



ARTIFICIAL INTELLIGENCE AND BIOETHICS, ETHICAL CONSIDERATIONS OF ROBOTS AND INTELLECTUAL SYSTEMS IN EDUCATION

Makhmudova Aziza Nugmanovna

Samarkand State Medical University

Head of the Department of Social and Human Sciences

PhD, Professor

Annotation: This article is devoted to the analysis of the relationship between artificial intelligence (AI) and bioethics, in particular, the ethical implications of robots and intelligent systems in the field of education. It considers how artificial intelligence and robots affect the education system, how they form moral decisions for students, and the ethical problems that arise in this process. At the same time, the effective use of intelligent systems in education and ethical issues that arise when working with them, as well as caution in the interaction between teachers and students, are discussed. The article also provides information on what approaches artificial intelligence technologies require to maintain moral balance in education.

Keywords: Artificial intelligence, robots, bioethics, education, ethical considerations.

Introduction

Artificial intelligence (AI) and robotic technologies are creating new opportunities in the field of education. Today, along with the introduction of AI into and impacting the educational process, the ethical and moral aspects of these technologies are also being discussed. Bioethics is an important area that helps humanity make ethical decisions related to innovations in science and technology. Although robots and intelligent systems in education have created the opportunity to teach students new knowledge and skills, the ethical issues associated with them, the interaction between humans and machines, as well as the correct and ethical use of technologies, are of great importance.

Artificial intelligence and robotics are playing an important role in the education system, helping teachers, providing students with interactive learning experiences, and creating personalized curricula. At the same time, the ethical issues that arise when using these technologies require a proper approach to the educational process. For example, the participation of robots in teaching and advising students, as well as interactive interactions with human colleagues and students, can raise ethical issues.

The specificity of ethical issues is expressed in the following points: 1)



How do decisions made by machines affect the moral values of students? 2) What ethical standards should be based on the interaction of teachers with robots and pedagogical approaches through intelligent systems? 3) How is the moral correctness of knowledge taught by robots assessed?

Bioethics helps to provide an explanation for these issues. Bioethics emphasizes the need to respect human moral values, social responsibility, and personal freedom when using technology to teach students. Artificial intelligence technologies can affect the psychological state of students, so caution is required when using these technologies. The ethical issues that artificial intelligence and robots face in education include: 1) How do technologies affect students' personal rights and privacy? 2) How can the impact of artificial intelligence on pedagogical approaches and students' ethical decisions be measured? 3) How can we achieve a fair and equitable distribution of knowledge taught by robots?

As artificial intelligence and robotic technologies enter the education system, they create new opportunities for making teaching and learning processes more effective. Also, with the help of robots and intelligent systems in education, there is an opportunity to provide an individual approach to students, develop their abilities, and adapt students to society. However, the use of these technologies raises a number of ethical and moral issues.

Thus, ethical issues remain relevant when using artificial intelligence in the educational process. For example, how technologies affect the psychological state of students should help them develop such abilities as self-awareness, independent thinking, and social responsibility. In addition, artificial intelligence should help students learn individually, while also enabling them to work collaboratively with other students, work in groups, and interact socially with others.

There are many pedagogical approaches that can help educate students as morally and socially responsible individuals using robots and intelligent systems in the education system. Each of them is of great importance in teaching students the skills to make ethical decisions, to use technology and artificial intelligence in a correct and ethically appropriate way. It is important for students to understand how to make ethical decisions, as well as what steps to take to avoid the negative effects of technology.

If we analyze the impact of artificial intelligence on the education system in more depth, robots and intelligent systems will help students master mathematical, scientific and technological knowledge. However, at the same time, there is a need to use these technologies with caution in teaching students to form behavior based on human values and ethical standards. For example, issues such as data manipulation, confidentiality and privacy



protection come to the fore when working with artificial intelligence systems.

At the same time, part of the successful use of artificial intelligence in education is to give students the opportunity to make choices and solve ethical problems. Through technology, students learn to communicate, work together and feel socially responsible. In this regard, artificial intelligence systems can be an important tool for helping students make ethical decisions in a changing world.

Currently, a lot of scientific research is being conducted on the use of artificial intelligence in education. This research covers aspects such as ethics, social impacts, and economic efficiency of incorporating technology into the educational process. Teachers and education professionals need to continuously update their knowledge and create opportunities for the successful application of technological and ethical approaches in education.

Conclusion:

With the introduction of artificial intelligence and robotic technologies into the education system, it is necessary to consider the ethical aspects of these technologies. Using pedagogical approaches and methods, it is necessary to teach students ethical skills, form students' attitudes towards intellectual systems, and ensure the correct use of artificial intelligence. Bioethics serves as an important guide in this process, as it ensures that the educational process is carried out on ethical foundations.

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