

Artificial Intelligence in Educational Management: Opportunities, Risks, and Ethical Considerations

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Annotation: This article analyzes the opportunities, risks, and ethical considerations of artificial intelligence technologies in the field of education. In recent years, various measures have been implemented in our country to rapidly develop artificial intelligence, and its integration into the education system has contributed to improving the quality of the learning process, creating personalized approaches, and simplifying the activities of both teachers and students. At the same time, attention is drawn to the potential negative consequences of misusing these technologies, such as information security issues, ethical concerns, and the weakening of the human factor.

Key words: Artificial intelligence, education system, digital technologies, human factor, ethical issues, innovative approach, distance learning.



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Introduction. In recent years, comprehensive reforms have been implemented across all sectors in our country. In particular, special attention has been given to the development of artificial intelligence (AI) technologies, recognizing their great importance and potential. In this era of rapid technological advancement, artificial intelligence is becoming a key factor influencing the development of various spheres of life. It must be acknowledged that these technologies have the potential to bring significant benefits — from increasing productivity and efficiency to achieving breakthroughs in science and innovation.

At the same time, the integration of artificial intelligence into science requires an increase in the number of qualified specialists. This is because it is precisely skilled professionals, masters of their craft, who will play a crucial role in introducing AI into all fields. To this end, efforts have been initiated to create a favorable and efficient ecosystem for the development of innovative business models, products, and service delivery methods based on AI technologies, and to ensure their rapid implementation and application in priority sectors and areas.

Main part. Artificial intelligence, together with innovative technologies, has completely transformed our way of life. It has entered human life like a storm and has impacted every area of society, bringing about incredible changes.

Today, artificial intelligence is rapidly securing its place in the field of education. AI plays a major role in creating information systems capable of learning, analyzing, transforming, and

imagining data. These systems assist in tasks such as recognizing information during the learning process, searching for data for specific purposes, analyzing it, and presenting results. Compared to natural and human capabilities, AI brings several advantages to the educational sector.

Artificial intelligence significantly contributes to saving learners' time and enhancing their success in education. Its capabilities are extensive—it can answer questions of interest, draw images based on given commands, create presentations on various topics, and even write essays and articles. Its educational algorithms can be adapted to students' individual characteristics and learning styles, thereby enhancing each student's unique potential on their learning journey.

AI benefits not only students but also provides significant conveniences for teachers in the educational process. For instance, by creating an intensive educational program, it can help organize lessons in a more engaging and meaningful way. Teachers can use AI tools to explore topics of interest to students, find relevant information, analyze and explain it. Furthermore, various AI-powered methods can be used to study fields such as genetics, robotics, visual learning, natural language acquisition, and others.

It is important to note that the success and constructive use of artificial intelligence depend on careful management and foresight to optimize its application and prevent misuse of tools. While science and technology have made human life easier, they have also introduced new challenges. Therefore, a philosophical approach to this matter allows for a balanced understanding of both the positive and negative aspects of AI. Ultimately, the future of humanity will depend on how effectively it can use the tools of artificial intelligence.

Deep learning, as the latest advancement in machine learning, involves processing large volumes of data using layered neural networks. In this context, large datasets are fed into algorithms to learn or perform complex tasks. Today, artificial intelligence applications have become highly sophisticated, ranging from voice assistants to stock market prediction algorithms, natural language processing, and image recognition programs.

One of the key requirements for modern education enabled by artificial intelligence is achieving high results in a short period of time without excessive mental or physical effort. AI can automate essential educational tasks, such as assessment. At present, academics can modify various types of assessments, including multiple-choice tests and fill-in-the-blank questions, and automatic evaluation of student writing is not far behind.

Results and Discussions. In the field of education, there will always be a role for teachers; however, what this role entails may evolve, especially as new technologies like intelligent computing systems emerge. As mentioned earlier, artificial intelligence can take on tasks such as assessment, support students in improving their learning, and even act as a substitute for real-life tutoring.

According to the World Economic Forum, a significant number of companies are expected to adopt technologies like machine learning, prompting governments and educational institutions to rapidly focus on upskilling in both STEM (Science, Technology, Engineering, and Mathematics) and non-cognitive soft skills in order to meet the growing demands of the labor market.

A recent study by Microsoft suggests that by 2030, students graduating from school will need to navigate both sides of this new world:

- Understanding how to harness rapidly changing technologies like artificial intelligence to their advantage;
- Learning how to collaborate effectively with people in teams to solve complex problems.

Preparing students for a future where they will work alongside AI must begin early. Most young people are not fully familiar with digital technologies by the time they reach college age, making

it essential to teach them skills that will allow them to thrive in a digitally-driven work environment.

Integrating AI into education will help ensure that the future workforce is equipped to tackle the unknown challenges of tomorrow. Countries like China and the United States are currently leading the way in scientific research and education related to artificial intelligence. These nations not only host some of the world's top higher education and research institutions, but they have also established comprehensive mechanisms to support innovation and continue to provide substantial financial assistance to educational and research institutions.

Conclusion.In conclusion, the world is advancing at a tremendous pace. Just 20 years ago, a person carrying a bulky button-operated phone would attract attention in public, but today, those same devices have evolved into smartphones—tools we now use to watch movies, do our shopping, monitor our children's school lives, read, communicate, and perform many other tasks with ease.

Simply put, artificial intelligence (AI) is the capability of computer systems to perform creative and intellectual activities that were previously thought to be exclusive to humans. It encompasses highly complex and advanced fields of science, including neural networks, machine learning, natural language processing, cognitive computing, and computer vision.

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