
THE MAN IN TECHNOSPHERE

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Z. V. STEZHKO^{1*}, T. V. KHMIL^{2*}

^{1*}Central Ukrainian National Technical University (Kropyvnytskyi, Ukraine), e-mail zoiastez@ukr.net, ORCID 0000-0002-0172-4487

^{2*}Dnipro University of Technology (Dnipro, Ukraine), e-mail khmil.tatjana@gmail.com, ORCID 0000-0002-8475-8497

Artificial Intelligence as a Socio-Cultural Phenomenon: the Educational Dimension

Purpose. The study aims to understand artificial intelligence as a socio-cultural phenomenon and its impact on education, where the spiritual sphere of humanity, moral norms, values, and human cognitive abilities are preserved, transferred as well as reproduced. A new discourse on the interaction of artificial and authentic human intelligence becomes inevitable, which has led to a situation of uncertainty. Changes in the socio-cultural environment under the influence of artificial intelligence increase potential threats to the educational space, which stimulates to find the ways to eliminate them. **Theoretical basis.** Various approaches of classical and postmodern philosophical heritage were taken as a theoretical basis for the research. **The originality** of the study is in the interpretation of artificial intelligence as a modern form of alienation of essential human characteristics in the socio-cultural context of information technology. The expansion of artificial intelligence raises awareness of the existential threat to the basic socio-cultural, moral and ethical principles of humanism. It is proved that various forms of alienation in the current existing socio-cultural space are typical of our reality, which changes the system of values, moral principles, and social organization of the community. **Conclusions.** In conclusion, it is proved that AI is a natural stage of scientific and technological progress, which reflects its secondary, derivative nature from human (authentic) intelligence. Human intelligence will always have advantages over AI due to its ability to create, communicate socially and culturally, and be emotional. The dilemma of the counterbalance between human and artificial intelligence is perceived mainly at the emotional level of people. The millennial understanding of the primacy of the creator over his creation can traditionally overcome this contradiction. The universality of human thinking is an undeniable advantage of human intelligence and a guarantee of its, i.e. our, priority.

Keywords: human; alienation; freedom; creativity; artificial intelligence; authentic intelligence; socio-cultural space; education; chatbots

Introduction

Modern technologies have the potential to change dramatically the structure of the workforce and the way people live. They free up time and resources to spend on civic and social activities. Today marks the beginning of a new and unprecedented information and technology revolution that humanity has never seen before in its history. Its consequences will lead to solutions to the world's most complex problems, such as climate change, the development of new energy sources, nuclear safety, poverty and disease. However, the scale of these events leads to an expansion of the sphere of uncertainty of human activity results, which becomes obvious at the socio-cultural, moral and ethical level.

The rapid spread of information technology (IT) gives hopes to overcome monotonous and routine work, reduce working hours and change the structure of the workforce. Later, the dominance of digital technologies, which was presented as an expansion of human mental abilities, faced technological limitations not only in the process of communication, but also in the content

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characteristics of information. The alienation of a person from its emotional component began with the introduction of digital information transfer, while "the transfer of the emotional component of communication, which reproduces the integrity of the subject, is lost" (Floridi, 2017). Modern communication, generated by social and technological progress, has an high impact on the socio-psychological state of a person, determining not only subject-object but also subject-subject relations. The process of alienation manifests itself as a contradiction between the inner world of a person as a subject of communication and information technologies that turn him or her into an object.

Spontaneously this problem was solved with the help of various symbolic and schematic images – emojis (Khmil, 2021), but in fact, this was one more evidence of the alienation of the emotional and volitional components of a person in the field of communication. The alienation process expanded to the algorithmisation of intellectual processes with the emergence of an absolutely new level of information developments in neural networks, artificial intelligence (AI), as a powerful technology with far-reaching moral, ethical, socio-cultural and cognitive consequences. It should be noted that various chatbots can pose cognitive threats to the development of a person, his or her ability to be creative, to work in team as the value orientation of cognitive activity. This, in its turn, raises a number of questions about the methodological and methodological principles of learning in education.

Purpose

The aim of the study is to investigate and understand the theoretical foundation of the interaction of artificial and authentic intelligence as phenomena of socio-cultural development, to identify threats and prospects for their interaction in education.

Statement of basic materials

Since the end of 2022, the OpenAI concern, together with I. Mascombula, has created the artificial intelligence (AI) technology ChatGPT. This has led to a discourse on the global discovery of the century, which can radically change economic, political as well as intellectual activities of the mankind. Due to this high uncontrolled impact of artificial intelligence on all spheres of life, there is a danger of a sharp decline in the intellectual and creative potential of generations. The new discourse implies the revision and formation of a complex, 'multi-layered' approaches to the educational process in terms of its reorganization, based on the interaction of authentic consciousness and intelligent chatbots, whose number is constantly growing. The threat of artificial intelligence is so great that there are already opinions about the need to create a single scientific and regulatory centre to coordinate this process at the UN level.

AI not only replaces the emotional and cognitive sphere, but also becomes a serious obstacle to critical and analytical thinking with various algorithms that are very difficult to recognize because they are integrated into our thinking and behavioral patterns. Algorithms already dictate to us what to read, listen, and watch, and they quickly respond to any of our preferences, changing them with additional suggestions. All of this leads to the illusion of choice and loss of subjectivity in conditions of information chaos, where the spiritual sphere of society is turning. In this situation education has a special mission to develop intellectual independence, critical thinking, emotional and psychological balance as a condition for the socialization of the modern personality (Harari, 2016).

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What negative social consequences are expected from the implementation of AI? First of all, this technological phenomenon can get out of control, which will lead humanity into a zone of social and political instability.

Recently, a quite optimistic evaluation of the use of AI has been replaced by extremely pessimistic, even apocalyptic ones. We can witness how our emotions go towards radicalism – from confusion and danger to anxiety and horror: ChatGPT is a disaster, a plague on education, a tsunami. Such reviews are now abundant in journalism and beyond. English professor Stephen Hawking, American scientist Eliezer Yudkowsky (the ideologist of artificial intelligence), Elon Musk and other well-known IT authorities bear evidence to the global threat of ChatGPT to the very existence of humanity. There is a paradox – humanity wants to get rid of what it has dreamed of for centuries. Having achieved the desired goal, it is terrified for its future because of the possibility to lower the intellectual and spiritual level of entire generations. Therefore, it is extremely important that "digital technologies are introduced into the modern educational process, and students learn to find necessary information, be able to analyze and compare it", as Ukrainian authors Lokareva and Bazhmina (2021, p. 188) point out, defining its value.

At the same time, working with a highly intelligent tool has a negative impact on uncreative thinking, which can make students dependent on technology and block their ability to think creatively and critically.

Prolonged work with the logically verified 'language' of artificial intelligence inevitably becomes a habit, the 'norm' of emission-free machine communication, i.e. a formal and logical way of thinking opposed to the authentic human mind.

It is appropriate to illustrate the 'beauty' of philosophical analysis, where truth is achieved through the ambivalence of human consciousness – the assumption of mutually exclusive ideas, opposing value systems, and the powerful influence of personal worldview rather than arguments. It is like a paradox that the most significant ideas about human beings are not found in the rational thinking of the fundamental sciences and logic, but in irrational, intuitive, religious, philosophical insights and anthropological metaphysics. Creative thinking here looks 'illogical' because it is always determined by the logic of the proper.

On the other hand, we should not forget that there is "a furious onslaught of an 'absolutely correct' position... capable to destroy even ingenious demands to optimise people's lives through adherence to the line of measure" (Stezhko & Shalimova, 2022, p. 202).

It should be remembered that AI 'thinks' while processing information, when the brilliant discoveries of scientists have already been transferred to the pages of textbooks from already written articles and monographs. This means that an intelligent programme is unable to have that creative human foresight of subjective and emotional expectations of the future.

Unlimited use of AI in the educational process poses a fundamental threat to human cognitive abilities. The speed and ease to obtain a result does not contribute to the ability to understand the process, the way of cognition, which blocks the further development of mental cognitive structures. The speed of achieving a cognitive goal absorbs the process, mental connections turn into a one-time, almost magical act, reduced to a set of procedures and negatively affects creative abilities, restricts a person from contradictory statements, which result in the truth.

The fallacy of this approach, inherent in the mechanistic materialism of the 17th and 18th centuries, was criticized by G. W. F. Hegel. He argued that cognition is not a single act, but a process in which we gradually approach the understanding of reality, "Truth is not a result, but a

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process. It is not something ready-made, but something that is achieved in the process of knowledge. This process is infinite, since reality itself is infinite" (Hegel, 2021, p. 96).

It can be argued that AI not only conceals the complex, contradictory nature of cognition, but also underestimates the role of the subject and his or her ability to make intellectual efforts.

However, this technological revolution of the spirit can realize the best dreams of mankind if human intelligence is not influenced by formal logical thinking.

Therefore, the authors insist that AI has a significant creative potential for transformation in education. To create effective forms of learning, it is necessary to develop new educational technologies for personalized learning that can make the process of acquiring knowledge efficient, high-quality and productive.

With the use of intelligent systems of a very high level, the role of the teacher does not diminish, but increases, because a good specialist can implement a problem-solving method based on dialogue and paradox thinking like Socrates' dialogues. There is no doubt that authentic intelligence must be under the collective emotional influence, which will always distinguish a machine from a human being.

No matter what level of 'intelligence' a neural network reaches, it will never be better than human thinking, because it cannot go beyond the limits of the programme. In this case, it is necessary to create special teacher training programmes that would teach problem-solving thinking skills as opposed to its artificial analogues.

It should be noted that the appeals to ban the use of artificial intelligence or to stop learning it are completely unrealistic.

One of the shortcomings of today's approaches is in the correlation between creativity and logic: we are always offered a dilemma – either the logic of a machine or the creativity of thought. This is not entirely true. It is known that creativity means the ability of a person to create something new but with some value – both aspects are equally important.

We need to pay attention to the dangers of mass radicalism of emotions, as they affect the mental health of the world's population on a global scale. The danger of the artificial intelligence importance comes from us. The brains of an ordinary person are looking for the shortest and simplest solutions to the most complex problems while distorting both the problems themselves and the ways to solve them.

The absolutisation of opposing opinions about artificial intelligence shows obvious things – a massive disregard for the line of reasoning. It is important to listen to F. Nietzsche who expressed these thoughts in an emotional form:

Proportionateness is strange to us, let us confess it to ourselves; our itching is really the itching for the infinite, the immeasurable. Like the rider on his forward panting horse, we let the reins fall before the infinite, we modern men, we semi-barbarians – and are only in OUR highest bliss when we – are in most danger. (Nietzsche, 2009)

This is not advice but a serious warning to us, which neither the elite nor a person of 'common sense' has the right to ignore.

Originality

It is important to note that the technological power of human development always takes on alienated forms, which are a part of the existing socio-cultural space. It is worth noting that this process is ambivalent, changing the system of values, moral principles, and social organization. The forms and pace of these changes may vary, depending on current socio-cultural conditions.

Conclusions

The anthropological approach to the study of artificial intelligence allows us to interpret it as a modern technological form of alienation from essential human characteristics, which acquires the features of a cultural and civilization phenomenon. The expanded application of artificial intelligence leads to understanding the existential threat to the basic socio-cultural, moral and ethical principles of humanism. These challenges can be reflected at two levels – emotional and psychological and cognitive and rational, expressed in the information chaos that needs to be ordered with the help of AI, falling into 'stupid infinity'.

When analyzing AI as a socio-cultural phenomenon, we should accept that any attempts to ban or cancel it are unproductive, as AI is a natural stage of scientific and technological progress, reflecting its secondary, derivative nature from human (authentic) intelligence. Authentic intelligence will always have advantages over artificial intelligence due to its ability to create, communicate socially and culturally, be emotional and contradictory. These are the qualities that ensure human cognitive potential, which is reproduced and expanded in education. With the emergence of AI as a more powerful intellectual system, there is a danger of changing the function of education in terms of preserving and transferring knowledge. In general, humanity can balance the danger of chatbots created by AI with the benefits of their use. The main focus in practical work should be on education, with a shift in the learning paradigm towards personalization, individual educational programmes, and the development of new criteria for monitoring and assessing knowledge. In the competition with artificial intelligence and its elements, the role of the teacher should increase. On the one hand, the logic of increasing information implies deeper specialization of chatbots, their commercialization and technological dependence of the consumer. On the other hand, the speed of achieving the cognitive goal absorbs the process, mental connections turn into a one-time, almost magical act and are reduced to a set of technological procedures. A person verifies his or her own subjectivity, avoids contradictory statements, and thus achieves the truth. Overcoming algorithmic thinking requires personal communication like Socrates' dialogues, and requires emotional intelligence, imagination and common sense. The dilemma of counterbalancing artificial intelligence with human intelligence is dangerously perceived mainly on an emotional level. The millennial understanding of the primacy of the creator over his creation can be traditionally overcome.

REFERENCES

- Floridi, L. (2017). Why Information Matters. *The New Atlantis*, (51), 7-16. (in English)
 Harari, Y. N. (2016). *Sapiens: A Brief History of Humankind*. Kharkiv: Vydavnytstvo "KSD". (in Ukrainian)
 Hegel, G. W. F. (2021). *Grundlinien der Philosophie des Rechts*. Suhrkamp. (in German)
 Khmel, I. (2021). Humanization of Virtual Communication: from Digit to Image. *Philosophy and Cosmology*, 27, 126-134. DOI: <https://doi.org/10.29202/phil-cosm/27/9> (in English)

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- Lokareva, G. V., & Bazhmina, E. A. (2021). Personalization in education: students managing their learning by means of digital technologies. *Information Technologies and Learning Tools*, 86(6), 187-207. DOI: <https://doi.org/10.33407/itlt.v86i6.4103> (in Ukrainian)
- Nietzsche, F. (2009). Chapter VII. Our Virtues. In *Beyond Good and Evil* (H. Zimmern, Trans.). Retrieved from <https://www.gutenberg.org/files/4363/4363-h/4363-h.htm#link2HCH0007> (in English)
- Stezhko, Z., & Shalimova, N. (2022). Problems and Prospects for the Formation of a General Methodology of Knowledge. Philosophical Reflections. *Filosofija. Sociologija*, 33(3), 197-205. DOI: <https://doi.org/10.6001/fil-soc.v33i3.4765> (in English)

LIST OF REFERENCE LINKS

- Floridi L. Why Information Matters. *The New Atlantis*. 2017. No. 51. P. 7–16.
- Харпін Ю. Н. *Людина розумна. Історія людства від минулого до майбутнього*. Харків : Вид-во "КСД", 2016. 544 с.
- Hegel G. W. F. *Grundlinien der Philosophie des Rechts*. Suhrkamp, 2021. 524 s.
- Khmel I. Humanization of Virtual Communication: from Digit to Image. *Philosophy and Cosmology*. 2021. Vol. 27. P. 126–134. DOI: <https://doi.org/10.29202/phil-cosm/27/9>
- Локарева Г. В., Бажміна Е. А. Персоналізація в освіті: управління студентами власною траєкторією навчання засобами цифрових технологій. *Інформаційні технології і засоби навчання*. 2021. Т. 86, № 6. С. 187–207. DOI: <https://doi.org/10.33407/itlt.v86i6.4103>
- Nietzsche F. Chapter VII. Our Virtues. *Beyond Good and Evil* / trans. by H. Zimmern. 2009. URL: <https://www.gutenberg.org/files/4363/4363-h/4363-h.htm#link2HCH0007>
- Stezhko Z., Shalimova N. Problems and Prospects for the Formation of a General Methodology of Knowledge. Philosophical Reflections. *Filosofija. Sociologija*. 2022. Vol. 33, No. 3. P. 197–205. DOI: <https://doi.org/10.6001/fil-soc.v33i3.4765>

З. В. СТЕЖКО^{1*}, Т. В. ХМІЛЬ^{2*}

^{1*}Центральноукраїнський національний технічний університет (Кропивницький, Україна), ел. пошта zoiastez@ukr.net, ORCID 0000-0002-0172-4487

^{2*}Національний технічний університет "Дніпровська політехніка" (Дніпро, Україна), ел. пошта khmil.tatjana@gmail.com, ORCID 0000-0002-8475-8497

Штучний інтелект як соціокультурний феномен: освітній вимір

Мета. Автори спрямували це дослідження на осмислення штучного інтелекту як соціокультурного феномену та його впливу на освітню практику, де забезпечується збереження, трансляція та відтворення духовної сфери людства, моральних норм, цінностей, когнітивних здібностей людини. Необхідність формування нового дискурсу щодо взаємодії штучного та автентичного інтелекту людини призвела до ситуації невизначеності. Зміни соціокультурного середовища під впливом штучного інтелекту збільшують потенційні загрози освітянському простору, що є стимулом для пошуків шляхів їх усунення. **Теоретичний базис.** Досягнення зазначеної мети здійснено на основі осмислення різноманітних підходів класичної та постмодерністської філософської спадщини. **Наукова новизна.** Автори дослідження трактують штучний інтелект як сучасну форму відчуження сутнісних характеристик людини в соціокультурному контексті формування інформаційних технологій. Розширення сфери застосування штучного інтелекту викликає усвідомлення екзистенційної загрози базовим соціально-культурним та морально-етичним настановам гуманізму. Установлено, що різні форми відчуження компенсуються вбудованістю в наявний соціокультурний простір, що впливає на зміну системи цінностей, моральних настанов, на соціальну організацію спільноти. **Висновки.** Доведено, що штучний інтелект є закономірним етапом науково-технічного прогресу, який відображає його вторинний, похідний характер від людського (автентичного) інтелекту. Людський інтелект завжди буде мати переваги перед штучним інтелектом завдяки здатності до творчості, соціокультурної комунікації, емоційності. Дилема протизваги людського інтелекту штучному сприймається переважно на емоційному рівні. Ця суперечливість традиційно долається тисячолітнім розумінням первинності

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творця перед його творінням. Універсальність людського мислення – це безумовна перевага людського інтелекту і запорука його, тобто нашої, пріоритетності.

Ключові слова: людина; відчуження; свобода; творчість; штучний інтелект; аутентичний інтелект; соціокультурний простір; освіта; чат-боти

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