10.63550/ICEIP.2026.84.19.067

The Role of Artificial Intelligence in Student Education in the Context of Moral Responsibility, Critical Thinking and Self-Control

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Keywords: Artificial intelligence in education, moral responsibility, academic integrity, ethics of AI, digital literacy, personalization of learning, digital inequality, critical thinking, generative models, educational policy.

Abstract: The article examines the transformation of the education system under the influence of the introduction of artificial intelligence technologies. Attention is focused on the ethical and moral aspects of its use in the educational process. Arguments are given about the possibilities of AI, such as personal learning and individual trajectory, assessment of the use of AI in teaching, opportunities for the analysis of educational materials, in connection with academic integrity, critical thinking, self-control and digital inequality. Based on qualitative research, the attitudes of the respondents regarding the responsible and transparent use of AI have been identified. Most respondents perceive AI as an auxiliary tool, but not as a substitute for their own thinking. Special attention is paid to the need to develop ethical standards governing the use of AI in education, as well as the formation of moral responsibility and digital literacy among students. The authors emphasize that modern education should not only adapt to technological changes, but also actively form students' conscious, ethical attitude towards the use of AI as an integral part of their future professional activities.

1 INTRODUCTION

In modern conditions, the education system is undergoing reorganization towards the introduction of artificial intelligence technologies. At the same time, there is a significant transformation of traditional approaches to learning, especially in the assessment of knowledge and competencies, which are reflected in the interactions of students and teachers. Changing teaching methods is also becoming the norm of the modern learning process. This involves reviewing priorities and taking AI into account in creating individual learning trajectories, many teaching materials are digitized or represent sets of cases, which also meets the principles of individualization of learning. AI creates conditions for qualitatively new feedback from students on the implementation of educational tasks, and the use of educational materials in the learning process is moving to a new level. Many tasks become checklists or educational maps. Modeling real-world situations for practical problem solving and testing theories in practice takes on a new qualitative level. These are the undoubted advantages of using AI in education. However, along with the growing possibilities of using AI in education, teachers are faced with the problem of conscious learning activities, including critical thinking, self-control and moral responsibility for the use of AI in teaching. And this does not only apply to individual courses, it is a general pedagogical dilemma related to the introduction of digital education. Thus, there is a need to understand the ethical and moral aspects of using AI in the educational process. In this context, the purpose of the article is to reveal the personal and social aspects of the formation of moral responsibility in the use of

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AI in teaching, as well as to reveal the problematic field in this matter.

2 MATERIALS AND METHODS

The main task of applying AI in teaching meets the principles of traditional approaches and is to form an individual learning trajectory. These include working on adaptive learning platforms, various levels of tasks, taking into account psychological characteristics in training, interactive interactions and learning new things using modern technologies that form digital competencies for future professional activities. However, there are problems in the field of ethical application of AI in education. These are issues of everyone's moral responsibility for using AI, issues of critical thinking, and self-control. And this is a matter of academic integrity and willingness to take responsibility for their actions. To what extent are students willing to open up and inform the teacher about the use of AI in completing assignments?

The student's moral responsibility in the context of using AI is the conscious and ethical use of technology. If a student's work is only an illusion in completing tasks independently, it negates the value of education and creates prerequisites for further dishonest life. At the same time, the level of critical thinking decreases, because the student gives responsibility for in-depth analysis to technologies that he considers unbiased and authoritative in comparison with his own opinion. This is blind trust, which was unacceptable in traditional forms of education. Hence the lack of self-control and independence, which can later turn into personal characteristics. Another note is the confidential use of information and copyrights, which can be easily violated if AI is used for personal gain.

In the scientific literature, the concept of moral responsibility is understood as the duty of an individual to act in accordance with moral principles and norms, to take into account the consequences of his actions for other people and society as a whole. In the context of education, this means honesty, respect for knowledge, intellectual property, and the pursuit of authentic learning. Artificial intelligence in education is the application of machine learning algorithms, natural language processing, and other AI technologies to support the learning process, including personalizing learning, automating assessment, generating content, and providing feedback. In world practice, the experience of educational institutions in implementing AI has been summarized, meaning AI in education as "technologies capable of simulating cognitive functions such as learning, problem solving and language understanding in order to improve pedagogical practices" (Source: Zawacki-Richter et al. (2019). The moral responsibility of students in the use of AI is defined in the UNESCO report (2021), which emphasizes that "students should be trained in the ethical use of AI, including understanding the boundaries of acceptable and unacceptable use in an academic environment." From 2022-2023, there was a sharp increase in the use of large language models (LLM) such as ChatGPT, Gemini, and Claude among students. According to the survey Study.com (2023), 89% of US students used ChatGPT to complete study assignments, and 53% used it to write essays. Many universities have recorded an upsurge in plagiarism and "AI fraud." For example, in 2024 in Australia, more than 200 students at the University of Sydney were suspended for using AI without permission. Such cases highlight a gap in the understanding of moral responsibility. Despite the active introduction of AI, most universities still do not have clear rules for the use of AI by students. A study by EDUCAUSE (2024) found that only 31% of universities have developed formal AI policies. UNESCO, the OECD and the European Commission are actively developing an ethical framework for AI in education. In particular, the UNESCO Recommendation on the Ethics of AI (2021) explicitly states that "students should develop digital and ethical literacy in order to be responsible for the consequences of their actions in digital

The introduction of digital technologies into the Russian educational space is regulated by the following regulations and legislative acts: The strategy for the development of artificial intelligence in the Russian Federation for the period up to 2030 (Decree of the President of the Russian Federation No. 401 dated 10.10.2019 is a document providing for the development of AI in the field of education, including the creation of intelligent learning systems and digital platforms, but does not contain specific standards on the ethics of student use); The federal project "Digital Educational environment" (within the framework of the national project "Education") - includes pilot projects for the introduction of AI in universities (for example, adaptive simulators, chatbots support, the focus is on digital transformation, but not on the regulation of generative AI; Draft guidelines of the Ministry of Education and Science of the Russian Federation (2024) - under development There are recommendations on the use of generative AI in the

educational process, including requirements for academic integrity and the design of work with AI.

It should be noted that legal norms for the use of AI in education have been developed internationally, whereas in Russia there are no standards and ethical regulations for the use of AI in education. Oh Wednesday."

In the course of the research, qualitative methods were used to identify the attitudes and meanings that students assign to their actions in the application of AI in teaching. A qualitative analysis of the open responses was made and the main categories of trust in AI, fair use, and patterns of responsible behavior were identified. A high-quality methodology in the form of an essay made it possible to reveal the ethical positions of students in the application of AI in education, their view on the expediency of using AI. The results of the conducted research will further contribute to the creation of relevant ethical educational constructs and new meanings for the digitalization of education. In addition to the essay, we also used an open-ended questionnaire that revealed patterns of behavior and ethical attitudes.

3 RESULTS AND DISCUSSION

The respondents are economics students studying at Kazan National Research Technological University aged 18-22 years. The purpose of the study is to explore students' opinions about the possibilities of using AI in education, the ethics of this process, rules and prohibitions. The answers show that the majority of students are not in favor of a ban, but for responsible and transparent use of AI, with clear boundaries between assistance and substitution of their own work. The overwhelming number of responses indicates the reasonable use of AI in accordance with the established rules: "... but if you submit a text written entirely by a neural network as your own, this is cheating. It's fair to use AI for ideas, structure, or grammar checking, not instead of the brain," "universities shouldn't ban AI — it's already part of reality. It's important to learn how to work with it. It's unethical to ask an AI to solve a problem for you and present the solution as your own. But using it to visualize data or verify calculations is fine," "if AI is banned, students will still use it surreptitiously. It is better to spell it out clearly: it is possible for drafts, it is impossible for final delivery without specifying", "... if you did not understand the topic, but passed the perfect job thanks to the neural network, you deceived yourself."

In the course of the research, the AI tools that students actively use in teaching were identified, as well as the situations in which they observe the effect in application. ChatGPT is most often used to generate ideas and structure of texts, DeepL for translation and Grammarly for editing. This is especially helpful if you need to quickly analyze large databases. Most use translators and generate text using AI. Excel plugins with AI, Gamma for creating presentations. When preparing cases, AI helps students quickly build a financial model or explain terms.

To the block of questions about responsible attitude, ethics and trust in AI, confidence in providing reliable data to AI, most of the answers showed that I partially trust and prefer to check the facts through reliable sources: "I check everything through Google Scholar and textbooks. I am especially careful with interpretations — AI can simplify or distort", "... I especially do not trust quotations and figures...", "... AI often simplifies or loses the cultural context", "AI can simplify or distort", "If I used AI to select literature, I will indicate in a footnote. This is part of scientific honesty", "... if you just copy, you lose the ability to think like an economist", "A teacher should know where my conclusions are and where the AI's hint is", "I don't want to be treated by a doctor who was dishonestly trained with the help of AI. Will I be able to trust the diagnosis and treatment regimen that are made with the help of AI...", "AI often refers to non-existent laws. You need to check everything with ConsultantPlus and official databases," "AI saves time on routine, but thinking is built through independent analysis. If you don't think for yourself, you will fail both exams and your career", "... otherwise it is not learning, but imitation", "without a critical approach, it is easy to mistake the template for the truth".

The students answered questions about the ethical and moral aspects of the use of AI, in particular, questions about the possible prohibition of the use of AI in education, the question of responsibility for mistakes or false information. The students' responses showed that there are areas where the use of AI in teaching should be controlled in a special way. First of all, it is medicine and law. Students consciously approach the use of AI: they see it as an assistant, but not as a substitute for their own thinking, and insist on transparency, verification, and academic integrity.

Questions about personal position and the future of education reflect the prospects for further use of AI and readiness for employers to increase the requirements for digital competencies of employees.

The majority of respondents tend to think about the current level of competence development and express confidence in their knowledge of digital technologies. However, there are concerns that students will use AI dishonestly during their studies and the acquired competencies will be far from the requirements of the labor market. The issue of unequal access to digital resources has confirmed that there is a problem of digital inequality in this area.: "Inequality is increasing: whoever has the money uses Claude Pro or Copilot, the rest are basic models. Honestly, AI is like a calculator, unethically — like a cheat sheet instead of a brain", "Paid AI creates a gap: the rich receive "smart" tips, the poor do not. It's fair to use it for paraphrasing or structure, it's unethical to hand over the generated text without processing", "There is an inequality: paid models are smarter, but even free ones give an advantage to beginners. Honestly, AI is like a co—author with a note, unethically, like a ghost writing for you." At the same time, all respondents supported the need for universities to regulate the use of AI in education. This reflects a weak point in the legal aspects of introducing AI into the educational process: "Universities should regulate, not ban," "Ban AI — how to ban the Internet. Rules are needed, but flexible"", "Banning AI is stupid — it's better to introduce rules: it's possible for drafts, it's impossible for the final without specifying", "Banning means ignoring reality. We need rules: where, how and with what transparency",

The analysis of the students' responses allows us to identify the ethical problems associated with the introduction of AI in the educational process.:

1. The students' answers showed a special attitude towards plagiarism, when AI is blamed and the chatbot's work is passed off as its own action. Integrity issues reflect the values of the learning process. This problem poses the task for the academic community to determine the category of authorship and participation of AI and to determine the actions acceptable in working with AI.

2. The problem of responsibility and decision-making. Highlighting the category of digital responsibility and prescribing regulatory documents on digital competencies in this aspect will help regulate the use of AI in education.

3. Rationing the use of AI in education requires flexible mechanisms for regulating this activity. AI is a tool that has become firmly embedded in our lives. And the emergence of the principle of digital expediency with clear rules is an urgent requirement for the education system. A regulatory digital education policy should be based on transparency and digital learning principles.

4. Educational inequality in modern education creates a digital divide in the future-socio-economic groups and clear signs of technological inequality are emerging. At the present stage, universities should consider mechanisms to ensure equal access to digital resources.

5. Students realize that access to paid AI (Claude Pro, Copilot, Gamma, etc.) creates a digital divide between socio-economic groups. This supports the hypothesis of technological inequality (van Dijk, 2020): new tools can exacerbate rather than narrow gaps. In addition to teaching digital technologies, it is necessary to introduce training programs that reveal the ethical aspects of the use of AI, paying special attention to the preservation of cognitive activity and the consequences of unfair use of AI. AI is designed to help at the stages of preparation, editing, idea search or structuring. This is not thinking, especially in tasks aimed at evaluating understanding, analysis, or creativity. AI in education should be transparent, fair, pedagogically sound, and development-oriented, not a substitute for human intelligence.

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