ideas and imagination.

It is precisely the terminology[23] that is becoming one of the basic roadmaps for the new paths of the postmodern world in which there is no idea of progress but a pessimistic description of a possible (but very certain) digital future in which nothing will be the same. Two authors at the turn of the millennium, Mike Featherstone and Roger Burrows, warn us that the notions of cyberspace, cyberbody, cyborg originate almost exclusively from science fiction. However, the accelerated scientific and technical development has shaped the future from science fiction into a very real present. Today, the term cyberspace refers to an ever widening array of networks and systems of computer-mediated environments, i.e. a specialized computer-mediated network of interactions. Marcos Novak (1992) specifies that cyberspace "enables the full co-presence and interaction of many users, allows the location of real and virtual realities, remote data-collection and telepresence management, and full integration and interaction with a range of intelligent products and real-world environments."[24] However, Featherstone and Burrows also point out a kind of "deviation" or one-sided use of terms and ideas, given that "the works on cyberspace, cyberbodies and cyberpunk that have appeared in the last ten years are full of utopian, dystopian and heterotopic possibilities. For some, this means accepting the assumption that we

[23] The term cyberspace was created by SF writer William Gibson in 1984. In his novel *Neuromancer,* it represents a global computer network, "matrix" to which users and operators can connect and is a three-dimensional system.

[24] Arturo Escobar, in "Welcome to Cyberia: Notes on the Anthropology of Cyberculture", in: Iva Pleše; Reana Senjković (eds.), *Ethnographies of the Internet, Institute of Ethnology and Folklore* Research (Zagreb: IBIS Grafika, 2004), p. 64.

are just entering a new era…" [25]. From the perspective of these authors, the last ten years actually mean the last decade of the last millennium and the early beginning of this, but the start of a new era seems to be still ongoing. The concepts of cybernetics, cyberspace and cybernetic understanding in general in the analysis of time and space are becoming increasingly relevant. We could also say that we are yet to try and scrutinize cybernetics and what lies ahead from the perspective of cybernetics and the immersion in the cybernetic reality.

The cybernetic future and human confrontation with changes which will become faster, more intense and substantively different and more than we assume, has usually been tied to the postmodernist acceptances of reality. However, this does not follow the somewhat depressing and/or „noir" depiction of reality and the future, a kind of "exhaustion" or the depleted possibilities of old concepts and doctrines of man, science and technology. The postmodernist impression and experience perhaps serve us best here to cast aside the illusion of meeting the future. New forms and experiences of space, corporeality, senses and, above all, reality are in fact the starting point and the cornerstone for a new and more complete thinking of human. It is an encounter with the time to come, by no means another (postmodern or utopian) step into what the modern scientific and technical human is actually facing.

It should not be forgotten that the concepts and representations of the world of cyberspace, i.e. cyberworld, came about during the 1980s. The concept of cybernetics is related to the work of Norbert Wiener from 1948 who wanted to mark the managerial and communication aspect of human society in a different way, and more in line with the changes which were already looming. For him, it is a description of a new science that unites communication theory and management theory. As Featherstone and Burrows point out, cybernetics encompasses "…the human mind, the human body, and the world of automated machines,

[25] Mike Featherstone; Roger Burrows (eds.), *Cyberspace, cyberbodies, cyberpunk. Introduction* (Zagreb: Jesenski & Turk, 2001), p. 14.

so he tries to reduce all three to a common denominator of control and communication. From such a perspective, the image of the body becomes less engineering, whose key task is the transmission and conservation of energy, and more the image of a communication network based on the accurate reproduction and exchange of signals in time and space. Thus, information, message and feedback, which support management and communication, are beginning to be considered key aspects of organisms as well as machines."[26]

Considerations of information processing, as well as communication between information recipients and providers are very important for the delimitation of concepts and representations of cyberspace, or its main features. Parallel to this, we are now witnessing the development of partially and completely artificial beings, but also cybernetic ones which will inhabit the real worlds. Until recently, cyborgs were mostly the products of imagination and creations of science fiction writers and futurologists. Now they are a part of the world of human beings. Cyborgs as human-machine systems with human and/or artificial intelligence and self-regulation are hybrids of man and machine(s). This is the place and the reason for rethinking the boundaries of the human-machine “overlaps", determining the humanist, and particularly the transhumanist principles of existence and improving the existing physical and mental abilities of human.

Changes are already here, they are taking place and they are no longer mere "discussions" with science fiction features of somewhat vague and not entirely clear knowledge of what is truly "cybernetic" and just how different it is from our previous knowledge and determination of the human being. In a way, the considerations of experts, scientists and even writers of futurological predictions from the end of the century seem to be a bit "outdated". The situation is changing more and more as we move into the 21st century and, as Arturo Escobar points out, change is no longer fast, hectic or significant, it is, above all**,** thorough.

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[26] M. Featherstone; R. Burrows (ed.), *Cyberspace, cyberbodies, cyberpunk. Introduction*, p.15.

Namely, "…computer, information and biological technologies are causing a thorough transformation of the structure and meaning of modern society and culture. Not only is this transformation clearly open to anthropological research, but it is perhaps a privileged area for the advancement of the anthropological attempt to understand human societies in terms of biology, language, history and culture."[27] The same author in his remarkable and stimulating work on cyberspace[28] and its anthropology, notes that such considerations must inevitably have, in addition to anthropological breadth and weight, cultural constructions and reconstructions on which new technologies are based and which shape them at the same time. According to him, traditional, conventional and outdated approaches too narrowly define technologies as a sphere of tools and/or machines, and the history of development is interpreted mainly through contributions to the well-being and efficiency of these and similar tools and machines.

The relationship between science and technology started to change during the 1970s and the 1980s, as did the the attitude of the overall social structure towards science and technology, so much so that science and technology continuously influence all aspects of social and cultural life in world, which is largely due to the strengthening of the globalization process. From that context, it should be said that the "Cyberculture" actually encourages a new shaping of the question of modernity, which is no longer mediated by the literary and epistemological facts. Whether our society is postmodern or modified modernist (*late, meta or hyper*, as some suggest) is a question that cannot be answered until the current status of science and technology is explored. Theorists, including Foucault (1973), Habermas (1987)

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[27] Iva Pleše; Reana Senjković (ed.), *Ethnographies of the Internet*, p. 55.

[28] It is an interesting remark by Escobar who, in his essay on Cyberia, notes that terms like cyberspace, cyberculture and the like are wrong(?!). namely, he warns that when Wiener created the term cybernetics, he meant the Greek word meaning "rudder" or "helmsman" (kybernetes), and in fact there is no Greek root "kiber". But he also respects the wider acceptance of the prefix "cyber", as does this work.

and Giddens (1989) describe modernity as the constant appropriation of cultural backgrounds and practices, because "... in modernity, the discourses of science and the accompanying forms of technical and administrative organization are gradually appropriating many aspects of life that were previously ruled by traditional norms, such as health, knowledge, work, body, space and time. "[29]

2. The "old" and the "new "cyberspaces - Cyberia which has already happened

The development of science and technology and the resulting changes in the cyborgization of society encourage two types of opinions and attitudes. One is the glorification and apologetic emphasis on far-reaching, mostly positive things contained in all concepts and practices related to cybernetics, cyberspace and analysis of the digital and disembodied future, and the other is the ethical caution on issues of such glorification and a kind of distancing towards the superficial acceptance of the cyber world. Chris Gray and Mark Driscoll doubt the claims of "cyberspace designers that new technologies will make the body obsolete, destroy subjectivity, create new worlds and universes, change the economic and political future of humanity, and even lead to a post-human order[...] at best, empty desires will be driven by the seductiveness of virtual reality and similar technologies, and in the worst case reckless attempts to engineer social reality." [30] But the future can often be more imaginative and creative than any idea in a given era. It would therefore be more expedient to get rid of the alluring sounds of Scylla and Charybdis in this sense. It would be better to pass the narrow strait between the seductive fairytale praise and the sharp teeth of criticism of the future when it comes to digital change, cyberspace and cyberworlds.

The deployment of the human body (and mind) in cyberspace, virtual reality, and holographic dimensions is a process in which real changes

[29] Iva Pleše; Reana Senjković (ed.), *Ethnographies of the Internet*, p. 58.
[30] Ibid., p. 65.