

Original Article

Ethical Boundaries in the AI-Assisted Classroom: A Systematic Review

Dr. Sumi Nijith

Assistant Professor, Sree Narayana Guru College of Commerce, Mumbai

Email: sumi.nijith@gmail.com

Manuscript ID:

JRD -2026-180310

ISSN: 2230-9578

Volume 18

Issue 3

Pp. 56-59

March- 2026

Submitted: 15 Feb. 2026

Revised: 25 Feb. 2026

Accepted: 10 Mar. 2026

Published: 31 Mar. 2026

Abstract

Artificial Intelligence (AI) tools have become more widely used in classrooms and this has had a positive impact on teaching and learning by improving access to knowledge efficiency and personalization. However the growing trend of incorporating these tools into classroom settings raises important and difficult ethical questions regarding academic standards privacy bias and the evolving role of academics in learning environments. The goal of this systematic review is to compile the body of research on the integration of AI-assisted technology in academic settings in order to investigate evaluate and summarize the main ethical issues. Major ethical trends have been identified in suitably structured policies and studies through a systematic review of peer-reviewed literature and studies published in the last ten years. The systematic review of the literature identifies the main problem: inadequate governance policies and a lack of awareness of the ethical fronts associated with integrating technology in learning environments pose threats to the learning environment despite the enormously beneficial scope of AI tools in supporting learning engagement and innovations.

Keywords: Data privacy, artificial intelligence, academic integrity and educational ethics

Introduction

The rapidly expanding field of artificial intelligence (AI)-related technologies is drastically altering today's educational environments. In an effort to increase the efficacy and efficiency of teaching and learning AI-based applications are being used in the classroom in a variety of ways. These applications include learning analytics intelligent tutoring systems automated evaluation systems and generative AI tools. AI-enhanced teaching and learning processes are being adopted by educational institutions worldwide and as a result human-machine interaction has taken center stage in the classroom. Nevertheless despite these benefits the growing application of AI in the classroom raises serious moral questions that threaten the conventional paradigm of instruction. Concerns about educational integrity data privacy student surveillance algorithmic bias transparency of various AI systems and learner and instructor autonomy have become more and more prominent in research literature. As generative AI technologies are used more frequently new boundaries between human and machine labor are being created.

Concerns about fair access to technology and the digital literacy of teaching and learning personnel compound the ethical issues surrounding AI-augmented classrooms. It is still a concern for other schools to create sound AI ethical standards even though some have the resources to successfully implement AI ethics. To some extent conflicting opinions about what constitutes good AI ethics for teaching staff to adopt or apply have arisen from the absence of generally applicable standards defining good AI ethics for the education sector. This suggests or highlights the need for a comprehensive compilation of research studies in order to create guidelines for ethical considerations. While the number of studies investigating the application of AI in education has steadily increased ethical discussion has been dispersed throughout various academic disciplines such as philosophy computer science and education. As a result a systematic review is required to guarantee a consolidation of current knowledge in order to identify some of the broad ethical issues and consequently to examine any knowledge gaps in current literature. By examining how these boundaries have been interpreted in the literature the study aims to map out ethical boundaries in AI-enabled classrooms.



Quick Response Code:



Website:

<https://jrdrv.org/>

DOI:

10.5281/zenodo.19230948



Creative Commons (CC BY-NC-SA 4.0)

This is an open access journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International](https://creativecommons.org/licenses/by-nc-sa/4.0/) Public License, which allows others to remix, tweak, and build upon the work noncommercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

Address for correspondence:

Dr. Sumi Nijith, Assistant Professor, Sree Narayana Guru College of Commerce, Mumbai

How to cite this article:

Nijith, S. (2026). Ethical Boundaries in the AI-Assisted Classroom: A Systematic Review. *Journal of Research & Development*, 18(3), 56–59. <https://doi.org/10.5281/zenodo.19230948>

Statement of the Problem

The way that education is provided has changed significantly as a result of the growing use of artificial intelligence (AI) technology in classroom instruction. There are currently insufficient regulations controlling this widespread use of AI technology in education despite the fact that there are numerous advantages to using it in these learning and teaching contexts such as personalized learning and learning efficiencies. Teachers find it confusing because there are unexpected ethical boundaries in this situation. The current literature on AI in education pays much less attention to ethical issues like academic dishonesty privacy bias and student surveillance and much more attention to technological advancement and educational efficacy. Furthermore a review of the literature on different facets of academic integrity and related issues typically encompasses a range of disciplines as well as conceptual and methodological frameworks. In addition to posing a risk to the rights and values of learning in these settings the absence of a cohesive and thorough body of knowledge on ethical issues within AI-supported learning environments causes ambiguity in the formulation of policies and inconsistent practices within institutions. Lack of clear ethical frameworks in these contexts could pose risks to the application of AI since it could make it difficult to establish an ethical and supportive learning environment. Therefore it is crucial to carry out a thorough review which necessitates compiling the corpus of existing knowledge among academics on ethical issues.

Objectives of the Study

1. To recognize and classify significant ethical concerns about the use of AI-assisted technology in classroom instruction.
2. Examining how the current research literature on artificial intelligence-assisted educational initiatives addresses concerns like academic integrity data privacy transparency and accountability.
3. The objective is to provide researchers policymakers and educators with evidence-based guidelines to support the ethical application and management of AI.

Research Methodology

In order to critically evaluate and synthesize the body of literature on the ethical limitations of artificial intelligence-assisted classroom activities a systematic review research design is utilized for this study. A high degree of integrity in the search assessment and synthesis of the reviewed literature is ensured by this research design.

Data Analysis

The primary ethical concerns associated with using AI-based technologies in classroom instruction and learning activities.

Authorship and Intellectual Honesty

In an AI-assisted class one of the main ethical concerns is academic integrity. The use of generative AI tools in research exam answers and assignment submissions highlights the problems with originality and plagiarism. It is challenging to discern between the machines and the students intellectual endeavors.

Data Secrecy and Privacy

AI-driven educational tools often rely on the collection and analysis of large volumes of student data, including personal, behavioral, and performance-related information. This extensive data usage raises ethical issues concerning informed consent, data ownership, storage, and protection. Inadequate data governance frameworks may expose students to risks such as unauthorized data access, surveillance, and misuse of sensitive information.

Student Monitoring and Independence

Concerns regarding student surveillance have grown as the use of proctoring tools learning analytics and AI-based monitoring systems has increased. Students autonomy and psychological wellbeing may be violated by ongoing monitoring of their behavior and performance.

Fairness and Algorithmic Bias

These systems are trained on historical datasets that frequently reflect institutional societal and cultural prejudices. Because of this AI-assisted educational tools have the potential to disadvantage some student groups due to their gender socioeconomic status language or disability. As a result biased algorithms may have an impact on the grading recommendation and decision-making processes leading to unfair learning outcomes and perpetuating structural injustices.

Explainability and transparency

The majority of AI systems are black boxes since it is difficult to ascertain how a recommendation or decision was made. Serious ethical questions about trust and accountability are raised by a lack of explainability and transparency. Teachers and students may find it difficult to challenge or question AI-driven results if there is a lack of clear understanding or communication of what has happened behind the scenes.

Access and Equity.

Concerns about equity and the digital divide are closely linked to the ethical question of AI use in schools. Inequalities in infrastructure digital literacy resources and AI technologies could exacerbate existing educational disparities. The inclusive potential of AI-assisted education may be limited if students from underfunded institutions or more marginalized backgrounds experience additional alienation.

Over-reliance on pedagogical integrity and artificial intelligence

This could be the result of an over-reliance on AI tools which diminishes the value of educators professional judgment and limits opportunities for human interaction critical thinking and creativity in the classroom. When AI is used instead of enhancing pedagogical knowledge there are ethical issues that will seriously jeopardize the learners overall development.

Accountability and Responsibility

From an ethical perspective blaming or assigning blame for errors bias or detrimental effects resulting from the use of AI-assisted tools is another area of serious concern. This is due to the fact that its unclear who is responsible—the instructor the organization the software developers or the legislators.

Previous research articles on AI-supported education have addressed issues of research integrity data privacy transparency and accountability.

Academic honesty

Research literature has identified academic integrity as one of the main concerns regarding ethical issues in AI in the educational context particularly with regard to the use of generative AI applications like ChatGPT which raises concerns about how students should use them for their assignments.

Data Privacy

Data privacy is another important topic that comes up in the pertinent academic discourse because there are worries about how AI systems collect store and process student data. AI systems are known to require enormous amounts of data which if unprotected could result in privacy violations and restrictions on students autonomy.

Transparency

In order for educators or learners to trust the outcomes produced by AI systems it is important to make sure that the procedures utilized in these systems are transparent to them. Several AI systems are regarded as black boxes according to a finding found in the literature. This undermines confidence in those systems particularly when they yield outcomes.

Accountability

Establishing distinct lines of accountability in situations where AI tools used in educational institutions produce harmful discriminatory or simply incorrect results is the foundation of accountability. This gap in accountability frameworks—that is the ambiguous sharing of responsibility between tool providers institutions teaching staff and individual users—has been documented in the literature.

Suggestions on how teachers, decision-makers, and researchers can apply ethical knowledge in AI adoption and governance within education.

Teachers recommendations

Develop AI Ethics Knowledge

Teachers need to be trained to comprehend how AI tools affect academic integrity privacy and bias. An institution must implement workshops on the responsible use of AI as a way for faculty members to continue their professional development.

Redesign Assessment Practices

Teaching professionals are advised to develop evaluation methods that emphasize critical thinking more than AI-produced results for writing and oral presentation tasks in order to maintain academic integrity.

Create Classroom Guidelines

Preserve human oversight. Instead of taking the place of pedagogical judgment and instruction AI should be utilized to support it. AI should not be given the task of grading providing feedback or evaluating students.

Maintain Human Oversight

Continue human supervision. Instead of taking the place of pedagogical judgment and instruction AI should be used to enhance it. AI should not be given the responsibility of grading providing feedback and evaluating students.

Encourage Ethical Consciousness in Students

Teachers need to include digital ethics, the use of artificial intelligence, and data protection as part of the curriculum to educate responsible and reflective learners.

Suggestions for Developing General AI Governance Policies by Institutional Leaders and Policymakers

Ensure Data Privacy and Protection

Protect Data Privacy and Security To guarantee data protection laws consent policies safe data storage and open data use by the AI system effective data governance procedures should be put in place.

Mandate Transparency and Explainability

In order to enable educators and students to interpret and contest decisions made by AI systems legislators must mandate that vendors and institutions use transparent and explainable AI systems.

Promote Equity and Inclusive Access

In order to provide marginalized and underserved learner communities with equitable access to AI technology and infrastructure policies must address issues related to digital divides.

Clarify Accountability Structures

To address problems of mistakes bias or ethical standards violations in the delivery of AI-enabled systems lines of accountability can and should be established between the teaching community educational institutions AI technology developers and regulators.

Recommendations for Researchers

Conduct Empirical and Longitudinal Studies

Conduct Empirical and Longitudinal Research To explore the ethical implications of learning with AI on their outcomes behavior and institutional practices researchers are advised to move beyond conceptual analysis and start empirical research.

Develop Ethical Standards for AI in Education

There is a call for the creation of ethical frameworks and models that are context-specific and capable of combining technology regulation with educational ideals.

Analyze Educational AI for Bias and Fairness.

Future studies should focus on identifying and combating potential biases that algorithms utilized by AI-based teaching tools may harbor.

Evaluate stakeholder perspectives

In order to understand students and educators ethical perspectives on AI researchers in this area should incorporate their perspectives.

Encourage the development of evidence-based policies.

Support In order for governments and institutions to make well-informed decisions about the ethical application of AI the researchs findings should be utilized to develop guidelines.

Findings and Conclusion

The study reveals that the integration of Artificial Intelligence (AI) in classroom teaching and learning is accompanied by significant ethical challenges alongside its pedagogical benefits. The findings indicate that academic integrity, data privacy, transparency, algorithmic bias, accountability, and equity are the most consistently highlighted ethical concerns across existing scholarly literature. In particular, the use of generative AI tools has intensified debates around authorship, plagiarism, and fair assessment practices, while the extensive collection of student data by AI systems raises serious concerns regarding consent, surveillance, and data protection. The review further shows that many AI-driven educational tools lack transparency and explainability, limiting stakeholders' ability to understand or question AI-based decisions. Additionally, ambiguous accountability structures and unequal access to AI technologies contribute to ethical risks and reinforce existing educational inequalities. Overall, the study concludes that although AI-assisted classrooms offer considerable potential to enhance teaching and learning, their ethical governance remains underdeveloped and fragmented. There is a pressing need for clearly defined ethical guidelines, robust institutional policies, enhanced AI ethical literacy, and collaborative efforts among educators, policymakers, and researchers to ensure that AI adoption in education is responsible, equitable, and aligned with core academic values.

Bibliography

1. O'Neil, C. (2016). *Weapons of math destruction: How big data increases inequality and threatens democracy*. New York: Crown Publishing.
2. Popenici, S. A. D., & Kerr, S. (2017). *Exploring the impact of artificial intelligence on teaching and learning in higher education. Research and Practice in Technology Enhanced Learning*, 12(1), 22. <https://doi.org/10.1186/s41039-017-0062-8>
3. Williamson, B., & Eynon, R. (2020). *Historical threads, missing links, and future directions in AI in education. Learning, Media and Technology*, 45(3), 223–235. <https://doi.org/10.1080/17439884.2020.1798995>
4. Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). *Systematic review of research on artificial intelligence applications in higher education. International Journal of Educational Technology in Higher Education*, 16(1), 39. <https://doi.org/10.1186/s41239-019-0171-0>