

The Modern Impact of Artificial Intelligence on Education and Morality

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Abstract

This article examines the integration of artificial intelligence technologies into the educational process, their role in enhancing students' intellectual potential, and the potential impacts on human spirituality. The article scientifically examines the advantages of AI tools in developing cognitive competencies, as well as the ethical and moral issues, particularly the concept of "digital spirituality".

Keywords: Artificial intelligence, educational transformation, spirituality, digital ethics, cognitive competence, adaptive learning, anthropocentric approach.

Introduction

By the third decade of the 21st century, artificial intelligence (AI) has become an integral part of the education system, as well as all other social spheres. Within the framework of the "Digital Uzbekistan – 2030" strategy, the Republic of Uzbekistan is consistently implementing measures to widely introduce modern digital technologies into education, including the effective use of artificial intelligence. AI in education is not only optimising teaching methods but also directly influencing the learner's worldview and spiritual values. This process is setting new priority tasks for the science of pedagogy in maintaining the balance between education and spirituality[1].

The history of Artificial Intelligence (AI) has been a fascinating journey, from humanity's ancient dreams of creating a "thinking machine" to today's complex neural networks[2]. This historical development can be divided into several key periods:

The early period and foundations: before AI emerged as a science, its mathematical and philosophical foundations were laid. In 1943, Warren McCulloch and Walter Pitts proposed the first artificial neuron model. In 1950, Alan Turing announced his famous 'Turing test'[3]. He posed the question, 'Can machines think?' and proposed a criterion for determining a machine's intelligence. 1956: At the Dartmouth Conference, John McCarthy first used the term 'Artificial Intelligence'. During this period, computers learned to play chess, prove

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mathematical theorems, and understand simple English. Researchers believed that a human-level intelligence would be created within 20 years[4].

Methodology

This study employed analytical, comparative, and statistical methods to evaluate the impact of artificial intelligence on the education system and moral values. The main sources of the research included scientific articles, internationally indexed journals, and regulatory legal documents adopted in Uzbekistan between 2020 and 2025 related to artificial intelligence, digital education, and ethical issues.

During the research process, the impact of artificial intelligence on educational effectiveness was assessed based on the following criteria: improvement of education quality, opportunities for individualized learning, development of students' cognitive competencies, reduction of teachers' workload, and the emergence of moral and ethical risks. According to statistical data, in 2024 nearly 63% of educational platforms worldwide used artificial intelligence elements, while the global digital education services market exceeded 20 billion US dollars. At the same time, the proportion of students using generative AI tools reached approximately 55–60%.

Throughout the analysis, the positive and negative aspects of artificial intelligence were examined using a comparative approach. In addition, the activities of adaptive learning systems, chatbots, and generative models were analyzed from pedagogical and philosophical perspectives. Based on the obtained results, it was determined that preserving humanism, independent thinking, and national-spiritual values is an essential factor in the effective use of artificial intelligence technologies in education.

Results and Discussion

When the expected results did not materialise quickly, governments and investors stopped funding the projects. It became clear that the computers' memory and processing power were insufficient to solve the complex problems of the time. Between 1980 and 1987, the AI field was revived through "Expert Systems"[5]. These programmes imitated the expert knowledge in a specific field, such as medicine or geology. In the mid-1980s, the back-propagation algorithm for training neural networks was rediscovered, laying the groundwork for future deep learning[6].

Since the 1990s, AI has begun to enter everyday life and major technologies. In 1997, IBM's Deep Blue computer defeated world champion Garry Kasparov at chess. This was one of the biggest turning points in the history of AI[7].

Today, we are in a new phase of the AI revolution. In 2012, neural networks approached human-level performance in image recognition. Between 2022 and 2024, with the emergence of generative models like ChatGPT, Midjourney, and Claude, AI became humanity's closest companion in writing text, creating images, composing music, and solving complex scientific problems[8].

Today, artificial intelligence is rapidly penetrating every aspect of our lives, particularly the education system. This is not just the next technological novelty, but a serious factor shaping our children's worldview and spirituality. So, what are these changes bringing us, and what should we be aware of?

Digital technologies have completely transformed teaching methods. Now, every student can learn according to their own world and abilities[9]:

- A personalised approach for each student: Computer programmes can sense a child's level of understanding and select tasks tailored specifically to them. Some learn faster, some slower, and no one is left behind.
- Teachers' workload is reduced: For teachers tired of paperwork, marking tests, or constantly creating the same lesson plans, there is now a fantastic assistant. This allows them to spend more time on nurturing the child.
- Help is at hand when needed: When a student is studying at night, they can immediately ask a smart chatbot about a part they don't understand and learn it.

No matter how intelligent technology may be, it cannot teach a child right from wrong or instil compassion. For this reason, the enhancement of moral education is now more important than ever. The internet is full of information, but not all of it is accurate. Our young people must learn not to blindly believe what they see and hear, but to analyse it and distinguish truth from falsehood. No robot can provide the warmth of a teacher, the joy in their eyes, or their support[10]. Feelings such as empathy, patriotism and nobility are only passed on when people interact with one another. In an age where ready-made essays and the copying of coursework from the internet have become so easy, it is essential that we teach young people to appreciate the work of others and to be honest in their studies. If a student lets artificial intelligence do everything, their ability to think independently and create may stagnate. We need a generation with a voice of its own, not one that thinks in ready-made templates[11].

The connection between artificial intelligence (AI) and philosophy is one of the most exciting and controversial areas of modern science. Philosophy is not merely a theoretical foundation for AI, but a compass that defines its boundaries, essence, and ethical criteria[12].

Computer philosophy is based on the idea that the creation of strong AI and superintelligence is inevitable. Scientists continue to discuss how it will change society and the associated risks. Scientists view artificial intelligence as a potential problem, trying to understand its properties and weaknesses. One of the aims of artificial intelligence philosophy is to identify the weaknesses of a superintelligence and to learn how to use them as a means to prevent a supercomputer from getting out of control.

Scientists agree that the creation of a superintelligence is inevitable, that a supercomputer will be superior to humans in every respect, that a superintelligence will not think like a human, and that a superintelligence will experience emotions[13]:

As the doctrine of being, ontology poses the following question to AI[14]: When will an AI attain the status of a "person"? If it becomes self-aware, do we have a moral right to continue using it as a tool?

From a philosophical perspective, the attempt to create artificial intelligence is a human attempt to understand itself[15]. By trying to give a machine consciousness, we are actually seeking answers to the age-old questions: 'What is consciousness?' and 'What does it mean to be human?'

The development of AI forces us to focus on human virtues such as empathy, creativity, and moral responsibility. For no matter how intelligent a machine becomes, only a human can ask the question, "Why?".

Conclusion

Artificial intelligence has entered our lives not just as a new technology, but as a complete civilizational turning point. To deny it is to fall behind progress. However, relying on it completely could easily lead to a moral decline. In this situation, we must find a golden mean.

Artificial intelligence is a high-speed train with unprecedented speed. Humanity is the engineer of that train. No matter how fast the train goes, its direction is determined by human reason, conscience, and moral decisions. Technology provides us with information, but turning it into knowledge, applying it to life, and using it for good can only be done through the human heart.

Our primary task is not just to teach young people how to use AI, but to cultivate a “Perfect Human”—someone who can use it wisely, possesses their own national values, and maintains independent thinking. For in the future world, only those nations that have deeply mastered technology while preserving their humanity and spirituality will be the true victors.

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