THE USE OF GENERATIVE ARTIFICIAL INTELLIGENCE FOR ENGLISH LANGUAGE LEARNING

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Abstract

The rapid evolution of Artificial Intelligence (AI) has profoundly impacted the field of English Language Learning (ELL). This literature review synthesizes recent empirical and theoretical studies to provide a comprehensive overview of the integration of AI tools—such as chatbots, intelligent tutoring systems, and AI-powered language learning applications—into ELL. The review identifies key applications across the four major language skills (speaking, writing, reading, and listening), highlighting AI's role in delivering personalized, adaptive, and immediate feedback-driven learning experiences. While the literature overwhelmingly supports AI's positive impact on learner engagement, motivation, and skill acquisition, it also foregrounds significant challenges. These include concerns regarding ethical issues, data privacy, the digital divide, potential over-reliance on technology, and the requisite for adequate teacher training. Finally, this article proposes directions for future research and pedagogical practice, emphasizing the necessity of a thoughtful, hybrid approach that maximizes the potential of AI while preserving the irreplaceable role of human educators.

Keywords: Artificial Intelligence, EFL, English Language Learning, Literature Review

INTRODUCTION

English proficiency has become a prerequisite for global communication and economic opportunity, driving continuous innovation in English Language Teaching (ELT) methodologies. The advent of AI represents a transformative shift in this domain, moving beyond traditional Computer-Assisted Language Learning (CALL) to offer sophisticated, human-like, and adaptive interactions. AI, defined here as the development of computer systems able to perform tasks normally requiring human intelligence—such as speech recognition, decision-making, and natural language processing (NLP)—is increasingly being integrated into ELL contexts globally (Micheni et al., 2024). This review aims to systematically analyze the existing body of literature to establish the current state of AI utilization in ELL, detailing its benefits, applications across different language skills, and the attendant challenges that necessitate critical attention.

The escalating importance of English proficiency in the contemporary world cannot be overstated. As the primary lingua franca for international business, academia, technology, and diplomacy, competence in English has become a prerequisite for global communication and

economic opportunity. This pervasive demand has consistently fueled a need for continuous innovation in English Language Teaching (ELT) methodologies to maximize learning efficiency and accessibility for a diverse, worldwide audience of learners (Owan et al., 2025).

This drive for innovation has reached a pivotal juncture with the advent of Artificial Intelligence (AI). Historically, technology's role in language education was primarily confined to traditional Computer-Assisted Language Learning (CALL), offering static drills and simple multimedia support (Ayyoub et al., 2025). However, AI represents a transformative shift in this domain, enabling a move towards sophisticated, highly interactive, and adaptive learning environments that closely mimic human-to-human interaction (Crompton & Burke, 2023).

To clearly frame the scope of this review, AI is defined here as the development of computer systems capable of performing tasks that traditionally require human intelligence. Key AI technologies pertinent to language learning include speech recognition, automated decision-making, and most significantly, Natural Language Processing (NLP). The integration of these advanced capabilities is rapidly changing how, where, and when English Language Learning (ELL) takes place, making it a critical area for scholarly examination (Chiu et al., 2023).

The increasing sophistication and widespread deployment of AI tools—such as intelligent tutoring systems, conversational chatbots, and advanced automated writing feedback software—necessitate a comprehensive synthesis of current research. While AI promises to solve many long-standing challenges in ELT, its novelty and rapid evolution also introduce new pedagogical and ethical considerations that must be critically evaluated by the academic community.

Therefore, the primary goal of this article is to present a literature review of the current state of AI utilization in English Language Learning. This review aims to collate and analyze recent empirical and theoretical studies to establish a robust understanding of the landscape, distinguishing proven effectiveness from mere technological potential.

Specifically, this review will systematically analyze the literature, detailing the proven benefits of AI, its diverse applications across the four major language skills (speaking, writing, reading, and listening), and the significant attendant challenges—including ethical concerns, pedagogical limitations, and implementation barriers—that necessitate critical attention and thoughtful mitigation strategies for the future of ELL (Chiu et al., 2023).

LITERATURE REVIEWS

AI Applications Across Language Skills

The literature reveals widespread application of AI tools designed to enhance all four core language skills, often through personalized and immediate feedback mechanisms:

Speaking and Listening Skills

AI-powered applications effectively address the perennial challenge of providing sufficient, low-anxiety practice for oral skills.

- Speaking: AI tools leverage speech recognition and NLP to offer instantaneous feedback on pronunciation, intonation, and fluency. Applications function as conversational partners (e.g., chatbots, virtual assistants) or language coaches, allowing learners to practice without fear of judgment. Studies have shown significant improvements in students' speaking proficiency and a reduction in the flatness of pitch and intonation through the use of visual spectrograms provided by AI (Ali et al., 2024; Tafazoli, 2024).
- Listening: Adaptive platforms provide real-time listening exercises and can adjust content difficulty based on a learner's performance. The research suggests that AI-driven features like personalized audio lessons and adaptive feedback enhance listening comprehension and increase student motivation and engagement (Zaim et al., 2024; Zhang & Cao, 2022).

2.2. Writing and Reading Skills

AI has made its most common and arguably most mature contribution to writing instruction, with significant benefits also noted for reading.

- Writing: AI-powered writing assistants, such as Grammarly and large language models (LLMs) like ChatGPT, analyze text and provide real-time suggestions for grammar, spelling, punctuation, style, and vocabulary. This automated, immediate feedback is crucial for improving writing quality and reducing errors. LLMs also assist with brainstorming, idea generation, and providing writing prompts, supporting the development of creative and error-free texts (Chung & Jeong, 2024; Zhai & Wibowo, 2023).
- Reading: AI can support reading through adaptive learning platforms that adjust text complexity and provide personalized vocabulary assistance. Some AI systems offer customized learning paths based on a student's reading speed and comprehension level, which fosters greater learner autonomy (Arif, Kurniawan, et al., 2024; Wang et al., 2025).

FINDINGS AND DISCUSSION

Benefits and Impact on Learning

The academic literature consistently points to several key advantages of integrating AI into ELL:

- Personalization and Adaptivity: AI systems excel at creating personalized learning experiences tailored to an individual student's proficiency level, learning pace, and unique needs. By identifying strengths and weaknesses, AI can dynamically adjust content and exercises, leading to more efficient learning outcomes (Arif et al., 2024; Giray et al., 2025).
- Immediate and Targeted Feedback: Unlike human teachers with limited time, AI can provide instantaneous and specific feedback on linguistic errors (e.g., grammar, pronunciation). This real-time correction loop is highly effective in language acquisition, facilitating rapid error remediation and skill refinement (Annamalai et al., 2023; Tafazoli, 2024).
- Increased Motivation and Engagement: The interactive, gamified, and autonomous nature of many AI language learning applications (e.g., Duolingo, Mondly) significantly enhances learner motivation and engagement, particularly among younger learners. The

flexibility and 24/7 availability of AI tools also promote greater learner autonomy (Moorhouse et al., 2024; Zhang & Cao, 2022).

Challenges and Ethical Considerations

Despite the promising potential, the literature identifies several challenges that must be addressed for the optimal and ethical implementation of AI in ELL:

- Technological and Pedagogical Constraints: A significant challenge is the digital divide, where limited internet access and insufficient infrastructure in certain regions impede equitable access to AI-powered education. Pedagogically, the limited contextual awareness of current AI systems remains a hurdle; AI struggles with cultural nuances, complex idiomatic expressions, and pragmatic appropriateness, which are critical components of language mastery (Lim et al., 2023).
- Ethical Concerns and Data Privacy: The use of AI in education raises serious ethical considerations, notably concerning data privacy and the security of student information collected by AI platforms. Furthermore, the risk of biased algorithms, trained on non-representative data, can lead to unfair outcomes, particularly in assessment (Guettala et al., 2024).
- Over-Reliance and Academic Integrity: There is a growing concern about students developing over-reliance on AI tools for tasks like writing, potentially hindering the development of their own critical thinking and problem-solving skills. Relatedly, the use of generative AI tools (e.g., ChatGPT) to complete assignments poses a threat to academic integrity and necessitates a reassessment of traditional assessment methods (Nagy et al., 2024).

Teacher Training and Role Evolution: Effective AI integration requires substantial professional development for teachers. Many educators currently lack the necessary digital competence and training to effectively select, integrate, and maximize the pedagogical potential of AI tools. The role of the teacher is evolving from a primary knowledge transmitter to a facilitator, designer of hybrid learning experiences, and interpreter of AI-generated data (Firat, 2023; Rasul et al., 2023)

CONCLUSION

The literature overwhelmingly affirms that AI is a powerful, transformative tool in English Language Learning, capable of providing personalized, adaptive, and highly engaging educational experiences across all four language skills. However, successful integration is contingent upon proactively addressing the practical, ethical, and pedagogical challenges identified.

Future research should focus on empirical studies on hybrid models: Investigating the optimal balance between human instruction and AI-supported practice to foster deeper learning and socio-emotional development. Developing Culturally Adaptive AI: Research and development must prioritize creating AI systems with enhanced cultural and contextual awareness to better support high-level communicative competence. Ethical Frameworks and Policy: Establishing clear, globally recognized guidelines for data privacy, algorithmic transparency, and responsible AI use in educational settings.

Ultimately, the goal is not to replace human educators, but to leverage AI as an intelligent assistant that amplifies their capacity, creating an inclusive, equitable, and effective learning environment for the next generation of English language learners.

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