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The Students' Perceptions of Artificial Intelligence (AI) in Higher Education: A Systematic Literature Review

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Abstract. The fast development of Artificial Intelligence (AI) has a strong impact on the situation in higher education, especially on the way in which students learn, communicate, and interact with educational materials. The present study is a systematic literature review that examines 24 peer-reviewed articles published in 2020-2025 which concern on university students' perceptions of AI technologies such as ChatGPT and generative AI tools. This research based on PRISMA methodology and the data acquired with the help of Publish or Perish application from the Scopus database, this study discusses the issues of acceptance and satisfaction, perceived benefits, ethical matters, and challenges regarding AI integration in higher education. The results show that most students perceive AI as a valuable tool that enhances efficiency, motivation, and learning autonomy. But there are still worries about overreliance, ethical use, academic integrity, and the potential erosion of critical thinking. The students' perceptions and usage patterns are affected by contextual factors such as the field of study, gender, cultural background, and prior digital literacy influence. The review highlights the necessity of the participatory governance, systematized pedagogy, moral principles and collaborative policy making to make AI integration responsible and fair in higher education. After all, AI should be positioned not merely as a technical aid but as a transformative component of a humanistic and reflective learning environment.

Keywords*:* Artificial intelligence; students' perceptions; higher education; ChatGPT; academic integrity

INTRODUCTION

The digital technology revolution has changed all aspects of human life, and the education sector is not an exception. Among the most reliable development areas is the rise in Artificial Intelligence (AI) technology that has brought great changes to the education context. Several AI educational uses, including intelligent tutoring systems, automated evaluation, adaptive learning systems, and educational chatbots, are currently being used to aid the teaching/learning process. It is expected that the use of this technology will allow greater efficiency, individualization of learning, and promotion of interest to students in academic activities. According to the recent reviews in scientific literature, AI can significantly support the process of helping students develop their emotions, learn new material, and make progress on the way to mastering registral language (An et al., 2025; Rad, 2024; Wang et al., 2023). AI in Education (AIED) is coming along with personalization and adaptive learning trajectories; however, it is characterized by heavy challenges. These issues include technological, pedagogical, and social ones (Balkir & Topkaya, 2025; Rane et al., 2025). The anticipation of the AI effects on education appears to be frightening and exciting (Bergdahl & Sjöberg, 2025; Kamalov et al., 2023; Seo et al., 2021). Automated assessment and feedback systems and intelligent tutoring systems have the potential to save teachers their time in the sphere of interacting and engaging with the learners because they can spend more time on the relational aspect (Bergdahl & Sjöberg, 2025; Bond et al., 2024; Mogavi et al., 2024). AI can also advance teaching in a region lacking qualified educators, benefiting the extent to which more students obtain high-quality education irrespective of the location across geographic areas (Alam, 2021; Chounta et al., 2022; Marrone et al., 2024).

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Higher education institutions are strategic arenas for the application of artificial intelligence (AI) technology in education because the learning process in higher education is quite complex and its needs tend to be more dynamic than before. Learning in higher education institutions not only involves the transfer of knowledge, but with the use of GenAI models, students can be more active in working on complex problems, answering questions, and assisting in essay writing, thereby accelerating the learning process (Fošner & Aver, 2025; M. M. Rahman & Watanobe, 2023). In this regard, the most important direct users of AI applications of any form are students, including learning chatbots, material recommendations, automatic evaluation platforms, etc. Their experiences and perception of this technology are deciding factors in the successful infiltration of the AI technology in the higher education ecosystem. When students feel relaxed and supported and realize the profitability of the AI use, the adoption rate and the efficiency of the AI will also tend to increase. On the other hand, in case the resistance is observed, or the issues of being ethical or fair or misunderstanding of the abilities of AI appear, the process can be slowed down. Such profound knowledge of how students perceive and experience the application of AI in the learning process is therefore essential in coming up with methods of implementation that are inclusive, effective, and sustainable. With the extreme intuitiveness of AI technology, AI working in a form that seems natural, easy to deal with, and even intelligent or responsive to the desires of the user, one might compare it to communicating with a human being. Professional education will be necessary to ensure proper use of AI technology by the users, especially the students in the universities (Klimova et al., 2024; Kohnke et al., 2025; Pikhart & Al-Obaydi, 2025).

However, students' acceptance of AI technology can influence its implementation. A positive attitude can be used to increase learning motivation, technology use, and school performance. On the one hand, prejudices or concerns about AI (e.g., data privacy, fairness, lack of human interaction, etc.) can be seen as barriers to the successful implementation of certain technologies. AI ethics principles are intended to help us adapt to the impact of AI on individuals and provide us with conceptual tools to shape AI practices, policies, and designs (Lu et al., 2024; Umbrello & Poel, 2021; Wiese et al., 2025), but they are not the only rules that are relevant in artificial intelligence (AI) ethics. This kind of principle has undergone a remarkably high amount of criticism, sometimes violent, about the presence of AI in the domain of education (Hagendorff, 2022; Munn, 2023; Wiese et al., 2025). However, at the stage where professional expertise is required, different surveys reveal that most respondents consider the probability of decision-making using artificial intelligence (AI) to be quite dangerous. For example, one situation that respondents are concerned about is as follows: AI determines a student's chances of graduating and/or obtaining a scholarship. Inaccurate assessments or recommendations from AI can lead to biased decisions that can have serious implications for the future and careers of the students affected (Araujo et al., 2020; Crockett et al., 2020; Y. N. K. Huang et al., 2025).

As more people are becoming interested in using artificial intelligence (AI) in instruction, there is a need to conduct a systematic literature review on how perceptions of students towards AI have been researched so far. This research seeks to conduct a review and synthesis of studies that address the topic of students' perception of AI in the context of higher learning. This study is based on the following aspects of acceptance, advantages, obstacles, and ethical concerns that occur in the process of students interacting with AI-based technology. It is hoped that the findings of this review will present detailed considerations to educators, technology developers, and policymakers when coming up with how to design and operationalize AI in learning institutions more efficiently at the higher-education level.

METHODS

This study uses the Systematic Literature Review (SLR) method, beginning with identifying the topic to be discussed. The research topic is “The Students' Perceptions of Artificial Intelligence (AI) in Higher Education.” Relevant literature on this topic was then searched using the Scopus database. The search for related journals was conducted using the Publish or Perish (PoP) application. By entering the topic to be discussed, namely “The Students' Perceptions of Artificial Intelligence (AI) in Higher Education,” the number of journals obtained was in line with the number we had set. After the literature was collected, the next step was to carefully filter the literature most relevant to the topic to be discussed in order to obtain accurate information.

The number of articles searched for was set at 200 articles from 2020 to 2025. The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) method was used to screen the

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collected articles. The initial screening resulted in 160 articles, which were then screened again, resulting in 125 articles that met the criteria based on their titles and abstracts. Articles that did not align with the research topic and those that were thesis/final project/dissertation reports were excluded, leaving 42 articles. Of these 42 articles, 18 were excluded because their scope did not focus on university students, leaving 24 articles. These 24 articles were reviewed, analyzed, and re-examined in detail to obtain accurate information related to the topic discussed. The following is a diagram of the steps taken in conducting a literature review using the PoP method.

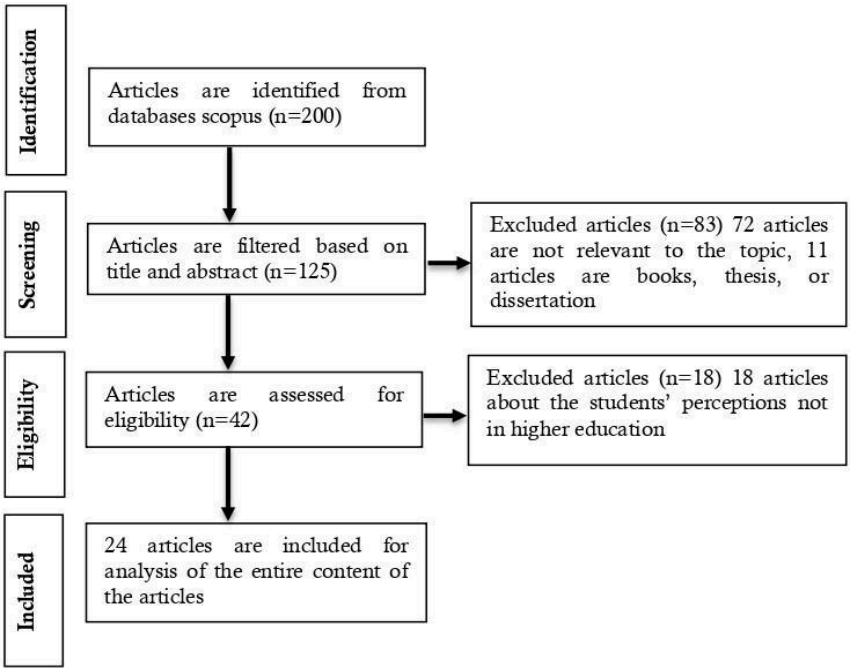

Figure 1. PRISMA flowchart for the review process.

FINDINGS AND DISCUSSION

From the screening results using the PRISMA method, 24 journal articles related to the topic "The Students' Perceptions of Artificial Intelligence (AI) in Higher Education" were obtained.

Tabel 1. The Students' Perceptions of Artificial Intelligence (AI) in Higher Education

Author/Year	Title	Objectives	Results
(Shuhaiber et al., 2025)	ChatGPT in Higher Education – A Student's Perspective	Assessing the factors that influence the adoption of ChatGPT by students in higher education, as well as assessing its impact on their learning behavior. This study also expands the UTAUT2 model by adding two new constructs: Trust and Perceived Risks.	Students' trust in ChatGPT and their expectations of its performance are the most important factors driving the adoption and use of ChatGPT in higher education. Despite concerns about risks such as inaccuracy of information and potential dependence, the majority of students still have a strong intention to use ChatGPT because of its benefits in helping them understand concepts, learn more efficiently, and complete academic assignments.
(Baek et al., 2024)	ChatGPT Seems Too Good to Be True": College Students' Use and Perceptions of Generative AI	This study explores how college students in the US (N=1001) use and interpret ChatGPT.	ChatGPT offers great potential in higher education, particularly in writing and support for linguistic minorities. However, attention must be paid to social inequality and ethical concerns. Developing AI policies based on

			fairness and training in ethical use are important steps.
(Charles et al., 2025)	AI in action: Changes to student perceptions when using generative artificial intelligence for the creation of a multimedia project-based assessment	The study of the experience of using AI in multimedia project-based evaluation and the issue of the sensitivity of such experience to influencing the perceptions of students about the use of AI in learning and assessment.	Students have an open but cautious attitude toward the use of AI. In addition, an assessment approach is needed that allows students to evaluate and integrate AI ethically and creatively. This study serves as a model for the integration of AI in authentic and sustainable assessment in higher education.
(Barus et al., 2025)	Shaping Generative AI Governance in Higher Education: Insights from Student Perception	To investigate how students view the way generative AI technology should be governed in higher education and create policy recommendations that rely on student feedback.	Students welcome the use of Generative AI but emphasize the importance of developing ethics, competencies, and supporting policies to prevent misuse. Higher education institutions need to actively involve students in the AI governance process in order to create a fair, ethical, and innovative educational ecosystem.
(Almulla, 2024)	Investigating Influencing Factors of Learning Satisfaction in AI ChatGPT for Research: University Students Perspective	Exploring the elements that impact students' learning satisfaction while making use of ChatGPT as their research tool in academic environments	The priorities in the development of the AI technology like ChatGPT are simplicity, the topicality of the information, and the ability to promote collaboration. Instructors should consider ChatGPT as an addition to an effective team-based learning plan
(Chookaew et al., 2024)	Fostering Student Competencies and Perceptions through Artificial Intelligence of Things Educational Platform	The assessment of the conceptual knowledge of AI, AI skills, and perception of AIoT using an active learning method based on the experience	Learners believe that the platform helps them to understand AI, practice is highly useful, that learning corresponds to the real world and peer and course leader support also seems to be quite significant.
(Dolenc & Brumen, 2024)	Exploring Social and Computer Science Students' Perceptions of AI Integration in (Foreign) Language Instruction	Exploring the views of social science and computer science students on the integration of artificial intelligence (AI) in foreign language (FL) learning with a consideration of the moderating influences, including field of study, gender, and type of AI (generative or non-generative)	The perception of students about AI varies considerably according to the degree of skills and the educational degree, gender, and the kind of AI witnessing differences. AI is viewed as an appropriate support tool, however, it cannot substitute the process of teaching at the moment. Thus, particular training, ethical principles, and balanced perspective are required in the process of AI implementation in language learning
(Espartinez, 2024)	Exploring student and teacher perceptions of ChatGPT use in higher education: A Q-Methodology study	To investigate and classify the perceptions of students and lecturers in the Philippines regarding the use of ChatGPT in the context of learning and teaching through the Q-methodology approach.	The potential of ChatGPT in higher education is there but it should be e co-constructive, ethical, and does not discriminate dissimilar theories and interests that should be in a balance between students and teachers and how the institution policies will accommodate it. ChatGPT is not to be prohibited but managed properly through training and guiding policies

(Cho & Ofosu-Anim, 2025)	Exploring international students' perceptions of adopting generative artificial intelligence (GenAI) technologies in learning	This study examines how gender, age, and knowledge influence international students' perceptions and intentions to adopt GenAI technology in higher education institutions.	International students tend to feel positive about GenAI Gender and age factor have the impact on the degree of use and adoption of this technology. Education, training, and policy inclusiveness are a prerequisite to narrow the gap on the adoption of this technology
(Habib et al., 2025)	Student perspectives on creative pedagogy: Considerations for the Age of AI	Knowing the ways in which the processes of teaching creative thinking and problem solving at a higher education may form the abilities of a student, particularly in the times of the fast-growing AI	The results of the test demonstrated that creative thinking courses enhance students particularly on confidence, skills and creative application situations. This is more pertinent in the era of the AI where creativity is a major skill in responding to the technological change
(Gruenhagen et al., 2024)	The rapid rise of generative AI and its implications for academic integrity: Students' perceptions and use of chatbots for assistance with assessments	We aim to investigate how students perceive and utilize generative AI chatbots such as ChatGPT for academic tasks, and how these behaviors are influenced by psychosocial factors and academic performance indicators	The use of AI chatbots by school-going students has become the norm, including in helping to complete courses and assignments. A majority of the students however do not view this as being against academic integrity. This work highlights the need to build clear and collaborative policies on AI use in higher education, redder assessments which are more authentic and resistant to AI manipulation and education on AI literacy and the critical information.
(S. Huang, 2025)	Chinese EFL students' perceptions about the role of artificial intelligence (AI) technologies in their second language (L2) self-concept	This is a study aimed at investigating the views of the EFL (English as a Foreign Language) students in China on the role that AI technology plays in the development of their self-concept when learning English as a second language (L2)	AI supports the development of self-concept through emotional, cognitive, learning outcomes, and independence pathways. The influence of AI on self-concept is closely related to the culture, motivation, and future expectations of learners. Self-concept develops when learners see the tangible results of using AI in their learning
(Almanea, 2024)	Instructors' and learners' perspectives on using ChatGPT in English as a foreign language courses and its effect on academic integrityWriting	To examine the views of English as a foreign language (EFL) teachers and students regarding the use of ChatGPT in English language teaching and its impact on academic authenticity	ChatGPT can be an effective assistance to EFL. Yet, this use of AI might be dangerous to academic integrity when there are no specific ethical contingencies. Yet the solution can be refuted with prohibition rather it should be through education, supervision and revision of the curriculum.
(Lepp & Kaimre, 2025)	Does generative AI help in learning programming: Students' perceptions, reported use and relation to performance	Investigating the application of AI chatbots (e.g., ChatGPT) in learning object-oriented programming (OOP) and understanding how students perceive them, how often they use them, and how it affects academic performance	Students utilize AI mostly to facilitate some practical activities, though they are not quite dependent on it. It makes people more motivated and helps to speed up their comprehension, however, extreme use imperils deep knowledge/academic achievements. Thus, a framework on how to use AI is necessary, because, otherwise, it may substitute the active learning process

(Malik et al., 2023)	Exploring Artificial Intelligence in Academic Essay: Higher Education Student's Perspective	Investigating the use of Artificial Intelligence (AI) in academic essay writing amongst students at the higher education level in Indonesia, especially in eastern and central Indonesia	AI can have a significant contribution as it helps students enhance their academic essay writing, yet, a harmonious balance should be maintained to eliminate the demeaning solution of creativity and ethics. AI can only be viewed as an assistant, not a substitute to the human writers
(Chan & Hu, 2023)	Students' voices on generative AI: perceptions, benefits, and challenges in higher education	This study investigates students' attitudes toward the application of Generative AI (GenAI) technologies, such as ChatGPT, in higher education, focusing on their awareness, advantages, drawbacks, and potential integration into the educational process	GenAI offers great potential in supporting learning and research in higher education. However, effective integration must take into account existing ethical, pedagogical, and policy challenges, while continuing to involve student voices in the formulation process
(Lünich et al., 2024)	Diverging perceptions of artificial intelligence in higher education: A comparison of student and public assessments on risks and damages of academic performance prediction in Germany	Examining and contrasting the attitudes of students and the general population in Germany towards AI care, specifically those concerning Academic Performance Prediction (APP) a system based on the AI that can be used to predict student performance in academic environments	Students tend to be supportive of AI but, at the same time, are afraid of using it to support their academic lives individually. The participation of the students is also significant in the designing of APP systems to ensure that they suit being in line with ethical and education values. The use of AI is something policy-makers and institutions of higher education need to deliberate about in terms of transparency, student autonomy, and social justice
(M. K. Rahman et al., 2025)	Students' mindset to adopt AI chatbots for effectiveness of online learning in higher education	Evaluating the impact factors on the adoption of AI chatbots by students, explaining the mediating role of the AI chatbot capability, the moderating facilitating conditions and extending the Technology Acceptance Model (TAM) in the context of online learning	A convenient, and indeed functional chatbot will enhance the learning experience, and thus other emotional variables like trust, intrinsic motivation, or attitudes to AI technology have to be investigated further.
(Stöhr et al., 2024)	Perceptions and usage of AI chatbots among students in higher education across genders, academic levels and fields of study	Investigating gender, academic level, and field of study as factors that can influence students in using ChatGPT and other AI chatbots in terms of level of usage, attitude, and concerns	ChatGPT has become the norm among the student population. Thus, this requires a local and contextual response to the employment of AI in learning and teaching. Educational institutions shall formulate rules, training and plans on varying student groups
(Oyelere & Aruleba, 2025)	A Comparative Study of Student Perceptions on Generative AI in Programming Education Across Sub-Saharan Africa	Evaluation of the motivation and attitude of students to the usage of GenAI tools to learn programming, and evaluating how students feel the AI tools can affect the overall equity, inclusivity, and diversity elements of the education process	There is significant potential of AI tools to democratize programming education in low resource regions. Nevertheless, AI is not totally inclusive and equitable yet, and there is work to be done on the design of the content to take into account the diversity of culture and user capacities.
(Cao et al., 2025)	Students' perceptions about	Investigating the popularity of ChatGPT among Chinese	However, students tend to have a favorable perspective on ChatGPT;

	the opportunities and challenges of ChatGPT in higher education: a cross-sectional survey based in China	college students and their higher education use of ChatGPT, in terms of their interest and focus on ChatGPT, the advantages and limitations of using ChatGPT and the other platforms	they believe that it can be useful in the process of learning and self-growth. Guiding and governing practices should be established to make the use of it safe, ethical and effective in higher education
(Alsswey, 2025)	Examining students' perspectives on the use of artificial intelligence tools in higher education: A case study on AI tools of graphic design	The measurement of the perceptions of using AI tools in the studying process by graphic design students based on the Utilitarian Benefits (functional benefits), Hedonic Benefits (satisfaction/enjoyment/learnability (ease of learning), aesthetic and user experience	The inclusion of AI design tools in graphic design educational courses should be encouraged since it will result in higher efficiency and creativity, an enjoyable education experience, and a way of preparing students to the digital and increasingly automated turnover in the sphere of graphic design
(Yusof et al., 2025)	Understanding the Role of AI in Malaysian Higher Education Curricula: An Analysis of Student Perceptions	Investigation of Malaysian students perception of the application of Artificial Intelligence (AI) in their higher education curriculum	In the case of students, satisfaction and utility are the major influences to adopt AI. Institutions have the responsibility of enhancing the quality of AI experience, training of students and teachers and localizing the integration of AI to the local Malaysian context. There is a lot of work to be done with regard to the credibility and quality of AI content despite the fact that it has a very low direct impact on adoption currently
(Yeung et al., 2025)	University students' perceptions on how generative artificial intelligence shape learning and research practices: A case study in Hong Kong	Learning about how students adopt GenAI in their learning and research practices (RQ1), how they feel about its positive and negative features (RQ2), and the efficiency of GenAI in assisting learning and research as per the 5E Instructional Model framework (RQ3)	The Hong Kong students tend to have an optimistic impression of GenAI in learning and researching. Ethical issues and possible dependencies are to be discussed on the proper policies and training

The information obtained from the analysis of 24 articles provides an overview of several perceptions of students regarding AI in higher education.

The Students' Perceptions of AI

Most students have a positive view of AI use, especially in the form of GenAI such as ChatGPT, because it is considered capable of improving learning and research efficiency, motivating academic engagement, and supporting independent self-development (Cao et al., 2025; Yeung et al., 2025). They experience practical benefits such as easier access to information, faster idea generation, and more personalized learning support. In this context, AI functions as a tool that accelerates the learning process and reduces excessive cognitive load. User-friendly and genuinely beneficial GenAI can enhance learning effectiveness, necessitating further research to explore other affective factors such as trust, intrinsic motivation, or attitudes toward AI technology (M. K. Rahman et al., 2025).

However, students also expressed concerns about the possible negative impacts, such as a tendency to become overly dependent on AI, a weakening of critical thinking skills, and a decline in active participation in the learning process (Lepp & Kaimre, 2025). When AI becomes too dominant as a source of instant answers, the greatest risk faced is a decline in the quality of reflective learning, as well as the loss of opportunities for students to hone their logic, creativity, and problem-solving skills independently. However, despite these concerns, students continue to use AI in their learning due to trust. Several studies highlight that trust and expectations regarding AI performance are the dominant factors driving ChatGPT adoption in academic contexts (Shuhaiber et al., 2025).

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This is the self-contradiction in the use of the AI in educational process where, on the one side, AI is regarded as beneficial add-on to the learning process due to its ability to enhance learning, hasten the process, and is seen as essential tool in the process of learning, but, on the other side, AI use may undermine the quality of thinking, intellectual autonomy, and metacognition of learners. Therefore, a pedagogical system is required whose approach would not only teach students and learners that AI is a technical tool, but also that care and good behaviors on what technology can do are a critical digital literacy practice, and whose students and learners would be trained to grasp, analyze, and perceive what it means to be wise in the use of technology. Nevertheless, substantial variations between the perceptions of AI according to educational background, gender and the type of AI applied exists. It can be viewed as a useful auxiliary service but not as a substitute to teachers; however, in certain South-Asian and European schoolchildren, the perception of AI as a supplementary educational aid has changed into AI being the substitute knowledge source, information-sharer, feedback and guidance provider, instead of a teacher (Guan et al., 2025; Ng et al., 2022; Ou et al., 2024). Special training, ethical and inclusive guidelines, and a moderate path are required in running AI in language teaching, and the use of AI requires proper guidance so that it does not substitute the learning process at all. This should also be supported by dialogue between students and teachers and the existence of institutional policies to support access and academic integrity (Baek et al., 2024; Chan & Hu, 2023; Charles et al., 2025; Dolenc & Brumen, 2024; Espartinez, 2024; Lepp & Kaimre, 2025).

AI and a Satisfying Learning Experience

Learning satisfaction also reflects high values among college students using fully operational AI technology that is designed in a way that is accessible with ease, offers relevant content and promotes interconnection and cooperation among participants (Almulla, 2024; Chookaew et al., 2024). Satisfation and utility are primary elements in increasing the uptake of AI among students (Yusof et al., 2025). With the suggested ChatGPT use in the context of collaborative learning and research activities, not only is the speed of information retrieval and understanding increased but also learning motivation, self-confidence, and active participation of students in academic processes are reinforced. It is believed that ChatGPT will assist students to structure their thinking, comprehend complicated matters and speed up the pace of scientific work that could not be completed earlier.

Furthermore, platforms such as AIoT (Artificial Intelligence of Things), which integrate AI technology with practical project-based learning experiences, have been shown to promote a more meaningful mastery of technical concepts (Chookaew et al., 2024). Students engaged in AIoT-based learning report that the hands-on approach, supported by social interaction with peers and facilitation from instructors, has a positive impact on conceptual understanding, technological competency development, and the relevance of learning to the real world.

This shows that the success of artificial intelligence (AI) integration in education is not solely determined by the level of technological sophistication, but rather by how the technology is integrated into human-oriented and student-centered instructional design. Factors such as positive user experience, intuitive interface design, interactivity, and social support from the learning environment are key elements in creating effective and meaningful learning. In other words, simply providing technology is not enough. Educational institutions must ensure that AI is supported by inclusive and process-oriented pedagogical design that strengthens the collaborative and affective dimensions of learning. The combination of smart technology and reflective educational practices will determine whether AI can make a real contribution to improving the quality of higher education.

Academic Ethics and Integrity

The use of ChatGPT is not always considered academic misconduct, and when used to get ideas, plan essays, and complete scholarly assignments or help in comprehending coursework content, students take this step with the idea that it is already a common practice of university students (Gruenhagen et al., 2024). In most of the scenarios, AI is perceived by the students as valid means of the learning process, comparable to digital dictionaries or internet-based relevant sources. This point of view indicates the change in ethical principles of higher education where the border between helping and infringing is less distinct as technology is developing. It must be noted that AI should not be used to replace human writers but only to provide an assistant (Malik et al., 2023).

However, there are also serious concerns among educators and researchers about the risks involved, such as automatic plagiarism, the use of AI results without attribution or acknowledgment, and a decline in the authenticity and originality of students' academic work in higher education, thereby threatening academic integrity. In this context, generative technologies like ChatGPT have the potential to

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encourage hidden copy-paste practices that are difficult to track, especially when students do not understand the ethical boundaries of their use. However, banning them is not the solution. Instead, through education, supervision, and curriculum adaptation, this can be controlled (Almanea, 2024).

The phenomenon represents the fact that the force of transition to new ethical principles of the era of electrification in the world of education has not yet been internalized by the students and not yet fully mitigated by educational institutions. Lack of clear and formal policies relating to AI use produces a loophole that can easily be exploited. Thus, universities must come up with practical, situational, and pedagogical student policies that do not only limit but also provide and instruct students about utilizing AI in ethical, responsible, and productive capacities. A total prohibition will on the contrary promote the development of subtle approaches and failure to embrace technological literacy that should be enhanced. That is, the institutional approach toward AI has to be transformational and not repressive so that academic integrity can be retained and educational innovation would not be hampered.

AI as a Cross-Disciplinary Learning Tool

AI, particularly in the form of chatbots such as ChatGPT, has proven to make a significant contribution to supporting foreign language and second language (L2) learning. This technology offers emotional support, provides instant feedback, and enables personalized learning practices tailored to the needs and abilities of each learner. AI's ability to provide quick and flexible responses makes it an adaptive learning partner, especially in language skill exercises such as grammar, vocabulary, or sentence structure, which typically require continuous repetition and reinforcement. This demonstrates that AI supports the development of self-concept through emotional, cognitive, learning outcomes, and independence pathways. The influence of AI on self-concept is closely related to students' culture, motivation, and future expectations (S. Huang, 2025).

However, along with these benefits, there are essential limitations that must be acknowledged. AI is not yet capable of replacing the role of human teachers, especially in aspects of culture, social interaction, pragmatic context, and the complex emotional nuances of intercultural communication (Almanea, 2024; Dolenc & Brumen, 2024). Language learning is not merely a study of the structures of languages but also a system of internalization of values, culture and communication sensitiveness and all these can only be acquired through human and relational experiences. The teaching and learning of the English language is radically changing with new tools like ChatGPT, Grammarly, Quillbot and Google Translate, particularly in the process of L2 writing, although it does not necessitate a shift in the role of teacher control in the use of such AI technologies (Cancino & Panes, 2021; Kohnke et al., 2025; Koltovskaia, 2020; Kurniati & Fithriani, 2022).

In the field of graphic design, integrating AI design tools into the graphic design curriculum is highly recommended because it can improve efficiency and creativity, provide an enjoyable learning experience, and prepare students for the rapid digital and automation developments in the design industry (Alsswey, 2025). This demonstrates that AI is not only useful in technical and STEM fields but also in creative and humanities fields. AI can also serve as an effective complement to traditional counseling services, particularly in the early stages of psychotherapy. This integration paves the way for broader AI integration in mental health services, although further testing is still needed in broader cultural and clinical contexts (Kuhail et al., 2024).

Social Dimensions, Inclusiveness, and Justice

Research indicates that the attitudes of students towards AI in tertiary education differ according to gender, age, discipline, and culture. Students in social science are more critical of the ethics and social implications and computer science students are technical in their views. More open to AI use in learning are younger and more tech-savvy students (Cho & Ofosu-Anim, 2025; Oyelere & Aruleba, 2025; Stöhr et al., 2024).

Especially in the context of developing countries, AI is often positioned as a tool to break down barriers to education, including overcoming limitations in teaching staff, learning materials, and uneven digital infrastructure (Malik et al., 2023; Oyelere & Aruleba, 2025). In this case, technologies like ChatGPT are seen as innovative solutions capable of bridging educational gaps and enhancing broader and more equitable learning participation.

AI has big potential to improve education, but current designs are too Western-centered and risk creating new inequalities. To be fair, AI must be inclusive, local, and culturally sensitive, with multilingual content and community involvement.

AI-based Assessment and Curriculum Design

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Application of AI-based initiatives at the higher education level has also been known to stimulate students to focus more on innovative thinking and discourse as well as be active in the learning process. Whenever required to perform or write multimedia tasks or analytical essays or to solve real-life problem scenarios using AI, not only do the students acquire technical skills, but also they are forced to think critically and strategically and make decisions on when, how, and to what extent AI can and should be used in an ethical and effective way. Creative thinking courses significantly enhance students' skills, independence, and ability to implement creative ideas. Students have an open but cautious approach to using AI. Furthermore, there is a need to assess the students in a way that enables them to learn how to evaluate and combine AI ethically and seriously (Charles et al., 2025; Habib et al., 2025).

These benefits can only be achieved if assessments are redesigned. If they rely on traditional methods like multiple-choice questions that AI can easily solve, students may misuse the technology for cheating, which reduces the real value of learning. Therefore, curriculum and assessment should be adjusted so that AI is seen as support for meaningful learning, not as a threat. This requires shifting to more authentic, process-based, and collaborative assessments, where students create real products and show higher-order thinking and 21st-century skills. Along with this, assessments should also measure students' metacognitive skills in using AI consciously, critically, and responsibly.

The Need for Governance and Guidelines

According to the students interviewed in different studies, educational institutions should focus on active participation in the government of AI technology, not only during the development of ethical guidelines and usage policy but also regarding the training of digital skills as well as transparency within the administration and usage of personal information (Barus et al., 2025; Lünich et al., 2024). They do not only want to be passive users; they want to be known stakeholders in decision-making processes connected to AI integration. This desire implicates the necessity of having an inclusive, democratic, and diversity-sensitive mode of governance that considers different experiences of users.

Without explicitly stated rules, there is a risk of the emergence of different types of abuse, such as violation of academic integrity, inequity in access to technology, and abuse of student information in non-transparent ways. This can also strengthen algorithmic bias, digital exclusion and institutional and individual power dynamics in a wider social context. AI governance model is not capable of being top-down, in which policies are unilaterally set by institutions without taking into account the dynamics in the field. A participatory and collaborative approach that will involve students, teachers, technology managers, and other stakeholders in all steps of decision-making, such as policy design and formulation of ethical guidelines and the assessment of the consequences of AI implementation, is what is required (Dolenc & Brumen, 2024; Espartinez, 2024; Lepp & Kaimre, 2025).

This involvement is necessary to ensure that the artificial intelligence (AI) ecosystem that is built is based on the principles of fairness, openness, and accountability. With this method, universities can create a non-threatening and stimulating environment where users can learn, experiment, and evaluate the positive use of AI in their work. This is not only about reducing risk, but also empowering the academic autonomy of the university community and its critical attitude in the digital revolution process.

CONCLUSION

This review of 24 research papers on the application of Artificial Intelligence (AI) on tertiary education reveals that AI and specifically chatbots, such as ChatGPT and generative technologies engage more and more widely in the teaching and learning process among students. The great majority of students show a favorable expectation of using AI and refer to the perceived increase in efficiency, the improvement of conceptual knowledge, and facilitation of individual and group learning. Factors like convenience, confidence in the artificial intelligence, and relevance to functionality are the major determinants of AI usage in academics.

But at the same time, the application of AI evokes several challenges and issues, namely the overreliance aspect, the weakening of critical thinking abilities, academic dishonesty, and the dilution of scientific originality. The students lack sufficient ethical literacy on the AI usage, and learning institutions lack effective policies, which are structured to govern the prudent application of the technology. This is why it is important to pay attention to education, supervision, and reflective and adaptive integration of curriculum in order to meet these challenges. Moreover, it was also revealed that perceptions on AI differ across gender, field of study, age, cultural context pointing to the significance of local and inclusive

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strategies to integrate technology on campus. AI is even viewed as a means to solve educational access inequality and extend the base of learning in the context of developing world.

Thus, holistic and inclusive AI governance is necessary, where students, teachers and other stakeholders are incorporated into the process of policy creation, writing ethical standards, assessing the process of implementation of technologies. I would propose that IAI should be framed not as a technical tool, but as one component of a humanistic, ethical, and transformational learning ecology. Under these conditions, adequate pedagogical design, authentic assessment, equitable policies, and engagement of the academic community can enable AI to be a beneficial impetus toward the improved quality of higher education, not a threat to previously-held academic values.

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