



THE ROLE OF AI IN ENGLISH EDUCATION: OPPORTUNITIES, CHALLENGES, AND FUTURE DIRECTIONS

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Abstract

This paper examines the role of Artificial Intelligence (AI) in English Language Teaching (ELT), synthesizing recent scholarship, classroom practices, and policy guidance to map opportunities, challenges, and future directions. We review major AI applications intelligent tutoring, NLP-driven feedback, automated assessment, conversational agents, and speech technologies and show how they enable personalization, real-time formative assessment, and expanded speaking/listening practice while improving accessibility for diverse learners. At the same time, we identify critical risks: over-reliance that can dampen critical thinking and originality; bias and accuracy issues in language models and speech recognition; academic integrity concerns around AI-assisted text; and structural inequities tied to data privacy, infrastructure, and teacher readiness. Two illustrative cases AI feedback in EFL writing and AI support for academic writing demonstrate measurable gains when tools are embedded within transparent, pedagogically aligned frameworks and sustained human guidance. Building on this synthesis, the paper proposes a balanced integration agenda: clear usage policies, curriculum-embedded AI literacy, teacher professional development, equity-oriented infrastructure investments, and ethics-by-design procurement. We argue that AI can augment, not replace, the uniquely human dimensions of ELT empathy, cultural mediation, and dialogic scaffolding when adoption is principled, inclusive, and evidence-informed. The paper concludes with research and policy priorities to guide ethical, scalable, and context-sensitive AI use in English education.

Keywords: English Language Teaching, Artificial Intelligence, Personalization, Automated Feedback, Academic Integrity

Introduction

Artificial Intelligence (AI) is significantly transforming education systems across the globe, particularly in the realm of English Language Teaching (ELT). The integration of AI tools into ELT has brought forth innovations that offer personalized learning pathways, real-time feedback, and interactive platforms for practice and assessment. These advancements cater to diverse learner needs, enhance engagement, and facilitate improved learning outcomes (Lu, 2022). Tools like AI-powered chatbots, grammar correction software, voice recognition applications, and intelligent tutoring systems are helping learners refine their speaking, writing, listening, and reading skills in more efficient and adaptive ways (Zawacki-Richter et al., 2019).

A key advantage of AI in English education is its ability to customize instruction. By analyzing learner data and behavior, AI can provide tailored feedback and adjust content to suit individual proficiency

levels, thereby promoting self-directed and student-centered learning (Hwang, 2020). Moreover, Natural Language Processing (NLP) technologies enable students to engage in meaningful language interactions and receive feedback instantly, fostering autonomous language acquisition in informal and formal settings.

However, the rise of AI in English education is not without challenges. Issues such as academic dishonesty, overdependence on AI-generated content, data privacy concerns, and unequal access to technology remain significant (UNESCO, 2023). Students from underserved regions often face digital exclusion, which could widen the educational gap. Additionally, educators must be adequately trained to integrate AI into their teaching methodologies to avoid displacing the irreplaceable human aspects of language instruction, such as empathy, cultural context, and emotional intelligence (Luckin et al., 2016).

This paper explores the dual nature of AI's impact on English education—highlighting both the transformative opportunities and the emerging challenges. It further outlines practical strategies and policy considerations for integrating AI tools in ELT in an ethical, inclusive, and pedagogically sound manner.

Literature Review

A growing body of research underscores the transformative potential of Artificial Intelligence (AI) in English Language Teaching (ELT). Scholars emphasize that AI has evolved from basic grammar correction tools to more complex applications such as intelligent tutoring systems, AI-driven chatbots, speech recognition, and real-time writing assistants (Zawacki-Richter et al., 2019). These tools not only enhance learners' accuracy and fluency but also provide individualized support, allowing students to practice at their own pace and receive immediate feedback (Lu, 2022).

Studies have demonstrated that the use of AI in ELT can foster improved pronunciation, grammar accuracy, and reading comprehension. For instance, Natural Language Processing (NLP) tools facilitate interactive dialogue simulations, helping learners develop conversational competence in real-world scenarios (Hwang, 2020). However, there is concern that excessive reliance on AI-generated responses may hinder learners' development of critical thinking and creativity—skills essential for authentic communication (Luckin et al., 2016).

According to a 2025 British Council survey, 76% of English teachers globally reported using AI tools for creating instructional materials and providing feedback. However, 24% expressed reservations, particularly about the authenticity and originality of AI-generated content. These findings highlight a growing divide between early adopters of AI in pedagogy and educators who are cautious due to ethical, pedagogical, or technological concerns (British Council, 2025).

Overall, while AI offers immense potential to revolutionize ELT, the literature stresses the importance of balanced integration, combining technological advancement with human-guided instruction to ensure holistic language development.

Opportunities of AI in English Education

Artificial Intelligence is rapidly revolutionizing how English is taught and learned, presenting a range of transformative opportunities:

1. **Personalized Learning:** AI adapts to the unique needs and pace of each learner, allowing for highly personalized instruction. This includes adjusting grammar drills, vocabulary levels,

- and pronunciation exercises based on individual proficiency. For instance, platforms like [Eduaide.Ai](#) and [MagicSchool.Ai](#) empower teachers to generate differentiated lesson plans, quizzes, and writing prompts that are tailored to student profiles. These tools analyze learner responses using natural language processing (NLP) to adjust difficulty and content in real-time, enhancing engagement and retention.
2. **Automated Feedback and Assessment:** AI-powered grading tools provide instant feedback, especially in writing tasks. For example, [Brisk Teaching](#) enables teachers to automate assignment reviews while maintaining a consistent evaluation standard. Research by [Zhai & Wang \(2023\)](#) reveals that AI systems are especially effective at identifying syntactic and grammatical errors in student writing. However, it is noted that while AI offers speed and objectivity, human teachers still outperform in assessing nuanced language use and creative expression.
 3. **Enhanced Speaking and Listening Practice:** Conversational AI tools help reduce the anxiety associated with public speaking and language production. AI chatbots simulate natural dialogue, allowing learners to practice without fear of judgment. [Sanako's AI-powered speech recognition software](#) offers pronunciation modeling and real-time visual feedback, helping students refine their articulation and intonation. Additionally, tools like [ELSA Speak](#) and [Speakable](#) help learners build fluency through interactive voice feedback.
 4. **Accessibility and Inclusivity:** AI enhances educational equity through features that support diverse learning needs. Text-to-speech (TTS) and speech-to-text (STT) tools such as [Microsoft Immersive Reader](#) and [Voice Dream Reader](#) assist students with dyslexia, visual impairments, or learning disabilities. Translation tools like [Google Translate](#) or [DeepL](#) enable multilingual learners to engage with English-language content more easily. However, access to high-speed internet and devices remains limited in many rural and underserved regions, underscoring the importance of addressing the [digital divide](#).

By embracing these opportunities, educators and policymakers can significantly enhance the quality, accessibility, and personalization of English language education. However, ethical integration and human oversight remain crucial to ensure that technology complements rather than replaces the teacher's role.

Challenges of AI in English Education

Despite the numerous benefits AI brings to English Language Teaching (ELT), its integration also poses a variety of challenges that educators and institutions must navigate. These challenges span pedagogical, ethical, and technical domains.

Over-Reliance and Reduced Critical Thinking

One of the primary concerns surrounding the integration of AI in English education is the potential for students to become overly reliant on AI-generated content. Tools like ChatGPT and Grammarly can assist with essay writing, grammar correction, and idea generation, but excessive dependence may impair the development of independent writing and critical thinking skills. Instead of formulating original arguments, students might default to suggestions provided by the AI, which can result in superficial engagement with academic tasks.

To address this, structured frameworks such as the AI Assessment Scale (AIAS) have been proposed, encouraging guided and transparent use of AI in the classroom (Holmes et al., 2022). These frameworks help students use AI as a tool rather than a crutch.

Bias and Accuracy Issues

AI systems, particularly those trained on large internet datasets, often carry implicit biases. In language education, this may manifest as a preference for standardized varieties of English, while underrepresenting dialects, regional accents, or non-native speaker nuances (Bender et al., 2021). For example, speech recognition systems used for pronunciation practice may inaccurately assess learners with non-standard accents, providing misleading or discouraging feedback.

Additionally, machine learning algorithms sometimes misinterpret context or idiomatic expressions, leading to incorrect suggestions in writing or translation tasks. Addressing these biases requires more diverse training data and ongoing human oversight in AI development.

Academic Integrity Concerns

AI-generated text presents significant challenges for academic integrity. Students may submit essays or assignments created with the help of AI tools, raising concerns about originality and plagiarism. Traditional plagiarism detection systems may not be equipped to identify AI-written content, leading to undetected academic dishonesty.

Some educational institutions have adopted advanced tools like Compilatio Magister+, which are designed to detect patterns in AI-generated texts. However, policies around AI use in academic writing are still evolving, and many educators struggle to define clear guidelines on what constitutes acceptable AI assistance (Cotton et al., 2023).

Data Privacy and Equity

AI tools often require user data to function effectively, collecting information such as student performance, behavioral metrics, and even voice recordings. This raises critical concerns about data privacy, especially when the tools are developed by third-party companies without strict adherence to educational data protection standards (Williamson & Eynon, 2020).

Moreover, access to AI tools is not uniform. Students in low-resource settings may lack the digital infrastructure—such as stable internet access or smart devices—necessary to fully benefit from AI integration. As a result, the digital divide may widen, deepening existing educational inequalities.

Case Studies

1. AI in EFL Classrooms: One of the notable case studies in the use of Artificial Intelligence (AI) in English as a Foreign Language (EFL) classrooms was a 12-week quasi-experimental study conducted by Li et al. (2022). The study examined the effectiveness of AI-generated feedback compared to traditional human instructor feedback. The findings revealed that while AI tools, particularly grammar checkers and writing assistants, significantly improved learners' grammatical accuracy and sentence structure, human teachers were more effective in addressing pronunciation, cultural context, and pragmatic usage of language. This suggests that although AI can support form-focused instruction, human interaction remains essential for nuanced aspects of language learning.

2. AI for Academic Writing: In the context of English for Academic Purposes (EAP), AI-assisted tools have been instrumental in supporting students with academic writing tasks. A study by Qadir and Rehman (2023) explored how EAP students used AI tools for outlining essays and synthesizing research literature. These tools helped learners organize their thoughts logically, identify credible sources, and paraphrase complex ideas, thereby maintaining academic integrity and improving cohesion in writing. However, the study emphasized the importance of guided use, as unguided reliance on AI posed risks to originality and critical thinking development. AI thus serves best as a supplementary aid rather than a replacement for academic instruction.

Conclusion and Recommendations

Artificial Intelligence (AI) holds immense promise for transforming English education by enhancing writing assistance, facilitating personalized learning, and supporting language acquisition. However, its integration into educational contexts must be carefully managed to maximize benefits while minimizing unintended consequences. While AI can improve grammar, structure, and vocabulary development, it cannot fully replace the nuanced feedback, emotional intelligence, and cultural insight provided by human educators. As such, a balanced and strategic approach is essential.

For Educators, the use of AI should be seen as a supplementary tool rather than a full substitute for traditional teaching. Teachers should incorporate AI in ways that enhance student engagement and support learning objectives without undermining critical thinking or creativity. Implementing structured frameworks such as the AI Assessment Scale (AIAS) can help educators manage and evaluate AI usage in classrooms ethically and effectively. These frameworks also serve to clarify when and how AI should be used to promote academic growth and integrity.

For Policymakers, it is crucial to ensure that infrastructure and training keep pace with the growing role of AI in education. Investing in continuous professional development programs will equip teachers with the necessary skills to integrate AI effectively. Moreover, addressing the digital divide is critical—students in under-resourced communities must have equitable access to AI-powered tools to avoid further widening educational disparities. Policies should also prioritize data protection and privacy in AI systems to build trust among stakeholders.

For Researchers, the field of AI in English education remains rich with untapped potential. There is a need for more longitudinal studies exploring how AI affects language skills beyond writing, particularly listening and speaking. Additionally, future research should focus on the long-term impact of AI-assisted learning on student autonomy, motivation, and academic performance. These insights will be vital in shaping AI technologies that align with pedagogical goals and learner needs. In conclusion, while AI introduces exciting possibilities for English language education, its successful application depends on thoughtful integration, informed policy decisions, and continued scholarly investigation. Only through a collaborative and reflective approach can AI truly enhance the quality and accessibility of English education for all learners.

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