Artificial intelligence in Armenian higher education: Lecturers' perspectives on opportunities and challenges

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This study explores the integration of artificial intelligence (AI) tools in higher education from the perspective of lecturers in Armenia. While AI is increasingly recognised as a transformative force in teaching and learning, its adoption in developing country academic contexts remains underexplored. Using a qualitative approach based on in-depth semi-structured interviews with university lecturers, this research investigates how educators perceive the benefits, challenges, and future prospects of AI in academic settings. The findings reveal that lecturers acknowledge AI's potential to enhance efficiency, enrich student learning experiences, and support innovative teaching practices. At the same time, concerns were raised regarding issues of digital inequality, lack of institutional support, ethical considerations, and insufficient training opportunities. My study highlights the dual role of AI as both an enabler and a disruptor in higher education, pointing to the necessity for balanced strategies that combine technological advancement with pedagogical integrity. The results carry important implications for universities, policymakers, and lecturers by emphasising the need for clear guidelines, professional development, and inclusive policies to maximise AI's benefits while addressing its limitations.

Introduction

In recent years the rapid development of artificial intelligence (AI) has spread into many spheres and one of them is education. There are numerous studies exploring the use of AI in higher education, including Jafari & Keykha (2024); Kuleto et al. (2021); Adeleke et al. (2024); Allen et al. (2021); Akinwalere & Ivanov (2022); Leoste et al. (2021); Omar et al. (2024); Bearman et al. (2023); Lu & Liu (2024); Jensen et al. (2024); Bhaskar et al. (2024); Van Wyk, (2024); Ilić et al. (2021); Azanza et al. (2024); Crompton & Burke (2023); Barrett & Pack (2023); Huang et al (2021); Kamalov et al. (2023); Nicolas (2024); Kaczorowska-Spychalska et al. (2024); Melkumyan & Sahakyan (2024), Tovmasyan (2025); and Gordon et al. (2025). In many countries the wide use of digital tools in education started after Covid-19 (Tovmasyan et al., 2022).

Artificial intelligence (AI) significantly influences education, offering both positive and negative effects. In universities, AI enhances lecturers' effectiveness by improving research productivity and efficiency. It enables innovative teaching methods, such as personalised learning, fosters collaboration among researchers, and opens opportunities for forming new research partnerships (Adebayo, 2024).

Now is the time for universities to rethink their roles, pedagogical models, and future relationships with AI technologies and their developers. Institutions of higher education must navigate the vast array of opportunities and challenges that come with integrating AI

into teaching and learning, envisioning transformative possibilities for the academic landscape (Popenici & Kerr, 2017). A deeper understanding of educators' perceptions of AI systems is essential, as they play a pivotal role as the ultimate decision-makers in adopting and implementing these technologies (Kizilcec, 2024).

Lecturers must develop AI-related digital competencies to effectively integrate AI education into their classrooms and contribute to its advancement in academia (Ng et al., 2023; Kim, 2024). In last few years, ChatGPT has become widely used in education (Rudolph et al., 2023; Michel-Villarreal et al., 2023; Jeon & Lee, 2023; Huallpa et al., 2023; Dempere et al., 2023; Sun & Hoelscher, 2023; Halaweh, 2023; Rahman & Watanobe, 2023; Wangdi et al., 2025; Ferguson, 2025).

As in future the integration of AI tools in higher education will increase, so this study aims to gather insights on how AI tools are being used in teaching and learning in higher education in Armenia from lecturers' perspective, the benefits they offer to lecturers, and any challenges they face. The literature review explores various studies on the topic. The article is based on qualitative research using in-depth interviews with lecturers. The findings reveal that lecturers perceive AI as both a valuable support tool for enhancing efficiency, student engagement, and teaching innovation, and as a source of challenges related to digital inequality, ethical concerns, and insufficient institutional support. The article has empirical significance, as the results may be useful for universities, policy makers in education, lecturers, researchers, etc.

Literature review

The advantages and disadvantages of lecturers using AI in higher education

AI tools are widely used in universities (Mah & Groß, 2024; Jafari & Keykha, 2024; Wojciechowski & Korjonen-Kuusipuro, 2023). According to Celik et al. (2022), AI provides lecturers with numerous opportunities to enhance their teaching practices. These include improved planning, such as identifying students' needs and equipping educators with insights into those needs; implementation, through tools like immediate feedback and timely teacher interventions; and assessment, with features such as automated essay scoring to streamline evaluation processes.

A study by Opele et al. (2024) highlighted how AI enhances personalised learning through intelligent tutoring systems and adaptive learning platforms. These AI-driven tools analyse student data, deliver tailored feedback, and recommend individualised learning pathways, enabling lecturers to address the diverse needs of their students more effectively. Additionally, the study revealed that AI supports lecturers in research by automating data analysis and accelerating the research process, thereby facilitating informed decision-making and generating valuable insights. Sanders and Mukhari (2024) examined lecturers' perspectives on the influence of artificial intelligence (AI) on blended learning within South African higher education. Their findings highlighted the importance of implementing supportive measures, including strong management support, enhanced training and professional development opportunities, robust technological infrastructure,

reliable Internet connectivity, and adequate time allocation. These elements are essential for the successful integration of AI into blended learning environments.

According to Napieralski et al. (2024), artificial intelligence holds the potential to revolutionise scientific research and methodologies, transforming how knowledge is generated and applied. Helmiatin, Hidayat and Kahar (2024) explored how educators and policymakers can effectively utilise and adapt AI to enhance learning. In their study, 351 respondents participated in an online survey, and the proposed hypotheses were evaluated using a structural equation model (SEM-PLS). The findings revealed several key insights: (1) Users' attitudes toward adopting AI are positively influenced by performance expectancy and effort expectancy, while negatively affected by perceived risk; (2) Facilitating conditions have a positive impact on effort expectancy but a negative influence on behavioural intention; (3) Users' attitudes toward AI adoption positively affect behavioural intention; and (4) Behavioural intention plays a significant role in the adoption of AI in higher education.

Mutanga et al. (2024) explored lecturers' perceptions of integrating artificial intelligence (AI) tools into teaching practices. Their findings suggested that AI adoption can significantly enhance infrastructure, improve education quality, and foster innovation. Lecturers emphasised that adopting AI is crucial for developing student skills and boosting engagement. While many lecturers recognised AI tools as valuable resources for enhancing student learning and creativity, others worried about their broader implications for education. Positive perceptions included the belief that AI tools offer exciting opportunities for students and educators to cultivate creativity, explore innovative ideas, and collaborate more effectively. Nevertheless, some lecturers voiced concerns about the potential drawbacks, such as students becoming overly dependent on AI tools, which could undermine critical thinking, creativity, and the learning process (Al-Kadi, 2025).

A study by Garrote Jurado et al. (2024) conducted at a Swedish university highlighted several perceived advantages of AI, including time-saving features, personalised learning experiences, and quick response mechanisms for both teachers and students. However, the study also raised concerns about the lack of human interaction, the quality control of information, privacy issues, and the potential impact on examinations. The research emphasised the need to adapt pedagogical approaches and establish ethical and legal guidelines to ensure the fair and effective use of AI in education. Additionally, it underscored the importance of providing teacher training and support to help educators navigate the evolving landscape of AI technology in higher education.

Khlaif et al. (2024) identified both the potential advantages and challenges of generative AI (Gen AI) in higher education. The advantages included enhanced student engagement and reduced instructor workloads, while the challenges involved concerns over academic integrity and the potential negative impact on students' writing and critical thinking skills. A study by Hazaimeh and Al-Ansi (2024) at Arabian universities found that attitudes, digital competency, and openness to experience have a positive and significant relationship with both the perceived benefits of AI and its acceptance in higher education. A study on AI use in South African higher education by Patel and Ragolane (2024)

revealed significant benefits, including improved administrative efficiency, personalised learning, and data-driven decision-making. However, these advantages are often hindered by challenges such as inadequate infrastructure, socio-economic disparities, and ethical concerns related to data privacy and algorithmic bias.

Zawacki-Richter et al. (2019) highlighted the lack of critical reflection on the challenges and risks associated with artificial intelligence in education, the weak connection to theoretical pedagogical perspectives, and the need for further exploration of ethical and educational approaches in the application of AI in higher education. According to a study by Mather (2024), lecturers are concerned about plagiarism and the lack of quality original work that may result from students using AI tools incorrectly and unethically. The study also found that their institutions had not provided adequate training on how to use AI tools ethically.

Although Generative Artificial Intelligence (GenAI) tools offer benefits such as time-saving and improved quality, with over 100 available applications, they may inadvertently incorporate borrowed content, posing challenges to academic integrity (Guillén-Yparrea & Hernández-Rodríguez, 2024). McGrath et al. (2023) identify teachers' fears and scepticism regarding artificial intelligence in higher education, concerns about fairness and responsibility, and a lack of knowledge and resources to effectively engage with AI in teaching practices. Ivanov (2023) explored the negative aspects of artificial intelligence in higher education, including biases in datasets and algorithms, plagiarism, factual inaccuracies, micromanagement of students and employees, manipulation of behaviour, overreliance on AI, lack of or low explainability and transparency in AI's decisions, loss of skills, and privacy concerns.

Luckin et al. (2022) emphasised the importance of empowering educators to be AI-ready. Now it is crucial to shape education to foster a generation of professionals (with necessary digital and AI skills) capable of steering Industry 4.0 toward sustainability (Tovmasyan & Ghazeyan, 2025). The development of dedicated AI adoption strategies at the institutional level needs to update the existing technology infrastructure (Espinosa et al., 2025) and upskill the academic tutors for AI (O'Dea & O'Dea, 2023). To enhance teachers' effective use of GenAI in teaching, Kong et al. (2024) recommend that teacher development programs focus on providing teachers with comprehensive conceptual knowledge and skills, along with an understanding of how to apply these tools to teaching and learning. Additionally, policy support to create a conducive environment for the use of GenAI in education would be beneficial.

A study by Chan (2023) proposed an AI Ecological Education Policy Framework for Hong Kong universities to address the various challenges and opportunities of integrating AI into teaching and learning. The framework was structured into three main dimensions. The **Pedagogical** dimension focused on using AI to enhance teaching and learning outcomes. The **Governance** dimension tackled crucial issues related to privacy, security, and accountability in the use of AI. The **Operational** dimension addressed practical aspects such as upgrading infrastructure and providing adequate training to support the

effective adoption of AI. This framework offers a comprehensive strategy for leveraging AI in higher education while ensuring its responsible and effective implementation.

The use of ChatGPT in higher education: Opportunities and challenges

ChatGPT presents a significant opportunity for higher education institutions to enhance the quality and accessibility of education. However, its implementation must be approached with caution, ensuring a clear understanding of both the opportunities and challenges it brings (Rawas, 2024).

ChatGPT provides numerous opportunities for higher education, including innovations in assessment, instructional support, remote learning, research design and development, academic writing assistance, and administrative productivity. However, it also introduces challenges and concerns related to academic integrity, security and privacy, over-reliance on artificial intelligence, learning assessment, and the accuracy of information (Sok & Heng, 2024). Balakrishnan and Vidya (2024) highlighted the benefits of using ChatGPT in higher education, such as increased student engagement and improved efficiency in managing educational requirements. However, they also pointed out challenges, including concerns about data privacy and security, technical limitations, and a reduction in student-lecturer interaction. To address these issues, participants recommended enhanced training, greater technological support, and the establishment of clear ethical guidelines.

University professors in Bulgaria generally have a positive attitude towards the implementation of ChatGPT in their teaching practices, with 41.4% expressing overall support (Kiryakova & Angelova, 2023). They viewed ChatGPT as a tool that can assist with time-consuming teaching activities (60.9%), spark interest, activate, and engage students (59.8%), and stimulate critical thinking and creativity (47.1%). However, they also expressed concerns about the potential unethical use of ChatGPT, which could undermine the validity and fairness of assessment practices. The most significant concern was that students may overly trust ChatGPT without verifying the authenticity of the generated texts (73.6%), potentially hindering their ability to acquire knowledge and skills (Kiryakova & Angelova, 2023).

ChatGPT performs differently across various subject areas, including finance, coding, mathematics, and general public queries (Gill et al., 2024). While it offers significant benefits for educators - such as creating instructional content, providing suggestions, acting as an online educator to answer questions, transforming education through smartphones and 'Internet of things' (IoT) devices, and promoting group - work-there are clear drawbacks. These include the potential for generating inaccurate or false information and bypassing plagiarism detectors, which is especially problematic in contexts where originality is crucial (Gill et al., 2024).

According to Ansari et al. (2024), ChatGPT serves as a convenient tool for teachers, students, and researchers in a variety of tasks. While its specific uses vary, the underlying motivation remains consistent: seeking personal benefits and alleviating academic burdens. Teachers utilise it for both personal and professional learning, as well as for generating

resources, while students use it as a personal tutor for various learning needs. However, concerns regarding accuracy, reliability, academic integrity, and the potential negative effects on cognitive and social development have been consistently highlighted in numerous studies.

According to Dempere et al. (2023), notable benefits of ChatGPT include research support, automated grading, and enhanced human-computer interaction. However, concerns were also identified, such as the security of online testing, plagiarism, and broader societal and economic impacts, including job displacement, the digital literacy gap, and AI-induced anxiety. According to Sun and Hoelscher (2023), faculty should understand both the potential benefits and limitations of ChatGPT and design assignments that emphasise self-reflection, critical thinking, problem-solving, and independent learning. Students should also be taught how to critically evaluate information and make informed decisions.

Rasul et al. (2023) identified five key challenges in using ChatGPT in education: concerns about academic integrity, reliability issues, its inability to effectively evaluate and reinforce graduate skill sets, limitations in assessing learning outcomes, and the potential for biases and falsified information in information processing. According to a study by Mutanga et al. (2024) some lecturers expressed scepticism about tools like ChatGPT, raising concerns about the accuracy and reliability of the information provided. Ethical and pedagogical concerns were also highlighted, particularly the risk of excessive reliance on AI tools. Additionally, there were concerns that AI tools like ChatGPT might weaken the student-teacher relationship by limiting opportunities for meaningful dialogue and shared understanding, key elements of effective teaching.

A study by Al-Mughairi and Bhaskar (2024) identified four motivating factors that encourage teachers to adopt ChatGPT for educational purposes. These included: Theme 1: Exploration of innovative educational technologies; Theme 2: Personalisation of teaching and learning; Theme 3: Time-saving; and Theme 4: Professional development. Conversely, the study also highlighted five inhibiting factors that hinder the adoption of ChatGPT. These include: Theme 1: Reliability and accuracy concerns; Theme 2: Reduced human interaction; Theme 3: Privacy and data security issues; Theme 4: Lack of institutional support; and Theme 5: Overreliance on ChatGPT.

Method

The main purpose of my study is to investigate on how AI tools are being used in teaching and learning in higher education in Armenia from lecturers' perspective, the benefits they offer to lecturers, and the challenges they face. The main research questions were the following:

1. How AI tools are used in higher education by lecturers and for what purposes?
2. How satisfied are the lecturers with the use of AI tools in the educational process?

3. What are the main advantages and challenges of using AI tools in education, according to lecturers?
4. What kind of support they need?
5. What are their expectations on future development of AI tools in education?

The article applied qualitative analysis with in-depth interviews amongst lecturers in four Armenian universities (Armenian State University of Economics, Yerevan State University, Brusov State University, and Public Administration Academy of the Republic of Armenia). Their main specialisations were business and economics and social sciences. 25 lecturers were chosen from each university, thus, in summary, 100 lecturers participated in the interview. They were informed about the purpose of the interview and gave their verbal consents to participating. 48% of interview participants were 31-45 years old, 28% were 46-60 years old and 24% were up to 30 years old. 48% had 11-20 years of teaching experience in higher education, 28% had 11-20 years of teaching experience and 24% had less than 5 years of teaching experience.

The choice of in-depth interviews allowed a deeper probing into the lecturers' experiences, opinions, and thoughts about AI tools in higher education. The interviews were conducted in February to April 2025. The interviews with each lecturer averaged about 20 minutes. The interviewer was the author of the article who has prepared a semi-structured questionnaire for the interview. The interview questions are illustrated in Tables 1 to 4. However, the participants had a chance to add their opinions, and share their insights on the topics, as the questionnaire included also open questions. Answers were recorded by the interviewer, and the language was Armenian (translation into English for this publication was done by the author).

MS Excel and SPSS were used for calculations. Customer satisfaction score and Net promoter score were calculated to find out the satisfaction of lecturers with AI tools used at higher education and their willingness to advise others to use those tools. Also, crosstabs, Pearson Chi-square and Cramer's V testing were applied to identify relationships between some variables. Pearson Chi-square (if $p < 0.05$, the association is statistically significant) shows whether there is a statistically significant relationship between some variables, and Cramer's V shows the strength of association between two categorical variables (if the value is less than 0.2, the result is weak, if it is between 0.2 and 0.6, the result is moderate and if it is more than 0.6, the result is strong) (IBM Cognos Analytics, 2025).

Findings

The use of AI tools in education by lecturers

According to the interview results, 76% are somewhat familiar with AI technologies used in education, and 64% are occasionally using them in teaching activities, while only 24% are using regularly. 60% have not received any training on using AI tools in education, and 40% have received some training.

Table 1: Use of AI-powered tools in education by lecturers (N=100)

Question	Response options	%
How familiar are you with AI technologies used in education?	Very familiar	12
	Somewhat familiar	**76**
	Neutral	12
	Unfamiliar	-
	Very unfamiliar	-
Do you currently use AI tools in your teaching activities?	Yes, regularly	24
	Yes, occasionally	**64**
	No, but I plan to use them	-
	No, and I do not plan to use them	12
If yes, which of the following AI tools do you use? (select all that apply)	**AI-powered writing assistants (e.g., ChatGPT, Jasper, Writesonic, etc.)**	**71**
	AI-based plagiarism detection tools (e.g., Turnitin, Grammarly Plagiarism Checker, etc.)	**57**
	Adaptive learning platforms (e.g., Coursera's AI-driven recommendations, DreamBox Learning, etc.)	5
	AI-powered grading and assessment tools (e.g., Gradescope, ExamSoft with AI features, etc.)	14
	Speech-to-text tools (e.g., Otter.ai, Dragon NaturallySpeaking, etc.)	14
	Language translation tools (e.g., Google Translate, DeepL, etc.)	**86**
	AI in virtual classrooms (e.g., AI-enabled Zoom features, Blackboard with AI enhancements, etc.)	43
	Learning analytics platforms (e.g., Edmodo, Canvas Insights with AI, etc.)	14
	AI-powered chatbots for student queries (e.g., Intercom, Ada, etc.)	5
	Educational content creation tools (e.g., Synthesia for AI-generated videos, DALL·E for visuals, etc.)	14
	AI for research support (e.g., Scite for citation analysis, Elicit for literature reviews, etc.)	**57**
	AI in simulation-based learning (e.g., Labster for virtual science labs, SimTutor, etc.)	3
	AI in feedback generation (e.g., Feedbackly, Gradescope automated feedback, etc.)	4
Have you received any training on using AI tools in education?	Yes, extensive training	-
	Yes, some training	40
	No training	***60***
For what purposes do you use AI tools? (Select all that apply)	Creating course materials	38
	Assessing student work	2
	Providing real-time feedback to students	12
	Conducting administrative tasks	38
	Detecting plagiarism or academic dishonesty	**57**
	Designing quizzes and assessments	**50**
	Doing research	**63**

Source: Composed by the author based on in-depth interviews

The mostly used AI tools by lecturers are language translation tools (86%), AI-powered writing assistants (mainly ChatGPT) (71%), AI for research support (63%) and AI-based plagiarism detection tools (57%) (Table 1). They use AI tools for doing research (63%), detecting plagiarism (57%), creating course materials and conducting administrative tasks (38%).

According to Table 2, the lecturers have faced the following challenges while using AI tools: limited access to AI tools (63%), lack of training or knowledge on how to use AI tools effectively (50%), insufficient funding for AI tools and resources (50%), doubt about the accuracy or reliability of AI tools and AI-generated content (50%), loss of creativity and critical thinking (40%), uncertainty about the ethical implications of AI use (40%), concerns about data security and privacy (38%).

Table 2: Challenges using AI tools (N=100)

Question	Response options	%
What challenges have you faced while using AI in education? (Select all that apply)	**Lack of training or knowledge on how to use AI tools effectively**	**50**
	Limited access to AI tools	**63**
	Insufficient funding for AI tools and resources	**50**
	Technical issues	25
	Difficulty in integrating AI into existing teaching practices	26
	Concerns about data security and privacy	38
	Uncertainty about the ethical implications of AI use	40
	Doubt about the accuracy or reliability of AI tools and AI-generated content	**50**
	Fear of over-reliance on AI tools	26
	Loss of creativity and critical thinking	40

Source: Composed by the author based on in-depth interviews

Evaluating the satisfaction of lecturers with AI tools, their perceptions of the impact of AI in education, and their expectations on AI futures

- ✓ 48% feels very likely and 40% somewhat likely to use AI tools more extensively in the future.
- ✓ According to 48% AI can replace traditional teaching methods in the future to some extent.
- ✓ 88% perceive the overall impact of AI on education somewhat positive. Only 12% perceive the impact of AI usage on students' learning outcomes significantly positive.
- ✓ Only 12% mentioned that their institution is somewhat encouraging the use of AI in teaching.
- ✓ According to 72%, integrating AI into education requires significant policy and institutional support (Table 3).
- ✓ 75% needs support in ensuring data privacy and security, training programs, 65% needs institutional funding for AI tools and access to technical support (table 4).

Table 3: AI impact perceptions and future development expectations

Question	Response options	%
How likely are you to use AI tools more extensively in the future?	**Very likely**	**48**
	Somewhat likely	40
	Neutral	-
	Unlikely	12
	Very unlikely	-
Do you think AI can replace traditional teaching methods in the future?	Yes, completely	-
	Yes, to some extent	**48**
	Neutral	28
	No, unlikely	12
	No, not at all	12
How do you perceive the overall impact of AI on education?	Highly positive	-
	Somewhat positive	**88**
	Neutral	12
	Somewhat negative	-
	Highly negative	-
Have you observed any impact of AI usage on students' learning outcomes?	Yes, significantly positive	12
	Yes, somewhat positive	12
	Neutral	**76**
	Yes, somewhat negative	-
	Yes, significantly negative	-
Does your institution encourage the use of AI in teaching?	Yes, strongly	-
	Yes, somewhat	12
	Neutral	**40**
	No, not much	24
	No, not at all	24
Do you think integrating AI into education requires significant policy or institutional support?	**Yes, very much**	**72**
	Yes, to some extent	28
	Neutral	-
	No, not much	-
	No, not at all	-

Source: Composed by the author based on in-depth interviews.

The lecturers were asked to evaluate their satisfaction level with the use of AI tools in their academic performance on a scale of 1 (very dissatisfied) to 10 (very satisfied). Based on their responses, a customer satisfaction score (Raileanu, 2025b) was calculated:

CSAT Score (%) = sum of all scores x 10 / number of responses = 71.3%

This CSAT value is considered to be good.

They were also asked asked to evaluate how likely they are to recommend the use of AI tools for academic purposes to their colleagues, on a scale of 0 (absolutely not likely) to 10 (extremely likely). The average score of answers was 7.72. Based on their responses, a *Net Promoter Score* was calculated (Raileanu, 2025a). Responders with scores in the range 1-6 are detractors, 7-8 are passives, and 9-10 are promoters.

Net Promoter score = % of Promoters - % of Detractors

NPS = 12. A score between 0 and 30 is considered a good range to be in; however, there is still room for progress.

Table 4. Additional AI tools and support needed for lecturers

Question	Response options	%
What additional support would you need to effectively use AI in education? (select all that apply)	**Training programs**	**75**
	Institutional funding for AI tools	**65**
	Access to technical support	**65**
	Clear guidelines on the ethical use of AI in education	38
	Support in ensuring data privacy and security	**75**
	Support and collaboration opportunities	25
	Nothing	10
What additional AI tools or functionalities would you like to see developed for educational purposes?	**AI tools for real-time language translation in classrooms**	**62**
	AI-powered virtual teaching assistants to support instructors	13
	AI tools for creating immersive learning experiences (e.g., VR/AR with AI)	38
	AI-based tutors for after-class support and homework assistance	**65**
	AI tools for automatic grading of subjective and essay-type assessments	35
	AI tools for analysing student emotional and behavioural responses to content	**60**
	AI tools for creating and evaluating simulations and scenario-based learning	50
	AI systems to manage student records, attendance, and reports more efficiently	50
	AI for managing and predicting course demand and student enrolment trends	25
	AI tools to assist in research, such as literature reviews or hypothesis generation	37
	AI-powered data analysis tools for students and researchers	**80**
	AI systems for plagiarism detection across multiple languages and formats	**80**
	AI tools that ensure data privacy and security for students and teachers	**80**
	AI tools that support students with learning disabilities	**55**
	AI-powered assistive technologies for students with visual or hearing impairments	50

Source: Composed by the author based on in-depth interviews

The following AI tools or functionalities were mentioned by lecturers that they need to be developed for educational purposes: AI-powered data analysis tools for students and researchers (80%); AI systems for plagiarism detection across multiple languages and formats (80%); AI tools that ensure data privacy and security for students and teachers (80%); AI-based tutors for after-class support and homework assistance (65%); AI tools for real-time language translation in classrooms (62%); AI tools for analysing student emotional and behavioural responses to content (60%); AI tools that support students

with learning disabilities (55%); AI tools for creating and evaluating simulations and scenario-based learning; AI systems to manage student records, attendance, and reports more efficiently; AI-powered assistive technologies for students with visual or hearing impairments (50%) (Table 4).

Pearson Chi-square and Cramer's V testing was applied to test associations between some variables (Appendix 1). The results show that the association between variables is statistically significant and mainly moderate and strong (IBM Cognos Analytics, 2025). Mainly 31-45 years old are very satisfied with AI tools and are more likely to recommend these tools to their colleagues. The lecturers who use AI tools in their teaching activities regularly, have the highest satisfaction level and are more likely to recommend these tools to others. Lecturers who are the most satisfied are planning to use AI tools more extensively in future and to recommend to others.

Discussion

The findings show that the majority are familiar with AI tools used in education and mainly use them (similar results are revealed by many authors in the literature review). Some have received training, but the majority have not received any training on using AI tools in education (Mather, 2024).

Lecturers mainly use language translation tools (e.g., Google Translate), AI-powered writing assistants (e.g., ChatGPT) (Kiryakova & Angelova, 2023; Sok & Heng, 2024), AI for research support (Dempere et al., 2023), AI-based plagiarism detection tools (Gill et al., 2024). They use AI tools for doing research (Opele et al., 2024), detecting plagiarism (Gill et al., 2024), creating course materials and conducting administrative tasks (Opele et al., 2024; Patel & Ragolane, 2024).

The satisfaction level with the use of AI tools in their academic performance by lecturers is 71.3%. The lecturers have faced the main challenges while using AI tools revealed also by other authors: limited access to AI tools, lack of training or knowledge on how to use AI tools effectively (Mather, 2024; McGrath et al., 2023), doubt about the accuracy or reliability of AI tools and AI-generated content (Garrote Jurado et al., 2024), loss of creativity and critical thinking (Al-Kadi, 2025; Khlaif et al., 2024; Sun and Hoelscher, 2023), uncertainty about the ethical implications of AI use (Mather, 2024), concerns about data security and privacy (Ivanov, 2023; Balakrishnan and Vidya, 2024; Mutanga et al., 2024; Al-Mughairi and Bhaskar, 2024).

During the interviews lecturers mentioned several benefits of using ChatGPT in higher education. They noted that it can assist in generating teaching materials, supporting research, providing quick answers to student queries, and saving time on routine administrative tasks. Many highlighted its potential to enhance personalised learning, stimulate creativity, and offer students additional learning support outside the classroom.

At the same time, lecturers expressed concerns about its use. They worried that overreliance on ChatGPT could reduce students' critical thinking and problem-solving skills. Issues of academic integrity, plagiarism, and the accuracy of AI-generated content were emphasised, as well as the inability of ChatGPT to replace meaningful human interaction, mentorship, and nuanced feedback. Ethical and privacy considerations were also seen as significant challenges that require institutional guidance and support. Similar results were found in the works of Sok and Heng (2024), Balakrishnan and Vidya (2024), Kiryakova and Angelova (2023), Ansari et al. (2024), Dempere et al. (2023), Sun and Hoelscher (2023), Rasul et al. (2023), Mutanga et al. (2024), Al-Mughairi and Bhaskar (2024).

The majority of lecturers think that they will use AI more extensively in future. However, nobody thinks that AI can completely replace traditional teaching methods. The majority perceive the overall impact of AI on education positive. The majority thinks that integrating AI into education requires significant policy or institutional support, trainings, infrastructures (Sanders & Mukhari, 2024; Garrote Jurado et al., 2024; Patel & Ragolane, 2024; Tovmasyan & Ghazeyan, 2025; Luckin et al., 2022; Espinosa et al., 2025).

Conclusion

This study examined how lecturers perceive and utilise artificial intelligence (AI) tools in higher education, emphasising both the benefits and challenges associated with their integration. The results demonstrate that AI has strong potential to transform academic processes by improving teaching efficiency, enriching the learning experience, and supporting more personalised and adaptive approaches to education. Lecturers noted that AI tools can streamline routine tasks such as grading, administrative duties, and content generation, thereby freeing up more time for innovative and interactive teaching practices. In addition, AI can provide students with tailored learning support, increasing accessibility and engagement in the learning process.

At the same time, my study highlights several critical challenges. Lecturers expressed concerns about ethical issues, data privacy, the risk of students becoming overly dependent on technology, and the danger of diminishing the human dimension of education. Moreover, many lecturers stressed the lack of systematic training and institutional support as barriers to effective AI integration in teaching. These findings suggest that while AI should not be perceived as a replacement for human educators, it can be an invaluable complement when applied responsibly and strategically.

The contribution of this study lies in offering a nuanced understanding of how academic staff engage with AI in the Armenian higher education context, an area that remains underexplored in the current literature. By identifying both opportunities and risks, the research underscores the importance of developing comprehensive strategies, including capacity-building initiatives, ethical guidelines, and supportive policies, to ensure that AI adoption strengthens rather than undermines the core values of education.

Practical implications also emerge from the findings. Universities should prioritise professional development programs to equip lecturers with the knowledge and skills to use AI effectively. Policymakers and higher education leaders need to establish clear regulatory and ethical frameworks that guide responsible AI integration. At the institutional level, investments in infrastructure and technical support are essential to enable lecturers to adopt AI tools confidently. For lecturers themselves, cultivating a balanced approach—embracing the advantages of AI while maintaining human-centred pedagogy—will be key to achieving long-term success.

Ultimately, the study reinforces the idea that successful integration of AI in higher education requires balancing technological innovation with the irreplaceable role of human expertise, creativity, and ethical responsibility.

Limitations and suggestions for future studies

Despite its contributions, the study has several limitations. First, the sample size was limited to lecturers in Armenian four universities, which may restrict the generalisability of findings to other educational contexts. Second, the study mainly focused on qualitative insights, which, while valuable for depth, may not fully capture the broader patterns of AI adoption across higher education institutions.

Future research could address these limitations by conducting comparative studies across different countries and educational systems to examine cultural and institutional influences on AI adoption. Longitudinal studies would also be useful to track how lecturers' attitudes and practices evolve as AI technologies become more advanced and widespread. Moreover, future studies could combine qualitative and quantitative methods to provide a more comprehensive understanding of AI's impact on teaching effectiveness, student outcomes, and institutional performance. Finally, research exploring the ethical, psychological, and pedagogical implications of AI use in education will be essential for developing guidelines and policies that ensure its responsible and sustainable integration.

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Appendix 1: Pearson chi-square and Cramer's V testing

Variables	Pearson chi-square value	Asymp. sig. (2-sided)	Cramer's V
Age of lecturers * Satisfaction with the use of AI tools in academic performance	123.379	< 0.001	0.785
Age of lecturers * Likely to recommend the use of AI tools for academic purposes to the colleagues	53.883	< 0.001	0.519
Frequency of using AI tools in teaching activities * Satisfaction with the use of AI tools in academic performance	63.603	< 0.001	0.564
Frequency of using AI tools in teaching activities * Likely to recommend the use of AI tools for academic purposes to the colleagues	78.919	< 0.001	0.628
Satisfaction with the use of AI tools in academic performance * Likely to use AI tools more extensively in the future	68.991	< 0.001	0.587
Satisfaction with the use of AI tools in academic performance * Likely to recommend the use of AI tools for academic purposes to the colleagues	186.100	< 0.001	0.682

Source: Composed by the author based on SPSS analysis

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