

AI on Learning English: Application, Benefit, and Threat

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Abstract

The use of artificial intelligence (AI) in English Language Teaching (ELT) can be seen as both a benefit and a potential threat, depending on how it is used and implemented. On the one hand, AI technology has the potential to make language learning more efficient and effective, by providing personalized feedback and practice exercises tailored to the different student's needs and learning style. By conducting an in-depth analysis of the existing literature on this topic, the writers aim at gaining a deeper understanding of the ways in which AI is being used to enhance the learning of English as a foreign language. Moreover, the literature review has involved an extensive search, mostly, for relevant scholarly articles, books, and additional sources that explore the intersection of AI and ELT. Besides, this review has also resulted a deeper understanding of the benefits and threats of using AI in ELT.

Keywords: AI, ELT, application, benefit, threat

Introduction

AI, Artificial Intelligence, often means to the advance of computer systems that can execute tasks that would normally involve human intelligence, such as recognizing patterns, comprehending natural language, making systematic decisions, answering problems, etc. The technology of AI is based on the idea of creating machines with human intelligence that can learn from experience, and can process, analyze and use data to improve their performance over time (Stewart et al., 2020). Nowadays, AI is used in a wide range of applications, including speech recognition, image processing, self-driving cars, and language translation, among others. The ultimate goal of AI research is to create systems that can perform human-like tasks with a high degree of accuracy and efficiency (Bartneck et al., 2021).

These days, AI has the potential to improve many aspects of human life, healthcare, transportation, entertainment, and education. In education, to be more certain, AI-powered applications or platforms are usually being used to provide individualized learning experiences and real-time feedback to students (Luckin et al., 2016). This is helping them to learn more effectively and at their own pace. With the ability to analyze student's data, AI can identify areas where student needs extra help and provide resources and guidance accordingly.

The implementation of AI in English Language Teaching (ELT) refers to the usage of AI technology in learning English. This implementation can include virtual tutors, language learning games, chat-bots, and personalized learning programs. Hitherto, the history of AI in ELT can be traced back to the early days of computer-

assisted language learning (CALL) in the 1970s and 1980s, when computer technology was first used to support language instruction. At that time, the idea was to make a machine for checking grammar (Schank, 1987). Afterward, the focus was developed into language learning software that could drill students on vocabulary and grammar. In the 1990s and 2000s, along with the emergence and growth of natural language processing (NLP), advances in AI had led to the development of more sophisticated language learning software that could interact with students in a more human-like manner. For example, AI-powered tutors were developed that could evaluate student progress and provide personalized feedback and practice exercises (Davies et al., 2013).

Now, AI is increasingly being used in ELT to make language learning more engaging, efficient, and accessible. AI-powered language learning applications and platforms, such as ChatGPT, Coursera, Duolingo, Elsa, Grammarly, etc., have become popular among language students, and AI is also being used to support language teachers in their instruction. As AI technology continues to evolve, it is expected that AI will play an increasingly essential role in ELT by offering more personalized experiences and also effective language learning assistances for students around the world (Yoon, 2019).

Some AI-powered educational applications and platforms also use NLP to create virtual tutors that can hold conversations with students and help them develop their language skills in a more conversational setting. An example of an application of AI in ELT is a virtual English tutor that uses NLP and machine learning algorithms to evaluate a student's speaking and writing abilities and provide personalized feedback (Lu, 2018). The virtual tutor can also generate practice exercises and activities in line with the student's progress and learning style, making the language learning experience more interactive and effective. Another example is an AI-powered application in ELT that uses speech recognition features to evaluate students' pronunciation, then provide real-time feedback and help students to improve their speaking skills.

AI has revolutionized autonomous English learning by offering personalized and adaptive learning experiences, facilitating practice in speaking and listening skills, enhancing accessibility, and providing valuable feedback (Han, 2019). It empowers students to take control of their learning journey and develop their English language proficiency independently. AI-powered platforms and applications can analyze students' performance data and make recommendations for future lessons, give immediate feedback on students' pronunciation, grammar, and vocabulary, and offer interactive activities that can help students engage with the material in new ways. The goal of AI in ELT is to make language learning more efficient, engaging, and accessible to students around the world.

The objective of this recent paper is to perform a literature review on the use of AI in ELT. According to Xiao and Watson (2019), a literature review is a critical examination of existing research and scholarly works that provides a foundation for the research study, informs the research design, and contributes to the theoretical understanding of the topic. As explained above, the field of ELT has been quickly evolving in decades, and the integration of AI has been a major driving force behind this transformation. By conducting an in-depth review of the existing literature on this topic, the writers aim to obtain a deeper comprehension of the ways in which AI is being used to enhance the learning of English as a foreign language. Moreover, the literature review has involved an extensive search for relevant scholarly articles, books, and additional sources that explore the intersection of AI and ELT. Besides, this review has also resulted a deeper understanding of the benefits and threats of using AI in ELT.

Using AI to help writing

There are AI-powered applications that can assist with writing tasks. Many experts say that it is perfectly okay to use AI-powered platforms or applications to assist with students' writing tasks (Fitria, 2021; Fyfe, 2022; Gayed et al., 2022; Godwin-Jones, 2022). In fact, many students and professionals use these platforms and applications to help improve the quality of their writing and ensure that it is error-free (Fitria, 2021). AI-powered writing platforms and applications typically work by analyzing text and making suggestions for improvements. Some applications can even generate text based on certain parameters, such as keywords or a given topic.

Grammarly is a good example of AI-based writing assistant. It helps students improve their writing by detecting grammar, spelling, punctuation, and style errors. It provides real-time suggestions and explanations to enhance the clarity and effectiveness of the writing. Hence, some basic words editor such as Microsoft Word and Google Docs have provided AI features to enhance the writing experience for students. They provide suggestions for grammar, spelling, and style improvements as students write. The AI features can also detect clarity and conciseness issues, helping students enhance their writing quality. Another popular AI-based platform for writing is ChatGPT. Chat GPT is a powerful language model established by OpenAI. It can assist users in generating human-like text and engaging in conversational interactions. Some popular features offered by ChatGPT, which give many benefits in writing, are brainstorming and generating ideas; providing writing prompts; offering feedback and suggestions; and assisting with language and vocabulary. These features are so popular recently among students.

By using AI-powered platform or application as a supplement to students' own skills, they can improve the quality of their writing and make the process more efficient. However, these platforms and applications are limited in their ability to fully understand the context and nuance of language, which can result in errors or awkward phrasing. It is important to note that relying solely on AI to complete an essay task is not recommended. AI-powered writing platforms and applications can be helpful for things like grammar and spelling checks, but they are not able to fully replace the critical thinking and analysis skills that are required for writing a high-quality essay. Students should still take the time to analyze and synthesize information, develop a clear argument, and express students' ideas effectively in writing. Ultimately, as explained by Godwin-Jones (2022), the best way to complete an essay task is to use a combination of AI-powered platforms or applications and students' own critical thinking and writing skills. It means that students can use AI-powered platforms or applications to help with grammar and spelling, but students need to rely on their own abilities to analyze and synthesize information, develop a clear argument, and express students' ideas effectively in writing.

Using AI to learn listening and speaking

The AI-powered platforms and applications can also be particularly helpful for developing listening and speaking skills, as they offer a range of features that can enhance the learning process. AI-based applications in listening and speaking offer students the opportunity to practice and refine their language skills in an interactive and personalized manner. By providing instant feedback, targeted exercises, and authentic practice scenarios, AI technology supports students in developing their oral communication abilities (Wu, 2022). There are some ways AI can help students in

learning to speak as well as listen English, namely, speech recognition and assessment; interactive conversation practice; accent reduction and pronunciation improvement; listening comprehension exercises; and natural language understanding and response generation.

Playing role as a peer or assessor, AI technology can accurately transcribe and assess students' spoken language. By comparing their pronunciation, intonation, and fluency to native speakers, AI can provide instant feedback and suggestions for improvement. Moreover, as virtual language tutors, AI can take part in interactive talks with students. These tutors utilize natural language processing (NLP) to understand and respond to students' speech, providing a realistic and immersive practice environment (Hapsari & Wu, 2022). AI applications can identify students' specific pronunciation challenges and target areas for improvement. They provide targeted exercises, feedback, and model pronunciation examples to help students refine their accent and pronunciation skills. AI-based platforms and applications, according to Zhou (2020), can generate and deliver personalized listening exercises based on students' proficiency levels and interests. These exercises can include various accents, speech speeds, and genres to improve students' comprehension skills. AI models can understand and generate responses in natural language, allowing students to engage in dialogues and practice conversations. These models leverage vast amounts of language data to provide contextually appropriate and relevant responses.

There are abundant of AI-based application that can help students in listening and speaking in English, such as ELSA Speak, Duolingo, HelloTalk, Rosetta Stone, Babbel, Speechling, etc. Duolingo and HelloTalk may be the most popular applications in this area. Duolingo is a widely recognized language learning platform that utilizes AI technology to help students practice listening and speaking skills in English. It offers interactive exercises, pronunciation practice, and speaking exercises that provide immediate feedback (Handini et al., 2022). On the other hand, HelloTalk also provides medium that connects users with native English speakers for conversation practice (Taufan & Wicaksono, 2022).

It is important to realize that AI-powered platforms and applications can be useful for learning and improving listening and speaking skills, but they are not a substitute for actual conversation practice with native English speakers. Whereas AI-powered applications can give feedback and instruction, they cannot imitate the nuances of real-life conversation or provide the same level of interaction and feedback as speaking with another person. AI-powered platform or application can be a helpful supplement to listening and speaking practice for English language students. By offering features such as speech recognition, interactive exercises, personalized instruction, and virtual assistants, these platforms and applications can enhance the learning process and help students improve their listening and speaking skills (Ali, 2020; Hapsari & Wu, 2022; Huang et al., 2023; Kholis, 2021; Zhou, 2020). However, it is important to remember that AI-powered platforms and applications should be used in conjunction with real-life conversation practice with native speakers to achieve the best results.

Using AI to learn reading English

Reading is a crucial skill when it comes to learning English, and as technology continues to advance, AI-powered platforms and applications are increasingly being used to help students improve their reading skills. These AI-powered platforms and applications offer a range of features that can be beneficial for students seeking to improve their comprehension, vocabulary, and overall reading ability. Huang et al.,

(2023) claim that one of the most significant benefits of AI-powered platforms and applications is their ability to automate grading and provide feedback on reading comprehension exercises. Students can submit their responses to reading exercises, and the platforms and application can automatically grade their work and provide feedback on areas for improvement. This feature can be incredibly beneficial for students as it allows them to identify their strengths and weaknesses in reading comprehension quickly (Huang et al., 2023).

AI-powered applications also offer features that assist students in improving their vocabulary, such as providing definitions of words and highlighting unfamiliar terms in texts. These features can help students expand their vocabulary and improve their comprehension of the texts they are reading (Alsadoon, 2021; Huang et al., 2023). Another benefit of AI-powered platforms and applications is text-to-speech technology, which converts written texts into audio files. This feature can be especially helpful for students who struggle with reading, as they can listen to the audio and practice speaking along with it (Nuraini Herawati et al., 2022). Text-to-speech technology can also be useful for improving pronunciation and intonation.

Similar to speaking and listening practice, AI-powered platforms and applications can use adaptive learning algorithms to personalize instruction based on a student's individual needs and progress. This can help students practice reading at a level that is appropriate for their current ability, which can help to build confidence and improve their comprehension. AI-powered platforms and applications can provide a range of interactive exercises and activities designed to help students improve their reading skills. These might include comprehension quizzes, gap-fill exercises, or interactive reading games. These activities can be engaging and fun, helping students to develop their reading skills in an enjoyable and interactive way.

Readlang is an AI-powered language learning app that helps students improve their reading skills in a foreign language (Magfirah, 2022). It allows students to import and read texts from the web or upload their own documents. The app provides instant word translations and allows users to create flashcards for vocabulary retention. The AI algorithms adapt to the students' reading level and provide targeted recommendations for further reading practice.

It is important to note that while AI-powered platforms and applications can be helpful for improving reading skills, regular reading practice is still essential. AI-powered platforms and applications should be used as a supplement to regular reading practice, to ensure students are building their skills and developing their ability to read in different contexts. AI-powered platforms and applications offer a range of features that can be beneficial for students seeking to improve their reading skills in English (Lestari et al., 2022). By automating grading and providing feedback, offering vocabulary assistance, providing text-to-speech technology, personalizing instruction, and providing interactive exercises, these applications can aid students to enhance their reading skill in an engaging and targeted way. While they should be used in conjunction with regular reading practice, AI-powered platforms and applications can be a valuable supplement to such practice, offering students additional opportunities to improve their reading skills.

The benefits of using AI in ELT

AI has emerged as a promising technology that can be harnessed to improve various aspects of ELT. AI has the potential to enhance personalized learning, provide real-time feedback, offer interactive activities, facilitate conversation practice, automate

assessment tasks, increase accessibility, and provide adaptive learning (Huang et al., 2023).

One of the most significant advantages of AI in ELT is its ability to individualize the learning experience for every student. By analyzing students' performance data, AI-powered platforms and applications can make recommendations for future lessons and offer a customized learning experience that is tailored to the needs and abilities of each student. This personalized approach can aid students to learn more effectively and efficiently. AI is also able to give real-time feedback on various aspects of language learning such as pronunciation, grammar, vocabulary, and writing skills. AI-powered platforms and applications can analyze students' responses and provide immediate feedback that helps them identify areas for improvement and work towards achieving their language learning goals (Godwin-Jones, 2022; Han, 2019; Huang et al., 2023; Kholis, 2021).

Interactive activities and games are an integral part of language learning, as they can help students engage with the material in fun and exciting ways. AI-powered platforms and applications can offer a range of interactive activities and games that help students practice various language skills while keeping them motivated and engaged. Conversation practice is a crucial aspect of language learning, especially for developing speaking and listening skills. AI can create virtual tutors that use natural language processing (NLP) to hold conversations with students and provide them with feedback on their pronunciation, intonation, and grammar usage.

Assessment is a time-consuming task for teachers and can take up a significant portion of their time. AI can automate assessment tasks, including grading assignments and tests, freeing up teachers' time to focus on other aspects of teaching, such as lesson planning and student engagement. Accessibility is another area where AI can make a significant impact in ELT. By providing students with 24/7 access to learning materials and activities, AI-powered platforms and applications can make ELT more accessible to students with different schedules and locations, allowing them to learn at their own pace and on their own terms. Last, AI can provide adaptive learning that adjusts the difficulty of lessons and activities based on students' progress, keeping them motivated and engaged. AI-powered platforms and applications can use data analytic to identify areas where students are struggling and provide them with targeted support to help them make progress more quickly.

The potential benefits of AI in ELT make it a promising area for continued research and development. As technology continues to evolve, the possibilities for AI in ELT are endless, and the potential benefits for students and teachers alike are significant. Yet, while AI in ELT offers a range of benefits, there are also some potential threats to be aware of (Huang et al., 2023). The following paragraphs are some of the most significant concerns related to the use of AI in ELT.

The threats of using AI in ELT

One potential threat is the possibility of reducing the role of human teachers in the learning process. As AI platforms and applications become more sophisticated, there is a risk that they could replace some of the tasks that are currently performed by human teachers, such as grading assignments and providing feedback (Godwin-Jones, 2022; Huang et al., 2023). While AI can certainly augment the work of human teachers, it is essential to ensure that these platforms and applications are not replacing them entirely.

Another concern is the potential for bias in AI-powered platforms and applications. AI platforms and applications rely on algorithms and data to make

decisions, which can be influenced by human biases. Whether the data employed to teach AI applications or platforms is not diverse or inclusive, it can lead to biased outcomes that reinforce existing inequalities. It is important to ensure that AI platforms and applications are developed and trained with a diverse range of data to prevent this potential threat.

Privacy is another potential threat to consider. As AI collect data on students' behaviors and interactions with the platforms or applications, there is a risk that this data could be misused or shared without consent. It is essential to ensure that privacy protections are in place to prevent these risks.

Ultimately, there is a potential threat related to the quality of AI-powered platforms and applications. As with any technology, there is a risk that AI platforms or applications may not be reliable or accurate. This can be a problem if students are relying on these platforms and applications to provide feedback or make decisions about their learning progress. It is essential to ensure that AI platforms and applications are thoroughly tested and validated to ensure their accuracy and reliability.

Conclusion

In conclusion, while AI in ELT offers many benefits, there are also potential threats that should be considered. To ensure that these technologies are used effectively and responsibly, it is essential to address concerns related to the position of human as teachers, bias in AI algorithms, privacy, and the quality of the platforms and applications themselves. By addressing these concerns, we can guarantee that AI-powered platforms and applications are used to enhance the learning experience and promote positive outcomes for all students.

However, the use of AI in English Language Teaching (ELT) can be seen as both a benefit and a potential threat, depending on how it is used and implemented. On the one hand, AI technology has the potential to make language learning more efficient and effective, by providing personalized feedback and practice exercises tailored to every student's needs and learning style. AI-powered language learning platforms and apps are also more accessible and affordable than traditional language courses, which can make language learning more inclusive and democratic. On the other hand, there are also concerns that the use of AI in ELT could lead to a dehumanization of language learning, by replacing human interaction and communication with machines. There is also a risk that the use of AI in ELT could drive to a reduction in the quality of language instruction, as students become overly reliant on technology and fail to develop their interpersonal and communication skills. Therefore, it is essential to note that AI is not a replacement for human teachers and should be seen as a supplement to traditional language teaching methods.

Ultimately, the key to realizing the potential of AI in ELT while minimizing its potential risks is to use AI as a technology to enhance human-led language teaching, rather than as a replacement for it. By combining the benefits of AI technology with the expertise and experience of human language teachers, it is possible to create a more effective and engaging language learning experience that matches the neediness and goals of every individual student.

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