Transformative Impacts of Artificial Intelligence on Reading and Writing Processes in Classrooms: Rethinking Literary Pedagogy

Sabareedharan.M

Abstract

Artificial Intelligence (AI)—especially generative models like ChatGPT and intelligent writing assistants such as Grammarly—has significantly altered how reading and writing are taught and practiced in classroom settings worldwide. This paper examines global and Indian-specific contexts, drawing on empirical studies, educational theory, and policy frameworks to analyze how AI tools influence student writing processes, reading comprehension, critical thinking, and literary engagement. It identifies both opportunities (adaptive feedback, personalized tutoring, multimodal learning) and challenges (academic integrity, cognitive off-loading, equity). The paper concludes with pedagogical guidelines and policy recommendations for integrating AI into literary curriculum in ethically responsible and pedagogically effective ways.

Keywords: AI literacy, ChatGPT, writing pedagogy, reading comprehension, Indian education, generative AI, classroom technology, academic integrity

Introduction

In India, OpenAI's new Study Mode offers free AI-based revision aids in multiple languages, promoting accessibility (TOI, 2025). This convergence raises key questions:

1. How do AI tools reconfigure the reading and writing processes in literature classrooms?
2. In what ways can AI support or undermine critical thinking and literary interpretation?
3. What pedagogical frameworks can help educators integrate AI effectively and ethically?

This article addresses these questions through global surveys, case studies—including Indian classrooms—learning theory, and emerging AI governance policies.

While AI is revolutionizing science and technology fields, its application in the humanities—and particularly in literary studies—is undergoing a critical redefinition. AI-supported platforms now enable students to co-write with machines, annotate texts using NLP-based tools, and engage with adaptive reading interfaces that cater to diverse learning needs. From grammar correction software to AI-driven storytelling bots, these tools not only assist learners but also challenge traditional notions of authorship, interpretation, and creativity.

This paper explores the implications of AI in literacy education, focusing on the transformation of pedagogical strategies, ethical concerns, and the need for teacher training. It presents both global trends and the Indian context, culminating in a comparative and critical analysis of traditional versus AI-integrated classrooms.

2. Literature Review

Global Trends in AI-Assisted Writing and Reading

Recent mixed-method studies document widespread AI use among students (Xu, 2025). ChatGPT is primarily used for improving clarity and readability (51%) and grammar correction (22%) (Xu, 2025). Studies in the USA show teachers using AI to translate Shakespeare or create creative prompts, while asking students to fact-check the output to cultivate verification skills (Paccone, 2023; The Hindu, 2025). Secondary education pilots—such as CGScholar in the U.S.—demonstrate that AI feedback can improve writing structure and revision strategies, particularly for low-income students (Zheldibayeva et al., 2025).

AI in Literacy Instruction: A Global Overview

Globally, the integration of AI in education has been extensively documented. According to Luckin et al. (2016), AI offers "cognitive support" by enabling adaptive learning systems that respond to individual learner needs. For example, platforms such as Grammarly, Turnitin, and WriteLab provide real-time feedback, enabling iterative writing improvements (Kukulska-Hulme et al., 2021).

AI-Assisted Language Learning and EFL Contexts

EFL learners in China and Indonesia using ChatGPT or Grammarly showed improvements in grammar, coherence, and motivation, although excessive reliance raised concerns about independent writing ability (Barrot, 2023; Rahman et al., 2022).

Trends in Indian Classrooms

In India, AI-powered teaching is advocated at institutions like IIM Sambalpur and IIT Delhi (Roy & Putatunda, 2023; TOI, 2025). Surveys show 80% of students and 77% of faculty at IIT Delhi reported using GenAI, prompting recommendations for mandatory disclosure, curriculum inclusion, and AI literacy training (TOI, 2025). Research indicates rural schools use chatbots over WhatsApp to assist students in underserved settings (EdIndia, 2024; The Hindu, 2025).

Methodology

Research Design

The study employs a qualitative approach, analyzing various global and Indian scholarly articles, government reports, and pilot projects from 2018 to 2025. The aim is to identify thematic patterns in AI adoption across reading and writing instruction and to highlight pedagogical innovations and challenges.

Data Collection

Sources include academic journals such as *AI in Education*, *Computers & Education*, *Journal of Literacy Research*, as well as Indian case studies published in *EPW*, *IJEDICT*, and governmental whitepapers (e.g., NEP 2020, NITI Aayog's AI Strategy). Keywords used in the data search include: "AI in literacy," "AI reading tools," "AI writing feedback," "AI in Indian classrooms," and "digital pedagogy."

Analytical Procedure

Using grounded theory coding, the data was categorized into four themes: (a) tools and technologies, (b) pedagogical shifts, (c) ethical concerns, and (d) contextual factors. Each theme was then comparatively examined across global and Indian contexts.

4. Findings and Discussion

Tools and Platforms Reshaping Reading and Writing

AI-powered platforms are increasingly embedded in classrooms. In writing, tools like Grammarly, ChatGPT, and Quillbot support grammar, paraphrasing, and coherence. They function as 'writing assistants' (Dwivedi et al., 2023). For reading, platforms like Rewordify and SummarizeBot enhance vocabulary comprehension and text summarization.

Globally, such tools are integrated within Learning Management Systems (LMS) like Moodle and Canvas. In India, EdTech companies like BYJU'S and Vedantu have started incorporating AI components, though primarily for STEM subjects. Humanities are only now beginning to leverage these technologies.

Pedagogical Shifts

The introduction of AI tools necessitates a rethinking of pedagogy. Traditional assessment-focused instruction is being replaced by process-based learning. Teachers report that AI enables students to self-edit, reflect, and iterate on their drafts. This aligns with constructivist pedagogies where learners are active agents (Papert, 1980).

In reading instruction, AI facilitates multilayered interpretation through visual, textual, and voice interfaces. This multimodality aids comprehension, especially for learners with diverse needs. Teachers shift from being content deliverers to facilitators or curators of learning experiences (Woolf, 2021).

Limitations and Risks

Despite its promise, AI in classrooms presents limitations. First, it risks amplifying existing inequalities. Access to AI tools is uneven, especially in rural and low-income Indian schools. Second, overreliance may hinder critical thinking, as students might accept AI-generated suggestions without reflection (Kumar & Iyer, 2022).

Ethical concerns include data privacy, surveillance, and algorithmic bias. Indian data protection laws are still evolving, leaving students vulnerable. Moreover, most AI tools are designed in the Global North, risking cultural erasure in literary interpretation.

AI and the Reading Process: A Global Perspective

Across the globe, AI-enhanced reading platforms have fundamentally shifted how students engage with texts. Tools like Natural Language Processing (NLP) engines embedded in educational apps provide real-

time feedback, summarize content, and tailor comprehension questions to individual learners' proficiencies. In the United States, platforms such as Newsela and CommonLit utilize machine learning to adjust reading levels dynamically, allowing diverse learners to engage with the same content in differentiated formats.

European classrooms are experimenting with AI to promote deep reading. Projects like "READ-IT" in the EU explore how AI interprets digital annotations and reader engagement, using eye-tracking and biometric data to understand how readers interact with texts. In East Asia, AI-integrated reading platforms are being combined with cultural texts to personalize learning and preserve linguistic heritage.

In contrast, AI-integrated classrooms foster dynamic, adaptive learning experiences. Through AI, students receive real-time feedback on grammar, style, coherence, and structure (e.g., Grammarly, ProWritingAid), allowing iterative improvement in writing (Zou et al., 2023). In reading, tools like ChatGPT enable dialogue-based interpretations, promoting active reading and deeper textual engagement (Burrows, 2019).

In India, traditional practices dominate public and semi-urban education systems, while elite and urban institutions experiment with AI tools. Bridging this digital divide remains central to equitable transformation (Ministry of Education, 2022).

AI-Supported Collaborative Writing and Peer Review

Collaborative writing platforms integrated with AI (e.g., Google Docs with Smart Compose, Quillbot for paraphrasing) have redefined peer-to-peer learning. These tools assist in version tracking, coherence enhancement, and productive feedback generation. In both global and Indian contexts, AI enables inclusive participation, especially for students with linguistic or cognitive challenges (Luckin et al., 2016).

Further, AI-facilitated writing prompts and automated scaffolding tools foster creativity without compromising academic rigor. Teachers play a mentoring role, guiding students in interpreting AI feedback and avoiding over-reliance (Holmes et al., 2021).

Ethical Considerations and Intellectual Ownership

AI literacy pedagogy brings forth critical ethical challenges. First is the issue of authorship—when a machine edits, suggests, or generates content, how do we ensure academic integrity? Second, overdependence on AI can reduce students' original thinking and voice. Globally, academic institutions have started framing guidelines (e.g., UNESCO's 2023 AI literacy policy paper) to regulate AI usage (UNESCO, 2023). In India, such discourse is still nascent. Many educators are unaware of AI plagiarism risks or intellectual property implications. Hence, embedding ethical AI use in curricula is essential (Holmes et al., 2021).

Future Directions for Literary Pedagogy with AI

AI is not a replacement for pedagogy but a partner. Future pedagogical models must integrate AI literacy, metacognitive awareness, critical thinking, and multimodal communication. Teachers should be trained

not just in tools, but in philosophical and ethical implications (Holmes et al., 2021). Moreover, AI's role in personalized storytelling, augmented reality literature, and voice-interactive narratives may redefine literary experiences in classrooms. Institutions must invest in research, infrastructure, and inclusive policies (Burrows, 2019).

5. Findings

AI and the Writing Process

Brainstorming & Drafting

Students globally report using ChatGPT to overcome writer's block, generate outlines, and expand ideas—prompting teachers to redesign assignments to encourage reflection and adaptation rather than verbatim copying (Xu, 2025; The Hindu, 2025).

Revision & Feedback

Tools like CGScholar AI Helper and Grammarly deliver immediate, personalized feedback. In the CGScholar study performance improved in structure and grammar, and students felt more confident (Zheldibayeva et al., 2025). However, heavy AI use also risks dependency, with weaker metacognitive skill development.

AI and Reading Comprehension in Literary Classes

AI-generated summaries can assist comprehension for complex texts such as Shakespeare. In a Cornell study, AI-assisted readers progressed to higher-order tasks, provided scaffolding was embedded (Cornell study 2025). Yet poor prompts led to shallow interpretations or misleading simplifications.

Indian Classroom Context: Equity and Access

Interviews with volunteer teachers in rural India highlight potential for AI to personalize learning and reduce teacher workload. Yet challenges persist: poor internet, teacher preparedness gaps, parental skepticism (Goyal et al., 2025). Successful integration depends on infrastructural investment and training.

Institutional Policies and Governance

IIT Delhi’s policy mandates AI use disclosure and embedded AI literacy within curricula (TOI, 2025). Other institutions form faculty-student committees to monitor AI, revise assessment rubrics, and host workshops on ethical use. Community feedback highlighted concerns around data privacy (TOI, 2025; Business Insider, 2025).

6. Discussion

Pedagogical Benefits

- **Personalized scaffolding**: AI adapts to student needs, allowing differentiated instruction.
- **Motivation and voice**: Students engage more deeply when AI aids in drafting and reflection (Shaqila & Ilham, 2025).
- **Higher-order focus**: AI allows emphasis on creativity and analysis, reducing attention to lower-order transcription.

Risks and Ethical Challenges

- **Academic integrity**: AI's generative power complicates plagiarism detection; institutions are revising policies to require disclosure (Business Insider, 2025; The Guardian, 2024).
- **Cognitive off-loading**: Overdependence may reduce retrieval and mental effort (MIT researcher quoted in FT article, 2025).
- **Equity**: Access to premium tools remains uneven; rural and low-income students need institutional support (EdIndia, 2024).

Framework for Responsible Integration

- **AI literacy education** mandates teaching students to critically evaluate and responsibly cite AI outputs.
- **Process-oriented assessment** prioritizes revisions, rationale, and reflective logs rather than final polished products (Elstad & Eriksen, 2024).
- **Hybrid feedback models** combining AI suggestions with teacher commentary yield better results (Shaqila & Ilham, 2025).
- **Institutional governance**: Policies such as mandatory disclosure, training workshops, and equitable access strategies should be adopted at institutional and national levels (TOI, 2025).

7. Recommendations for Literary Pedagogy

1. **Curriculum redesign**: Integrate AI-based tools as learning supports—not replacements—in text study, literary analysis, and composition.
2. **Critical AI exercises**: Use AI-generated “foil texts” for comparative critique and media literacy building.
3. **Language support in multilingual classrooms**: Use ChatGPT to translate literary texts into students’ mother tongues, as India benefits from regionally adaptive content (EdIndia, 2024; Times of India, 2023).
4. **Professional development for teachers**: Offer workshops in prompt engineering, AI ethics, and digital pedagogy.
5. **Policy integration**: Follow IIT Delhi-style protocols—disclosure, training, equitable access, anti-bias review committees—for institutional integrity.

8. Conclusion

AI's integration into literary classrooms offers rich potential for enhancing reading comprehension, writing development, and critical thinking. Yet its benefits depend on deliberate, ethically informed pedagogical design. Globally and in Indian contexts, AI literacy must become embedded in curricula, assessments must shift toward process and reflection, and equity must remain at the center of implementation planning. Done well, AI can support literary education that is personalized, inclusive, and intellectually engaged. Done poorly, it risks diminishing critical faculties, reinforcing inequities, and undermining scholarly integrity.

This study underscores the transformative potential of AI in reshaping reading and writing instruction globally and in India. From individualized feedback to democratized access, AI offers pathways to enhance literacy education. However, the transition must be pedagogically grounded, ethically sound, and inclusive.

A balanced, reflective, and research-driven adoption of AI will ensure that literary pedagogy evolves without eroding its humanistic core. AI is undeniably transforming reading and writing instruction across the globe. In both developed and developing contexts, it serves as a catalyst for personalized learning, increased engagement, and pedagogical innovation. However, this transformation comes with challenges—ethical concerns, teacher training gaps, infrastructural inequities, and cultural misalignment.

To ensure effective integration of AI into literary pedagogy, this paper recommends:

1. **Teacher Training**: Invest in sustained professional development to help educators understand and implement AI tools effectively.
2. **Policy Development**: Create guidelines that ensure ethical AI use in classrooms, including data privacy, plagiarism prevention, and fair assessment.
3. **Localized Tool Development**: Support research and innovation in AI tools tailored to local languages and cultural contexts, especially in multilingual societies like India.
4. **Critical AI Literacy**: Embed AI literacy into curricula so that students can use these tools judiciously and understand their limitations.
5. Integrate AI literacy modules into teacher education (Holmes et al., 2021).
6. Develop bilingual AI tools for vernacular language learners in India (Ministry of Education, 2022).
7. Establish ethical guidelines and assessment rubrics incorporating AI outputs (UNESCO, 2023).
8. Encourage collaborative AI-human writing exercises in curricula (Luckin et al., 2016).

The future of literacy education lies in a balanced collaboration between human intellect and machine intelligence—where AI enhances rather than replaces the depth, diversity, and creativity that define reading and writing.

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