FROM CYBORG TO CYBERNANTROPHE: BASIC POLITICAL, CULTURAL AND PHILOSOPHICAL DIMENSIONS OF THE CONCEPTS

Resume

This paper will provide an overview and critically examine the underlying political, cultural and philosophical dimensions of artificial intelligence through the analysis of current theoretical variants of the idea of humanism: from posthumanism and transhumanism, through antihumanism to digital humanism. At the same time, the concept of digital humanism is favored, which is affirmative of both the achievements of modern technologies and the spirit/reason of humanity.

Key words: posthumanism, transhumanism, artificial intelligence, cyborg, cyberanthrope.

INTRODUCTION

When we look back at the history of mankind, we can register several disruptive technological innovations, or revolutions, which led to radical changes in social structures, as well as economic and cultural systems. The first radical transformation, the agrarian revolution, that took place some 10,000 years ago, marks the Neolithic transition from the culture of hunters-gatherers to the sedentary agricultural one, marked
by farming and cattle breeding. This ultimately led to urbanization and the rise of cities. It was followed by a series of industrial revolutions.

The first industrial revolution lasted from 1760 to mid-19th century. Triggered by the construction of railways and the invention of the steam engine, it introduced mechanical production as a standard. The second industrial revolution, spurred by the emergence of electrical power, fossil fuels and conveyor belt, made mass production possible. Cumulatively, by producing an enormous amount of energy that was readily available, they led to the “first machine age of mankind”, to what we can refer to as the modern way of life (Brynjolfsson and McAfee 2014). For the first time, our progress was driven primarily by technological innovation.

The third industrial revolution – the Digital or Computer revolution, started in the 1960’s. It was marked and accelerated by the development of semiconductors, extremely fast and personal computers and the Internet. Today, we are on the brink of the Fourth Industrial Revolution. It began at the outset of the third millennium and is characterized by the ever-growing presence and mobility of the Internet, cheaper and more powerful sensors an artificial intelligence and robotic machine learning. By enabling “smart factories”, it creates the world in which virtual and physical production systems collaborate globally in an extremely flexible way.

At the same time, discoveries are made in areas ranging from genetic sequencing to nanotechnology, from renewable energy sources to quantum computing. The combination of these technologies and their interplay in the physical, digital and biological domains make the Fourth Industrial Revolution fundamentally different from previous ones (Despotović & Glišin 2021; Despotović & Glišin 2023).

Thus, to recapitulate, it is marked by three distinctive characteristics (Schwab 2016): (1) speed – unlike the previous industrial revolutions, Industry 4.0 is developing at an exponential, rather than linear, pace; (2) breadth and depth – building on the digital revolution, it combines multiple technologies leading to unprecedented paradigmatic changes in the economy and society; it not only changes the “what” and “how” we produce things, but also “who we are”; and (3) impact – includes the transformation of entire production systems of companies, industries and society as a whole.

Through the use of computers, artificial intelligence (henceforth: AI, an acronym of the English phrase Artificial Intelligence with the same meaning) is the modern manifestation of the inherent human
desire to create artefacts that behave intelligently (Zarkadakis 2020). Thus, the aim of artificial intelligence is to engage computers in problem-solving, something that we generally associate with human cognition and perception. Depending on how the acquisition of knowledge about the world through the brain is understood, we can distinguish between two approaches to computer imitation of human intelligence.

According to the “symbolic” school of artificial intelligence, knowledge is the result of logic and therefore, something that arises from combining descriptions of the world or declarative knowledge, and the description of how we make inferences about the world, or prescriptive knowledge. “The non-symbolic or connectionist approach follows a biological understanding of knowledge and tries to emulate the way in which the human brain functions at the neural level. This approach assumes that knowledge is something that must be acquired by the machine itself, rather than being coded by a human programmer. Intelligent machines should learn by imitating the functioning of the human brain.

In light of this, this paper will provide an overview and critical examination of the underlying political, cultural and philosophical dimensions of artificial intelligence through the analysis of the current theoretical variations of the idea of humanism: from posthumanism and transhumanism, through anti-humanism, to digital humanism. In so doing, the concept of digital humanism, which is affirmative of both the achievements of modern technologies and the spirit of humanity, will be favoured. It holds faith in human reason, while respecting the systemic limits of digital technologies.

FROM POSTHUMANISM TO NEW MATERIALISMS – BASIC CONCEPTUAL CHARACTERISTICS

Posthuman is a category originating from cybernetics and information technologies which have been driving the quest for reproduction and reconstruction of the human being. In the light of such developments, questions arise about the definition of man. Whereas previously, as implicitly suggested above, man in the context of biology was viewed exclusively as a product of carbon-based processes, it is now suggested that silicone-based processes, as well as bionics, must be seen as part of the meaning of human. This also implies the impact of electronic technologies, such as the Internet, on the change in the
nature of human relationships, partly because they operate at speeds close to the speed of light.

Although the term “humanism“ can apply to a complex set of assumptions and disciplinary agendas that have developed over the centuries (from the early Renaissance to the late 20th century), posthumanist scholars focus on several key features. First of all, on the idea that the object of the proper study of man is the man himself. By definition, humanism was anthropocentric, while posthumanism is postanthropocentric. As a historical phenomenon, it has relied on the renewed and reinterpreted appreciation of the rhetoric and civilization of Greece and Rome, placing man (rather than God) at the centre of its research project.

A minimal definition of humanism as a philosophy includes the following dimensions (Fuchs 2022, 19): (1) humanistic epistemology – people have the ability to use reason in order to produce knowledge about how the world looks, including the use and development of science; humanists critically examine the world’s status and critical thinking is part of the humanist approach; (2) humanistic ontology – human behaviour and society are not naturally determined by God, religion, ideology or other authorities; by their activities, social relations and social connections, people constitute society and its various forms, practices and systems; and (3) humanistic axiology – people have the ability and moral responsibility to create a good, humane society; humanists are convinced that it is possible for people to act in order to improve society and mankind’s living conditions.

The modern, Renaissance science, strives to achieve an understanding of the natural world, depending on the human reason and powers of perception, towards discovering universal rules and laws. As a subject of Cartesian thought, man could examine the world and explain its functioning with a scientific distance. This perception of man as an autonomous agent, separate from nature, though still included in nature, culminated in the Enlightenment. Posthumanist scholars consider the Darwinist biology, Marxist economists and Freudian psychology as preliminary indications of the disintegration of a unified enlightened subject. Yet, although separation and elevation of man from and above the natural world were challenged by the 19th century development of biology, psychology and economy, positivist science has sought to maintain the subject-object dichotomy even in the 20th century.
For Donna Haraway (Donna Haraway; 2004), the existing political, social, economic and cultural systems do not support the essential truths discovered by science, but narratives told or constructed by science for itself and the world, as well as narratives within a certain political order, which often serve to maintain inequalities in the system. For her, the term “cyborg” comes from science fiction, and not from science as such, even though science later registered similar entities. Cyborg is a paradigmatic case of confusing boundaries, and thus also constructed boundaries, characteristic of all attempts to keep opposed fields separate. Namely, people are inevitably cyborgs, both machines and organisms. The cyborg is our ontology that also gives us our politics. In sum, she argues that a cyborg society leads to the abolition of patriarchate, racism and capitalism.

For Haraway, the cyborg is a cybernetic organism, a hybrid/mutant of the machine and organism, a social reality being, as well as a fictional being. Henri Lefebvre’s cyberanthrope (Henri Lefebvre; 2016) is not the same as a cyborg. While a cyborg is a hybrid/mutant creature, more machine that man, a cyberanthrope denotes an ideology of technocracy, of ideologists and their followers who are referred to and associated with the existence of cyborgs, computers and robots in society. The cyberanthrope is an anti-humanist incarnation, a disgraced man-machine, an official obsessed with information systems, scientific rationality, classification and control. He believes in the perfection of AI and computers and that they must bring an unquestionable prosperity to society. He creates a superspectacle, a metaspectacle that makes spectacles of itself and sells spectacles. While the cyborg is a rather neutral category that describes hybrids/mutations of the man and machine and can be used in the forms of domination and emancipation, the cyberanthrope has a totally ideological character. A cyborg is a posthumanist, while a cyberanthrope is an anti-humanist.

Others try to put the changes into perspective without using the cyborg image. David Channell (David Channell; 1991) views our contemporary culture as an intellectual fusion of long-standing Western ideals of organic order and mechanistic rationality. He argues that today, these two trends are coming together in the idea of a vital machine. Bruce Mazlish (Bruce Mazlish; 1993), on the other hand, talks about the human aspiration to gradually overcome its own illusions. It all started with the rejection of the idea that we are at the centre of the universe (overthrown by the Copernican revolution/turn), followed by an illusion
that we are fundamentally different from animals (overthrown by the evolution theory), and our realization that we are not even fully rational (overthrown thanks to Freud’s conceptualization of the unconscious). And finally, the fourth discontinuity disappears: an artificial division between organic and mechanical, life and machines.

By contrast, the „Bioluddite“ opposition to genetic engineering, nanotechnology and artificial intelligence, gradually built and networked since the 1960’s, picked up where the Luddites, anti-industrialisation fighters, left off in the 19th century. While the Luddites believed that protecting the rights of workers requires a ban on the automation of work, the Bioluddites believe that genetic engineering and human “enhancing/improving” technologies are not safe for use and must be banned.

Posthumanism can be treated as part of the first wave of postmodernism (Stojanović 2013, 2016). In order to better understand the conceptualization of posthumanism, we will first outline the difference between transhumanism, posthumanism, antihumanism, meta-humanism and new materialism. Contemporary transhumanists argue that human nature is an essential process with unsatisfactory orientations that should be modified by technological innovation/means where instrumental benefits for individuals outweigh technological risks. This ethics of optimization/improvement is based on astonishing developments in four areas: nanotechnology, biotechnology, information technology and cognitive science.

Within transhumanism, there are distinctive factions, such as: libertarian transhumanism, democratic transhumanism and extropianism (or extropism, the opposite of entropy). Its persistence in recognizing science and technology as the main advantages in the reformulation of man exposes it to the danger of techno-reductionism. Transhumanism accepts and emphasizes its continuity with the Enlightenment, democracy and humanism.

When we talk about posthumanism, we should point to interrelated but differentiated concepts (Gladden 2018; Herbrechter 2013). The prefix “post” can have different meanings and allows for numerous discursive and argumentative strategies. Thus, posthumanization processes are those dynamics by which society includes members who are not “natural” biological human beings who, in one way or another, contribute to the structures, activities or meaning of society. Society thus includes a diverse range of intelligent human, non-human and parahuman social actors who seek to perceive, interpret and influence the shared environment
and who create knowledge and meaning through their networks and interactions. Currently, posthumanization often occurs as a result of the technologization of human beings, fuelled by the phenomena such as our increasing physical integration with electronic systems, our increasing interaction and dependence on robots and AI, our increasing immersion in virtual worlds and the use of genetic engineering for designing human beings as if they were consumer products.

Posthumanity refers to a set of intelligent beings, human, synthetic or hybrid, which have been created or affected by the posthumanization process, or wider socio-technological reality within which such beings exist. Posthumanism is a coherent conceptual framework which takes the phenomenon of posthumanization or posthumanity as its object. Posthuman can refer to any of the following: a process (posthumanization), a set of entities (posthumanity) or a body of thought (posthumanism).

We can distinguish five types of posthumanism: analytical, synthetic, theoretical, practical and hybrid (Gladden 2018, 40–43). Analytical posthumanism defines “posthumanity” as a kind of socio-technological reality that already exists in the modern world and requires to be better understood. It is mainly focused on the past and present. Synthetic posthumanism defines “posthumanity” as a set of hypothetical future entities whose capacities exceed those of natural human beings and whose creation can either be deliberately realized or blocked, depending on decisions to develop and apply certain transformative technologies (genetic engineering, neuroprosthetics, artificial intelligence or virtual reality).

Theoretical posthumanism seeks to advance our understanding of issues and expand the knowledge of mankind in order to gain a deeper, broader, more accurate and more sophisticated understanding of human beings and the world in which we exist. Practical posthumanism is primarily interested in producing some specific political, economic, cultural, social or technological change.

Philosophically, new materialisms, as specific theoretical scenario of posthumanism, emerged as a reaction to representativist and constructivist radicalizations of late postmodernism, which lost the idea/notion of the material sphere of life (Coole and Frost 2010). This deficiency presumed internal dualism between what was perceived as manipulated by the act of observation and description, on the one hand, and external reality on the other, which thus became unfathomable. New materialisms do not distinguish between language and matter, so that biology is culturally
mediated as much as culture is materialistically constructed. Matter is in no way treated as something static, fixed or passive, as waiting to be shaped by some external force; but is addressed as the “process of materialization”. Such a process, which is dynamic, variable, inherently intricate, diffractive and performative, has no primacy over materialization, nor can materialization be reduced to its process qualities.

We can distinguish four types and stages in the development of antihumanism (Žižek 2016, 22): (1) theocentric antihumanism – religious fundamentalisms that oppose secularism; (2) theoretical antihumanism – French structuralism and poststructuralism; (3) deep environmental antihumanism – environmental movements that reduce humans to just an animal species and blame mankind as such for upsetting the balance of life of Earth; and (4) posthumanism and transhumanism – posthumanists are cultural theorists who argue that the current social and technological progress is increasingly undermining our human exclusivity; for posthumanists, humans are a strange species of animal cyborgs, transhumanist, for their part, refer to new scientific and technological innovations (AI, digitalization) that point to the emergence of singularity, a new type of collective intelligence.

The deconstruction of the concept of man is the central topic of Foucault’s/ poststructuralist antihumanism. There are three possible based that define it (Fraser 1994): (1) conceptual or philosophical (humanism immersed in Western metaphysics focused on the subject); (2) strategic (call for humanistic values as concealment of the strategies of domination); and (3) normative (humanism as fundamentally undesirable, on the basis that being a subject is in itself a form of subjection). By contrast, posthumanism does not rely on any symbolic death: such an assumption would be based on the dead/alive dualism, while any strict form of dualism is already challenged by posthumanism in its postdualistic process-ontological perspective.

According to Jaime del Val (Jaime del Val; 2022), there is, on the one hand, the humanist and trans-/hyper-humanist idea of the world-body as intrinsically quantitative, calculable, manipulative, controlled, appropriating, based on the old humanist fears and dreams of domination and on deep cosmological ignorance. It is the idea of the world where we are at the centre, ours to oversee and with infinite resources. It is a tradition of dualism and colonialism, guided by a teleology rooted in a transcendent future, a metaphysics of being, form and identity where evolution is conceived as the separation of species for the purpose of domination.
On the other hand, there is an event older, but presently minoritized, tradition of metahumanistic discourses. According to it, the body is defined as an irreducible field of forces whose undefinable dynamism is the very creative force of life that mobilizes evolution in the cosmos. This is not a quantifiable world of the body, but a world in its qualitative variation. It’s a tradition, not of being, form and identity, but of formless flow and plasticity, indeterminism and pluralism, evolution as a symbiosis and endless mutation: one’s own death, rather than systematic killing done for the sake of longevity. The main problem for this tradition is overcoming the delusions of the disembodied mind which seeks to dominate the body by depleting it. Metahumanism emphasizes the body as a place for amorphous re-significations, extended by kinetic relations as a body-network.

**DIGITAL HUMANISM – BASIC CONCEPTUAL CHARACTERISTICS**

Artificial intelligence systems are technologies that imitate human intelligence, including learning, perception or problem solving. Artificial intelligence systems are machines that behave as if they are intelligent. AI seeks to make computers do things that human minds do. Not all robots are AI systems and not all AI systems are robots. But the two technologies intersect. AI robots are mechanical creatures that can function autonomously. Intelligent robots don not do things repetitively. They are the opposite of factory automation. Autonomy means self-sufficiency under all reasonable conditions without the need for a human operator. Autonomy means that a robot can adapt to changes in its environment or itself and continue to achieve its goals.

The question is whether people, as natural objects, are subject to the causality principle, whether they are autonomous or heteronomous. There are three answers to this question in philosophy: incompatibilism, compatibilism and semi-compatibilism. (Nida-Rümelin and Weidenfeld 2022, 21-24). Incompatibilists believe that in the world of natural sciences there cannot be freedom and responsibility because determinism and freedom are incompatible. Incompatibilists are actually “naturalists”. They believe that scientific laws govern everything that is going on and that consequently, there is no room for the freedom of will. Freedom of will is just a useful illusion. However, the threat of sanctions will influence and determine human action. Naturalism, as an ideology, is
highly present in neuroscience. Invoking the determinism of the brain system, controlled by genetic, epigenetic, as well as sensory stimuli, it denies human freedom and responsibility.

In today’s philosophy, the so-called “compatibilism“ dominates the discussion. According to this theory, total determinism is compatible with the human freedom of will and action. Even though the majority of these compatibilists are of naturalistic provenance and stick to the idea that everything is ultimately determined by physical processes, they believe that it is nevertheless possible to view people as free and responsible agents. They believe that it suffices for people to fulfil their desires in order to be called free, regardless of whether they are free to choose those wishes or not. This is what enables freedom in a deterministic world. Freedom of action is defined as freedom to do what I want, regardless of how these desires arose. Semi-compatibilism combines agnosticism of free will compatibility and determinism with compatibilism of moral responsibility: determinism is not a threat to moral responsibility, whether it threatens the free will or not.

The Vienna Manifesto on Digital Humanism, published in May 2019, is based on the following principles (Werthner, Prem, Lee and Ghezzi 2022, XII-XIII): (1) digital technologies should be designed to promote democracy and inclusion; (2) privacy and freedom of speech are essential democratic values and should be at the centre of our activities; (3) effective regulations, rules and laws, based on a broad public discourse, must be established; (4) regulators need to intervene with tech monopolies; (5) decisions with potential to affect individual or collective human rights must continue to be made by humans; (6) scientific approaches bringing together different disciplines are a prerequisite for tackling the challenges ahead; (7) universities are the place where new knowledge is produced and critical thought is cultivated; (8) academic and industrial researchers must openly engage with the wider society and critically reflect upon their approaches; (9) practitioners should acknowledge their shared responsibility for the impact of information technologies; (10) a vision is needed for new educational curricula, combining knowledge from the humanities, social and engineering studies; and (11) education on computer science or informatics and its societal impact must start as early as possible.

A minimal definition of digital humanism as a philosophy includes the following dimensions (Fuchs 2022, 50-51): (1) the epistemology of digital humanism – computer technologies and machines generally
differ from people; they lack reason, consciousness, morality and critical thinking; artificial intelligence, robots, big data, computer and digital methods can but must not replace the importance of a human being in society; unlike people, they are unable to critically examine the status of the world; (2) the ontology of digital humanism – technologies in general and computers in particular are not human, social and societal beings; human beings and their activities, social relations and connections make up society; in modern societies, digital technologies shape and are shaped by people and their social relations, but such technologies are not autonomous actors and are different from people, which is why digital machines should not be analysed as if they were people and people should not be analysed as if they were machines; in techno-social systems, humans and machines communicate based on human practices that create this system, and (3) since digital machines are not humans and humans are not machines, it is a moral imperative that machines should not be treated as humans and that humans should not be treated as machines, digital machines are not the cause and the solution to society’s problems; society and digital society should be organized in ways that enable the establishment of a good, humane society; digital technologies should be shaped and used in ways that do not harm society and people, but support the establishment of a good, humane society.

Radical digital humanism is a materialist approach to the study, contemplation and development of digital technologies and digital society that is oriented at people’s need to free themselves from the digital class society, digital exploitation, digital domination and digital ideology and that is focused on the realization of a good digital society. In the digital age, there are dialectics of subjects and objects, individuals and society, practices and structures, society and technology that are digitally mediated.

Some poststructuralists may argue that digital humanism is yet another of the many meta-narrative claims to truth and thus a form of totalitarianism. The pretentious assumption that there is no truth and universality contributes to the creation of the digital culture of post-truth, “fake news”, relativism, fragmentation and polarization of digital society. However, for digital humanism, it is important to stick to and renew the ideas of truth, our common ground, the human being, democracy and universal rights in the digital age (Fuchs 2022, 56).

For posthumanism, digital humanism overestimates the positive capacities of the human being, underestimates non-human action and emancipatory potential of cyborgs and ignores the destructive potentials of
humans. Still, people are not machines, a dialectic of people and machines exists in society. Equating people and machines promotes instrumental reason and instrumental reason has fascist tendencies. People as such as not destructive, but in alienated societies they become subversive, meaning that we do not need to abolish people, but alienation.

For postcolonial thought, humanism prompted racism, white supremacy, Eurocentrism and Westcentrism, so digital humanism runs the risk of being racist, supremacist, Eurocentric and Westcentric project. Yet, particularisms that limit the rights and universality to certain groups are not humanisms at all. Digital humanism emphasizes the common aspects and rights of all people in a good digital society. Historically, humanism has existed in many different versions, so digital humanism should be approached in a transcultural and transdisciplinary way.

CONCLUSION

In sum, we can agree with the argument that posthumanism and transhumanism turn the emancipation of mankind into emancipation from mankind (Žižek 2016, 29). There is a danger that in future, some will still enjoy freedom, while others will be totally controlled and regulated by the digital machinery. Some will become new digital superhumans, those who wield power, while others will form a lower caste of unfree people. Posthumanist development undermines the very core of what it means to be human.

Digital humanism rejects the idea of replacing or transforming humans into digital machines. Instead, it sees digital machines as a possibility which, as part of a struggle for a better society, can extend the benefit of all, help to realize and more fully develop the capacities of people and society.

At the same time, the notion of cyberanthrope is a more critical approach to the interaction of people and cybernetics than the concepts of cyborg and cyberpunk. Cyberanthropes and representatives of a technocratic ideology that considers computer technologies (robots and AI) as superior to humans and as necessities that must lead to a better society. They criticize the ideologists and ideologies framed by instrumental reason, technological rationality, reified consciousness, digital positivism and technological fetishism.
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ОД КИБОРГА ДО КИБЕРНАНТРОПА: ОСНОВНЕ ПОЛИТИЧКЕ, КУЛТУРАЛНЕ И ФИЛОЗОФСКЕ ДИМЕНЗИЈЕ КОНЦЕПТА

Сажетак

Овај рад ће дати преглед и критички пропитати носеће политичке, културалне и филозофске димензије вештачке интелигенције преко анализе актуелних теоретских варијанти идеје хуманизма: од постхуманизма и трансхуманизма, преко антихуманизма до дигиталног хуманизма. Притом, фаворизује се концепт дигиталног хуманизма који је афирмативан и према достигнућима модерних технолошког ста и према духу/разуму човечанства.

Кључне речи: постхуманизам, трансхуманизам, вештачка интелигенција, киборг, кибернантроп.