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## UNIVERSITY INSTRUCTORS' PERSPECTIVES ON PROS AND CONS OF ARTIFICIAL INTELLIGENCE IN EDUCATION

### Abstract

The article discussed the opinions of University teachers on the pros and cons of artificial intelligence (AI) usage in the educational process involving 8 participants. Based on the interviews with university teachers, both positive and negative aspects of using AI in education are analyzed in the context of rapid technological progress and the introduction of artificial intelligence into different spheres of life, including education. And it is important to understand how the academic community perceives these changes. Among the advantages, are improved quality of education, increased efficiency of educational materials, and individualized and immersive learning experiences to cost-effective and high-quality instruction, help in reducing time, etc. However, along with this, problems are also identified, such as the risk of reducing the role of the teacher, the threat of losing critical thinking in students, making students less communicative, and the possible impact on academic integrity. As artificial intelligence (AI) continues to be integrated into many different sectors, its use in education is both welcomed and questioned. While AI can alter educational environments, it also has some drawbacks that must be carefully considered to create a balanced and successful instructional setting.

**Keywords:** artificial intelligence, education, students, teaching, advantages, disadvantages, university.

### Introduction

Artificial intelligence (AI) is transforming a wide range of industries, including education. The introduction of AI into education has resulted in substantial advances that improve learning experiences, expedite administrative processes, and benefit both students and instructors in a variety of ways. The incorporation of AI in education has both benefits and drawbacks.

The power of AI is evident, and knowing the advantages and disadvantages of AI in education is critical for making informed decisions. Professors and students must understand the benefits and drawbacks of AI in order to make the greatest use of it in academia. Thus, the study aims to explore University instructors' perspectives on using AI in education.

Each of us has his own opinion on such issues as the use of AI in education and what it can lead to.

Therefore, it makes sense to listen to the opinions of your colleagues - teachers, production specialists, administrative and managerial personnel of the university, and, what is very important, the opinions of students. To get more specific answers, a question was asked about AI.

Overall, the present study aims to address the following research questions:

RQ1: What do you think about using AI in your teaching process?

RQ2: What are the pros and cons of AI in education?

The creation of AI is one of the most noticeable and irreversible technological trends in the world. The active development of AI is facilitated by the widespread introduction of computer technologies into practice, providing conditions for the natural evolution of this new scientific direction.

However, at present, the analysis of research and educational practice on this issue shows that the mass introduction of AI into education can lead to its significant transformations, which have not only a positive significance in terms of updating the arsenal of educational technologies, but also a number of predictable negative consequences for the entire education

system and, above all, for the development of the personality of students. This actualizes the problem of developing AI that will be used in education, and its introduction will have an impact on the personal development of students.

### **Literature Review**

AI in education encompasses the use of technology that can execute tasks that would normally need human intellect to improve learning experiences, expedite administrative operations, and assist educators. AI in education utilizes a broad range of technologies, including gamification strategies to boost student engagement, predictive analytics to offer insights for prompt interventions, adaptive learning systems that tailor content to individual student needs, intelligent tutoring systems that provide tailored guidance, and natural language processing to support automated assessment and language learning [1].

AI is transforming education by changing established paradigms and providing individualized, efficient learning experiences. AI technology can help educational institutions address the different demands of learners by improving flexibility, engagement, and student achievement [2]. AI technologies such as machine learning, natural language processing, and robots help personalize learning by tailoring content and pace to specific student needs. This individualized approach addresses different learning styles and speeds, ensuring that each student receives the attention and resources they require to succeed.

There are some drawbacks to adopting artificial intelligence in the educational setting. Ethical considerations include data privacy, algorithmic prejudice, and unforeseen repercussions during decision-making processes. The use of AI in education raises concerns about the loss of human interaction, as tailored learning experiences driven by algorithms may reduce the importance of teacher-student and peer relationships for holistic learning [3].

Increased reliance on technology may worsen educational disparities and leave students unprepared for a society that requires both digital and interpersonal abilities. AI integration in education requires a careful and ethical approach, with technology complementing rather than replacing the vital human parts of the learning experience [4].

The question of what can and cannot be entrusted to AI is one of the main ones in numerous discussions among scientists. The development of ethical documents on the use of AI is extremely important. However, scientists have thought about the problems for a long time.

R.A. Amirov and U.M. Bilalova, covering the prospects for the introduction of AI in higher education, argue that “despite such rapid development of AI systems, in our opinion, AI will never be able to replace human labor. A person has special qualities that are difficult to reproduce in AI: intuition, creative thinking, critical judgment, cognitive flexibility, empathy, goodwill, etc.” [5]. The authors wrote the article in 2020, but today AI is already being created that has social and emotional intelligence to interact with humans.

### **Methods and materials of research**

This study used a qualitative research approach with the goal of examining university faculty perspectives on AI in education. In-person interviews with the University of Minnesota instructors were conducted to find out more about their opinions on integrating AI into their teaching practices.

Since semi-structured interviews enable researchers to collect thorough information about attitudes and behavior toward a given topic, we anticipate that the study will contribute to a deeper knowledge of the benefits and drawbacks of AI in academia.

An interview of more than 8 teachers of the University in Minneapolis showed that there are a lot of opinions regarding the use of AI in education. Among them were 5 female and 3 male teachers aged between 29 and 58 (it is important to note that their ages are given), teacher 1 – 29, teacher 2 – 31, teacher 3 – 34, teacher 4 – 40, teacher 5 – 43, teacher 6 – 48, teacher 7 – 51, teacher 8 – 58. Qualitative method of cognition was used in the research work. Analysis of AI research allowed us to identify the most pressing issues of AI transformation education; the

advantages and disadvantages of implementing AI in education were specified using the method of synthesizing various scientific studies.

### Results and its discussion

The study resulted in various views of using AI in the field of Education. These are given the interview replies below:

Teacher 4: I think AI in education is evolving at a greater speed than our ability to understand the potential - both advantages and disadvantages both for students and instructors. Interestingly, AI doesn't care about whether users understand as it continues to advance and become more sophisticated with potential new applications. I think in the absence of a full understanding - that instructors are more likely to experience fear of the unknown. That fear tends to prompt thinking such as cheating, non-acceptable use, and other ethical issues. To remove or reduce the strength of the fear of the unknown of AI there needs to be far more easily understandable information for users on potential applications - both advantages and disadvantages. My hope is that AI producers, companies, and associations of users such as professors, teachers, etc can recognize this information need as it is vital. This does not need to be on the technical details of AI models but rather focuses on use.

Teacher 2: From a teaching perspective, I think AI can help with some tasks in order to increase efficiency. For example, I know a few students are using AI to get ideas for lesson planning, or for questions to consider asking related to a reading. I think as long as AI is used for generating ideas, I'm on board. When AI is used to reduce the need for engagement or thinking, I'm not a fan. For example, we now have to have a statement on our applications for admission that explicitly states the use of AI for the essays is not allowed. This is after we received some applications that were clearly generated by AI.

Teacher 8: The benefits of AI in education are numerous, ranging from individualized and immersive learning experiences to cost-effective and high-quality instruction. As AI advances, its role in improving education will become increasingly important, creating new opportunities for both students and instructors.

Teacher 3: I think we have to have clear policies about the use of AI, and build a strong community and trust in the classroom to get students to agree to follow along.

Most instructors stated that AI can be helpful in assisting in teaching in terms of development and preparation of teaching materials:

Teacher 1: Generative AI can really help with training, with the analysis of the topic, with the selection of unique unified tasks.

It can assist teachers in checking and assessing students' assignments and save teachers time:

Teacher 2: Specially limited generative AI can be used as an assistant to the teacher: It explains the task, checks tests, what is correct or incorrect, in which direction to go, etc.

Teacher 3: There are a lot of advantages: help in reducing time, checking standard texts, speeding up production, improving education, etc. It reduces human mistakes in grading and sorting processes.

Teacher 5 It can help with brainstorming, efficiency, creating sample dialogues, generating ideas for activities, outlining lessons, and creating scenarios for discussion.

AI advantages in education based on the interviews' analysis are presented in Table 1.

Table 1 – University Instructors' Views on Integrating AI in Teaching Practice

Themes	No	Sub-Themes
Assistant	1	Teaching
	2	Analyzing
	3	Checking assignments

Saves time	4	Reduces time for tasks
	5	Speeds up production
	6	Automatization of daily routine and repetitive processes
Cost reduction	7	Creates tasks and materials
Availability	8	24/7 availability as advisor or tutor
Personalized learning systems	9	Helps students plan
	10	Independent study
Automated assessment systems	11	Test
	12	Course project
Social networking sites	13	Facebook
	14	Instagram
	15	WhatsApp
	16	TikTok
	17	YouTube
	18	Telegram
Ethical risks	19	Plagiarism
Societal risks	20	Deepfakes
	21	Privacy violations
Privacy violation	22	Unauthorized disclosure information
	23	Exposure to sensitive information
Note: Compiled by the authors based on a survey		

Among the disadvantages of AI in education teachers state its ethical issues:

Teacher 4: There are also many disadvantages, for example, the first is ethical issues, how they prepared, what materials they were trained on, etc.

Besides, most instructors question issues of trust in AI-generated data:

Teacher 5: People are starting to trust AI very much and this is not very good. One of the biggest disadvantages is that the AI works with probability, giving the most likely answer to the question you ask.

Teacher 3: AI technologies are considered objective and neutral; however, we know that humans are biased, therefore, machines learn from our human biases.

Teacher 6: Automated assessment can make algorithms based on schools' previous exam results, as in the case of low results in England's GCSE exam, which they cancelled.

Using AI by students might limit their cognitive abilities by producing the ready decisions for them:

Teacher 7: AI helps too much and the person stops thinking. People stop remembering data. It's easier for them to copy.

Teacher 5: AI disadvantages include the fact that it displaces learning and experience (miss out on cognitive activities, and deskilling).

Teacher 8: It can be a temptation to use AI, but it essentially offloads our cognitive processes.

Teacher 7: Writing is thinking. If AI writes, you lose your capacity for thought.

Some instructors think that AI cannot provide relative or reliable knowledge and can sometimes be boring:

Teacher 4: I don't use AI much for teaching, but I use it for research, and for checking what I wrote, AI's drafts can be boring, especially the first drafts, humans can be more interesting.

Among other disadvantages of AI in education instructors state that it can make students less communicative and real person-oriented:

Teacher 8: From a language learning perspective, I think AI can take away the need for students to engage in the productive struggle of communication in a new language. I'm afraid AI will take away the ability of students to learn to produce language on their own as they are learning.

Teacher 7: It makes it harder for students to interact spontaneously with one another if tied to their devices or relying on AI for language production; makes it harder to know if students are turning in their own work, or relying on AI; is counterproductive to the idea of humanizing pedagogy, in my opinion.

Teacher 6: AI reduces people's confidence. Reflection is much greater for females than males.

AI disadvantages in education based on the interviews' analysis are presented in Table 2.

Table 2 – Disadvantages of Using AI in Education

Themes / Sub-Themes	No	No
Biased	1	Learns from human biases
	2	Based on previous data
Boring	3	Not as humans that can be more interesting
	4	Lack of creativity
Probability	5	Gives the most likely answer to the question
Deskilling	6	Displaces learning and experience
	7	This may lead to a decrease in the ability to memorize and analyze data
	8	Takes away the ability for students to learn to produce language on their own
	9	
Ethical risks	10	Privacy
	11	Lack of quality data
	12	AI and injustice
Societal risks	13	Privacy violation
Note: Compiled by the authors based on a survey		

To conclude with, the advantages of AI are:

- Interaction, customization, and augmentation
- Efficiency
- Management of surface features and error
- Helpful for brainstorming and idea generation
- Generates multiple examples easily
- Handy for coding and debugging
- Transforming tone and register
- Easily convert between document types
- Data analysis and coding
- Reduced drudgery- Transcription/minutes/summaries

And AI disadvantages include:

- The fact that it displaces learning and experience (miss out on cognitive activities, deskilling).
- Integrity of assessments and evaluations
- Hallucinations and errors
- Academic integrity
- Environmental and social costs
- Intrusiveness and privacy
- Misinformation, propaganda, and censorship
- Elimination of personal voice/style/linguistic difference
- Beige, bland, mediocre content generation

Using AI on assignment is allowed, but usually the students bring their ideas to the platform, cite AI usage appropriately, and reflect on using AI (what they wanted AI to help with, what worked, and what didn't).

Another problem with AI for students is that there is confusion and anxiety about how to cite it. More insights on how to use AI are needed because instructors and students still don't know what the results are.

Education stakeholders must think about what AI can bring. Why should an employer hire someone, if AI can do the same work? What are students' tracks when they are using AI in education? We don't have data for that. How much do we want to offload our cognitive processes? Teachers state that most good writing happens through revision. They agree that AI can make revisions, but it should not generate the draft.

### **Conclusion**

Technical progress cannot be stopped. Sooner or later, AI will be implemented in all educational institutions. Undoubtedly, AI technologies are a powerful tool for teaching students. Therefore, scientists and practitioners face the urgent task of developing AI and ways in the practice of educational institutions, trying to avoid the negative consequences, which can already be predicted today, based on the analysis and generalization of the experience of digital and Internet technologies in education [6].

Generative AI has provided education stakeholders with a whole new world of opportunities. A study of university teachers' views on the advantages and disadvantages of artificial intelligence in education has identified both positive and negative aspects of introducing new technologies into the educational process. Teachers note significant advantages of artificial intelligence, such as the ability to individualize learning, improve the quality of educational materials, and simplify administrative processes. However, despite obvious achievements, many teachers express concerns about the risks associated with excessive automation, the possible loss of critical thinking in students, and the decline of the role of the teacher.

For effective use of artificial intelligence in education, it is necessary to continue research aimed at balancing technology and traditional approaches to teaching. It is crucial not only to integrate innovations but also to ensure proper control over their implementation in order to preserve the value of human interaction in the learning process and not to lose key aspects of academic integrity.

In spite of these advantages and disadvantages, the current study, involving 8 participants interview was spanned two months instead of a few hours, but the study shows, that the perspectives of AI in education hold remarkable transformation, but to achieve optimal results it is important to consider multiple factors such as ethics, data protection, and preparing educators for new challenges in the educational environment [7].

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## УНИВЕРСИТЕТ ОҚЫТУШЫЛАРЫНЫҢ БІЛІМ БЕРУДЕГІ ЖАСАНДЫ ИНТЕЛЛЕКТТІҢ ОҢ ЖӘНЕ ТЕРІС ЖАҚТАРЫНА КӨЗҚАРАСЫ

### Аннотация

Мақалада 8 қатысушының қатысуымен оқу үдерісінде жасанды интеллект (ЖИ) қолданудың оң және теріс жақтары туралы университет оқытушыларының пікірлері талқыланады. Университет оқытушыларымен жүргізілген сұхбаттар негізінде білім беруде ЖИ қолданудың оң және теріс аспектілері қарқынды технологиялық прогресс пен жасанды интеллектті өмірдің әртүрлі салаларына, соның ішінде білім беру саласына енгізу жағдайында талданады. Академиялық қауымдастықтың бұл өзгерістерді қалай қабылдайтынын түсіну маңызды. Артықшылықтары білім сапасын жақсарту, оқу материалдарының тиімділігін арттыру және үнемді және сапалы оқу үшін жекелендірілген және иммерсивті оқыту тәжірибесі, уақытты қысқартуға көмектесу және т.б.. Алайда, мұнымен қатар мұғалім рөлінің төмендеу қаупі, студенттердің сыни ойлауын жоғалту қаупі, студенттердің коммуникативті дағдыларын төмендету және академиялық білімге ықтимал әсер ету сияқты мәселелер де бар. Жасанды интеллект (ЖИ) көптеген әртүрлі секторларға интеграциялануын жалғастыруда, оның білім беруде қолданылуы күпталады және күмән тудырады. Алайда, ЖИ білім беру ортасын түрлендіру мүмкіндігіне ие болғанымен, оның тепе-тең және табысты оқу ортасын құру үшін кейбір кемшіліктер мұқият ескеру қажет.

**Негізгі сөздер:** жасанды интеллект, білім, студенттер, оқыту, артықшылықтар, кемшіліктер, университет.

## ВЗГЛЯД ПРЕПОДАВАТЕЛЕЙ УНИВЕРСИТЕТОВ О ПЛЮСАХ И МИНУСАХ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА В ОБРАЗОВАНИИ

### Аннотация

В статье обсуждаются взгляд преподавателей вузов о плюсах и минусах использования искусственного интеллекта (ИИ) в образовательном процессе с участием 8 человек. На основе интервью с преподавателями вузов анализируются как положительные, так и отрицательные стороны использования ИИ в образовании в контексте быстрого технологического прогресса и внедрения искусственного интеллекта в различные сферы жизни, включая образование. Важно понять, как академическое сообщество воспринимает эти изменения. Среди преимуществ — улучшение качества образования, повышение эффективности учебных материалов, а также индивидуализированный и иммерсивный опыт обучения для экономически эффективного и качественного обучения, помощь в сокращении времени и т. д. Однако наряду с этим выявляются и проблемы, такие как риск снижения роли преподавателя, угроза потери критического мышления у студентов, снижение коммуникабельности студентов и возможное влияние на академическую честность. Поскольку искусственный интеллект (ИИ) продолжает интегрироваться во многие различные сектора, его использование в образовании как приветствуется, так и подвергается сомнению. Хотя ИИ обладает способностью изменять образовательную среду, у него также есть некоторые недостатки, которые необходимо тщательно учитывать, чтобы создать сбалансированную и успешную учебную среду.

**Ключевые слова:** искусственный интеллект, образование, студенты, преподавание, преимущества, недостатки, университет.

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