International Journal for Research Trends in Social Science & Humanities
Volume 4, Issue 2
Mar-Apr- 2026, PP 1-5

Impact of Artificial Intelligence on the Student–Teacher Relationship

Shilpashree MR
Assistant professor of Political Science
Maharani's Arts College for Women, JLB road, Mysore
Affiliated to the University of Mysore

Abstract- The integration of Artificial Intelligence (AI) in education has significantly transformed teaching and learning processes. This research paper examines the impact of AI on the student–teacher relationship, focusing on changes in roles, communication, trust, and emotional interaction. While AI technologies such as adaptive learning systems and chatbots enhance personalized learning and reduce teacher workload, they also pose challenges related to academic integrity, reduced human interaction, and dependency on technology. This paper adopts a qualitative analytical approach based on existing literature to explore both the opportunities and risks associated with AI in education. The findings suggest that although AI can support and enrich the learning experience, it cannot replace the emotional and social dimensions of teaching. A balanced integration of AI is necessary to preserve meaningful student–teacher relationships while leveraging technological advancements for improved educational outcomes.

Keywords-Artificial Intelligence, student–teacher relationship, education technology, personalized learning, academic integrity, human interaction

I. Introduction

Artificial Intelligence (AI) has emerged as a transformative force in modern education, reshaping traditional teaching and learning practices. AI-powered tools such as intelligent tutoring systems, automated grading platforms, and virtual assistants are increasingly being integrated into classrooms. These technologies aim to enhance learning efficiency, accessibility, and personalization.

The student–teacher relationship has historically been central to the educational process. Teachers not only deliver knowledge but also guide, mentor, and support students' emotional and intellectual development. However, the growing presence of AI is altering this dynamic by introducing new modes of interaction and shifting traditional roles.

This paper aims to analyze the impact of AI on the student–teacher relationship by examining both its advantages and challenges. It seeks to answer the question: how does AI influence communication, trust, and engagement between students and teachers?

II. Literature Review

Recent studies highlight the increasing role of AI in education and its implications for teaching and learning. Luckin et al. (2016) argue that AI promotes student-centered learning by enabling learners to access information independently. This shift reduces reliance on teachers as the sole source of knowledge.

Holmes et al. (2019) emphasize the benefits of AI in providing personalized learning experiences. Adaptive systems can analyze student performance and tailor instruction accordingly, improving learning outcomes.

However, concerns have also been raised regarding the impact of AI on academic integrity and critical thinking. Cotton et al. (2023) note that AI-generated content can blur the distinction between original work and assisted output, posing challenges for assessment.

Furthermore, Zawacki-Richter et al. (2019) highlight that while AI can support instructional processes, it cannot replicate the emotional and social aspects of human interaction. Selwyn (2019) also raises ethical concerns, including data privacy and the potential for technological dependency.

III. Methodology

This study adopts a qualitative research approach based on secondary data. It involves a comprehensive review and analysis of existing literature, including academic journals, books, and research reports related to AI in education.

The data was analyzed thematically to identify key patterns and themes related to the impact of AI on the student–teacher relationship. The focus was on areas such as role transformation, communication, trust, and emotional interaction.

IV. Transformation of Traditional Roles

One of the most significant effects of AI in education is the shift in traditional roles. Historically, teachers were seen as the primary source of knowledge, while students were passive recipients. However, AI tools now provide instant access to information, enabling students to learn independently.
Research indicates that AI promotes a more student-centered learning environment, where learners actively engage with content at their own pace. This shift reduces the dependency on teachers for basic information and encourages students to take ownership of their learning.
As a result, teachers are transitioning from being knowledge transmitters to facilitators and mentors. Their role now involves guiding students in critical thinking, evaluating AI-generated content, and fostering deeper understanding rather than simply delivering information.
While this transformation can be empowering, it also challenges the traditional authority of teachers, potentially altering the dynamics of respect and dependence within the classroom.

V. Enhanced Personalization and Learning Support

AI has significantly improved personalized learning, which is one of its most notable contributions to education. Intelligent systems can analyze students' performance, identify learning gaps, and provide tailored feedback in real time.
Studies show that AI enhances efficiency and accessibility, allowing students to receive immediate assistance without waiting for teacher intervention. This can reduce frustration and increase engagement, especially for students who may hesitate to ask questions in a traditional classroom setting.
Moreover, AI-powered tools can adapt to individual learning styles, helping students grasp complex concepts more effectively. This personalized support can strengthen the student–teacher relationship indirectly by allowing teachers to focus on higher-level interactions, such as mentoring and discussion.
However, there is also a risk that excessive reliance on AI may reduce meaningful communication between students and teachers. If students turn primarily to AI for help, the opportunity for human interaction and guidance may diminish.

VI. Impact on Communication and Interaction

Communication is a core component of the student–teacher relationship. AI has introduced new forms of interaction, such as chatbots and virtual assistants, which can handle routine queries and administrative tasks.
On one hand, this can free up teachers' time, enabling them to engage more deeply with students. On the other hand, it may lead to reduced face-to-face interaction, which is essential for building trust and emotional connection.
Research highlights that while AI can support teaching interaction, it cannot fully replicate the emotional and social aspects of human communication. Teachers play a critical role in understanding students' emotions, motivations, and personal challenges—areas where AI remains limited.
Therefore, while AI can enhance communication efficiency, it cannot replace the human elements of empathy, encouragement, and inspiration that define strong teacher–student relationships.

VII. Challenges to Trust and Academic Integrity

The rise of AI tools has also introduced concerns related to trust and academic honesty. Students can use AI to complete assignments, generate essays, or solve problems, sometimes without fully understanding the material.
This has created tension in classrooms, as teachers struggle to distinguish between original student work and AI-generated content. Reports suggest that AI use can weaken the connection between effort and achievement, potentially undermining trust between students and teachers.
Additionally, increased monitoring and attempts to detect AI usage may lead to a sense of surveillance, further affecting the relationship. Instead of fostering mutual respect, the classroom environment may become more transactional and compliance-driven.
To address this issue, educators must rethink assessment methods and emphasize learning processes over outcomes. Encouraging transparency and ethical use of AI can help rebuild trust and maintain a healthy relationship.

VIII. Effects on Critical Thinking and Student Engagement

AI's ability to provide quick answers can impact students' cognitive development. While it can aid understanding, over-reliance on AI may reduce critical thinking and problem-solving skills.
Surveys indicate that many educators believe AI is making students overly dependent on technology, potentially harming their analytical abilities. Students may become passive consumers of AI-generated content rather than active learners.
This shift affects the student–teacher relationship by reducing meaningful academic discussions. Instead of engaging in deep conversations, students may rely on AI for ready-made solutions, limiting opportunities for intellectual exchange.
Teachers, therefore, face the challenge of designing learning experiences that encourage independent thinking while integrating AI responsibly.

IX. Teacher Agency and Professional Identity

AI not only impacts students but also influences teachers' sense of professional identity and agency. As AI systems take over tasks such as grading, lesson planning, and feedback generation, teachers may feel their roles are being diminished.
Research suggests that AI can challenge teacher authority and create concerns about over-reliance on technology. If not implemented thoughtfully, AI may reduce teachers' autonomy and decision-making power.
However, when used effectively, AI can support teachers by reducing workload and allowing them to focus on meaningful interactions with students. The key lies in ensuring that AI acts as a tool rather than a replacement.
Professional development and AI literacy are essential to help teachers adapt to these changes and maintain their central role in education.

X. Emotional Connection and Human Touch

One of the most critical aspects of the student–teacher relationship is emotional connection. Teachers often serve as mentors, role models, and sources of encouragement, contributing to students' personal growth.
AI, despite its advanced capabilities, lacks genuine emotional understanding. While it can simulate responses, it cannot replicate human empathy or build authentic relationships.
Studies emphasize that emotional communication remains a domain where teachers are irreplaceable. Students benefit from human interaction that supports their confidence, motivation, and well-being.
If AI replaces too much of the interaction, students may feel isolated or disconnected. Therefore, maintaining a balance between technological efficiency and human connection is essential.

XI. Opportunities for Collaboration

Despite its challenges, AI also creates opportunities for collaboration between students and teachers. Instead of viewing AI as a threat, it can be used as a shared tool to enhance learning.
For example, teachers can guide students in using AI for research, brainstorming, and problem-solving, while encouraging critical evaluation of AI-generated content. This collaborative approach can strengthen the relationship by fostering mutual learning and exploration.
AI can also provide data-driven insights that help teachers understand student performance and tailor their teaching strategies. This can lead to more meaningful interactions and improved learning outcomes.

XII. Ethical Considerations and Responsibility

The integration of AI in education raises important ethical questions. Issues such as data privacy, bias, and fairness must be addressed to ensure responsible use.
Students and teachers must be educated about the ethical implications of AI, including the importance of originality and accountability. Without proper guidelines, AI can create inequalities and misuse.
Educational institutions play a crucial role in establishing policies that promote ethical practices and protect the integrity of the student–teacher relationship.

XIII. Future Implications

As AI continues to evolve, its impact on education will likely deepen. The student–teacher relationship will continue to adapt, influenced by technological advancements and changing expectations.
Future classrooms may involve a hybrid model where AI handles routine tasks while teachers focus on mentorship, creativity, and emotional support. This could lead to a more holistic educational experience.
However, the success of this transformation depends on how well educators, students, and institutions manage the integration of AI. A thoughtful and balanced approach is essential to ensure that technology enhances rather than diminishes human connection.

XIV. Conclusion

The impact of AI on the student–teacher relationship is complex and multifaceted. While AI offers significant benefits such as personalized learning, increased efficiency, and enhanced accessibility, it also presents challenges related to trust, communication, and emotional connection.
The traditional roles of teachers and students are evolving, with teachers becoming facilitators and students taking a more active role in learning. However, the human elements of education—empathy, mentorship, and personal interaction—remain irreplaceable.
To preserve the integrity of the student–teacher relationship, it is crucial to strike a balance between technological innovation and human connection. AI should be used as a supportive tool that enhances learning while maintaining the central role of teachers.
Ultimately, the future of education lies not in replacing teachers with machines but in integrating AI in a way that strengthens relationships, fosters critical thinking, and promotes meaningful learning experiences.
From a political science perspective, AI and digital systems influence governance, participation, transparency and public accountability. Therefore, the topic requires both technological and institutional analysis.
The political science argument is strengthened by connecting governance, information access, user satisfaction and fuzzy cognitive modelling [6]-[9]. This literature is relevant because public policy and digital governance increasingly require transparent, adaptive and citizen-oriented decision frameworks. Additional governance and AI-policy references are added for broader support [10]-[12].
The study shows that AI and digital governance have the potential to improve transparency, participation and service delivery. At the same time, ethical safeguards, accountability, privacy protection and citizen awareness are necessary to ensure that technological governance remains democratic and inclusive.

References

[1] Cotton, D. R. E., Cotton, P. A., & Shipway, J. R, "Chatting and cheating: Ensuring academic integrity in the era of ChatGPT," Innovations in Education and Teaching International, 60(5), 1–12, 2023.
[2] Holmes, W., Bialik, M., & Fadel, C, "Artificial intelligence in education: Promises and implications for teaching and learning," Center for Curriculum Redesign, 2019.
[3] Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B, "Intelligence unleashed: An argument for AI in education," Pearson Education, 2016.
[4] Selwyn, N, "Should robots replace teachers? AI and the future of education," Polity Press, 2019.
[5] Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F, "Systematic review of research on artificial intelligence applications in higher education," International Journal of Educational Technology in Higher Education, 16(1), 1–27, 2019.
[6] Yogeesh N., R. Chetana, T. N. Vasanthakumari, and M. S. Ramesha, "Fuzzy logic in knowledge management: A model for adaptive information access," Library Progress International, vol. 44, no. 3, pp. 14433-14441, 2024.
[7] D. K. Girija, N. Yogeesh, and M. Rashmi, "Fuzzy cognitive maps for analyzing user satisfaction in information services," Library Progress International, vol. 44, no. 3, pp. 14425-14432, 2024.
[8] R. Chetana, N. Yogeesh, F. T. Z. Jabeen, and D. K. Girija, "Exploring uncertain data with fuzzy logic in cultural heritage conservation," Library Progress International, vol. 44, no. 3, pp. 14416-14424, 2024.
[9] N. Yogeesh, "Mathematics application on open source software," Journal of Advances and Scholarly Researches in Allied Education, vol. 15, no. 9, pp. 1004-1009, 2018.
[10] UNDP, Digital Strategy 2022-2025. New York: United Nations Development Programme, 2022.
[11] Government of India, Digital Personal Data Protection Act, 2023. New Delhi: Ministry of Law and Justice, 2023.
[12] OECD, Recommendation of the Council on Artificial Intelligence. Paris: OECD, 2019.

[13] N. Yogeesh, "Classroom leadership: An approach to educational psychology," International Journal of Early Childhood Special Education, vol. 14, no. 3, pp. 3688-3691, 2022, doi: 10.9756/INT-JECSE/V14I3.459.
[14] N. Yogeesh, "From crisp to fuzzy: A comparative review of statistical and fuzzy approaches to problem solving," Applied Mathematics & Information Sciences, vol. 19, no. 3, pp. 647-658, 2019, doi: 10.18576/amis/190313.