Enrichment: Journal of Management, 15 (4) (2025)

Published by: Instiute of Computer Science (IOCS)

Enrichment: Journal of Management

Journal homepage: www.enrichment.iocspublisher.org

Educators' attitudes toward artificial intelligence in higher education: a systematic review of influencing factors and hr implications

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ARTICLE INFO

Article history:

Received Sep 04, 2025
Revised Sep 12, 2025
Accepted Sep 22, 2025

Keywords:

AI Adoption ;
Artificial Intelligence ;
Educators' Attitudes ;
Higher Education ;
Systematic Review.

ABSTRACT

This systematic review examines educators' attitudes toward AI in higher education, analyzing adoption drivers, ethical concerns, and institutional support. Using PRISMA guidelines, we analyzed 26 studies (2018-2024) from Scopus and Google Scholar, categorizing findings into cognitive (knowledge), affective (ethical worries), and contextual (support) dimensions. Results show educators' AI acceptance depends on their technical understanding, ethical considerations, and institutional backing. While AI boosts productivity through automation, concerns about dehumanization and bias create resistance, with adoption varying by digital literacy and regional policies. We propose a model positioning educators as key stakeholders in AI integration. Practical recommendations include hands-on training, ethical guidelines, and inclusive decision-making to balance technological progress with human needs for sustainable implementation. The study highlights the need to address both technical and human factors in AI adoption.

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INTRODUCTION

The growing integration of artificial intelligence (AI) in education has prompted both opportunities and concerns regarding its impact on academic roles, teaching effectiveness, and human involvement in decision-making. AI applications in higher education such as automated grading, adaptive learning systems, chatbots, and administrative analytics have transformed not only instructional processes but also the way educational institutions manage their academic workforce. In the context of human resource (HR) development within higher education, the adoption of AI raises a crucial question: how ready and willing are educators to engage with AI systems? Their attitudes are shaped by a range of cognitive, emotional, ethical, and institutional factors. Positive engagement may lead to improved productivity, enhanced learning outcomes, and innovation in pedagogy. Conversely, skepticism or resistance toward AI could hinder

technological adoption and reduce the effectiveness of digital transformation strategies in educational institutions.

While existing research has explored AI applications in education and general technology acceptance, there is a lack of consolidated insight specifically focusing on educators' attitudes as a central variable in AI adoption. Furthermore, ethical concerns, lack of institutional support, and inadequate digital literacy remain recurring barriers. These challenges not only affect the effectiveness of AI usage but also have significant implications for talent development, employee involvement, and leadership readiness within academic settings.

At this point, it becomes clear that the connection between educators' attitudes toward AI and human resource (HR) development policies in higher education is mutually reinforcing. When educators show openness to innovation and readiness to adopt technology, HR policies that focus on digital literacy, pedagogical innovation, and technological adaptation can be implemented more effectively. On the other hand, skeptical or resistant attitudes—often stemming from ethical concerns, low levels of digital literacy, or limited involvement in policy-making—may weaken the impact of digital transformation initiatives. This highlights the importance of designing HR policies that are inclusive and participatory, engaging educators in decision-making processes while also providing continuous training and technical support. As noted by (Alghamdi, 2024), academic leaders with strong digital literacy are more likely to exhibit positive attitudes toward AI applications, underscoring how HR policies play a critical role in building educators' readiness and trust in technology.

While previous studies have examined AI implementation in clinical or technological domains (Pinto Dos Santos et al., 2019), limited attention has been given to how educators, particularly in higher education, perceive and respond to AI in their professional environments. In addition, although factors such as digital literacy, ethics, and institutional support have been noted (Al Saad et al., 2022; Sit et al., 2020) (, these insights remain fragmented and lack a unifying framework. Furthermore, socio-cultural context (Sindermann et al., 2020) and conceptual ambiguity surrounding AI (Cao et al., 2021) continue to complicate acceptance and practical application. In addition to individual and institutional factors, educators' attitudes toward AI are also influenced by socio-cultural contexts and national policies. Comparative studies show that in Europe, where strict regulations on data protection and ethical governance frameworks are well established, educators often approach AI adoption with a more critical and cautious perspective, emphasizing issues such as transparency, fairness, and accountability (Perrier et al., 2022; Sindermann et al., 2020). Conversely, in many Asian and Middle Eastern countries, government-driven modernization agendas and the pursuit of global competitiveness have accelerated the integration of AI in education. This policy orientation tends to foster more pragmatic and positive attitudes among educators, although challenges such as limited digital literacy and inadequate infrastructure remain evident (Allam et al., 2023; Ghotbi et al., 2021) . These cross-regional variations highlight that educators' perceptions of AI cannot be understood in isolation but are embedded within broader cultural norms and policy frameworks that shape their readiness and willingness to engage with technological innovation. This review addresses these gaps by synthesizing cross-contextual findings on educators' attitudes and proposing a thematic model that reflects the human dimension of AI transformation in education.

This study aims to fill this research gap through a systematic literature review (SLR)**.** It synthesizes peer-reviewed articles published between 2018 and 2024 that discuss educators' attitudes toward AI in the educational context. By identifying recurring themes, mediating factors, and institutional patterns, the review contributes to a better understanding of the human dimension in AI-driven educational transformation.

Artificial intelligence (AI) is reshaping the educational landscape through automation, personalization, and data-driven decision-making. From automated grading systems and virtual teaching assistants to adaptive learning platforms, AI has permeated both academic and

administrative functions in higher education institutions. While the promise of AI includes increased efficiency, reduced workloads, and tailored learning experiences, it also disrupts traditional teaching roles and challenges established pedagogical norms. For educators, this shift represents more than a technological upgrade it redefines competencies, roles, and expectations. Studies such as (Al Saad et al., 2022; Sit et al., 2020) suggest that educators' engagement with AI is not merely functional, but deeply tied to their sense of autonomy, identity, and perceived relevance within an evolving digital ecosystem.

Attitudes toward AI are complex and multidimensional. While some educators embrace AI as a tool for enhancing student learning and automating routine tasks, others perceive it as a threat to professional autonomy or job security. The Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) provide theoretical foundations for understanding such attitudes, emphasizing perceived usefulness, ease of use, and social influence. However, in the education sector, acceptance is not solely determined by functionality—it is often mediated by ethical considerations, pedagogical values, and emotional responses. A review by (Ghotbi et al., 2021) found that educators frequently cite data privacy, bias in decision-making algorithms, and dehumanization of learning as major concerns.

As AI systems increasingly influence educational content delivery, assessment, and student profiling, ethical issues become unavoidable. Concerns include the use of students' personal data, algorithmic transparency, potential discrimination, and the reduction of human-centered judgment. These concerns are especially salient in the context of AI-supported decision-making in HR functions, such as hiring, promotion, or workload distribution, where fairness and accountability are paramount (Montag et al., 2024). Educators' skepticism toward AI often stems from these unresolved ethical tensions, which must be addressed through institutional policies, digital ethics training, and inclusive technology design.

From a human resource (HR) management standpoint, educators are not merely passive recipients of AI technologies, but rather active and strategic stakeholders whose involvement is crucial in shaping how AI is adopted, adapted, and institutionalized in educational environments. As highlighted in several studies(Al Saad et al., 2022), the attitudes of educators significantly determine whether AI tools are accepted or resisted, and whether such technologies are integrated effectively into academic workflows. Involving educators in AI-related decision-making—through policy discussions, curriculum planning, or platform testing—not only increases the likelihood of successful implementation but also enhances their sense of agency and ownership, which has been found to reduce resistance and foster trust (Malik et al., 2023; Thompson et al., 2020). Furthermore, educators' attitudes toward AI are closely tied to broader HR development priorities, including digital skills development (Sit et al., 2020), and institutional ethics and well-being (Ghotbi et al., 2021; Leyva-López et al., 2022). These intersecting factors emphasize that AI readiness is not only a technical or pedagogical issue but also a human capital issue, situated firmly within the domain of HR planning.

RESEARCH METHOD

Research Design

This study employed a **systematic literature review (SLR)** to synthesize empirical findings on educators' attitudes toward artificial intelligence (AI) in educational contexts. The review was conducted following the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, which provide a rigorous and transparent framework for selecting, evaluating, and synthesizing relevant studies.

Search Strategy and Inclusion Criteria

A systematic literature search was conducted across two prominent academic databases, Scopus and Google Scholar, to identify relevant peer-reviewed articles published between 2018 and 2024, ensuring coverage of recent developments in AI applications within education. The search utilized key terms and Boolean operators, including "artificial intelligence" AND education AND (teacher OR lecturer OR educator), "AI adoption" AND "higher education", and "attitudes toward AI" AND (learning OR productivity OR ethics), to capture studies aligned with the research focus. To maintain academic rigor, inclusion criteria were applied, restricting selection to peer-reviewed journal articles that examined educators' perceptions, attitudes, or experiences with AI in educational contexts, were written in English, and employed empirical qualitative, quantitative, or mixed-methods approaches. Conversely, studies were excluded if they focused solely on technical AI development without educator involvement, lacked relevance to higher education or teaching environments, or represented non-empirical works such as editorials, opinion pieces, or conference abstracts. This methodological approach ensured the analysis was grounded in high-quality, contextually relevant literature addressing educators' perspectives on AI integration in education

Article Selection Process

The initial search returned approximately 1,000 articles. After screening titles and abstracts for relevance, 49 articles were selected for full-text review. Following further eligibility checks based on inclusion criteria, 26 articles were retained for final analysis.

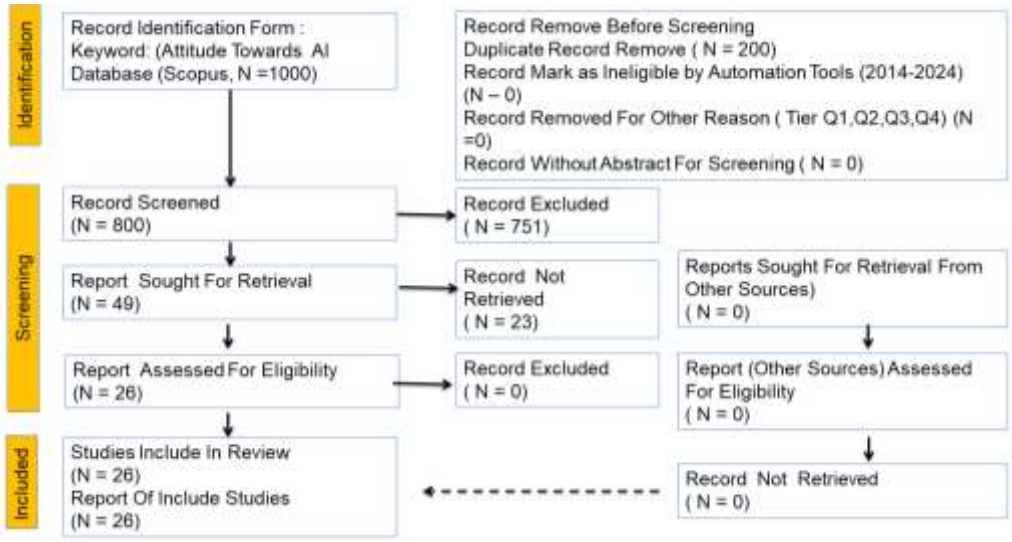

Figure 1: The selection process is summarized in the PRISMA flow diagram

Data Extraction and Thematic Synthesis

From each selected study, the following data were extracted: Author(s), year of publication, Country/region, Research methodology, Key findings related to educators' attitudes toward AI, Reported influencing factors and implications

A thematic synthesis approach (Braun & Clarke, 2006) was used to analyze the data. Codes were developed inductively from the content of the studies and grouped into higher-order themes. These themes reflect recurring patterns in how educators perceive and respond to AI in their professional environments.

Quality Assessment

Each study was evaluated for methodological rigor and relevance using the following criteria: Clarity of research objectives, Appropriateness of methodology, Transparency in data collection and analysis, Relevance to the central research question All 26 articles met minimum quality thresholds and were considered suitable for inclusion in the synthesis.

RESULTS AND DISCUSSIONS

Results

Overview of Reviewed Studies

A total of 26 peer-reviewed articles were included in the final analysis. The studies spanned various geographical contexts, including Asia, Europe, the Middle East, and North America. Most studies were published between 2020 and 2023 and employed quantitative survey designs (69%), followed by qualitative methods (23%) and mixed methods (8%). The majority focused on higher education institutions, examining how AI was perceived and integrated by faculty members and educators. As illustrated in **Figure 2,** the publication trend shows a steady increase in the number of reviewed articles from 2019 to 2023, peaking in 2023 with eight articles. This upward trend suggests a growing academic interest in the topic during this period. However, a noticeable decline is observed in 2024, which may be due to the year still being in progress or a potential shift in research focus. The key characteristics of the reviewed studies are summarized in Table 1**.**

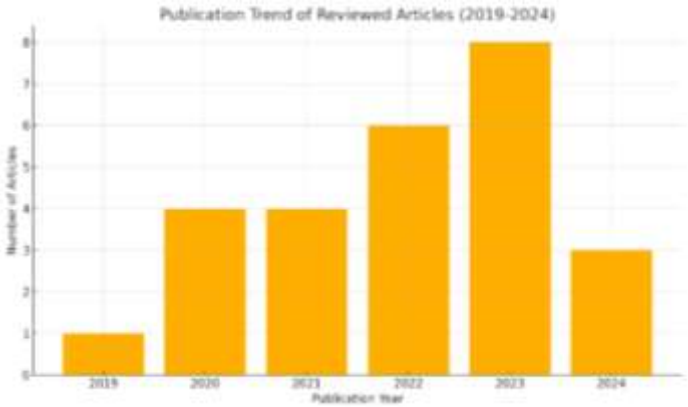

Figure 2 : Publication Trend From *2019 to 2024*

Table 1 : Overview of Included Studies

No	Authors	Context Area Study	Country	Result
1	(Pinto Dos Santos et al., 2019)	The context area of this study is the attitude of undergraduate medical students toward artificial intelligence (AI) in the fields of radiology and medicine.	Germany	The study reveals that medical students are aware of AI applications in radiology and medicine. Students are not afraid of AI replacing human radiologists. The research suggests that AI should be integrated into medical training.
2	(Martin et al., 2020)	This study focuses on the influence of consumer anthropomorphism on attitudes toward AI travel advisors, particularly in the context of tourism reviews and destinations.	China	The study states that anthropomorphism positively influences attitudes toward AI-curated reviews. Additionally, the need for cognition and the use of smartphones are associated with positive attitudes.
3	(Romero-Brufau et	This article focuses on the implementation of	USA	The study reveals that the use of 'AI' and 'AHI' in surveys yields similar responses.

	al., 2020)	AI/AHI-based decision support in regional healthcare systems.		Terminology does not significantly influence attitudes toward AI/AHI.
4	(Sinderm ann et al., 2020)	This study was conducted in Germany, China, and England, focusing on attitudes toward artificial intelligence among individuals in these countries.	Germany	Introduces a reliable measure to assess attitudes toward artificial intelligence, identifying two factors: acceptance and fear of artificial intelligence. Reveals a positive relationship between willingness to use AI products and the ATAI scale.
5	(Sit et al., 2020)	This study was conducted in England and focuses on the attitudes, understanding, and career intentions of medical students related to artificial intelligence (AI) and radiology.	England	The study reveals that UK medical students value AI and desire expanded AI training. It is also stated that AI training influences students' career intentions, particularly in radiology. Therefore, realistic cases and limitations of AI use should be presented to students.
6	(Yuzbasio glu, 2021)	The context area is the integration of artificial intelligence (AI) in the field of dentistry, specifically focusing on the attitudes and perceptions of dental students toward AI technology.	Turkey	This study shows that dental students are optimistic about the positive impact of AI on future practice. Additionally, participants are willing to increase their knowledge even though their understanding of AI is insufficient. The study also recommends follow-up surveys and multinational studies for further exploration.
7	(Bhandari et al., 2021)	The main context of this article is artificial intelligence (AI) in the field of radiology/medical imaging.	Australia	The study reveals that AI will significantly impact radiology practice and professional careers. Additionally, patients prefer human input alongside AI in imaging interpretation.
8	(Cao et al., 2021)	The context area of this study is the use of AI for organizational decision-making.	England	The study explains that an integrated AI acceptance avoidance model explains managers' attitudes and intentions. Developing favorable conditions and addressing personal issues are crucial. Balanced consideration of the benefits and challenges associated with AI use.
9	(Ghotbi et al., 2021)	The context area of this study is the ethical issues of artificial intelligence (AI) and its impact on society, specifically focusing on the attitudes of students at an international university in Japan.	Japan	The study reveals that unemployment is a major ethical issue related to AI. As a research suggestion, the emotional aspects of AI need to be considered in research and development.
10	(Micocci et al., 2021)	The context area is the use of AI-based decision support tools in dermatology for early detection of skin cancer, particularly in primary healthcare services.	England	In this study, it is stated that doctors improve diagnosis with accurate AI information, especially in dermatology. Additionally, domain knowledge in dermatology helps doctors reject incorrect AI insights.
11	(Al Saad et al., 2022)	This study was conducted in Jordan, involving medical students from 6 universities in the country.	Jordan	The study reveals that AI will be very important in future healthcare settings.

12	(Ho et al., 2022)	This study focuses on the attitudes of optometrists in Australia toward the use of AI to assist in diagnosing retinal diseases.	Australia	The study reveals that optometrists have a positive attitude toward using AI to diagnose retinal diseases. It is also mentioned that optometrists prefer AI for a second opinion after consultation.
13	(Kuleto et al., 2022)	The study was conducted among K-12 teachers in the education alliance link (lea) in Serbia.	Serbia	It is stated that teacher awareness influences the implementation of AI in K-12 schools. The research verifies the science gap and provides assistance in narrow fields. The study also discusses the limitations of pilot studies, including small sample size and exploratory nature.
14	(Nichol et al., 2022)	This article focuses on efforts to predict attitudes toward screening for neurodegenerative diseases using OCT and artificial intelligence (AI) as a diagnostic aid.	England	The study explains the factors influencing the uptake of AI screening for neurodegenerative diseases. Additionally, it is explained that positive predictors include ethnicity, social influence, AI use, and screening experience. The study also suggests that further experimental research is needed to validate and explore predictor interactions.
15	(Pena-Acuna & Crisman-Perez, 2022)	This study focuses on the use of a virtual interactive environment in the Papua application to facilitate language learning among university education students with Spanish as their L1.	Spain	The study reveals that the use of AI can significantly improve oral skills, followed by vocabulary memorization. Additionally, positive attitudes toward English language learning and motivation are reported.
16	(Perrier et al., 2022)	The development and implementation of artificial intelligence tools in healthcare and pediatrics.	France	The study highlights positive attitudes toward AI, the need for training, and ethical issues in AI use. It is explained that there is a positive view of AI but a lack of adequate knowledge about AI in its use.
17	(Al-Ali et al., 2023)	The context area is the attitudes of dermatologists in Saudi Arabia toward the use of artificial intelligence in dermatology and medicine.	Saudi Arabia	The study explains that dermatologists in Saudi Arabia have a positive attitude toward AI. AI is seen as revolutionizing dermatology but not replacing doctors.
18	(Allam et al., 2023)	This article focuses on medical students in nine countries in the Middle East and North Africa (MENA) region to understand their views on artificial intelligence in medical practice.	Arab	The study states that Arab medical students lack AI knowledge but have a positive perception. AI can revolutionize medicine, reduce the need for radiologists, and assist in diagnostics. The majority agree that AI is beneficial for healthcare systems and medical curricula.
19	(Evans et al., 2023)	The context area of this study is focused on food production and service environments, particularly related to hand hygiene compliance among food handlers.	Australia	The study reveals that AI can revolutionize hand hygiene compliance in the food sector. Benefits include constant monitoring, training feedback, and behavioral understanding.
20	(Hamedani et al., 2023)	This study was conducted in eight general hospitals affiliated with Iranian medical universities	Iran	The study states that participants have average knowledge and acceptance of AI in healthcare. Additionally, attitudes toward AI are relatively favorable, though cautious. Therefore, educational programs are

		located in Tehran.		recommended to increase awareness and reduce uncertainty.
21	(Mousavi Baigi et al., 2023)	The article discusses attitudes, knowledge, and skills related to artificial intelligence among students in the healthcare field.	Iran	The study reveals that healthcare students have a positive attitude toward AI in medicine. Most students have low knowledge and limited skills in working with AI.
22	(Nadarzynski et al., 2023)	The context area of this study is the attitudes of sexual and reproductive health professionals toward AI chatbots capable of providing advice and services in sexual and reproductive health.	England	The study reveals that half of SRH professionals are hesitant about chatbots due to security concerns. The study also reveals that chatbot designers must address healthcare professionals' concerns for better acceptance.
23	(Singh et al., 2023)	The context area of this article is the integration of artificial intelligence in dentistry, specifically focusing on the knowledge, awareness, and attitudes of dental students toward AI.	India	The study states that dental students are aware of the benefits of AI in dentistry. Technical resources and training are needed for AI integration.
24	(McGenity et al., 2023)	The context area of this study is liver pathology practice in England, focusing on the adoption and perceptions of digital pathology and artificial intelligence tools.	England	The study reveals that the majority of liver pathologists in England support digital pathology and AI. However, it is also stated that there are concerns about AI development without the involvement of pathologists.
25	(Montag et al., 2024)	This study is in the context of the increasing integration of artificial intelligence into various products and the impact of AI on society globally. It addresses the lack of research on attitudes toward AI despite its growing influence.	Germany	The study reveals that higher SADNESS is associated with negative attitudes toward AI, and Neuroticism is linked to negative attitudes toward artificial intelligence. Additionally, Affective Neuroscience Theory helps understand attitudes toward artificial intelligence.
26	(Novozhilova et al., 24)	This article focuses on public perception of AI implementation in the workplace.	USA	The study reveals that attitudes toward AI management vary based on demographic characteristics. Suggestions for future research include exploring factors influencing comfort with AI systems.

The data presented in the table reveal significant variations in methodological approaches, research foci, and geographical contexts across the studies. Several articles emphasize the critical role of training and institutional infrastructure in AI adoption, while others highlight ethical dimensions, social implications, as well as educators' attitudes and readiness levels. This methodological and contextual diversity reflects the inherent complexity of the subject matter and underscores the necessity for a more comprehensive thematic synthesis to identify overarching patterns emerging from the literature

Thematic Findings

Thematic analysis of the 26 articles revealed four core themes that consistently appeared across different studies. These themes are summarized in Table 2**.**

Table 2: Core Themes from the Thematic Analysis

Theme	Description	Supporting Studies
1. Attitudinal Diversity	Educators' attitudes toward AI vary significantlysome are enthusiastic, others are skeptical or resistant. Differences often stem from generational, experiential, or disciplinary factors.	(Sit et al., 2020; Yuzbasioglu, 2021)
2. Influencing Factors	Acceptance is influenced by digital literacy, professional development, access to infrastructure, and perceived usefulness of AI tools.	(Al Saad et al., 2022; Cao et al., 2021)
3. Ethical Concerns	Concerns about data privacy, algorithmic bias, and the dehumanization of teaching are major barriers to AI acceptance.	(Ghotbi et al., 2021; Leyva-López et al., 2022; Montag et al., 2024)
4. Impact on Productivity	AI can improve administrative and instructional efficiency, but concerns exist about its effect on creativity, empathy, and human connection in education.	(Hamedani et al., 2023; Morales-García WC, 2025)

Conceptual Model

The findings from the thematic analysis were integrated into a conceptual model (Figure 1) that illustrates the interplay between influencing factors, educators' attitudes, and the outcomes of AI adoption in higher education. The model also positions **ethical considerations** as a mediating element and highlights the role of **institutional HR strategies** in facilitating successful adoption.

Figure 3: Model of the Relationship between Educators' Attitudes, AI Adoption, and Performance
Source: Adapted and developed from the results of the systematic literature synthesis conducted in this study.

This model illustrates that educators' attitudes toward AI are influenced by three main elements: knowledge and experience, ethical and social issues, and training and infrastructure. These attitudes subsequently serve as key determinants in the process of AI adoption within educational settings, ultimately impacting educators' productivity and performance. The model not only depicts the hierarchical flow of influence but also provides direction for the development of policy interventions and training programs that are grounded in the real needs of educators in the digital era.

Discussion

This systematic review highlighted how educators' attitudes toward artificial intelligence (AI) are shaped by a complex interplay of factors, which in turn influence AI adoption and its impact on productivity and performance in higher education settings.

Educators' Knowledge and Experience

Many studies emphasized that educators' familiarity with AI directly affects their willingness to adopt it. For instance, Yuzbasioglu (2021) and Sit et al. (2020) found that prior exposure to AI tools led to more constructive and confident attitudes. Conversely, educators with low digital literacy tend to perceive AI as either irrelevant or threatening. This suggests that professional exposure plays a critical role in shaping positive engagement.

Educators' levels of digital literacy and their practical experience with AI emerged as decisive factors shaping acceptance or resistance toward technology integration. Several studies indicate that educators with prior exposure to AI tools, such as adaptive learning systems or automated grading platforms, tend to express more confidence and constructive engagement, perceiving AI as a supportive instrument that can reduce workload and enhance teaching effectiveness (Sit et al., 2020; Yuzbasioglu, 2021) . Conversely, limited digital literacy often correlates with skepticism and resistance, as educators may view AI as a threat to professional identity or as an overly complex tool with little pedagogical value (Cao et al., 2021; Hamedani et al., 2023). This suggests that digital competence not only affects functional skills but also influences educators' self-efficacy and willingness to experiment with new pedagogical practices. Accordingly, institutions that provide continuous professional development, hands-on training, and opportunities for educators to pilot AI applications are more likely to foster positive attitudes and reduce resistance, highlighting the importance of aligning technological implementation with capacity-building initiatives (Dringó-Horváth et al., 2025).

Ethical and Social Concerns

Several articles in the review—such as those by (Ghotbi et al., 2021; Montag et al., 2024) identified ethical concerns as major barriers to AI adoption. Common issues include data privacy, the fairness of algorithms, and the perceived threat of automation to educators' roles. These concerns often provoke skepticism, especially when educators feel excluded from the development or governance of AI tools.

Training and Institutional Support

Studies such as those by (Al Saad et al., 2022; Cao et al., 2021) emphasize that institutional readiness, including the availability of infrastructure and training programs, significantly affects educators' attitudes. When educators feel adequately supported by their institutions, their confidence in using AI increases. However, lack of technical support or leadership engagement can lead to disengagement or passive resistance.

Impact on Productivity and Performance

Multiple studies reported that AI can enhance educators' productivity, especially by automating repetitive tasks such as grading and attendance tracking (Hamedani et al., 2023; Morales-García WC, 2025). However, concerns persist about the over-reliance on AI potentially diminishing the human aspects of teaching, such as empathy and relationship-building with students.

HR and Leadership Implications

From a human resource (HR) management perspective, these findings imply the need for strategic investment in digital capability building. Encouraging positive attitudes toward AI

should be part of broader HR initiatives, including digital literacy programs, ethical use guidelines, and participatory leadership. The insights also support the development of future-ready leadership models that integrate technological agility with human-centric values—resonating with the emerging concept of Future Rock Leadership.

Building on this perspective, the HR implications of AI integration in higher education can be further examined across three key domains. First, the development of digital skills must go beyond technical proficiency to include AI literacy, enabling educators to understand both the potential and limitations of the technology. (Dringó-Horváth et al., 2025) demonstrate that digital competence is strongly correlated with positive attitudes toward AI. Second, leadership models need to evolve toward more agile and collaborative forms of leadership. (Sposato, 2025) propose a taxonomy of AI leadership that emphasizes ethics, governance, and educator participation in technology implementation—elements highly relevant to HR policy formulation. Third, ethics training in technology is crucial to ensure transparency, accountability, and fairness in the use of AI. (Kasinidou et al., 2025) found that enhancing ethical awareness and digital skills contributes to more positive attitudes among teachers and lecturers toward AI. Thus, HR implications in AI adoption must be understood holistically, encompassing technical, ethical, and leadership dimensions.

CONCLUSION

This systematic review examined educators' attitudes toward AI adoption in higher education by analyzing 26 peer-reviewed studies (2018-2024), revealing a complex interplay of factors including educators' knowledge, ethical concerns, and institutional support that influence AI acceptance. While AI demonstrates significant potential to enhance productivity through automation, its adoption faces challenges from ethical dilemmas and digital readiness disparities, prompting the development of a conceptual model that positions educators as active stakeholders in successful integration. The findings carry important implications for higher education institutions, suggesting the need for capacity-building initiatives like targeted training programs and participatory policy design to enhance educators' AI competence and trust, alongside human-centric governance models that balance ethical accountability with technological efficiency. At the policy level, standardized frameworks are required to ensure transparent data usage and equitable AI access, addressing concerns about job displacement and algorithmic bias while preserving human-centered teaching values. Future research should explore longitudinal attitude changes, particularly in underrepresented regions, test HR-led interventions like mentorship programs and ethics workshops, investigate AI-pedagogy intersections for more educator-friendly tools, and involve educators in AI system co-creation to improve usability and acceptance. While this review provides valuable theoretical and practical insights with its global scope and thematic synthesis, limitations including a quantitative study predominance and geographical bias toward high-income countries highlight the need for more nuanced, universally applicable research. Ultimately, successful AI integration in education demands a balanced approach that harnesses technological advancements while safeguarding the essential human elements of teaching and learning.

In addition, this study makes a significant contribution to the international literature by providing an integrative perspective that connects educators' attitudes, HR policies, and the ethical implications of AI adoption in higher education. While much of the previous research has focused primarily on technology acceptance or pedagogical effectiveness, this study broadens the focus by positioning educators as strategic actors in HR development policies. By synthesizing findings from diverse global contexts, this study enriches international understanding of AI adoption, particularly highlighting that successful implementation depends not only on technical readiness but also on institutional policies that prioritize digital skills, ethical leadership, and technology literacy. In line with (Wu et al., 2025) review, this study demonstrates that AI integration in higher

education should be viewed as both an HR management issue and an institutional transformation process, rather than merely a technological implementation. Accordingly, this research bridges the gap in the literature between technology adoption studies and HR development strategies in higher education.

In practical terms, three HR priorities can be highlighted to strengthen educators' readiness for AI adoption in higher education. First, technical training that develops digital literacy and AI competence should be continuously provided, as it enhances confidence and pedagogical innovation. Second, ethical reinforcement through digital ethics training is crucial to address concerns regarding data privacy, algorithmic bias, and fairness in AI-supported decision-making. Third, participatory policies that actively involve educators in the design, testing, and governance of AI initiatives should be prioritized to build trust and reduce resistance. A balanced integration of these three strategies—technical, ethical, and participatory—offers the most sustainable pathway for HR in higher education to align technological advancement with human-centered values.

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