Revista Jurídica unicuritiba

Submetido em: 20/03/2024
Aprovado em: 11/08/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

ARTIFICIAL INTELLIGENCE IN THE CONTEXT OF THE DEVELOPMENT OF HUMAN INTELLECT AND PERSONALITY IN A DIGITAL SOCIETY

INTELIGÊNCIA ARTIFICIAL NO CONTEXTO DO DESENVOLVIMENTO DO INTELECTO HUMANO E DA PERSONALIDADE EM UMA SOCIEDADE DIGITAL

MARIA EFLOVA
Kazan Federal University, Russia. ORCID: https://orcid.org/0000-0001-9573-2754
E-mail: meflova@gmail.com

OLGA POROSHENKO
Kazan Federal University, Russia. ORCID: https://orcid.org/0000-0001-5948-1353
E-mail: olgaporo@mail.ru

OLGA MAXIMOVA
Kazan Federal University, Russia. ORCID: https://orcid.org/0000-0003-4616-9488
E-mail: olga_max@list.ru

ABSTRACT

Objective: The research aims to explore the influence of artificial intelligence (AI) on human intellect and personality development within the digital society, with a focus on how AI intersects with individual free will and ethical considerations.

Methods: The study employs socio-philosophical analysis, integrating both classical and contemporary theories to assess the impact of AI on personal development and ethical behavior.

Results: The study identifies significant influences of AI on personal decision-making and ethical behavior, suggesting that while AI can enhance human cognitive abilities, it also poses challenges to personal autonomy and ethical decision-making.

Conclusion: The research concludes that a new form of personal ethics is needed to navigate the challenges posed by AI, where individuals must set their own boundaries for engagement with AI technologies, thus preserving human individuality and freedom.

Keywords: Artificial intelligence; Human intellect; Digital society; Personal ethics; Free Will.

RESUMO

Objetivo: A pesquisa visa explorar a influência da inteligência artificial (IA) no desenvolvimento do intelecto e da personalidade humana dentro da sociedade digital, focando em como a IA se intersecta com a livre vontade individual e considerações éticas.

Submetido em: 20/03/2024
Aprovado em: 11/08/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

Métodos: O estudo emprega análise sociofilosófica, integrando teorias clássicas e contemporâneas para avaliar o impacto da IA no desenvolvimento pessoal e comportamento ético.

Resultados: O estudo identifica influências significativas da IA na tomada de decisões pessoais e comportamento ético, sugerindo que, embora a IA possa aprimorar as capacidades cognitivas humanas, ela também apresenta desafios para a autonomia pessoal e a tomada de decisões éticas.

Conclusão: A pesquisa conclui que uma nova forma de ética pessoal é necessária para navegar os desafios impostos pela IA, onde os indivíduos devem estabelecer seus próprios limites para o envolvimento com tecnologias de IA, preservando assim a individualidade e a liberdade humana.

Palavras-chave: Inteligência artificial; Intelecto humano; Sociedade digital; Ética pessoal; Livre arbítrio.

1. INTRODUCTION

Contemporary human not only lives in his usual natural world, but he is also increasingly plunging into the space of the new digital world. The digital world is a parallel universe created from Internet information (Borodina et al., 2023). Digital technology influences our daily lives and interactions with the world around us. It is important to realise that the digital world is not just limited to the use of computers or the internet (Abdullaev et al., 2023; Alzoubi, 2024). It encompasses all areas of our lives such as communication, work, entertainment, education, healthcare, travelling and much more (Kashina et al., 2022; Tolmachevet al., 2022). All these aspects of our lives have been made more convenient and accessible through digital technology (Kirillova et al., 2021). The digital world is the new methods of capturing, storing and transmitting information in the cyber environment (Knyazeva et al., 2023). At the lifeworld level, digital reality is the new quality of reality that comes from the fact that human interaction with reality is mediated by electronic and digital devices (Voronina et al., 2023).

The more people are surrounded by this new digital world, the more acute the questions about the place of the individual in this world become (Galizina et al., 2021; Najadat, Obeidat, 2024). Even in education, digital technology is increasingly replacing the personality of the teacher (Borodina, 2021; Eflova et al., 2023). Will there be a degradation of human abilities as people use less and less of their brains and more of

Submetido em: 20/03/2024
Aprovado em: 11/08/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

the intelligence of machines? Could our critical thinking, writing and design skills atrophy in the near future?

The research aims to explore the relationship between individual free will and artificial intelligence (AI) through classical and contemporary theories.

2. METHODOLOGY

In order to answer these burning and frightening questions for the contemporary individual, authors used socio-philosophical analysis to try to weigh the pros and cons in the development of the relationship between a living real human being and artificial intelligence (AI). The ideas and approaches of both classical and contemporary researchers, whose problems concern the description of the relationship between the human subject and AI, helped authors in this endeavour.

3. RESULTS AND DISCUSSION

In order to understand the problem of the prospects of the relationship between humans and AI, authors put forward a number of theses and show arguments both in their support and in their refutation.

3.1 AI is purely a socio-philosophical project

Indeed, AI could be the dream of every social thinker. The ideal philosophical project is to create a thinking machine that would get rid of logical errors, individual prejudices, and conceptual misconceptions. Creating an algorithm that would calculate the truth and give authors the answer to the most important questions about the meaning of life. This was the dream of G. Leibniz, creator of "calculus ratiocinator", G. Frege, A. Turing, apologist of turning reality into digital combinatorics.

T. Hobbes was the first to speak about the fact that thinking is "mental reasoning" (Lloyd, 2009). He believed that thinking consists of operations, just like talking (pronouncing sounds) or calculating with a pen on paper. However, thinking is carried out internally, and thoughts themselves are not expressed in spoken or written signs, but in special signs in the brain, which Hobbes called "phantasms" or "particles" of thinking. All rational thinking, according to Hobbes, follows methodical rules - just as counting follows the precise rules of numerical calculation.

Submetido em: 20/03/2024
Aprovado em: 11/08/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

Later Leibniz (1988), puzzled by the problem of creating a universal language of science and formalisation of knowledge, put forward the idea of logical calculus of technical implementation of mechanical modelling of logical operations of thinking with the help of a computing machine.

Today, an extension of such conceptions of consciousness is the "Theory of mind", which describes a "mental state model". Such a mental state has the capacity for intrinsic and extrinsic beliefs, intentions and knowledge to explain and predict behaviour. The computational model of mental state ("computational theory of mind") posits that intelligence is a computational system that is similar to a Turing machine and its computational processes. This theory suggests that intelligence is not just similar to a computational system, but is one. With this approach, abstracting from the specific technical realisation, it is possible to obtain an abstract computational model describing basic mental processes.

The question remains whether humans are truly autonomous beings capable of understanding causality or if they are merely subjects controlled by correlations. This raises the issue of whether we need to reassess Enlightenment ideas of autonomy, such as Kant's concept of free will and responsibility, as well as the notions of individual freedom espoused by Sartre, Berlin, and Mill. Furthermore, it questions whether we are approaching a "posthuman era" where AI may become autonomous and increasingly dominant. Genesis will become virtual, transcending finitude and immortality. AI will be able to control the physical infrastructure. Humanity will lose its dominant position. AI will create a new cosmogony (like the "noosphere" of Teilhard de Chardin and V. Vernadsky), where different kinds of connections between beings will mean more than disconnected individualities.

3.2 AI is the inevitable future

Already today, AI is fully integrated into everyday life: medicine, economics, politics, and military affairs. The first fear of something new and unfamiliar gradually passes (as it has happened many times in the history of human civilisation). Society traditionally panics and revolts before innovations at first, and then gets used to them and loses interest. They get used to any magic of novelty and endow it with such features as creativity, revolutionary, efficiency, progressiveness.

Submetido em: 20/03/2024
Aprovado em: 11/08/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

The world is adapting to AI. Example: port logistics as a robotic environment as a reduction of "delirious work". Robots for those who are not indispensable.

In China, for example, AI is assessed as a "communist thing" because it requires centralisation and normativity. The success of AI in China is due to the combination of a culture that is not concerned with the primacy of privacy (willingness to be visible, transparency) and dynamic manufacturing. Chinese collaboration between government and digital platforms is a coordinated search for a common collective good based on cultural sources: the state as the ultimate guarantor of social order (communism), entrepreneurship (capitalism), collective values and the common good (Confucianism). The Chinese tradition is not based on the values of privacy, but on the values of personal shame and social interaction.

The development of AI today has a high intensity: if Deep blue ("good old AI"), which won against G. Kasparov in 1997, went through millions of possible combinations and built reasoning that culminated in a solution - industrialisation of logical inferences (Kasparov, 2017), today's "machine learning" is already information machines that have acquired the ability to learn by themselves following predetermined rules, thanks to big data, increasing computer power, and the discovery of "neural networks". The emergence of "superintelligence" is predicted in the near future.

3.3 AI is a fundamental danger to the individual

The industrial application of AI (a term introduced in 1955 by J. McCarthy) means the creation of an inorganic copy of human intelligence. McCarthy means the creation of an inorganic copy of human intelligence), according to Y. Harari (2018), will accelerate and concretise the disappearance of the individual's free will.

The main danger comes from the possibility of the emergence of "evil Superintelligence" (Bostrom, 2014). This is an artificial creature that does not reproduce neural processes, remains synthetic, but significantly surpasses human cognitive abilities in various areas (including empathy, learning ability, political judgement). An "intelligence explosion" scenario through a breakthrough to autonomy ("resource-based self-improvement") is already likely. SII has no human goals, for example, goodness (N. Bostrom's example about making paper clips), because "goodness" cannot be expressed in the form of an information code. Besides, there are many understandings of what "good" is. To program a "good" Superintelligence it

Submetido em: 20/03/2024
Aprovado em: 11/08/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

would be necessary to unambiguously solve the question about the meaning of life, which is practically impossible. Therefore, the Superintelligence is doomed to be "evil".

Puzzled by this problem, representatives of the Future of Humanity Institute (Oxford), the Centre for Survival Risk Research (Cambridge), E. Musk's non-profit research centre OpenAI, B. Gates, F. Wilczyk and many others are writing open letters with proposals to stop developments in the field of Superintelligence. The emergence of a "point of singularity" endowed with a copy of consciousness, power, omniscience increases the risk for mankind as a species. The first features have already been observed in ChatGPT4.

AI researcher E. Yudkowsky (2023), who has been warning about the dangers of the technology since the early 2000s, declared the urgent need to "shut down all systems with AI". In the article "It's not enough to suspend AI development. We need to shut it all down", he said he refrained from signing the letter from businessmen Elon Musk and Steve Wozniak because it downplayed the seriousness of the situation: "It's too little to solve the problem. Many researchers immersed in these problems, including myself, expect that the most likely outcome of creating a superhumanly intelligent AI under any circumstances remotely resembling current ones would be that literally everyone on Earth would die". Yudkowsky explained that AI "doesn't care about humans or intelligent life in general". Yudkowsky believes that we are currently a long way from implementing such principles into technology.

3.4 AI is an illusion

To distinguish true from false and copy from reality, we can use critical thinking, evidence evaluation, and transparency in communication. To ensure that an interlocutor is a human and not a computer, we might rely on interactions that require emotional intelligence, complex reasoning, and context awareness. For verifying the authenticity of our own thinking, we should engage in self-reflection, seek diverse perspectives, and be aware of cognitive biases and influences that could shape our thoughts.

Examples are, firstly, the famous Turing test - the imitation game - a conversation with a remote interlocutor when it is impossible to determine whether it is a human or a computer (NLP techniques, chatbots capable of creating the illusion of natural communication). The computer is limited to symbols and formal correlations,

Submetido em: 20/03/2024
Aprovado em: 11/08/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

because the essence of digital systems is to apply a code (a sequence of numbers and operations) to reality. However, authors want to believe that that remote interlocutor is a human being. It is connected with the fact that since ancient times anthropomorphism is peculiar to human perception - likening to a human being, giving human mental properties to objects and phenomena of inanimate nature, celestial bodies, animals, mythical creatures. In modern scientific ("life span" of particles, etc.), technical, in particular, cybernetic literature, anthropomorphic use of concepts (a machine "remembers", "solves a problem", etc.) is based on the objective similarity of the principles of functioning and results of human and machine (robots) actions; it is quite legitimate if the difference of processes in essence is taken into account.

Secondly, the thought experiment "Chinese room" (Searle, 1969). You are given notes in Chinese and instructions in Russian on how to link characters. You respond in writing in Chinese, not understanding the meaning, or orally in Russian, without instructions, understanding the meaning. In both cases, you are communicating. But in the first case, you are a computer performing a series of certain operations with formal symbols (calculation), in the second case you use the intensional nature of your neural processes (understanding).

No algorithm can come up with a global interpretation of the world and people - it is a matter of common sense. For example, AI can only replace professions whose practice requires neither context assessment, nor interaction with the environment, nor initiative based on knowledge of the Other.

3.5 AI has no ontology or epistemology

The expansion of the Internet with a variety of industrial AI applications based on neural networks immerse humans in a non-linear rhizome world. Even the most precise personalisation (and this is what modern digital platforms strive for) is accompanied by an irrevocable disindividualisation: human emotional processes become simple variables aggregated with millions of data and processed by anonymous algorithms. The human subject does not constitute any autonomous unit capable of judgement and decision. By subjecting body and spirit to new conditions, by allowing themselves to be carried away by the rhizome and its bifurcations, modern individuals approach the flows that constitute the unity of the world, a "plan of immanence" in which a new form of authenticity is found - impersonal, pre-individual

Submetido em: 20/03/2024
Aprovado em: 11/08/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

singularities. Rhizome forms a kind of meaning that is not explicable or reproducible - the "black box" of neural networks (Deleuze, 2005).

In the world of neural networks, humans have no ontology. No electronic circuit can "want" to persist in being: it has no body, the source of homeostasis. Spinoza, as the first philosopher of the symbiosis of body and immanence, wrote: "the thinking substance and the extended substance constitute one and the same substance, understood in one case by one attribute, in another by another" (Spinoza, 1994, p. 48). A. Damassio continues Spinoza's thoughts and comes to the conclusion that it is necessary to return to the body the predominant role in the production of thought representations on the basis of homeostasis. Homeostasis is the general will to remain in being, to maintain inner unity, evolutionarily leading to affects, and finally to consciousness. "The feelings, the affects that constitute the middle of the homeostatic process are the only things capable of producing meaning" (Damassio, 2017, p. 92). Therefore, AI is unable to internalise the notion of purpose: to express intensionalism, one must possess a body. The body laughs at the mind!

In addition, AI is limited in cognition, it does not produce general concepts. According to Plato, ideas govern human sense perception (Plato's The State (Plato, 2013): while the human mind can recognise any cat by seeing a single cat, AI can recognise a cat only by looking at images of all cats. Humans can generalise from a very limited number of cases.

3.6 AI is a restriction on an individual's freedom of choice

Industrial AI applications seek to eliminate individual choice from our lives. To better serve us, they free us to make independent decisions, which are never perfect, due to our biases and lack of information.

Nobel laureates D. Kahneman and R. Thaler developed behavioural economics, which takes into account the less considered decisions of an individual. They called for libertarian paternalism, according to which an individual should be given the whole set of possible choices, but "nudging" (nudge) him to the option that seems most desirable. Kahneman believes that human decisions are subject to numerous biases and "cognitive illusions". Human everyday decisions are not rational. Humans are subject to mental-optical illusions that lead to false conclusions: the halo effect, the affect heuristic, impressions of causality, confirmation bias, the illusion of validity, associative

Submetido em: 20/03/2024
Aprovado em: 11/08/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

thinking, planning sophism, loss aversion, regression to the mean, and others. In human thinking, he distinguished: "System 1" - a system of quick thinking generates false probabilities and sketchy inferences, reducing the world around people to an outwardly logical scheme and "System 2" - rationality and critical sense in a calm mode; this system can only focus on a small number of solutions and most often lazily agrees with the proposals of "system 1" (Kahneman, 2012).

Today, Silicon Valley is training nudge scientists - this is the new elite. At the same time, the problem of cognitive inequality between those who create nudge (code masters) and those who become the object of "nudge" (data providers) remains. A new version of imperialism?

AI deprives human of what modernist thought endowed him with - uniqueness, autonomy, responsibility (in the legal field, among others). Homo connecticus brings the former master - homo sapiens - to the slaughter (Foucault, 1971). Homo connecticus does not like to be itself, it prefers to get lost in the intricacies of the network community.

In the expanding digital world, the phenomenon of "political homophilia" is becoming more and more vivid - thanks to the game of data, the Internet has become a space that does not welcome differences, but reinforces similarities. Even in art, the process of automating artistic creation (robot artist, robot writer, robot musician) displaces the self-expression of the artist's personality.

VUCA-world (Volatility Uncertainty Complexity Ambiguity world), as a world of instability, uncertainty, complexity and ambiguity in a changing social reality, in which it is difficult to make predictions and plans, is beginning to really frighten the modern individual.

New concepts of the future are emerging, which justify the rejection of social networks and Internet addiction to restore intellectual functions: concentration, density, complexity (the ability to read for a long time, internal dialogue, tracking contradictory thoughts to habitual obsessions). For example, the American scientist R. Johansson proposed to combat the threats of a changing world. To do this, it is necessary to develop thinking competences and personal qualities that help to adapt to the new environment. The author revised the abbreviation and gave it a new meaning. The strategy is called VUCA Prime. Its essence is to apply an "antidote" to each challenge: V - vision, U - understanding, C - clarity, A - agility (Johansen, 2017).

Submetido em: 20/03/2024
Aprovado em: 11/08/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

4. CONCLUSIONS

It is encouraging that there is still the possibility of resistance to AI. Still the individual, in all his originality, is capable of making profound and conscious choices with the "right to err" and the "right to error". Such a choice, perhaps not very effective in terms of utility, but without which it is impossible to form individuality, the unique essence of the individual. This is a new personal ethics - the rules of using or not using AI technologies, which people choose for themselves and undertake to observe, without requiring others to observe them and without making them a universal law.

ACKNOWLEDGMENTS

The study was carried out at the expense of a grant allocated to Kazan Federal University for the implementation of project No. FZSM-2023-0022 “Digital socialization and digital competence of youth in the context of global systemic changes: regulatory technologies, risks, scenarios” within the framework of the state task.

REFERENCES

Abdullaev, I., Prodanova, N., Bhaskar, K. A., Lydia, E. L., Kadry, S., & Kim, J. (2023). Task offloading and resource allocation in iot based mobile edge computing using deep learning. Computers, Materials & Continua, 76(2), 1463-1477. https://doi.org/10.32604/cmc.2023.038417

Alzoubi, N. (2024). Using Information Technology Management with Artificial Intelligence Techniques. Journal of Lifestyle and SDGs Review, 5(2), e03013. https://doi.org/10.47172/2965-730X.SDGsReview.v5.n02.pe03013

Borodina, M. (2021). Impact of the Google translate machine translation system on the quality of training student translators. Webology, 18(SI), 68-78. https://doi.org/10.14704/web/v18si05/web18214

Borodina, M., Idrisov, H., Kapustina, D., Zhildikbayeva, A., Fedorov, A., Denisova, D., Gerasimova, E., & Solovyanenko, N. (2023). State regulation of digital technologies for sustainable development and territorial planning. International Journal of Sustainable Development and Planning, 18(5), 1615-1624. https://doi.org/10.18280/ijsdp.180533

Bostrom, N. (2014). Superintelligence: Paths, dangers, strategies. Oxford: Oxford University Press, 352 p.

Damassio, A. (2017). L'Ordre estrange des choses. Paris: Odile Jakob, 392 p.

Submetido em: 20/03/2024
Aprovado em: 11/08/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

Deleuze, F. (2005). A thousand plateaus: Capitalism and schizophrenia. University of Minnesota Press, 300 p.

Eflova, M., Shamsutdinova, I., & Maximova, O. (2023). Transforming the status and role of the teacher at the Institute of Higher Education in the digital educational environment. Conhecimento & Diversidade, 15(37), 162-170. http://dx.doi.org/10.18316/rcd.v15i37.10944

Foucault, M. (1971). The order of things: An archaeology of the human sciences. New York: Pantheon Books, 339 p.

Galizina, E. G., Feoktistova, A. B., Makushkin, S. A., Korotaeva, I. E., Kartseva, E. Y., & Udaltsova, N. (2021). Customer-oriented aggregators of massive open online courses: Opportunities and prospects. Webology, 18(SI05), 420-435. https://doi.org/10.14704/web/v18si05/web18238

Harari, Yu.N. (2018). 21 lessons for the 21st century. Spiegel & Grau, 372 p.

Johansen, B. (2017). The new leadership literacies. Oakland: Berrett-Koehler Publishers, 192 p.

Kahneman, D. (2012). Thinking, fast and slow. Penguin, 500 p.

Kashina, E., Yanovskaya, G., Fedotkina, E., Tesalovsky, A., Vetrova, E., Shaimerdenova, A., & Aitkazina, M. (2022). Impact of digital farming on sustainable development and planning in agriculture and increasing the competitiveness of the agricultural business. International Journal of Sustainable Development and Planning, 17(8), 2413-2420. https://doi.org/10.18280/ijsdp.170808

Kasparov, G. K. (2017). Deep thinking: Where machine intelligence ends and human creativity begins. New York: Public Affairs, 287 p.

Kirillova, E. A., Zulfugarzade, T. E., Blinkov, O. E., Serova, O. A., & Mikhaylova, I. A. (2021). Prospects for developing the legal regulation of digital platforms. Jurídicas CUC, 18(1), 35-52. https://doi.org/10.17981/juridcuc.18.1.2022.02

Knyazeva, N., Mikhailova, I., Usmanova, N., & Shindina, T. (2023). Overcoming barriers to the development of higher education teacher digital competencies: challenges and solutions. Revista Gestão & Tecnologia, 23, 297-308.

Leibniz, G. W. (1988). Discourse on metaphysics and related writings. New York: Manchester University Press, 170 p.

Lloyd, S.A. (2009). Morality in the philosophy of Thomas Hobbes: cases in the law of nature. New York: Cambridge University Press.

Najadat, M. M., & Obeidat, K. A. (2024). The Reality Of Employing Artificial Intelligence Applications and its Challenges in Teaching People with Learning Disabilities from the Point Of View of Teachers (SDG'S). Journal of Lifestyle and SDGs Review, 4(4), e02939. https://doi.org/10.47172/2965-730X.SDGsReview.v4.n04.pe02939

Plato. (2013). The Republic. Translated by B. Jowett. Roman Roads Media, 370 p.

Submetido em: 20/03/2024
Aprovado em: 11/08/2024
Avaliação: Double Blind Reviewe
ISSN: 2316-753X

Searle, J. (1969). Speech acts: An essay in the philosophy of language. London: Cambridge University Press.

Spinoza, B. (1994). A Spinoza reader: The ethics and other works. Edited and translated by E. Curley. Princeton: Princeton University Press.

Tolmachev, M., Korotaeva, I., Zharov, A., & Beloglazova, L. (2022). Development of students' digital competence when using the "Oracle" electronic portal. European Journal of Contemporary Education, 11(4), 1261-1270. https://doi.org/10.13187/ejced.2022.4.1261

Voronina, L., Iakhiaev, D., Grigorishchin, A., Shiryaevsky, D., & Oshomkov, T. (2023). Assessing the influence of factors on the development of digital infrastructure in Russia. Revista Gestão & Tecnologia, 23(3), 323-332. https://doi.org/10.20397/2177-6652/2023.v23i3.2749

Yudkowsky, E. (2023, March 29). Pausing AI developments isn't enough. We need to shut it all down. Retrieved from https://time.com/6266923/ai-eliezer-yudkowsky-open-letter-not-enough/