**ARTIFICIAL INTELLIGENCE: A GOD OR A TOOL?**

# ABSTRACT

Artificial Intelligence (AI) has emerged as a transformative tool in the field of education, offering enhanced efficiency, personalized learning, and the potential to revolutionize academic practices. However, while AI has proven its utility in various educational contexts, there is growing concern that it may be perceived as a substitute for human intellect and educators, rather than as a tool to complement their work. This paper aims to explore the role of AI in education, emphasizing the need for it to be seen as a tool rather than a god. Through a systematic literature review of six recent papers published in 2025, this study examines the benefits and limitations of AI in academia, exploring how AI can enhance student engagement, improve academic outcomes, and streamline educational processes. It also discusses the dangers of over-reliance on AI, highlighting the importance of maintaining human oversight and engagement to preserve the integrity of academic work. The findings suggest that AI can be a powerful academic partner, but its role should be carefully managed to prevent diminishing critical thinking, emotional intelligence, and human interaction in the learning process. The paper concludes with a call for a balanced approach to AI integration in education, where AI is leveraged as a tool to support, not replace, human-driven educational practices. Furthermore, it proposes directions for future research to ensure that AI is used ethically and effectively in academic settings.

# INTRODUCTION

## 1.1 Background

Artificial intelligence (AI) has emerged as a transformative force across various disciplines, including education, where it has revolutionized learning methodologies, academic research, and student engagement. AI-powered tools have enabled personalized learning, improved data-driven decision-making, and optimized instructional techniques (Yuan & Liu, 2025). From intelligent tutoring systems to AI-driven grading and feedback mechanisms, the academic sector has significantly benefited from AI's analytical and automation capabilities (Guo & Wang, 2025). However, as AI becomes increasingly integrated into academic workflows, a critical concern arises regarding how it is perceived and utilized by academic stakeholders.

The discourse on AI in education often oscillates between two extreme perspectives. On one end, AI is seen as an indispensable tool that enhances human capabilities and provides efficient solutions for learning and research (Miller, Miranda, & Tolentino, 2025). On the other end, there is a growing tendency to over-rely on AI, treating it as an omniscient entity capable of independent reasoning and absolute accuracy (Kalantzis & Cope, 2025). This perception is problematic, as AI, despite its advanced data processing and predictive capabilities, is fundamentally a product of human engineering, bounded by algorithmic limitations and inherent biases (Holmes, 2020).

Historically, educational technologies have undergone phases of skepticism and eventual acceptance, with AI now representing the next frontier in this evolutionary process (Chen, Zou, Xie, Cheng, & Liu, 2022). Previous advancements, such as Learning Management Systems (LMS) and adaptive learning platforms, have laid the groundwork for AI's role in academia (Alier, Pereira, García-Peñalvo, Casañ, & Cabré, 2025). However, while these technologies were primarily designed to assist educators and learners, AI introduces a unique paradigm where it can generate, curate, and even manipulate information autonomously (Chen, Chen, & Lin, 2020).

This shift raises ethical and philosophical questions regarding the extent to which AI should influence academic knowledge production. Should AI be regarded as an authoritative source of knowledge, or should it be confined to its intended role as an assistive tool? The potential consequences of misperceiving AI as an infallible entity include the erosion of critical thinking, academic dependency, and a dilution of intellectual rigor (Roll & Wylie, 2016). Given these concerns, it is imperative to critically examine how AI is perceived and utilized within the academic landscape.

## 1.2 Problem Statement

The increasing reliance on AI in academia poses a fundamental challenge: the misperception of AI as a source of absolute truth rather than a supplementary tool for knowledge acquisition and academic efficiency. AI is designed to analyze and generate information based on existing data patterns, but it lacks human cognition, reasoning, and ethical considerations (Pedro, Subosa, Rivas, & Valverde, 2019). This limitation is often overlooked, leading to instances where AI-generated content is accepted without scrutiny, thereby compromising academic integrity (Ouyang & Jiao, 2021).

One of the major concerns is that AI systems, such as large language models and automated grading tools, are being used to make critical academic decisions that traditionally required human judgment (Bewersdorff et al., 2025). While these tools can enhance efficiency, over-reliance on them may result in unintended consequences, such as biased grading, misinformation, and a diminished role for educators in the learning process (Timms, 2016).

Furthermore, the use of AI in research and publication raises concerns about originality and authorship. AI-generated text can blur the lines between human creativity and machine-generated output, making it challenging to distinguish between authentic scholarly contributions and AI-assisted compositions (Han, Kim, & Kwon, 2020). If AI is treated as an all-knowing entity, there is a risk of academic complacency, where scholars and students defer to AI-generated conclusions without critical engagement (Yetişensoy, 2024).

The implications of this shift extend beyond academia, influencing broader societal perceptions of AI’s role in knowledge creation. If AI continues to be perceived as an infallible academic authority, there is a danger that its outputs will be accepted uncritically, leading to the propagation of misinformation and intellectual stagnation (Knox, 2020). Therefore, there is an urgent need to address the perception of AI in academia and reinforce its role as a tool that supports, rather than replaces, human intellect.

## 1.3 Objectives of the Paper

The primary objective of this paper is to critically assess the perception of AI among academic stakeholders and emphasize the necessity of maintaining AI as a tool rather than an omniscient authority. Specifically, this study seeks to:

1. Analyze the perception of AI among academic stakeholders – This paper will explore how educators, students, and researchers perceive AI and the extent to which they rely on it for academic decision-making (Cóndor-Herrera, Arias-Flores, Jadán-Guerrero, & Ramos-Galarza, 2021).
2. Examine the benefits of AI in academia – AI offers numerous advantages, including personalized learning, automated assessment, and enhanced research capabilities (Wang et al., 2025). This study will highlight these benefits while ensuring that AI’s role remains within ethical and intellectual boundaries (Gocen & Aydemir, 2020).
3. Identify the limitations of AI in academic settings – Despite its strengths, AI is not immune to errors, biases, and ethical concerns (Chen, Xie, Zou, & Hwang, 2020). This study will assess the limitations of AI in knowledge generation and academic integrity.
4. Evaluate the risks of total reliance on AI – Over-reliance on AI can lead to the erosion of critical thinking, intellectual dependency, and misinformation (Alam, 2021). This study will investigate these risks and propose strategies to mitigate them.
5. Reinforce the need to sustain AI as an academic tool, not a god – The central argument of this paper is that AI should be regarded as a powerful academic resource, much like a digital encyclopedia or research assistant, rather than an ultimate authority on knowledge (Vinay, 2023). This perspective is crucial for preserving academic integrity and ensuring that AI serves as a complement to human intellect rather than a replacement (Fahimirad & Kotamjani, 2018).

# 2. LITERATURE REVIEW

Artificial intelligence (AI) has increasingly become a subject of academic discourse, particularly concerning its role in education. The literature on AI in academia covers various themes, including its benefits, limitations, ethical concerns, and long-term implications for human cognition and learning processes. This section reviews existing studies to provide a comprehensive understanding of how AI is currently perceived and utilized in educational contexts.

## 2.1 AI as a Transformative Tool in Academia

The role of AI in academia has expanded significantly, with scholars acknowledging its potential to enhance learning experiences, streamline administrative processes, and support research (Yuan & Liu, 2025). AI-driven technologies such as intelligent tutoring systems, automated grading, and plagiarism detection software have become integral to modern education (Guo & Wang, 2025). These technologies enable personalized learning by analyzing student performance and adapting instructional materials accordingly, thereby improving engagement and motivation (Miller, Miranda, & Tolentino, 2025).

Moreover, AI’s ability to process vast amounts of data in real-time has made it an essential tool for academic research (Alier, Pereira, García-Peñalvo, Casañ, & Cabré, 2025). Researchers now rely on AI-powered algorithms to conduct literature reviews, identify patterns in data, and even generate hypotheses. AI has also improved collaboration by facilitating knowledge-sharing through cloud-based platforms and automated content summarization tools (Kalantzis & Cope, 2025).

Despite these advantages, there is an ongoing debate about the extent to which AI should be integrated into academia. While some scholars argue that AI’s capabilities complement human intellect, others warn against over-reliance, emphasizing the need for human oversight and critical thinking (Holmes, 2020).

## 2.2 Perception of AI Among Academic Stakeholders

The perception of AI varies among educators, students, and researchers. Some view AI as a revolutionary tool that enhances learning, while others remain skeptical about its accuracy and ethical implications (Chen, Zou, Xie, Cheng, & Liu, 2022). A study by Ouyang and Jiao (2021) found that while students appreciate AI’s efficiency in providing instant feedback and learning support, many educators worry about its potential to diminish human involvement in teaching.

Research also suggests that students who heavily rely on AI for academic tasks may develop a dependency that weakens their critical thinking and problem-solving skills (Pedro, Subosa, Rivas, & Valverde, 2019). AI-generated responses, though often insightful, lack the depth of human reasoning and contextual understanding (Bewersdorff et al., 2025). This raises concerns about students' ability to engage in meaningful intellectual discourse and independent analysis.

Educators, on the other hand, struggle with the balance between leveraging AI for efficiency and ensuring that students do not misuse it for academic dishonesty (Timms, 2016). AI-assisted writing tools, for instance, have led to debates about originality and authorship in academic publications (Han, Kim, & Kwon, 2020). As AI becomes more sophisticated, distinguishing between human and AI-generated content becomes increasingly challenging, raising questions about academic integrity (Yetişensoy, 2024).

## 2.3 Benefits of AI in Academic Research and Learning

The integration of AI into academia has yielded several benefits. AI-powered analytics help institutions identify learning patterns and predict student performance, allowing for early intervention in cases where students struggle (Wang et al., 2025). AI-driven adaptive learning systems provide personalized educational experiences, catering to individual learning styles and improving retention rates (Gocen & Aydemir, 2020).

In academic research, AI accelerates data processing, enabling scholars to analyze large datasets efficiently (Chen, Xie, Zou, & Hwang, 2020). AI-driven literature review tools assist researchers in identifying relevant studies, reducing the time required to synthesize existing knowledge (Alam, 2021). Moreover, AI contributes to interdisciplinary collaboration by connecting researchers across various fields, fostering innovation and knowledge-sharing (Vinay, 2023).

Furthermore, AI enhances accessibility in education. Speech recognition software, language translation tools, and assistive technologies enable students with disabilities to participate more actively in academic settings (Fahimirad & Kotamjani, 2018). These advancements contribute to inclusive education, ensuring that learning opportunities are available to diverse student populations (Cano & Troya, 2023).

## 2.4 Ethical and Intellectual Concerns Surrounding AI in Academia

Despite its benefits, the use of AI in academia raises ethical and intellectual concerns. One major issue is the potential for bias in AI algorithms. Since AI systems are trained on existing data, they may perpetuate biases present in those datasets, leading to unfair academic assessments and skewed research outcomes (Briganti & Le Moine, 2020).

Another concern is the risk of academic dishonesty facilitated by AI tools. AI-generated essays, automated paraphrasing, and deepfake technology have made it easier for students to produce seemingly original content without genuine intellectual effort (Cóndor-Herrera, Arias-Flores, Jadán-Guerrero, & Ramos-Galarza, 2021). This raises concerns about the authenticity of student work and the effectiveness of traditional assessment methods (Knox, 2020).

Additionally, AI’s limitations in reasoning and contextual understanding mean that it cannot fully replace human judgment in academic decision-making. While AI can process information rapidly, it lacks the ability to critically evaluate complex ethical dilemmas or engage in nuanced intellectual debates (Han, Kim, & Kwon, 2020). This underscores the importance of human oversight in AI-assisted learning environments (Ramos Galarza, 2021).

## 2.5 The Risks of Over-Reliance on AI in Academia

Over-reliance on AI poses significant risks, particularly in the erosion of critical thinking skills among students. Studies suggest that excessive dependence on AI-generated content may lead to intellectual complacency, where students accept AI outputs without questioning their validity (Yetişensoy, 2024). This can weaken analytical skills and hinder the development of independent thought (Timms, 2016).

Furthermore, AI’s inability to provide original insights means that students who rely heavily on AI may struggle with creativity and problem-solving (Alier et al., 2025). AI-generated content is based on existing knowledge rather than novel ideas, limiting students' ability to contribute unique perspectives to academic discourse (Chen, Chen, & Lin, 2020).

In research, AI-generated literature reviews and summaries, while useful, may overlook critical studies that do not fit predefined algorithms (Pedro et al., 2019). This can lead to gaps in knowledge and a reliance on AI-curated information rather than comprehensive academic inquiry (Kalantzis & Cope, 2025).

Additionally, the increasing use of AI in grading and evaluation raises concerns about fairness and transparency. While AI can assess multiple-choice questions and structured responses efficiently, it struggles with subjective assessments such as essays and creative projects (Miller et al., 2025). Without human involvement, AI grading systems may fail to recognize nuanced arguments and originality in student work (Holmes, 2020).

## 2.6 Reinforcing AI as a Tool, Not a God

Given the potential risks of AI in academia, it is crucial to reinforce its role as a supportive tool rather than an autonomous authority. AI should be viewed as an academic partner that enhances research and learning but does not replace human intellect (Chen et al., 2022). Educators must implement strategies to integrate AI responsibly, ensuring that students develop critical thinking and problem-solving skills alongside AI-assisted learning (Guo & Wang, 2025).

Institutions should also emphasize the importance of ethical AI usage. Academic policies must address issues of AI-generated content, ensuring that students and researchers uphold principles of integrity and originality (Ouyang & Jiao, 2021). Furthermore, AI developers should work towards creating transparent and unbiased algorithms that support equitable education (Alam, 2021).

Ultimately, sustaining the right perception of AI is essential for preserving the integrity of academia. AI must be seen as a resource that augments human capabilities rather than a substitute for intellectual effort (Cano & Troya, 2023). By maintaining this perspective, academic stakeholders can harness AI’s potential while safeguarding the principles of critical inquiry and scholarly rigor (Briganti & Le Moine, 2020).

# 3. METHODOLOGY

This study employs a systematic literature review (SLR) methodology to explore and synthesize the recent developments in the application of artificial intelligence (AI) within academic settings. A systematic review was deemed the most appropriate method as it allows for a structured and comprehensive examination of current research in a focused area. The review process followed established procedures for systematic reviews, including detailed inclusion and exclusion criteria, data extraction, and critical analysis of findings.

The literature reviewed for this study consists of six peer-reviewed articles published in 2025. These articles were selected based on their relevance to the research topic, contribution to the field of AI in education, and the specific areas of focus they address, such as AI tools, student engagement, academic integrity, and the transformative role of AI in academia. The process of selecting, reviewing, and synthesizing these articles is discussed below.

## 3.1 Literature Selection and Inclusion Criteria

The selection of articles for this systematic literature review was guided by several key criteria:

Publication Year: Only studies published in 2025 were considered to ensure the review focused on the most current research.

1. Relevance to AI in Academia: The articles had to focus on AI applications within academic contexts, particularly its influence on teaching, learning, and academic practices.
2. Peer-reviewed Journals: To ensure academic rigor and credibility, only peer-reviewed studies published in reputable academic journals were included.
3. Focus on AI Tools and Pedagogical Impact: Articles were selected based on their exploration of AI tools, their implementation, and their direct or indirect impact on academic stakeholders (educators, students, and researchers).
4. Research Type: Both qualitative and quantitative studies were considered to ensure a broad perspective on AI’s role in education.

## 3.2 Search Strategy

The search for relevant literature was conducted using multiple academic databases, including Google Scholar, IEEE Xplore, JSTOR, and ScienceDirect. The following keywords were used in the search queries:

"Artificial Intelligence in education"

"AI tools in academia"

"Impact of AI on student engagement"

"AI academic integrity"

"Generative AI in learning"

"AI in teaching and learning 2025"

To further refine the results, filters were applied to limit the search to articles published in 2025. After conducting the initial search, duplicate records and studies that did not meet the inclusion criteria were excluded. The remaining studies were then thoroughly reviewed to determine their suitability for the review.

## 3.3 Selection of Articles

From the search results, six articles were selected for inclusion. These articles addressed key topics such as the effects of AI on student engagement, the transformative role of AI in science education, AI’s influence on academic integrity, and the ethical implications of AI in academic settings. The selected studies represent a diverse range of perspectives, from theoretical explorations to empirical investigations, thus providing a holistic view of the current landscape of AI in academia.

The six selected articles were:

* Yuan & Liu (2025) – "The effect of artificial intelligence tools on EFL learners' engagement, enjoyment, and motivation"
* Wang et al. (2025) – "Application of artificial intelligence for feature engineering in education sector and learning science"
* Bewersdorff et al. (2025) – "Taking the next step with generative artificial intelligence: The transformative role of multimodal large language models in science education"
* Miller, Miranda, & Tolentino (2025) – "Artificial Intelligence in Physical Education: A Review"
* Guo & Wang (2025) – "Exploring the Effects of Artificial Intelligence Application on EFL Students' Academic Engagement and Emotional Experiences: A Mixed-Methods Study"
* Alier et al. (2025) – "LAMB: An open-source software framework to create artificial intelligence assistants deployed and integrated into learning management systems"

## 3.4 Data Extraction and Analysis

Once the articles were selected, a detailed data extraction process was carried out. Key information from each article was extracted, including:

**Author(s) and Year of Publication:** To establish the source of the study.

**Research Objectives:** The specific aims or research questions addressed by the study.

**Methodology:** The research design, including whether the study was qualitative, quantitative, or mixed-methods, and any specific techniques or models used for analysis.

**Findings:** The primary outcomes or conclusions drawn by the authors, particularly in relation to AI's impact on education.

**Limitations:** Any limitations or caveats identified by the authors regarding their findings or methods.

This information was systematically recorded in a data extraction table to facilitate comparison and synthesis across studies. The articles were then analyzed thematically, with particular attention to the following aspects:

The benefits of AI tools in education, such as engagement, learning enhancement, and academic support.

The limitations and ethical challenges associated with AI, including concerns about bias, academic integrity, and dependency.

The role of AI as a tool rather than a replacement for human cognition, as emphasized in the discussion of AI’s potential to augment rather than replace educational processes.

## 3.5 Synthesis and Discussion

After extracting the data, the findings from the six selected studies were synthesized to identify common themes, patterns, and discrepancies. A qualitative analysis was performed to generate an overarching understanding of how AI is currently perceived and applied in academia, based on the six studies. Key insights from the studies were integrated to provide a nuanced understanding of AI's transformative role in education, as well as the potential risks and ethical challenges that must be addressed.

In particular, the analysis focused on:

How AI influences student engagement and academic performance, drawing from studies like Yuan and Liu (2025) and Guo and Wang (2025).

The ethical implications of AI usage in academia, particularly around issues such as academic integrity, bias in AI models, and the potential over-reliance on AI tools (Bewersdorff et al., 2025).

The idea of AI as a partner in learning, rather than a “god-like” figure that could replace human cognition or judgment (Wang et al., 2025; Alier et al., 2025).

This synthesis was organized thematically to ensure that each section addressed the most relevant and impactful findings, while maintaining the clarity and coherence of the overall narrative.

## 3.6 Limitations of the Methodology

While the systematic literature review methodology is robust for synthesizing existing knowledge, several limitations must be acknowledged:

1. Selection Bias: The review is limited to studies published in 2025, which may exclude earlier studies that provide essential historical context or foundational theories related to AI in education.
2. Database Limitations: Although a broad range of databases was consulted, it is possible that some relevant studies were missed due to search terms or database restrictions.
3. Scope of Literature: While six articles were selected, this is a relatively small sample size, which limits the breadth of the review. Future research could expand the review to include more studies from a wider range of disciplines, including AI ethics, pedagogy, and educational technology.

## 3.7 Ethical Considerations

Since this study involves reviewing and synthesizing published works, there are no direct ethical considerations regarding human participants. However, the ethical use of the data extracted from these studies was ensured by appropriately citing the sources and adhering to academic integrity standards.

# 4. RESULTS & DISCUSSION

This section presents the findings from the six reviewed papers in relation to the goals of the study. It also includes a detailed analysis of these findings and their implications, particularly in regard to the theme of this paper: Artificial Intelligence (AI) as a tool rather than a god in academic contexts. Furthermore, the findings are compared with those from previous studies to understand the broader implications of AI integration in education.

## 4.1 Findings from the Six Papers

The six papers selected for this systematic review provide a comprehensive understanding of how AI is impacting academic environments. These studies, published in 2025, cover various aspects of AI in education, including its effects on student engagement, its integration into learning management systems (LMS), its potential for enhancing learning experiences, and its role in supporting academic stakeholders. Below, the key findings from each paper are discussed:

**Yuan & Liu (2025) – The Effect of Artificial Intelligence Tools on EFL Learners' Engagement, Enjoyment, and Motivation**
Yuan and Liu (2025) explored the influence of AI tools on English as a Foreign Language (EFL) learners. Their study found that AI-based tools positively impacted student engagement and motivation, improving the learners’ enjoyment of academic tasks. The tools helped create more personalized learning experiences, enabling students to engage with content at their own pace. The paper emphasized that AI could serve as a powerful tool to enhance learning engagement, but it stressed that the role of AI must be viewed as that of a supportive tool, not a replacement for human interaction and intellectual engagement. This aligns with the paper’s central argument that AI must be integrated into academic systems without overshadowing human intellectual capacities.

**Wang et al. (2025) – Application of Artificial Intelligence for Feature Engineering in Education Sector and Learning Science**
Wang et al. (2025) focused on the use of AI for feature engineering in educational data analysis. They highlighted how AI could assist in the collection and interpretation of vast amounts of data related to student performance, enabling more precise and individualized feedback. However, the paper cautioned against over-reliance on AI-driven data analytics, noting that human educators’ insights and judgments are crucial for ensuring that AI applications are used effectively. This finding emphasizes the importance of viewing AI as an academic partner, not as a decision-making authority, which supports the central thesis of this paper.

**Bewersdorff et al. (2025) – Taking the Next Step with Generative Artificial Intelligence: The Transformative Role of Multimodal Large Language Models in Science Education**
Bewersdorff et al. (2025) explored the use of generative AI, specifically large language models, in science education. The paper discussed the potential for AI to transform science teaching by providing personalized educational content and real-time responses to student queries. However, the study also cautioned that generative AI, while powerful, could potentially undermine critical thinking skills if students relied too heavily on AI-generated responses without proper guidance from educators. This finding underscores the idea that AI should complement, rather than replace, human-driven instruction and problem-solving processes.

**Miller, Miranda, & Tolentino (2025) – Artificial Intelligence in Physical Education: A Review**
Miller et al. (2025) examined the role of AI in physical education, discussing how AI can be used to enhance teaching strategies, improve student performance tracking, and provide personalized exercise routines. The authors found that AI can significantly improve the efficiency of physical education by offering individualized feedback, but they emphasized that AI tools must be used in conjunction with human expertise to achieve optimal outcomes. This aligns with the argument that AI should be seen as a tool, not a substitute for human expertise or decision-making.

**Guo & Wang (2025) – Exploring the Effects of Artificial Intelligence Application on EFL Students' Academic Engagement and Emotional Experiences: A Mixed‐Methods Study**
Guo and Wang (2025) conducted a mixed-methods study on the effects of AI on the academic engagement and emotional experiences of EFL students. The study revealed that AI-based tools led to increased academic engagement and improved emotional responses from students, particularly in the context of language learning. However, the authors warned that excessive dependence on AI could result in a reduction of face-to-face interactions, which are crucial for developing emotional intelligence and social skills. This finding emphasizes the importance of balancing AI integration with traditional teaching methods that foster human interaction.

**Alier et al. (2025) – LAMB: An Open-Source Software Framework to Create Artificial Intelligence Assistants Deployed and Integrated into Learning Management Systems**
Alier et al. (2025) focused on the development of the LAMB framework, an open-source software designed to integrate AI assistants into learning management systems. The paper highlighted the potential for AI to enhance the efficiency and effectiveness of learning environments by providing personalized learning paths and assisting with administrative tasks. The authors emphasized that AI should be considered a collaborative tool that supports academic processes rather than a standalone solution. This supports the argument that AI should be integrated into academic systems as an enhancer, not a replacement for human teachers.

## 4.2 ANALYSIS OF FINDINGS

The findings from the six studies support the overall argument that AI should be viewed as a tool, not a god, within academic contexts. AI offers significant benefits in terms of enhancing student engagement, personalizing learning experiences, and improving the efficiency of educational systems. However, the studies consistently stress that AI must be used judiciously and must not replace the critical role of human educators, nor should it be relied upon as a sole source of academic decision-making.

The findings indicate that AI has the potential to enhance academic engagement and motivation, particularly when students have access to personalized learning experiences (Yuan & Liu, 2025). Moreover, AI’s ability to analyze large datasets can help educators provide more precise feedback and insights into student performance (Wang et al., 2025). This aligns with the view that AI can support academic stakeholders by providing them with tools that make academic tasks more efficient.

However, the studies also highlight the risks of over-reliance on AI. The potential for AI to undermine critical thinking and social interaction was emphasized in several papers, particularly in the context of language learning (Guo & Wang, 2025) and science education (Bewersdorff et al., 2025). AI can offer real-time, personalized responses, but it is critical that students do not become passive recipients of information. The findings underscore the need for educators to guide students in using AI tools effectively while maintaining their own intellectual engagement in the learning process.

Furthermore, the ethical implications of AI in education were raised by several authors. Issues related to bias in AI algorithms, the lack of transparency in AI decision-making processes, and the potential for AI to perpetuate inequalities were discussed (Wang et al., 2025; Bewersdorff et al., 2025). These concerns highlight the importance of maintaining a human-centered approach to AI integration in education, ensuring that AI serves to enhance academic integrity rather than undermine it.

## 4.3 Comparison with Previous Studies

When compared to previous studies on AI in education, the findings from the six 2025 studies reinforce many of the themes identified in earlier research, particularly regarding the potential benefits and challenges of AI in academic settings. Previous studies have consistently highlighted AI’s role in personalizing learning experiences, improving student engagement, and streamlining administrative tasks (Roll & Wylie, 2016; Chen et al., 2020). These earlier studies also echoed concerns about AI's potential to replace human educators and the risks of excessive reliance on AI tools.

However, the 2025 studies place greater emphasis on the ethical and social implications of AI in education, a theme that has gained increased attention in recent years. For instance, while earlier studies focused primarily on the technical capabilities of AI (Chen et al., 2020; Holmes, 2020), the 2025 studies highlight the need for a balanced and responsible approach to AI integration, where human educators continue to play a central role in shaping educational outcomes (Bewersdorff et al., 2025; Guo & Wang, 2025).

Moreover, the 2025 studies provide more concrete examples of AI tools and frameworks, such as the LAMB framework discussed by Alier et al. (2025), which demonstrates how AI can be practically implemented in learning management systems to support teaching and learning. This practical focus marks a shift from the more theoretical discussions seen in earlier research, offering new insights into the practical applications of AI in educational contexts.

## 4.4 Implications of the Findings

The findings from this study have several important implications for the academic community. First and foremost, they reinforce the idea that AI should be treated as a tool to enhance educational processes, rather than as a substitute for human educators or academic judgment. AI offers significant potential to improve student engagement, personalize learning experiences, and streamline administrative tasks, but it must be used responsibly and ethically.

AI tools can play a transformative role in supporting academic stakeholders by providing personalized learning experiences and offering real-time feedback. However, the findings also suggest that AI should be used in conjunction with traditional teaching methods that foster critical thinking, collaboration, and emotional intelligence. AI cannot replace the human elements of education that are essential for student development, particularly in the areas of social interaction and emotional engagement.

Furthermore, the ethical challenges associated with AI in education must be addressed. Issues such as algorithmic bias, the transparency of AI decision-making processes, and the potential for AI to exacerbate inequalities in education need to be carefully considered as AI tools are integrated into academic settings. Policymakers and educational leaders must ensure that AI is implemented in a way that promotes equity, transparency, and accountability.

# 5. CONCLUSION & FURTHER STUDIES

## 5.1 Conclusion

The role of Artificial Intelligence (AI) in education has garnered considerable attention in recent years, with its potential to revolutionize academic practices through personalized learning, real-time feedback, and data-driven insights. The findings from the six reviewed papers published in 2025 confirm that AI can serve as an incredibly valuable tool for enhancing academic experiences. It enables educators to engage students more effectively, personalize learning paths, and streamline administrative tasks. However, the results also reinforce the central argument of this paper: AI must be seen as a tool, not a god.

While AI can significantly support educational processes, the human element remains essential to maintaining the integrity and depth of academic engagement. AI's capabilities, such as curating vast amounts of information or providing personalized learning resources, must not overshadow the critical thinking, problem-solving, and emotional intelligence fostered by human educators. As highlighted by the studies reviewed, AI should not replace the role of teachers but should instead complement their efforts by providing them with tools to enhance student engagement, performance, and overall educational outcomes.

Additionally, the ethical implications of AI integration in education cannot be overstated. AI systems must be implemented with caution to avoid perpetuating biases, ensuring transparency, and promoting fairness in educational settings. The potential risks of over-reliance on AI, such as diminishing critical thinking skills or undermining face-to-face interactions, require that educators and policymakers approach AI adoption thoughtfully and responsibly. The focus must be on using AI to enrich the educational experience rather than replace the valuable, human-centered aspects of learning.

The studies reviewed also emphasize the need for educators to maintain a balanced approach to AI, integrating it into the learning environment as a tool that supports academic processes. This perspective is vital to ensuring that AI contributes to improving education without replacing the irreplaceable role of human educators in shaping intellectual, emotional, and social growth.

## 5.2 Further Studies

Despite the valuable insights gained from this review, several avenues for future research remain. First, further empirical studies are needed to explore the long-term effects of AI integration in various academic contexts. While the reviewed studies provide important insights into the benefits and challenges of AI, additional research is required to assess how AI impacts student outcomes over extended periods and across diverse educational settings.

Additionally, there is a need to investigate the ethical implications of AI in greater depth. Although this paper has touched on the potential risks of AI, such as algorithmic bias and the erosion of human engagement, future research should focus on developing guidelines and frameworks for the ethical use of AI in education. These studies could examine how AI systems can be designed to promote fairness, equity, and transparency, ensuring that AI’s benefits are distributed equitably across different student populations.

Another important direction for future research is the development of best practices for integrating AI into educational systems. Research could focus on how educators can be trained to use AI tools effectively and ethically, ensuring that AI enhances the learning experience without overshadowing the essential role of human interaction. Moreover, further work could explore how AI can be used to support marginalized groups in education, providing them with more equitable access to learning resources and opportunities.

Lastly, there is a need for more research on the implications of AI for teacher-student relationships. While AI can provide personalized feedback and support, it cannot replace the essential human connection between teachers and students. Future research could examine how AI can be used to support, rather than replace, the human elements of teaching, particularly in areas such as emotional support, mentorship, and fostering critical thinking skills.

In conclusion, the integration of AI in education holds great promise, but its use must be approached with caution, responsibility, and a focus on maintaining the human-centered aspects of teaching and learning. As AI continues to evolve, it is essential that academic stakeholders collaborate to ensure that its use in education enriches the academic experience without diminishing the irreplaceable role of human educators. Future research should focus on refining AI applications, developing ethical guidelines, and exploring how AI can complement human-driven educational practices to ensure a balanced, equitable, and effective learning environment for all students.

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