

THE ROLE OF ARTIFICIAL INTELLIGENCE IN SHAPING EDUCATIONAL POLICY AND MODERNIZING HIGHER EDUCATION

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Abstract

Over the past decade, the rapid advancement of artificial intelligence (AI) has fundamentally transformed the higher education system. AI is no longer viewed merely as a technological innovation; it has evolved into a strategic instrument that influences teaching methodologies, assessment standards, and the dynamics of academic interaction. Empirical evidence demonstrates that the integration of AI in universities significantly enhances teaching efficiency, reduces administrative workload, and fosters greater student engagement in the learning process. AI-driven learning environments enable students to work at their own pace, receive personalized feedback, and develop self-directed learning skills. However, its adoption also necessitates the development of new pedagogical strategies that effectively combine technological innovation with a human-centered approach. Furthermore, educational institutions must establish regulatory frameworks that promote the ethical and responsible implementation of AI within universities.

Despite its evident benefits, this trend also entails a range of ethical, legal, and academic challenges. Issues such as authorship and plagiarism, data security, information reliability, and the preservation of moral boundaries in education have become increasingly significant. The present study aims to analyze these dimensions comprehensively, assess both the positive and negative implications, and identify the core principles that ensure the responsible and value-based use of artificial intelligence in academia.

The findings reveal that the successful integration of AI in higher education depends not only on technological infrastructure but also on the human component - namely, the instructor's ethical awareness, the student's capacity for self-assessment, and institutional policies grounded in fairness and transparency.

Keywords: Artificial Intelligence, Education, Ethics, Data security.

Introduction

In the modern era, technological progress has become the driving force behind global transformation, influencing nearly every field including education. The rapid development of artificial intelligence (AI) has redefined traditional concepts of knowledge acquisition and transmission. AI is no longer perceived merely as a software tool or a technological novelty; it has evolved into an intelligent partner within the teaching and learning process.

The higher education space is already transitioning to a new type of model, where universities are implementing digital transformations, teaching methods are becoming more flexible, and forms of knowledge acquisition are diverse and personalized.

The use of artificial intelligence has changed the dynamics of teaching and the structure of the relationship between student and lecturer. The traditional model, which was based on standard lectures and written assessments, is gradually being replaced by data-driven analytical approaches. Today, students can receive feedback in real time, independently assess their own progress, and benefit from digital assistants that are tailored to their level of knowledge and interests.

Relevance of Research

The integration of AI into the education system has brought both positive results and new challenges. On the one hand, it increases the quality of teaching, reduces administrative costs and ensures a better

realization of the principle of equality. On the other hand, it raises serious questions: how should authorship, ethics and justice be defined in an environment where technology is already involved in the creative process?

In this situation, the question becomes relevant: how to integrate artificial intelligence without violating the main essence of education - the mental and moral development of a person.

The relevance of the work is due to the fact that the introduction of artificial intelligence in education has already gone beyond the experimental stage and has become a systemic need. Educational policy is faced with the challenge of creating frameworks that will connect technological progress with academic values and ethical principles.

Research on the presented issue is especially important for universities in Georgia and other developing countries, where technological integration is still in the process of formation.

Research Goals and Objectives

The aim of the paper is to analyze the role of artificial intelligence in higher education, assess its positive and negative impacts, identify ethical and legal challenges, and formulate recommendations for improving policy and practice. The objectives include:

- Determining the impact of artificial intelligence on the learning process and institutional management;
- Analyzing the ethical and legal risks associated with the integration of AI;
- Assessing the response of educational policy to technological progress;
- Developing recommendations for responsible and fairly managed implementation.

Research Methods

The methodology of the work is based on descriptive, analytical, comparative and content-analytic approaches. The study combines both theoretical and practical material and is based on a multi-perspective comparison of international and local experience. Content analysis of policy documents, university regulations, ethical codes and scientific research is used. Qualitative interpretive methods and case study elements are also used, which makes it possible to identify cause-and-effect relationships. Such a multi-faceted approach provides a complex analysis of the impact of artificial intelligence on the higher education system. More specifically:

- The descriptive-analytical method was used to describe the current situation and determine the emerging trends based on it.
- Content analysis was carried out as a systematic analysis of texts presented in political documents, studies, university regulations and ethical codes in order to identify the main sub-themes and problems.
- Within the framework of qualitative analysis, texts, reports and practical examples were interpreted, which contributes to the clear identification of cause-and-effect relationships.
- Based on the case study method, examples of specific universities are used in the paper.
- Conceptual modeling was carried out using the theoretical modeling method, which combines the main directions of AI influence (ethics, assessment, policy, teaching) and creates a systematic framework for interpreting the research results.

Scientific Novelty

The scientific novelty of the work is expressed in the fact that the impact of artificial intelligence on higher education is analyzed from a multifaceted, interconnected perspective, namely - from a technological, ethical, legal and pedagogical perspective in a unified system. Comparison of existing practice, parallel use of Georgian and international examples and cause-and-effect analysis of problems create an integrated vision, which has been little represented in the Georgian academic space so far.

The novelty of the paper also lies in the fact that it combines both global research and the interpretation of the current processes of Georgian universities, which allows us to assess the real trends and challenges of integrating AI into the local educational environment. In this way, the paper creates an

analytical framework that can be used as the basis for further empirical research, especially in areas such as the identification of algorithmic authorship, the implementation of evaluation fairness, and the development of data protection standards. Thus, the paper contributes to both theoretical and practical discourse, as it develops a complex approach that facilitates the formation of responsible, ethically sound, and human-centered AI policies.

The results of the study will contribute to the development of a model that combines technological progress with the humanistic values of education and the principles of academic integrity.

1. The Role of Artificial Intelligence in Higher Education

In the modern educational system, artificial intelligence (AI) has become one of the principal catalysts transforming traditional models of knowledge acquisition and dissemination. Its application in universities extends far beyond mere technological innovation. AI now plays an active role in refining teaching methodologies, setting assessment standards, and optimizing administrative processes. These developments have created a new academic reality in which learning is more flexible, data-driven, and tailored to the individual. Therefore, analyzing the role of AI in higher education is essential not only for understanding its technological impact but also for examining how it reshapes the very essence of education and the nature of human interaction within academic environments.

1.2. Technological Transformation and the Practice of Artificial Intelligence in Universities

Over the past decade, artificial intelligence (AI) has had a transformative impact on the higher education system from its organizational structures to its academic culture. Contemporary scholarship agrees that AI is no longer a mere technological novelty; it has become a force reshaping the very essence of education, the processes of teaching and learning, and the internal relationships within universities.¹ The introduction of AI has disrupted the traditional educational model based on lectures and standardized assessments.

Today, universities increasingly employ data analytics, automated assessment systems, and personalized digital platforms to create individualized learning experiences for each student.²

According to the 2023 report of the U.S. Department of Education, the use of artificial intelligence has deepened the analytical dimension of teaching by enabling outcome prediction, data visualization, and advanced behavioral analysis of students. However, the report emphasizes that technological progress should not replace the human foundation of education but rather serve to enhance and support it. This caution is particularly relevant as “autonomous” AI systems emerge systems capable of exerting greater influence over instructional decisions than human educators themselves.

A 2024 UNESCO study revealed that approximately two-thirds of higher education institutions worldwide are either developing or already implementing AI usage policies.³ This finding highlights the global scale of the process while simultaneously underscoring the issue of institutional responsibility, especially in developing countries where technological resources remain limited. Researchers warn that uneven implementation of AI could exacerbate educational inequality, calling for international cooperation and regulatory frameworks to ensure ethical standards.⁴

¹ Cardona, M., A., Rodríguez, R., J., Ishmael, K., U.S. Department of Education, *Artificial Intelligence and the Future of Teaching and Learning*, Washington, D.C., 2023. <https://www.ed.gov/sites/ed/files/documents/ai-report/ai-report.pdf> [L.s. 20.10.2025].

² OECD, *OECD Work on Education & Skills*, Paris, 2024.

<https://www.oecd.org/content/dam/oecd/en/about/directorates/EDU/OECD-Education-Brochure.pdf> [L.s. 19.10.2025].

³ Shaw, J., „Applying AI-How and Why“, *Harvard Magazine*, 7 February 2024.

<https://www.harvardmagazine.com/2024/03/jhj-ai-higher-education> [L.s. 20.10.2025].

⁴ Yueqiao J., Lixiang Y., Vanessa E., Dragan G., Roberto M-M., „Generative AI in Higher Education: Institutional Policies and Guidelines“, *Computers and Education: Artificial Intelligence*, Vol. 8, 2024. <https://doi.org/10.1016/j.caeai.2024.100348> [L.s. 18.10.2025].

A 2024 Harvard University study found that the integration of AI significantly increased student engagement, improved the quality of feedback, and enhanced the overall efficiency of the learning process.⁵ Nevertheless, the authors caution that excessive dependence on technology may reduce students' capacity for independent thinking and lead to superficial learning. This raises a critical question: how can the boundary between human and algorithmic decision-making be defined so that technology supplements rather than replaces pedagogical responsibility?

The 2024 OECD report *AI and the Future of Skills* notes that the purpose of education is shifting from the accumulation of knowledge toward the development of critical and creative thinking skills.⁶ Artificial intelligence enables a competency-based learning environment in which success is measured not only through grades but also through problem-solving and integrative reasoning. This transition requires the retraining of educators, the creation of new curricula, and the establishment of a model that harmonizes technological progress with humanistic values.

According to a 2022 study by Tallinn University of Technology, automated assessment systems have significantly reduced subjectivity and increased transparency in evaluation processes.⁷ However, the authors caution that complete automation may result in the loss of empathy and the formalization of creative work. Therefore, they advocate for a hybrid model in which AI supports but does not replace human expertise. A similar approach has been adopted at the University of Cambridge and Stanford University, where AI is used not only for assessment but also for monitoring students' psychological well-being. AI-based algorithms enable instructors to detect early signs of academic stress and provide appropriate support. Yet, this practice raises important concerns about how to define the boundaries of data usage without violating students' privacy or personal space.

Global university experience demonstrates that the application of AI is multifaceted ranging from individualized learning to the analysis of academic papers and research assistance. Stanford University has developed a model that analyzes student success factors and provides instructors with recommendations for optimizing teaching strategies.⁸ Moreover, leading universities in the United States, Europe, and Asia actively employ AI for linguistic and psychological support, including emotional state analysis and stress prevention among students.

According to a 2023 global study, 68% of the world's leading universities are already using at least one artificial intelligence tool in their teaching processes.⁹ This statistic confirms that AI is no longer a standalone innovation but has become a new educational standard requiring clear regulation and ethical frameworks. I believe that this process is inevitable; however, its effectiveness depends not only on the accuracy of algorithms but also on the cultural values that education strives to uphold.

The use of AI has also significantly increased the administrative efficiency of universities by automating data processing, academic record management, and communication workflows.¹⁰ As a result, the structure of the educational process has become more streamlined, enabling universities to direct more resources toward research and innovation. However, technological optimization must remain consistent with the human mission of education knowledge transmission should never be reduced to a mere process of data processing.

⁵ OECD, *Artificial Intelligence and the Changing Demand for Skills in the Labour Market*, Paris, 2024. https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/04/artificial-intelligence-and-the-changing-demand-for-skills-in-the-labour-market_861a23ea/88684e36-en.pdf [L.s. 19.10.2025].

⁶ Kalakoti, R., Vaarandi, R., Bahsi, H., B., Nömm, S., Evaluating explainable AI for deep learning-based network intrusion detection system alert classification, arXiv:2506.07882, 2025. p 15. <https://arxiv.org/pdf/2506.07882> [L.s. 19.10.2025].

⁷ University of Cambridge, *Cambridge Launches AI Research Ethics Policy*, Cambridge, 2023. <https://www.cambridge.org/news-and-insights/cambridge-launches-ai-research-ethics-policy> [L.s. 17.10.2025].

⁸ Ellucian. *Ellucian's AI Survey of Higher Education Professionals Reveals Surge in AI Adoption Despite Concerns Around Privacy and Bias*. 2024. <https://www.ellucian.com/newsroom/ellucians-ai-survey-higher-education-professionals-reveals-surge-ai-adoption-despite> [L.s. 17.10.2025].

⁹ UNESCO, *AI and Education: Guidance for Policy Makers*, Paris, 2021. p 50. unesdoc.unesco.org/ark:/48223/pf0000376709/PDF/376709eng.pdf.multi [L.s. 18.10.2025].

¹⁰ European Commission, *Ethics Guidelines for Trustworthy AI*, Brussels, 2019. <https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai> [L.s. 19.10.2025].

Research shows that the integration of artificial intelligence into higher education creates a space of both progress and risk. Its success depends on how effectively universities can utilize technological capabilities without losing the fundamental essence of education critical thinking, creativity, and humanistic purpose. Therefore, maintaining a strategic balance between technological advancement and academic values has become particularly important today, as only this equilibrium can ensure the sustainable development of the educational system.

2. Positive Aspects

The integration of artificial intelligence into higher education has brought not only technological but also methodological and pedagogical transformation. Today, AI is perceived as a strategic tool that, in addition to enhancing the quality of teaching, establishes a new standard of individualized and accessible learning. In practice, the use of AI reduces institutional bureaucracy, increases flexibility in teaching, and fosters an inclusive environment in which every student is provided with an individualized path for personal and academic development.

2.1. Opportunities for Personalized Learning

One of the most significant advantages of artificial intelligence lies in its ability to personalize learning. Traditionally, university education followed a standardized model in which all students received the same instructional materials, regardless of differences in their knowledge, skills, or learning pace. Modern algorithmic systems have challenged this model: today, AI can analyze a student's behavior, progress, and knowledge gaps to generate an individualized learning profile.

For instance, Khan Academy's AI assistant Khanmigo demonstrated a 25% improvement in conceptual understanding and a 31% increase in learning motivation among students.¹¹ Similarly, according to research conducted by Coursera, personalized learning models raised course completion rates by an average of 22%.¹² These findings confirm that artificial intelligence not only accelerates the learning process but also promotes deeper comprehension and self-motivation. Importantly, the key factor is not merely the individualization of pace, but the transformation of the student into an active participant in their own learning a shift that fosters a more sustainable and responsible academic culture.

Personalized learning also reduces disparities in knowledge acquisition. Through AI, it becomes possible to design adaptive learning resources that consider students' social, linguistic, and physical differences.¹³ In this way, artificial intelligence supports the advancement of inclusive education—a process in which technology serves not to divide, but to integrate.

2.2. Efficiency of the Academic Process

Artificial intelligence has a significant impact on both administrative and educational processes within universities. The automation of administrative tasks has considerably reduced time and financial expenditures, enabling institutions to allocate more resources toward improving the quality of education. For example, the introduction of Microsoft Copilot in several European universities reduced the average duration of administrative operations by 30%.¹⁴

AI also helps minimize subjectivity in the evaluation process. According to a 2023 study by Turnitin, universities that implemented partially automated assessment systems saw a 40% increase in student

¹¹ Khan Academy, New! Personalized AI Learning with Khanmigo Interests, 2023. <https://blog.khanacademy.org/new-khanmigo-interests/> [L.s. 18.10.2025].

¹² Learner Outcomes Report 2023, Coursera. <https://www.coursera.org/about/press/wp-content/uploads/2023/05/Learner-Outcomes-Report-2023.pdf> [L.s. 16.10.2025].

¹³ UNESCO, AI Competency Framework for Students, Paris, 2024. <https://unesdoc.unesco.org/ark:/48223/pf0000391105> [L.s. 17.10.2025].

¹⁴ Microsoft Education, A Microsoft Special Report 2025: AI in Education, 2025. <https://cdn-dynmedia-1.microsoft.com/is/content/microsoftcorp/microsoft/bade/documents/products-and-services/en-us/education/2025-Microsoft-AI-in-Education-Report.pdf> [L.s. 15.10.2025].

satisfaction and an 18% reduction in grade-related disputes.¹⁵ This indicates that algorithmic standardization greatly enhances the objectivity of assessment by eliminating human bias.

The role of AI is particularly crucial in data analytics. Algorithms can promptly identify emerging academic trends such as declining student engagement or increased difficulty in certain subjects allowing universities to take corrective action in real time. This fosters a culture of continuous improvement in which teaching is no longer a static activity but a dynamic, data-driven management process.

AI-based evaluation systems offer universities not only time efficiency but also higher accuracy in grading models. For instance, Grammarly's linguistic analysis engine, widely used in educational institutions, automatically detects textual errors, analyzes linguistic trends, and provides students with personalized feedback.¹⁶

3. Negative Aspects

Although the integration of artificial intelligence into higher education has introduced numerous innovative opportunities, it also brings with it serious ethical, legal, and academic challenges. The rapid expansion of AI in the educational sphere has given rise to issues such as new forms of plagiarism, threats to data security, ambiguity of authorship, and the erosion of academic fairness.

These challenges demonstrate that technological progress cannot be viewed in isolation; it requires a solid ethical foundation, a well-defined legal framework, and the adaptation of academic culture to the emerging.¹⁷

3.1. Ethics, Authorship, and Academic Fairness

By its very nature, artificial intelligence lacks moral instinct. It operates solely on algorithmic logic, which gives rise to ethical dilemmas particularly when AI systems are involved in assessment, academic content generation, or decision-making processes.

According to a study published in the Journal of Higher Education Policy, automated assessment algorithms have, in some cases, demonstrated biased outcomes toward students' linguistic and cultural characteristics.¹⁸ This finding suggests that algorithms may inadvertently reinforce existing social inequalities.

The use of AI has also altered the nature of academic integrity. Students frequently rely on generative models (such as ChatGPT, Gemini, or Claude) to complete assignments without disclosing their use, thereby violating the fundamental principles of academic ethics.

According to a 2024 study by Turnitin and GPTZero, 39% of academic integrity violations identified in universities were linked to AI-generated content.¹⁹ This trend has compelled universities to develop new policies requiring AI Disclosure, meaning that students must explicitly indicate any instance in which they use generative tools. For example, the University of Cambridge's "AI Disclosure Policy" (2023) stipulates that the use of AI is permissible only when it does not replace a student's intellectual contribution but rather supports their research and analytical work.²⁰

¹⁵ Chechitelli, A., Navigating AI misuse: Tackling the impact of AI bypassers on academic integrity, Turnitin, 2025. <https://www.turnitin.com/blog/navigating-ai-misuse-tackling-the-impact-of-ai-bypassers-on-academic-integrity> [L.s. 17.10.2025].

¹⁶ Grammarly Research Team, Advancing AI-Powered Intelligent Writing Assistance across Multiple Languages, 2024. <https://www.grammarly.com/blog/engineering/advancing-intelligent-writing/> [L.s. 15.10.2025].

¹⁷ Cardona, Rodríguez, Ishmael, see footnote 1, p. 39.

¹⁸ Sharma, S., Mittal, P., Kumar, M. et al. "The role of large language models in personalized learning: a systematic review of educational impact." Discover Sustainability, 6(243), 2025. <https://link.springer.com/article/10.1007/s43621-025-01094-z> [L.s. 20.10.2025].

¹⁹ Turnitin & GPTZero. Academic Integrity in the Age of Generative AI. London, 2024.

<https://www.turnitin.com/instructional-resources/packs/academic-integrity-in-the-age-of-ai> [L.s. 18.10.2025].

²⁰ AI guidance. Guidance for University of Cambridge Staff on the Administrative Use of Generative AI. Cambridge University, 2023.

The issue of so-called algorithmic authorship has become particularly sensitive, as it is often difficult to determine who the true author of a work is the human or the system. I believe this dilemma is not merely a legal concern but also a philosophical one: when a student employs artificial intelligence as a co-author, they gradually lose the sense of boundaries between knowledge and intuition. The line between creativity and automation becomes blurred, posing a threat to the very essence of education as a process of human thought.²¹

The ethical dimension of AI is also closely tied to the reliability of information. Algorithms often generate incorrect or fabricated data a phenomenon known as AI hallucination which undermines the credibility and integrity of academic research. In such circumstances, universities must establish clear standards to ensure that AI-generated information is verified and evaluated through human oversight before being used. The main challenge in this process is not to prohibit AI, but to integrate it correctly as a supportive, rather than a decisive, instrument in academic work.

3.2. Data Security and Privacy

The functioning of AI systems largely depends on data collection and analysis, which inherently raises serious security and privacy risks. During the learning process, vast amounts of personal information are generated such as behavioral analytics, assessments, communication records, and psychological profiles. If universities lack strict data protection policies, there is a significant risk that this sensitive information could fall into the hands of third parties.

In 2023, the European Data Protection Board (EDPB) issued recommendations requiring universities to ensure data encryption, implement data minimization and retention policies, and conduct regular audits of AI algorithms.²² Nevertheless, several European universities have reported data breaches related to the insecure storage of student information on AI platforms. This demonstrates that technical measures alone are only partially sufficient; strengthening ethical awareness is equally essential so that all participants understand the importance of using data responsibly.

Beyond technical risks, there is also a psychological dimension. Students often feel excessively monitored their activities are tracked, behaviors analyzed, and progress continuously measured. This creates a sense of digital surveillance, which can inhibit creativity and restrict independent thinking.²³ I believe the key challenge in this context is finding the right balance—how to preserve the human freedom inherent in education while technology continually seeks to quantify and measure it. Moreover, the issue of data ownership remains ambiguous: students often have little to no control over the information collected about them.

According to various international reports, student data governance practices in a significant proportion of higher education institutions are still fragmented: many universities do not have fully documented procedures for requesting the deletion, transfer, or cessation of processing of data, despite the formal existence of a general data protection policy. This highlights the need for universities to update not only their technological frameworks but also their legal and ethical policies to ensure the protection of individuals' rights to ownership and control over their personal data.

The ethical use of AI, alongside data protection, represents one of the most fundamental challenges for the future of education. If universities fail to develop transparent and equitable policies, there is a risk that the education system will transform into a technological labyrinth in which the pursuit of knowledge becomes subject to algorithmic control.

<https://www.information-compliance.admin.cam.ac.uk/data-protection/guidance/ai-guidance> [L.s. 18.10.2025].

²¹ European Commission see footnote 10, p. 4.

²² European Data Protection Board (EDPB). "EDPB opinion on AI models: GDPR principles support responsible AI." Brussels, 2024. P. 35. https://www.edpb.europa.eu/system/files/2024-12/edpb_opinion_202428_ai-models_en.pdf [L.s. 17.10.2025].

²³ Ehlers, U. D., Eigbrecht, L., Creating the University of the Future: A Global View on Future Skills and Future Higher Education. UNESCO. Paris, 2024.

4. Ethical, Legal, and Future Perspectives

The integration of artificial intelligence into higher education requires not only technological advancement but also the establishment of clear ethical, legal, and institutional frameworks. AI should not become a substitute for human intellect; rather, it should be viewed as a partner that enhances creativity and research-oriented thinking. Equally important is the development of governance policies that ensure transparency, fairness, and the responsible use of technology. As noted in the UNESCO report (2021), the main challenge for today's education systems is not the adoption of technology itself, but its alignment with human values.²⁴

4.1. Ethical and Legal Frameworks

The use of artificial intelligence in universities is directly linked to ethical responsibility both on the part of instructors and students. Clear principles must be established to define acceptable and unacceptable practices, ensuring that the integration of AI supports academic integrity, respects intellectual authorship, and upholds the core values of education.

In 2021, UNESCO adopted the “Recommendation on the Ethics of Artificial Intelligence”, which is founded on the principle of human-centeredness - that technology must serve human development, not the other way around.²⁵ The document requires all educational institutions to establish their own AI Code of Conduct, which should include the following core principles:

- Transparency in the use of algorithms;
- Student awareness regarding the conditions under which their data is collected;
- Protection of academic integrity in all educational activities;
- Disclosure of AI usage in academic work and research outputs.

In addition to ethical frameworks, it is essential to establish mechanisms of accountability. Universities such as Helsinki, Toronto, and Tallinn have already introduced specialized ethics committees that review cases related to plagiarism, authorship, and data protection.²⁶

The mechanisms presented not only control violations, but also create a preventive culture, students and lecturers learn how to use AI fairly and ethically.

At the legal level, the European Union has taken a significant step by adopting the Artificial Intelligence Act (2024), which represents the world's first comprehensive regulation for the governance of AI systems.²⁷ The document classifies education as a “high-risk” category and establishes four fundamental principles:

1. Transparency - Universities must disclose where and how AI is being used;
2. Security - Student data must be encrypted and protected from unauthorized access;
3. Human oversight - Final decisions must remain under human authority;
4. Accountability - Both the university and the technology provider share equal responsibility for any violations.

In my opinion, such a model represents not only a legal but also a value-based framework. It establishes a clear boundary between human creative control and technological autonomy. The European Union's approach has already become an international benchmark, adopted by countries such as Japan, Canada, and Australia. At the national level, in 2024, Georgia's Ministry of Education and Science established a working group dedicated to developing a regulatory framework for the use of AI in the education

²⁴UNESCO, see footnote 9, p. 34.

²⁵UNESCO. Recommendation on the Ethics of Artificial Intelligence. Paris, 2021. unesdoc.unesco.org/ark:/48223/pf0000381137/PDF/381137eng.pdf.multi [L.s. 17.10.2025].

²⁶ Kivilaakso, A., University of Helsinki Guidelines Support Researchers in the Responsible Use of AI. University of Helsinki, 2024. <https://www.helsinki.fi/en/news/university/university-helsinki-guidelines-support-researchers-responsible-use-ai> [L.s. 17.10.2025].

²⁷ European Union. The AI Act Explorer. Brussels, 2024. <https://artificialintelligenceact.eu/ai-act-explorer/> [L.s. 20.10.2025].

system. This step signifies that Georgia, too, recognizes its responsibility not only in terms of technological advancement but also in the protection of academic and ethical values.

4.2. Future Perspectives and Directions for Development

The coming decade is likely to mark the beginning of the “era of intelligent education,” in which artificial intelligence will no longer serve merely as an auxiliary system but will become an integral component of the teaching and learning process.

According to a joint forecast by the United Nations and the OECD, by 2035, more than 60% of educational processes will be at least partially managed by algorithms.

For example, the Adaptive Learning 2030 program aims to create a fully self-regulating learning environment in which a student’s behavior, progress, and interests determine the learning strategy in real time. However, I believe that the success of such a model depends not on technological capability alone, but on our ability to maintain a balance between progress and human creativity. If future education policies focus solely on technological efficiency, there is a risk of losing the humanistic essence of education. Therefore, future policy must be oriented toward “value-based intelligence,” where technology serves to expand the human mind rather than replace it. AI should become a partner in creativity, critical thinking, and ethical decision-making.

Universities must develop an interdisciplinary approach in which technological sciences collaborate with fields such as philosophy, law, and psychology. Only under such conditions will it be possible to create an educational model that unites progress and responsibility integrating technology and humanism into a single, cohesive ecosystem.

Conclusion

The integration of artificial intelligence into higher education has become a transformative phase that redefines not only teaching methods but also the very nature and meaning of knowledge. AI has turned education into a more flexible, data-driven, and learner-centered process, enabling each student to work at their own pace and receive a personalized learning experience. This transformation also enhances universities’ research and administrative capacities through time optimization, more effective use of analytical data, and the ability to make decisions more efficiently.

However, as the findings of this study demonstrate, technological progress alone cannot guarantee the quality of education. Despite its vast capabilities, artificial intelligence lacks moral intelligence and cannot replace human judgment, empathy, or creativity. Therefore, the future of education depends on the academic system’s ability to maintain a balance between innovation and ethical boundaries. If the use of technology remains uncontrolled, there is a risk of losing the very human values upon which the idea of education is founded independent thinking, responsibility, and creative freedom.

Based on the findings, it can be concluded that a successful model of education is not built upon technological absolutism but within an integrated ecosystem where humans and artificial intelligence collaborate. Universities must establish clear institutional frameworks that ensure transparency, fairness, and accountability in the use of AI. This entails the development of ethical codes, internal regulations, and educational policies designed to safeguard academic integrity and preserve human intellectual autonomy.

The purpose of artificial intelligence should not be to replace the human being, but to expand human potential. In the future, the most successful educational systems will be those that transform technology into a true partner a collaborator in thinking, research, and creativity. Education that preserves this balance will become not merely a means of knowledge transmission, but a path toward the refinement and enrichment of the human mind.

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