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Stakeholders perspective on integration of Artificial Intelligence (AI) in Education: Systematic Literature Review

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Abstract:

Technology is a critical driver of national development, and the National Education Policy (NEP) 2020 strongly emphasizes the integration of emerging technologies in education. As the education system moves forward with emerging technologies such as Artificial Intelligence (AI), it brings with it several physical, ethical, and methodological challenges. This paper examines the perspectives of key stakeholders on the integration of Artificial Intelligence (AI) in education. A systematic literature review was conducted, followed by thematic analysis of peer-reviewed studies focusing on students, teachers, parents, and administrators. The findings reveal approach and concerns toward AI adoption in education.

Keywords: *Artificial Intelligence, AI, Education, Perspectives.*

1. Introduction:

The future of education cannot be imagined in the absence of technology. The progress of the nation is defined by its focus on innovation research and technology development. Technology integration is always remained in focus. However, there are some serious concerns that seeps in with the technology driven systems. India's education policies have consistently encouraged the integration of technology in teaching and learning. Over time, educational technology has evolved significantly, with the primary objective of promoting equity through improved access and affordability. The National Education Policy (NEP) 2020 places strong emphasis on technology-enabled education, including digital literacy and technology training from the primary level, and the introduction of robotics, STEM courses, and computer programming languages at the secondary level. In addition, Government led skill development e-platforms, such as SWAYAM and Skill India Digital, also offer technology-oriented training courses, thereby strengthening digital capacity building (NEP, 2020). These initiatives clearly indicate that the Indian education system is open and receptive to technology integration.

It is important to understand these challenges in order to strategically address them at both micro and macro levels of the education system. As the education system moves forward with emerging technologies such as Artificial Intelligence (AI), it brings with it several physical, ethical, and methodological challenges. Existing literature reflects diverse and sometimes fragmented perspectives of stakeholders on AI integration, making it necessary to systematically map, synthesize, and analyse these perspectives. Understanding these

challenges is essential for developing strategic responses at both micro (classroom and institutional) and macro (policy and systemic) levels of the education system.

2. Objective:

The objective of this paper is to explore the approach and concerns of AI integration in education from the perspectives of stakeholders in education.

3. Methodology:

The present study adopts a qualitative Systematic Literature Review (SLR) method to gauge the perspectives of stakeholders on integration of AI in Education. Peer-reviewed studies were systematically identified, screened, and synthesized to examine the possibilities and challenges of Artificial Intelligence integration in education from the perspectives of key stakeholders, including teachers, students, administrators, and policymakers (Zawacki-Richter et al., 2019). The review provides a thematic synthesis of stakeholder perspectives, possibilities and implications for future research and policy.

Data source- An AI-assisted literature database, Asta AI, was used to identify papers based on relevance using keywords related to perspectives of stakeholders, including, teacher, students, educators, administrator, policymakers on AI in education. The retrieved studies were screened on the basis of relevance. A review matrix was framed to sysntheize the content.

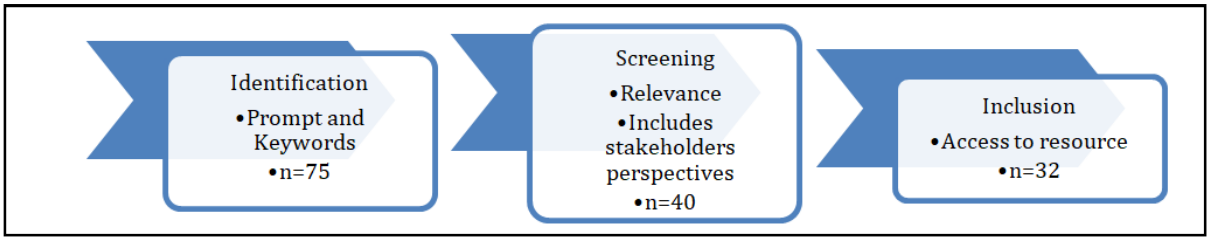

Figure1: Diagram of process of inclusion of resource form database

Table 1: Resources mapping

Stakeholders	Authors	No. of **References**
Students	Hasanein&Sobaih (2023); Han et al. (2024); Karran et al. (2024); Herawati et al. (2024); Fuligni et al. (2025); Altamimi (2024); Bobrytska et al. (2024); Rahman et al. (2025); DeVito et al. (2025); Ņikadimovs&Vevere (2024); Baidoo-Anu et al. (2024); Francisco (2025); Mekadenaumporn (2025); Madden et al. (2024); Akbar et al. (2025); Ahadi & Jatmika (2025); Hwang et al. (2025)	17
Teachers / Educators	Alfredo et al. (2023); Han et al. (2024); Karran et al. (2024); Fuligni et al. (2025); Viberg et al. (2023); Uygun (2024); Bai et al. (2023); Bobrytska et al. (2024); Rahman et al. (2025); DeVito et al. (2025); Ņikadimovs&Vevere (2024); Shankar et al. (2024); Akbar et al. (2025); Hwang et al. (2025); Ahadi & Jatmika (2025); Francisco (2025); Mekadenaumporn (2025); Tarisayi& Manhibi (2024)	18
Parents / Guardians	Hasanein&Sobaih (2023); Han et al. (2024)	2

Administrators / Institutional Leaders / Policymakers	Hasanein&Sobaih (2023); Bobrytska et al. (2024); Moldt et al. (2024); Akbar et al. (2025);Ņikadimovs&Vevere (2024); Chavarría et al. (2025); Alfredo et al. (2023); Ifenthaler et al. (2024); Hwang et al. (2025); Tarisayi& Manhibi (2024)	10

4. Stakeholder-wise Elaboration of Perspectives on Integration of AI in Education:

4.1 Students (n=17) :

Students' perceptions, as reflected across multiple studies, indicate that they primarily view AI tools as convenient and productivity-enhancing resources for academic work (Bati et al., 2024; Almeqdadi&Shadifat, 2024; Francisco, 2025). Students demonstrate a generally open and positive attitude towards AI integration, particularly when they have prior exposure to AI tools or have received formal or informal training related to AI usage (Mekadenaumporn, 2025; Busch et al., 2023).

Empirical evidence suggests that students frequently employ AI for summarisation, problem-solving, content drafting, and creative outputs, including image generation, video creation, and aesthetically enhanced presentations (Bati et al., 2024; Madden et al., 2024). Acceptance levels are further influenced by perceived usefulness, ease of use, and alignment with academic performance goals.

However, students also express notable concerns. These include over-reliance or dependency on AI, risks of diminished critical thinking, digital divide and unequal access, and skill gaps related to digital and AI literacy (Almeqdadi&Shadifat, 2024; Francisco, 2025). Despite these concerns, the overall findings suggest optimistic attitudes and willingness to adopt AI, provided that transparent guidelines, ethical safeguards, and institutional support mechanisms are in place (Wu & Carroll, 2025).

4.2 Teachers / Educators (n =18) :

Teachers' perspectives reflect a balance between ethical apprehension and pedagogical optimism. While educators express concerns related to academic integrity, fairness, transparency, and accountability, they simultaneously recognise the potential of AI to support personalised learning, differentiated instruction, and instructional efficiency (Shankar et al., 2024; Ahadi & Jatmika, 2025).

Research indicates increasing use of AI tools by educators for lesson planning, assessment design, feedback generation, and administrative support, signalling a gradual shift towards acceptance (Francisco, 2025; Wu & Carroll, 2025). Nonetheless, apprehensions persist regarding over-reliance on AI, algorithmic opacity, and discipline-specific applicability, with variations observed across subject domains (Ahadi & Jatmika, 2025).

A recurring theme across studies is the need for structured professional development, clarity on ethical boundaries, and institutionally endorsed transparent usage policies (Shankar et al., 2024; Madden et al., 2024). Overall, teachers' perspectives suggest a stance of measured readiness combined with cautious engagement, rather than outright resistance or uncritical adoption.

4.3 Parents / Guardians (n= 2) :

Parental perspectives remain underrepresented in the reviewed literature, indicating a notable research gap. The limited studies that do address parents' views suggest that they generally appreciate technological innovation and AI-driven skill development, particularly when aligned with future employability (Tarisayi& Manhibi, 2024).

However, parents express concerns related to misuse of AI tools by students, exposure to inappropriate content, data privacy, and overall student safety and well-being. These concerns point to the need for

stronger regulatory frameworks, awareness programmes, and communication between institutions and families regarding responsible AI use in education.

4.4 Administrators / Institutional Leaders / Policymakers (n = 10) :

The perspectives of administrators, institutional leaders, and policymakers indicate a discernible shift from initial apprehension towards strategic orientation in AI adoption. AI is increasingly viewed as a driver of institutional innovation, competitiveness, and long-term educational transformation (Ņikadimovs&Vevere, 2024; Chavarría et al., 2025; Wu & Carroll, 2025). Studies highlight that institutional leaders frame AI integration through lenses of governance, social responsibility, ethical accountability, and scalability (Ņikadimovs&Vevere, 2024; Akbar et al., 2025). Policymakers emphasise AI's potential to enhance educational efficiency and access while simultaneously acknowledging policy ambiguity, regulatory lag, and ethical uncertainty (Tarisayi& Manhibi, 2024).

Key concerns raised include infrastructural disparities across institutions, uneven faculty readiness, resistance to change, and lack of clearly articulated institutional policies guiding AI use (Madden et al., 2024; Hwang et al., 2025). Despite recognising AI as a powerful institutional resource, administrators underscore the necessity of capacity building, inclusive stakeholder engagement, and coherent policy frameworks to ensure responsible and sustainable implementation. Collectively, the literature reflects a strategic but cautious administrative stance, positioning AI not merely as a technological tool but as a systemic reform instrument requiring coordinated policy, pedagogy, and governance alignment (Chavarría et al., 2025; Wu & Carroll, 2025).

5. Conclusion:

This study clearly indicates that the education system is gradually moving towards the integration of artificial intelligence. Stakeholders across levels acknowledge that AI has the potential to improve access, personalization, and efficiency in education. Students perceive AI tools as supportive for learning and feedback, while teachers recognize their usefulness in assessment and instructional planning. Institutions view AI as a means to strengthen administrative systems and align education with future skill requirements, whereas policymakers emphasize its role in curriculum reform and inclusive education (Bobrytska et al., 2024; Sanusi et al., 2024). At the same time, the findings highlight several challenges that cannot be ignored. Ethical concerns related to data privacy, transparency, bias, and academic integrity are common across all stakeholder groups (Holmes et al., 2023; Karran et al., 2025). Teachers and institutions particularly emphasize the lack of adequate training, infrastructure, and clear operational guidelines for effective AI adoption (Topali et al., 2025; Kaddouri et al., 2024). These challenges indicate that technology integration alone is not sufficient without systemic preparedness.

Overall, across stakeholder groups, perceptions of AI integration converge on high perceived potential but diverge in risk prioritisation. Students emphasise usability and productivity, teachers focus on pedagogy and ethics, parents highlight safety and misuse, while administrators and policymakers prioritise governance and strategic alignment. The synthesis underscores the need for multi-stakeholder, human-centred, and policy-coherent AI integration frameworks in education.

Thus, the study suggests that the successful integration of AI in education requires a balanced and strategic approach. Policy support, ethical governance, capacity building, and infrastructure development are essential at both micro and macro levels. Understanding stakeholder perspectives is therefore crucial for ensuring that AI integration contributes to equity, quality, and sustainability in education rather than widening existing gaps.

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