BG Pulse Journal USA
ISSN:1947-2536 http://www.bgpulseusa.com/index.php/bg

ARTIFICIAL INTELLIGENCE IN THE 21ST CENTURY: AT THE INTERSECTION OF TECHNOLOGICAL PROGRESS AND HUMAN VALUES

Mirzakholov Nodirbek Tojiboyevich
Namangan State University,
Doctor of Philosophy in Philosophical Sciences (PhD)
E-mail: nodirbek_mustafo@mail.ru
ORCID ID https://orcid.org/0009-0008-1906-3227
Doi: https://doi.org/10.5281/zenodo.21259524

Abstract: The article analyzes one of the most significant technological achievements of the 21st century – artificial intelligence (AI) – from social, economic, and philosophical perspectives. Its wide application across areas ranging from medicine and transport to data management and marketing is examined alongside increasing efficiency, as well as unemployment, economic inequality, ethical dilemmas, and spiritual-moral challenges. The article, based on local and international studies and scholars' views, demonstrates that AI is not a substitute for human intelligence but a tool that assists it. In conclusion, the importance of humanitarian values, ethical norms, and philosophical thinking in the development and use of artificial intelligence is emphasized.

Keywords: artificial intelligence, automation, economic inequality, ethical issues, human values, philosophy, technological progress, unemployment, spirituality, society.

The 21st century is an era of rapid technological development, and in this century multi-faceted discoveries such as artificial intelligence (AI) are having a profound impact on all spheres of human life. The use of AI in various fields such as medicine, transport, database management, and marketing is significantly increasing efficiency. However, along with these new opportunities, a number of serious challenges and philosophical debates are also emerging.

Artificial intelligence is not merely a technological system, but a technological interpretation of human reason and creative ability. However advanced AI may be, it cannot fully access the human world of spiritual, moral, and emotional values. From this point of view, this article analyzes the social, economic, and philosophical aspects of AI, as well as its future role and potential threats to humanity.

Research results show that in the future, socio-economic, political-cultural, spiritual-educational, and philosophical directions, as well as creative factors, will play a key role. These aspects have become a center of international discussion, and AI has taken an important place among them. The fields of AI application are expanding day by day – from computing technology and robotics to automation, medical diagnosis and treatment to marketing strategies, data management to intellectual transport systems.

However, this situation does not support the idea that "artificial intelligence can independently build its sustainable future". Like every technological innovation, AI can bring not only new opportunities but also deep social and economic problems. As intelligent algorithms and information models develop, their practical application also introduces new risks and challenges. One of these is the reduction of the importance of human labor as a result of service automation in daily life and production.

According to experts, the rapid development of technologies places society in need of finding new, innovative approaches in economic and social spheres. For example, according to the latest World Economic Forum reports, by 2030 automation is expected to take on 5% of global employment [1]. This leads to significant changes in the nature of professions. Regardless of all the benefits AI brings, properly assessing and managing its social impact has become one of the main responsibilities of humanity.

Along with technological development, issues of social justice and economic inequality are becoming more acute. For example, according to Oxford Economics analysts, automation primarily affects medium-income workers [2]. This situation can further increase economic inequality among people. In our view, ensuring a balance between technology and human values is a fundamental problem in shaping the future.

To fully benefit from all the advantages of AI, it is necessary to deeply understand and manage its social, economic, and spiritual consequences. Only in this way can humanity use all the opportunities technology brings wisely and minimize the associated risks.

No matter how perfect technology is, its value is measured by the human ability to use it. Regardless of whether AI's effectiveness and usefulness are unquestionable, its positive impact depends on the intelligence and moral values of the person using it.

The historical saying "The organic unity of humanity and technology is the foundation of the future" helps to understand this reality more deeply. As automation processes accelerate, humanity faces challenges such as social inequality, unemployment, and changes in professions. Therefore, AI development must be evaluated not only technically, but also from social, moral, and humanitarian perspectives.

The fact that "every discovery brings its own danger" is also reflected in the AI sphere. Along with the development of AI and information technologies, issues such as data security, privacy of personal life, and independence of human creativity are becoming increasingly important. Therefore, assessing AI development and its impact accordingly, as well as developing necessary measures, is essential to building a stable, human-values-based future.

Aristotle in his "Nicomachean Ethics" said: "True reason is not only knowledge, but the ability to apply it." This idea forms the fundamental viewpoint in discussions about AI. However imperfect AI may be, it remains a tool created and managed by humans. International AI researcher Stuart Russell noted: "The real danger of AI is not in it becoming intelligent, but in our inability to control it" [3].

Nobel Prize laureate in economics Daniel Kahneman writes in his work "Thinking, Fast and Slow": Human consciousness consists of two systems – an intuitive and fast-working System 1, and a logical and slow-working System 2. Current AI technologies can only imitate System 1 [4]. This shows that intelligence cannot be measured only by IQ tests. MIT professors Erik Brynjolfsson and Andrew McAfee concluded that AI can be the most powerful tool in human history, but its effectiveness depends on how humans use it [5]. Stanford University's "AI Index Report 2023" characterizes the current state of AI technologies as follows: AI systems are superior to humans in certain specific tasks, but have not yet reached human intelligence in terms of general reasoning and creative thinking [6]. From a philosophical standpoint, famous philosopher Nick Bostrom advanced the idea that the greatest danger of AI development is that we are not ready to direct it correctly [7]. Oxford University Professor Anders Sandberg stated: AI should not be a competitor to human intelligence, but its enhancer [8]. American scientist Melanie Mitchell concluded that "Current AI systems imitate only a part of intelligence, but do not understand the full complexity of the human mind" [9]. Based on these sources, AI should be viewed not as an

alternative to human intelligence, but as its assistant. As with any technological innovation, AI must be developed and used in balance with human values and reasoning. Specialists add that AI cannot fully replace human intelligence at its current stage, but has great importance as an effective tool. The main focus should be on the harmonious cooperation and responsible use of humans and AI.

Various ideas exist about the scientific foundations of AI. Famous computer scientist Alan Turing said: “To talk about whether a machine can think, one must evaluate its ability to learn from mistakes and use language” [10]. This idea is the theoretical basis for applying models of human intelligence to computers.

Definitions of artificial intelligence differ considerably among specialists in the field. American modeling theory researcher Nils Jon Nilsson defines AI mainly as “computer models of human thinking processes” [11]. MIT Professor Marvin Minsky, understanding it more broadly, defines it as “a system that technically reproduces complex thinking processes specific to humans” [12]. Information technology expert John McCarthy’s definition is based on the idea of “reproducing human thinking and implementing it in computers” [13].

Summarizing these definitions, one can conclude that if human intelligence is a biological neurological phenomenon, AI is its digital interpretation. British AI researcher, neurobiologist and computer game designer Demis Hassabis stated: “True intelligence is not just reprocessing information, but the ability to create new understandings” [14], which is a task very difficult to accomplish in current AI systems.

The application of AI is so wide and involves various difficulties that it is hard to give a single answer to the question “what does it do.” Even throughout philosophy’s thousand-year history, questions such as “what is the source of reason?” and “where is wisdom located?” have not been fully resolved. This reality shows that however much AI improves, all its capabilities stem from a technical model of human reason. On this matter, Stanford University Professor Fei-Fei Li expressed the thought: “Current artificial intelligence is not reason, but its shell” [15].

In understanding the relationship between art and intelligence, every work requires the presence of its creator. Famous artist Pablo Picasso’s saying “Computers are useless – they can only give answers” [16] confirms exactly this. When AI’s creative capabilities are compared with genuine artistic creativity, its limitations become apparent.

Regarding ethical dilemmas, MIT Media Lab director Joy Buolamwini stated: “In the ethical choices of technology, the most important thing is to determine the role of human values” [17]. In discussions about AI’s “moral code,” the compliance of its decisions with human standards has become a fundamental problem.

According to Cambridge University researchers on language tests and AI [18], robot interviewers only operate according to predetermined scenarios. As a result, significant differences arise in the ratio and complexity of positive and negative answers. In real conversation, AI cannot fully reproduce a human’s emotional intelligence, social skills, and interplay of logical thinking.

Oxford University’s Director of “New Technologies and Social Impact” department Karl Frey emphasizes AI’s clear limits with the idea that the inadequacy of automated systems is specific to their creators [19]. Therefore, along with technological development, the improvement of human moral values and ethical norms is necessary.

According to scientific research, the emergence of AI has led to strong philosophical questioning. Famous philosopher Nick Bostrom stated: “The development of superintelligence is the greatest danger and greatest opportunity for humanity simultaneously” [20]. This idea raises AI on three fundamental philosophical problems.

First, the question "Is it possible to create artificial intelligence?" remains unresolved. In MIT Professor Max Tegmark's view: "Without understanding the nature of reason, we cannot create its artificial version" [21]. Second, from an ethical standpoint, debates about AI's consequences are intensifying. According to Oxford University researcher Karl Frey, "The main danger of automation is that it reduces the importance of human labor" [22]. Transhumanism concept supporters, especially scientists like Ray Kurzweil, declare "Technological singularity is the logical consequence of humanity" [23]. However, the realization of these ideas may lead to serious social and moral problems for humanity.

Regarding modern society's attitude toward technology, Stanford University's latest research shows that 63% of people are concerned about AI's social impact [24]. These concerns mainly relate to rising unemployment, violation of personal privacy, and weakening of human relationships.

From a religious and spiritual standpoint, as stated in the Vatican's latest declaration regarding AI's limitations: "No machine can fully comprehend the human soul" [25]. This idea emphasizes the divine origin of human thinking.

In our view, the most important thing in resolving problems related to AI development is harmonizing technology with moral values. In this regard, maintaining a balance between the positive and negative aspects of every new discovery is the fundamental condition for ensuring humanity's future stability.

In conclusion, AI is an important factor in the development of modern society, providing opportunities to increase effectiveness and overcome difficulties. However, all aspects of AI development must be based on human interests and values. Ethical norms, humanitarian values, and philosophical thinking must play a decisive role in managing AI.

In the future, AI can create even wider opportunities for humanity, but to prevent its negative consequences, cooperation, innovative solutions, and global thinking are essential. AI must not only be a technological system, but also a continuation of humanity's intellectual development.

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