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Using Artificial Intelligence in English Language Teaching: Benefits and Challenges

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Abstract: The landscape of English Language Teaching (ELT) has undergone profound transformations in recent decades and it is driven by advancements in technology, evolving pedagogical approaches, and the increasing globalization of communication. English language continues to solidify its position as a global lingua franca. The rapid development of technology, especially the widespread use of computer networks, has brought unprecedented opportunities to ELT methods. Although Artificial Intelligence (AI) technologies have been increasingly integrated into ELT, there is a lack of comprehensive research that examines both the benefits and challenges of this integration from a global perspective. In this study, the author explores how AI technologies improve the effectiveness of ELT and the key challenges and limitations of integrating AI technologies into ELT. The research explores both the benefits and challenges of incorporating AI into the teaching process, highlighting innovative solutions for personalized learning, as well as concerns regarding the reliability and accuracy of AI. The study may emphasize the significance of maintaining a balance between AI technologies and human interaction. It could propose strategies to ensure that AI serves as a complement to, rather than a replacement for, traditional teaching methods and interpersonal communication within the classroom.

Keywords: English Language Teaching; Artificial Intelligence; Benefits and Challenges.

1. Introduction

The term "Artificial Intelligence (AI)" was officially introduced at the summer academic conference held at Dartmouth College in the United States in 1956. This marked the beginning of AI as a formal area of study. (Zhao, 2022) The conference brought together leading researchers from various fields, including computer science, cognitive science, and mathematics, to explore the potential of machines to simulate human intelligence.

AI is an emerging interdisciplinary field based on computer science, which simulates, extends, and enhances human intellectual activities using computers. AI has gradually infiltrated in various sectors of society, leading to profound benefits and challenges. AI's integration into industries such as healthcare, finance, manufacturing, and education is revolutionizing traditional practices, optimizing efficiency, and enabling new innovations. In the field of education, the application of AI technology is becoming increasingly widespread.

However, there are still some problems in the combination of AI and ELT. One specific AI technology breakdown was that incorrect answers were given by the AI. Crompton (2024) states that limited capabilities were an interesting type of challenge that was also revealed. This code referred to people wanting the AI systems to do more of what the system can do in a more advanced way. Both teachers and students are looking forward to a more natural AI chatbot that can help them solve the problems they meet in the process of teaching effectively. With powerful technologies, fear is often connected for a variety of reasons. The axial codes found pupils experiencing three types of fear when using AI. The first fear was in providing personal information as it was not clear how that data was stored and who had access to it. Learners also were unsure of how AI was operating, and this resulted in fear of the unknown. Viktorivna (2022) states that a fear also appeared in a perception study where learners reported fear of losing a natural environment and real emotions when interacting with AI. Therefore, his research aims to explore the key benefits and challenges of using AI in ELT.

2. Literature Review

In recent years, the rapid development of AI has significantly impacted various industries, including healthcare, education, and finance. The landscape of ELT has undergone profound transformations in recent decades and it is driven by advancements in technology, evolving pedagogical approaches, and the increasing globalization of communication. English language continues to solidify its position as a global lingua franca. (Vaishnav, 2024) In the era of AI, the traditional teacher-student interaction in ELT has been redefined with the integration of a new participant—AI. Advancements in technology, particularly the proliferation of computer networks, have introduced transformative opportunities for the development and enhancement of ELT methodologies. In the following part, representative researches are provided to demonstrate the potential of AI in solving complex problems in different areas of ELT.

Pokrivčáková (2019) indicates that the integration of AI into education enhances both learning and teaching by fostering a more personalized learning experience, flexible teaching methods, and inclusive management. AI-driven tools can assist in cultivating the knowledge and skills required for success in a technology-advanced society. To effectively incorporate these tools into traditional teaching practices, educators must develop new competencies to support students, while also minimizing unnecessary workloads and eliminating repetitive tasks.

Crompton (2024) reveals several key findings that have implications for practitioners. He indicates that the use of AI in ELT is more widespread than in any other subject. English language teachers need to make principled decisions to enable

the effective use of AI in teaching, but the rapid development of the technology will provide a constant challenge for up-to-date AI literacy. This indicates that English language teachers particularly need to be equipped to make principled and effective use of AI in teaching and raises the question of how initial teacher education and in- service teacher training can help prepare teachers for teaching with AI.

Vaishnav (2024) finds that emerging technologies like AI, Virtual Reality (VR), Augment Reality (AR), and Natural Language Processing (NLP) hold immense potential to revolutionize ELT by providing personalized, immersive, and interactive learning experiences. In particular, AI-powered language tutors have emerged as a transformative tool in language education, offering a range of benefits that enhance the learning experience. These tutors provide tailored feedback, which is meticulously designed to address the specific needs and weaknesses of individual learners.

3. Key Benefits and Challenges of Using AI in ELT

Recent developments have seen a rise in AI, with empirical findings (eg, Crompton et al., 2022), revealing a trend towards using AI in language learning and writing skills more frequently than in other disciplines. Technology has been an integral support in ELT (Rivera Barreto, 2018). Previous researchers revealed that AI is a multifaceted technology with three user categories: (1) learner facing, used by students to learn; (2) teacher facing, used by teachers to help in teaching activities, for example, grading; and (3) system facing, which is used by administrative staff to manage and examine student data (Pokrivčáková, 2019).

However, challenges persist in the integration of AI into ELT. Despite the significant advancements in AI research, there remains a notable gap in understanding how AI models can be effectively adapted to ELT with limited resources. Current AI models often require extensive computational resources, which are typically unavailable to the area of ELT. Besides, one notable issue with AI technology was the generation of incorrect responses. Additionally, the system's limited capabilities emerged as a significant challenge. This limitation highlighted users' desire for AI systems to perform tasks more effectively and with greater sophistication, exceeding their current level of functionality.

The purpose of this study is to explore the key challenges and limitations of integrating AI technologies into English Language Teaching. Specifically, this research aims to investigate how AI-powered tools and systems can be utilized to personalize learning experiences, improve language proficiency assessments, and support teachers in instructional design. By addressing existing challenges in the application of AI into ELT, such as accuracy in response generation and system capability, the study seeks to develop practical strategies for leveraging AI technologies effectively.

3.1. Key Benefits of Using AI in ELT

AI is increasingly transforming the landscape of education, particularly in the domain of ELT, by offering innovative solutions for personalized learning and enhanced instructional strategies. One of the most notable affordances of AI in ELT is its ability to create individualized learning experiences that cater to the unique needs, strengths, and weaknesses of each learner. Through the use of sophisticated algorithms and machine learning models, AI systems assess learners' proficiency levels in various aspects of language, including grammar, vocabulary, pronunciation, and fluency. Based on these assessments, AI platforms tailor instructional materials to address specific areas that require improvement. This customization ensures that learners engage with content that is relevant to their individual learning trajectories, which, in turn, optimizes their language acquisition process.

Furthermore, AI-powered platforms offer immediate, precise feedback on language production, which significantly enhances the learning experience. Traditional classroom settings often face limitations in providing instant corrective feedback, which is crucial for language learners to address errors and reinforce correct usage. AI systems overcome this challenge by providing real-time corrections in areas such as grammar, vocabulary, and pronunciation, allowing learners to refine their skills promptly. The feedback provided by AI platforms is not only immediate but also targeted, addressing specific language issues in a way that is often difficult to achieve through manual feedback alone. This rapid and tailored feedback accelerates the learning process, helping students to make swift improvements and avoid the reinforcement of incorrect language use.

Another significant contribution of AI is its ability to foster interactive and immersive learning environments. AI-powered chatbots and virtual assistants have emerged as valuable tools for language practice, as they simulate real-world communication and engage students in dynamic conversations. These AI systems use NLP to understand and respond to learner input, providing opportunities for practice that closely resemble authentic language use outside the classroom. By engaging in role-playing scenarios or situational dialogues, students can practice speaking and listening in a risk-free environment, enhancing both their fluency and confidence. These AI-driven interactions offer a flexible and accessible means for learners to engage in language practice at their own pace, outside of formal instructional hours, which further contributes to language retention and skill development.

3.2. Key Challenges of Using AI in ELT

However, the integration of AI into ELT also presents several challenges that must be addressed to maximize its effectiveness. One of the primary challenges of using AI in ELT is the reliability and accuracy of AI, particularly in the areas of language processing and feedback. While AI technologies have made significant strides in understanding and analyzing human language, they are not infallible. AI may struggle with the nuances of language, such as idiomatic expressions, cultural context, or complex sentence structures, which can lead to inaccurate or incomplete feedback. This limitation raises concerns about the quality of language instruction provided by AI-driven platforms. Students who rely solely on AI for feedback may receive misguided corrections or inadequate explanations, hindering their progress rather than supporting it. Therefore, while AI can assist in certain areas of language learning, it cannot replace the nuanced judgment of experienced human educators who are capable of understanding the context and subtleties of learners' language use.

Another challenge lies in the integration of AI with traditional teaching methods. While AI can offer personalized learning experiences, many educators may face difficulties in incorporating these technologies into their existing teaching methods. Some teachers may lack the technical skills or the

resources necessary to effectively implement AI tools in the classroom. Additionally, there may be a lack of alignment between AI-driven learning activities and the broader curriculum, creating a disjointed learning experience for students. The challenge is to ensure that AI complements and enhances traditional teaching methods, rather than serving as a disjointed or isolated tool that does not contribute to the overall learning objectives.

Furthermore, the role of the teacher in the era of AI is a critical issue. AI may assist with administrative tasks, grading, and providing individualized feedback, but it cannot replace the essential interpersonal and pedagogical functions that human teachers perform. The shift towards AI in education might lead to the perception that teaching is less of a human-centered profession, potentially diminishing the teacher's role and authority. There is also the concern that teachers may become overly reliant on AI technologies which could undermine their professional judgment and creativity in the classroom.

4. Recommendations for Using AI in ELT

To optimize the use of AI in ELT, several strategic recommendations should be implemented.

4.1. Ensuring Accuracy and Contextual Understanding in AI for ELT

For ensuring AI to be effectively utilized in ELT, it is essential that they are developed with a strong emphasis on ensuring both accuracy and contextual understanding. Particularly when dealing with the complexities of language, such as idiomatic expressions, cultural nuances, and syntactic structures, AI must be able to process and interpret language in a way that reflects the intricacies of human communication. Without this level of sophistication, AI could misinterpret meaning, leading to inaccurate or misleading feedback for students, thus undermining its educational value.

To mitigate these risks, AI systems must undergo continuous refinement, incorporating more advanced NLP algorithms and machine learning models that are specifically designed to understand context. This will help ensure that AI-generated feedback is both relevant and precise. Furthermore, a comprehensive dataset that reflects diverse linguistic and cultural contexts should be utilized to training AI, enabling it to provide tailored responses that align with students' language proficiency and learning objectives. Such developments will enhance the efficacy of AI in ELT, facilitating more effective and reliable language learning experiences.

4.2. Addressing the Digital Divide in AI-Based Learning

A critical challenge in the integration of AI in ELT is the digital divide, which often limits access to AI-based learning tools for certain groups of students. To maximize the potential of these advanced technologies, it is crucial to ensure equitable access across various socioeconomic backgrounds. Disparities in access to devices, high-speed internet, and the necessary technical infrastructure can create significant barriers, preventing some students from fully benefiting from AI-enhanced educational opportunities. This issue particularly affects students in low-income areas or rural regions, where digital resources may be scarce or unreliable.

To promote inclusivity in education, policies must be implemented to bridge this digital gap. Efforts should focus on providing all students with access to AI-driven learning tools, ensuring that no learner is left behind due to technological limitations. This can involve providing subsidies for devices, improving internet access in underserved areas, and offering training programs to enhance digital literacy. By addressing the digital divide, every student is provided with the opportunity to benefit from AI technologies, thereby fostering a more inclusive and equitable educational environment.

4.3. Ensuring the Vital Role of Educators of Using AI in ELT

To ensure that AI serves as a complement to, not a replacement for, the educators' role in the classroom, it is essential to preserve the human-centered aspects of teaching, where educators remain integral to the teaching process. To facilitate the effective integration of AI into teaching practices, educators must undergo adequate training to familiarize themselves with AI tools, ensuring a balanced approach that harnesses the benefits of both AI technologies and traditional teaching methods. By implementing these recommendations, the potential challenges of AI in ELT can be addressed, thereby enhancing both the effectiveness and inclusivity of AI-enhanced language learning.

Moreover, educators should be encouraged to take an active role in selecting and customizing AI tools that align with their pedagogical goals and the specific needs of their students. This personalized approach ensures that AI technologies are integrated meaningfully into the curriculum, enhancing the learning experience without overshadowing the teacher's expertise. Teachers, equipped with both technological knowledge and pedagogical skills, can guide students in utilizing AI tools effectively, ensuring that these technologies complement rather than replace the human interaction essential for language development.

5. Conclusion

The integration of AI in ELT presents valuable opportunities for ELT, yet it also highlights challenges that need addressing. Educators must be equipped with the technical skills and resources to effectively implement AI tools in their teaching practices. Additionally, the potential shift away from a human-centered approach in education underscores the importance of maintaining the teacher's role in guiding and supporting students. To maximize the benefits of AI in ELT, it is crucial to strike a balance between technological advancements and the irreplaceable human elements of teaching.

There are still some problems in this study. A key limitation of this study lies in the lack of practical research and imperfect research design. While the study provides valuable insights, the absence of real-world applications and empirical data limits the applicability and generalizability of the findings. Furthermore, the research design could have been more robust, with clearer hypotheses and a more comprehensive methodological approach. These shortcomings reduce the study's overall impact and relevance.

In future research, improvements and refinements can be made in multiple aspects to address the limitations of the current study and enhance its practical applicability. In subsequent studies, it is essential to strengthen the integration

of practical and theoretical research, better applying theoretical frameworks to real-world scenarios to provide more robust support for research findings. Additionally, with the advancement and evolution of AI, we can further leverage new AI functionalities in ELT, achieving a more effective integration of AI and ELT. As AI and ELT become more deeply collaborated, both fields are poised to experience significant advancements and mutual benefits.

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