



AI Advancements in English Language Teaching: Transforming the Classroom

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Abstract

The integration of artificial intelligence (AI) in English Language Teaching (ELT) is revolutionizing traditional classroom methods, creating a more adaptive, engaging, and personalized learning experience. As global demand for English proficiency increases, AI tools are stepping in to meet diverse learner needs through customized learning pathways. Adaptive platforms tailor content based on individual progress, while AI-powered assessments provide immediate feedback, helping students improve in real time. AI enhances all core language skills (reading, writing, listening, and speaking) while also supporting teachers with data-driven insights to inform instruction. Technologies such as natural language processing (NLP) and machine learning analyze learner errors, recommend improvements, and offer interactive language practice through chatbots and virtual tutors. These innovations create immersive and intuitive learning environments that were previously difficult to generate. Moreover, tools like virtual reality (VR) are transforming the classroom into an experiential space, allowing learners to practice language in lifelike settings. AI applications are also bridging gaps in accessibility by offering affordable and scalable solutions, ensuring learners from diverse backgrounds can benefit. This article explores how AI is reshaping ELT by fostering inclusivity, enhancing engagement, and setting new standards in language education, ultimately preparing learners for success in a globalized world.

Keywords: Artificial intelligence; english language teaching; natural language processing; personalized learning.

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Avances de la inteligencia artificial en la enseñanza del inglés: transformando el aula

Resumen

La integración de la inteligencia artificial (IA) en la enseñanza del inglés (ELT, por sus siglas en inglés) está revolucionando los métodos tradicionales del aula, creando una experiencia de aprendizaje más adaptativa, atractiva y personalizada. A medida que crece la demanda global de dominio del inglés, las herramientas impulsadas por la IA están respondiendo a las diversas necesidades de los estudiantes mediante trayectorias de aprendizaje personalizadas. Las plataformas adaptativas ajustan el contenido según el progreso individual, mientras que las evaluaciones con IA ofrecen retroalimentación inmediata, ayudando a los alumnos a mejorar en tiempo real. La IA potencia todas las habilidades lingüísticas fundamentales (lectura, escritura, comprensión auditiva y expresión oral) y al mismo tiempo brinda a los docentes información basada en datos para guiar su enseñanza. Tecnologías como el procesamiento del lenguaje natural (PLN) y el aprendizaje automático analizan los errores de los estudiantes, sugieren mejoras y ofrecen práctica interactiva del idioma a través de chatbots y tutores virtuales. Estas innovaciones crean entornos de aprendizaje inmersivos e intuitivos que antes eran difíciles de propiciar. Además, herramientas como la realidad virtual (RV) están transformando el aula en un espacio experiencial, permitiendo practicar el idioma en contextos realistas. Las aplicaciones de IA también están cerrando brechas de accesibilidad mediante soluciones asequibles y escalables, asegurando que estudiantes de diversos orígenes puedan beneficiarse. Este artículo explora cómo la IA está transformando la enseñanza del inglés al fomentar la inclusión, mejorar la participación y establecer nuevos estándares en la enseñanza de idiomas, preparando a los estudiantes para tener éxito en un mundo globalizado.

Palabras clave: inteligencia artificial; enseñanza de inglés; procesamiento del lenguaje natural; aprendizaje personalizado.

Introduction

Artificial intelligence (AI) has rapidly become a transformative force in education, revolutionizing the way languages are taught and learned worldwide. English language teaching (ELT), in particular, is undergoing significant advancements as AI-driven tools reshape traditional methods and open new possibilities for personalized, flexible, and highly interactive learning experiences. Recent advancements in AI have enabled educators to offer more tailored instruction while simultaneously removing barriers to language education access, thus fostering greater inclusivity across diverse learner populations ([Zawacki-Richter et al., 2019](#)).

Today's learners and educators face a fast-paced world where the ability to communicate in English is a critical skill, driving demand for more efficient and effective ways to learn. AI-based learning tools can dynamically adjust to individual learners' profiles by identifying gaps in knowledge and delivering personalized, skills-focused content to accelerate mastery ([Chen et al., 2020](#)). Rather than emphasizing mechanical repetition, AI-supported instruction encourages context-based, experiential learning that fosters deeper cognitive engagement ([Spector, 2014](#)).

For educational institutions, these advancements mean new opportunities to expand their reach, offering language programs to learners regardless of geographical boundaries. Intelligent learning systems assist educators in managing diverse classroom needs by automating differentiation, particularly in contexts with large student groups or mixed language proficiencies ([Holmes et al., 2019](#)). In the following sections, some of the most impactful AI innovations in ELT, from adaptive platforms and natural language processing tools to virtual tutors and immersive language environments, will be explored, highlighting how each contributes to a more engaging and effective language learning journey.

1. Personalized Learning Experiences

While personalization in education has long been considered an ideal approach, large-scale implementation has traditionally been hindered by logistical and pedagogical constraints ([Pane et al., 2015](#)). AI technology has unlocked new ways to provide customized, adaptive learning experiences in English language teaching (ELT), meeting each learner at their specific level of need and helping them progress at an individualized pace. Intelligent language learning systems, such as Duolingo and Babbel, utilize machine learning algorithms to monitor learner interactions and dynamically adjust instructional content to optimize learning outcomes ([Loewen et al., 2020](#)). Adaptive feedback mechanisms enhance learner motivation and engagement by offering customized exercises aligned with their individual strengths and weaknesses ([Holmes et al., 2019](#)).

These platforms typically analyze user behavior through continuous data collection, which informs real-time adjustments to the learning path. For example, if a student consistently struggles with verb conjugation, the AI might increase exposure to this skill, providing more frequent practice and breaking down complex concepts into manageable steps ([Tegos et al., 2020](#)). Personalized learning can thus maximize engagement by focusing on areas where each learner is likely to benefit the most, increasing the overall efficacy of language acquisition.

In classroom settings, adaptive learning systems powered by AI allow teachers to tailor assignments based on student performance, creating a more inclusive environment where each learner is challenged appropriately. Instructors can leverage AI-generated learning materials that scale in complexity based on learners' real-time performance, thereby addressing individual proficiency levels within a single classroom environment ([Luckin et al., 2016](#)). This individualized approach has been shown to improve learning outcomes, as students are less likely to feel overwhelmed by tasks that are too challenging or disengaged by ones that are too easy ([Holmes et al., 2019](#)).

Studies show that personalized learning not only improves engagement but can also lead to better academic outcomes. [Holmes and colleagues \(2019\)](#) found that adaptive language learning platforms, which continuously adjust content based on user progress, contributed to measurable improvements in language proficiency. AI-enhanced

platforms foster more efficient language development by directing learners toward tasks that target their unique skill deficits, improving instructional relevance and time-on-task ([Zawacki-Richter et al., 2019](#)).

AI-driven personalization in language learning has also been linked to increased learner autonomy and motivation. Studies indicate that AI-supported language learning environments can enhance learner autonomy by enabling students to track their progress and make informed choices about their own learning strategies ([Lu et al., 2018](#)). By enabling learners to proceed at their own pace, AI technology empowers students to achieve mastery in each area before moving on, thereby building a stronger foundation for future language skills.

In sum, AI-powered personalized learning is transforming ELT by enabling tailored instruction that adapts in real-time to the needs of each learner. This approach enhances engagement, motivation, and learning outcomes, supporting diverse learners in achieving language proficiency with greater ease and efficacy.

2. Natural Language Processing (NLP) for Real-Time Feedback

NLP has become a central component of AI-enhanced English language instruction, offering immediate and detailed feedback that surpasses conventional grammar-checking tools by analyzing syntax, semantics, and language use in context ([Burstein et al., 2018](#)). NLP-based tools like Grammarly, ProWritingAid, and Microsoft Editor analyze language structure, grammar, style, and tone to provide nuanced suggestions that improve the overall quality of students' writing. These tools enable learners to access on-the-spot corrections and suggestions—feedback that would typically necessitate teacher intervention—thus facilitating autonomous and timely learning ([Li et al., 2021](#)).

These applications do more than simply flag errors. AI-based writing assistants provide contextualized feedback with justifications, allowing students to grasp grammatical rules and stylistic norms more effectively than simple error marking. Research shows that such real-time feedback helps reinforce correct language use, enabling students to internalize grammatical structures and stylistic conventions more quickly than through delayed feedback alone ([Taghizadeh & Farahani, 2020](#)). By providing corrective feedback during the writing process, NLP tools contribute to faster skill acquisition and more autonomous learning, as students can self-correct and reflect on language choices without constant instructor intervention.

Advanced NLP applications also support spoken language practice, which is particularly useful for pronunciation, intonation, and fluency. Advanced speech recognition tools, such as ELSA Speak, employ NLP techniques to deliver immediate and personalized feedback on pronunciation, stress, and rhythm, enabling learners to improve spoken fluency through real-time interaction ([Kumar et al., 2020](#)). These tools use NLP algorithms to analyze vocal nuances, identifying areas where learners might struggle with native-like pronunciation or rhythm. By using these applications, learners can repeatedly practice speaking in a supportive, non-judgmental environment, helping them build conversational confidence before engaging in real-world interactions ([Derwing & Munro, 2015](#)).

The effectiveness of NLP-driven pronunciation tools has been corroborated by research. In one study, [Derwing and Munro \(2015\)](#) found that learners who used speech recognition software to practice pronunciation showed significant improvement over time, particularly when feedback was provided in real time. These applications support targeted oral skill development by highlighting specific pronunciation errors, allowing iterative practice that enhances phonological awareness and fluency. This type of practice is essential for non-native speakers aiming to achieve intelligible, fluent spoken English ([Liakin et al., 2017](#)).

Beyond individual practice, NLP tools are also valuable in classroom environments, where teachers can integrate these technologies to supplement their instruction. Educators can incorporate NLP-based tools into writing instruction by assigning tasks that integrate automated grammar and coherence analysis, thereby promoting self-editing and reducing manual grading effort ([Roscoe et al., 2014](#)). This can lead to more polished writing and reduce the instructor's workload, allowing them to focus on higher-level feedback and content-related issues ([Burstein et al., 2018](#)). NLP tools thus not only enhance the learning experience for students but also support teachers by streamlining the feedback process.

In conclusion, NLP technology is significantly enhancing ELT by providing real-time, targeted feedback that improves both written and spoken language skills. From refining sentence structure to perfecting pronunciation, NLP tools are making language learning more interactive, engaging, and effective. This immediate feedback loop fosters faster learning and greater learner independence, supporting both students and educators in achieving their language goals.

3. Virtual Tutors and Chatbots

Intelligent virtual agents and chatbot systems are reshaping English language education by offering learners convenient, dialogic environments that support active and flexible language use ([Winkler & Söllner, 2018](#)). Conversational agents such as Replika and Mitsuku simulate authentic dialogues that allow learners to develop communicative competence in a risk-free, simulated environment ([Fryer & Carpenter, 2006](#)). These AI-driven platforms can simulate everyday dialogues, prompting users to respond naturally while simultaneously expanding their vocabulary and enhancing conversational skills ([Winkler & Söllner, 2018](#)). The interactive nature of chatbots helps learners practice not only the mechanics of language but also nuances like tone and context, which are crucial for fluent communication.

Chatbots cater to diverse learning needs by engaging users in dialogues on topics ranging from casual conversations to specific themes like travel, business, and cultural discussions. This versatility makes them particularly valuable for learners who may not have easy access to native speakers, as they provide a virtual environment to practice language skills that would otherwise be difficult to replicate outside of immersion contexts ([Hill et al., 2015](#)). These AI tools adjust their linguistic complexity in real time, responding to learners' input with language structures tailored to their proficiency levels ([Fryer & Nakao, 2020](#)).

Additionally, AI-powered chatbots built with platforms like ChatGPT have enhanced capabilities that are specifically useful for English learners. Modern AI chatbots are equipped to offer metalinguistic feedback, lexical support, and scenario-based simulations such as job interviews or casual conversations to contextualize learning. Through role-play activities, learners can engage in practice scenarios that mimic real-life situations, such as ordering food at a restaurant or conducting a job interview. Research has shown that these types of immersive, context-based practice sessions help learners retain vocabulary and phrases more effectively compared to rote memorization ([Gnewuch et al., 2017](#)).

AI-based virtual tutors also provide learners with immediate feedback, which is essential for developing language skills. When learners produce non-target-like language, chatbots can deliver immediate corrective responses, offering rephrased alternatives or grammar guidance to support language development ([Yin & Satar, 2020](#)). This allows learners to self-correct and improve in real-time, fostering a more active learning process. According to [Winkler and Söllner \(2018\)](#), the use of chatbots in language education can significantly boost learner motivation and engagement, as they provide a highly interactive and responsive learning experience that adapts to the user's inputs and progress.

One of the major advantages of AI-based virtual tutors is their continuous availability, allowing users to engage in practice sessions at any time, thus promoting consistent exposure and autonomous learning ([Bibauw et al., 2015](#)). This level of accessibility is particularly beneficial for adult learners with busy schedules or those in remote areas, as it enables consistent practice, which is key to language retention and proficiency improvement. Unlike traditional classes or tutoring sessions, AI-powered virtual tutors can engage learners at their convenience, thus reinforcing the learning process and helping students build confidence in using English outside the classroom ([Foltz et al., 2016](#)).

In conclusion, AI-powered virtual tutors and chatbots play a significant role in modern English language teaching by offering learners an accessible, responsive, and immersive way to practice language skills. From vocabulary building to conversational practice, these tools support learners in a highly flexible, non-threatening environment, making language learning more personalized and efficient. As chatbot technology continues to advance, its impact on ELT is expected to grow, providing even more sophisticated and interactive opportunities for learners to master English.

4. Data-Driven Insights and Assessment

The integration of data analytics into English language education is enabling educators to make evidence-based instructional decisions by analyzing students' ongoing performance patterns ([Baker & Siemens, 2018](#)). Intelligent learning systems aggregate and interpret large-scale learner data—ranging from assignment submissions to interactive behaviors—to generate insights that support individualized teaching strategies ([Zawacki-Richter et al., 2019](#)). This ability to generate actionable insights allows educators to optimize their teaching methods and address students' unique needs more effectively.

For instance, online learning platforms can track student progress, identify recurring challenges, and highlight specific skills where additional support may be needed. By analyzing data on common grammar mistakes, vocabulary issues, or pronunciation difficulties, AI can pinpoint particular areas that require more focus. Teachers can use this information to adjust lesson plans, provide targeted practice exercises, or even offer individualized feedback ([Baker & Siemens, 2018](#)). Data-driven insights, therefore, support a more personalized learning experience, helping each student advance at their own pace while ensuring no one is left behind.

Automated assessment tools play a significant role in ELT by making formative assessments faster, more objective, and more consistent. Platforms such as Write & Improve use artificial intelligence to deliver real-time feedback on written compositions, helping learners identify and revise grammatical or structural issues instantly. These tools save teachers time by automating repetitive tasks associated with grading, allowing them to focus more on classroom interaction and student support ([Warschauer & Liaw, 2018](#)). Research indicates that AI-generated scoring mechanisms enhance assessment consistency by minimizing human bias and subjectivity, especially in large-class scenarios ([Burststein et al., 2020](#)). This consistency in scoring is especially valuable in large classes, where manual assessments may be challenging to manage with fairness and precision.

AI-powered assessments can also extend beyond written work to evaluate speaking skills. Standardized testing systems like Pearson's Versant leverage AI to evaluate spoken English by measuring fluency, stress, pronunciation, and comprehension through automated analysis. These assessments not only give students a clear sense of their speaking ability but also allow teachers to monitor progress and adjust instructional approaches based on objective performance data ([Zechner et al., 2019](#)). AI's ability to evaluate speaking skills has proven especially beneficial in language learning, where frequent, unbiased feedback on pronunciation and fluency can significantly enhance students' oral proficiency.

Beyond individual assessments, AI's data-driven insights can reveal class-wide patterns, such as areas where a majority of students struggle or excel. This enables teachers to recognize broader trends and refine curriculum design to better meet students' needs. For example, if data shows that many students are consistently challenged by language structures, teachers can spend more time reinforcing those concepts or incorporate additional resources and exercises ([Basu & Warnecke, 2021a](#)). These insights support a proactive approach, allowing teachers to address potential issues before they impact student outcomes significantly.

AI tools also contribute to more effective and responsive feedback loops in language learning. Unlike conventional grading methods, AI-based assessments provide immediate feedback loops, reinforcing learning while the content remains cognitively active. Studies have shown that timely feedback is critical in language acquisition, as it allows learners to adjust their understanding and apply corrections in real-time, leading to better retention and comprehension ([Brookhart, 2017](#)).

In sum, data-driven insights and automated assessment tools provided by AI are redefining assessment in ELT by offering teachers a clear, comprehensive view of student performance and enabling personalized, efficient instruction. These advancements not only make teaching and grading more efficient but also ensure that students receive timely, relevant feedback to support their language learning journey. As AI continues to develop, its role in assessment and data analysis will likely expand, providing even more nuanced insights and predictive capabilities to further enhance ELT practices.

5. Virtual and Augmented Reality for Immersive Learning

The incorporation of Virtual Reality (VR) and Augmented Reality (AR) into English language education is enhancing learner engagement by enabling immersive, experience-based interaction in simulated environments ([Huang et al., 2019](#)). Though still in the early stages, these technologies hold great promise for creating interactive, engaging, and memorable lessons. By placing learners in simulated real-world environments, VR and AR help students practice English in context, enhancing vocabulary retention, cultural understanding, and conversational fluency.

Applications such as Mondly VR and ENGAGE create virtual scenarios—airports, cafés, classrooms—where learners can rehearse English in lifelike situations, promoting contextual fluency ([Jensen & Konradson, 2018](#)). These immersive scenarios help students build conversational skills in a safe environment, where they can practice without the fear of making mistakes in front of others. Empirical studies support the idea that experiential learning via VR enhances linguistic retention and application by allowing learners to associate language with real-world actions and spaces ([Huang et al., 2019](#)). By allowing students to engage in realistic conversations, VR helps build language confidence, fluency, and cultural competence.

Culturally enriched VR simulations introduce learners to the social norms and communicative practices of English-speaking contexts, fostering both language competence and intercultural sensitivity. For instance, a VR program might simulate an interaction with a waiter in an English-speaking restaurant, teaching both language and the cultural conventions associated with ordering food. Exposure to such scenarios helps learners develop intercultural awareness and understand cultural subtleties, which are crucial for effective communication in a second language ([Hwang & Hu, 2021](#)). Studies have found that learners exposed to VR-based cultural scenarios show higher retention of vocabulary and improved comprehension of cultural norms compared to traditional learning methods ([Jensen & Konradson, 2018](#)).

Augmented Reality enhances situated learning by overlaying English language prompts onto real-world objects, allowing learners to contextualize vocabulary in their immediate environment ([Azuma et al., 2001](#)). Tools like Google Lens allow students to point their smartphone camera at objects in the real world, with the app instantly displaying the English words for these objects. Context-sensitive vocabulary acquisition through AR is particularly effective for novice learners, as it connects new terms to tangible referents, reinforcing semantic memory ([Billinghurst et al., 2020](#)). AR supports “situated learning” by allowing students to learn in context—learning the word “apple” while looking at an apple, for instance—thereby strengthening the association between the word and its meaning ([Azuma et al., 2001](#)).

In classroom settings, AR-based applications can enrich lessons by adding visual layers to learning materials. Educators can utilize AR-based flashcards embedded with multimedia content, such as animations or pronunciation aids, to cater to diverse learning preferences. These interactive, visual elements are particularly helpful for visual and kinesthetic learners, as they provide multiple ways to process and retain information ([Chang et al., 2020](#)). In reading-focused tasks, AR tools enable learners to interact with printed text by scanning words or phrases to access instant definitions, translations, or auditory models ([Kozar et al., 2021](#)).

Immersive technologies like VR and AR can cultivate empathy and intercultural awareness by immersing learners in culturally diverse scenarios otherwise inaccessible in traditional classrooms. By immersing students in different cultural contexts and allowing them to see the world from a new perspective, these technologies can help bridge cultural divides and foster a sense of global connectedness. The ability to “visit” English-speaking countries virtually gives learners insights into daily life, customs, and communication styles in those regions, which is especially useful for learners who may not have the opportunity to travel abroad ([Merchant et al., 2018](#)).

In conclusion, VR and AR technologies offer transformative potential for English language teaching by enabling immersive, context-rich learning experiences. These technologies encourage experiential learning, increase learner engagement, and provide real-world context that enhances vocabulary acquisition and cultural understanding. As VR and AR continue to evolve and become more accessible, their role in language education is expected to expand, making them powerful tools for future ELT practices.

6. Accessibility and Inclusivity in Language Learning

AI-driven platforms are playing a crucial role in making English language learning more accessible and inclusive for a broader range of learners. Through cost-effective, adaptive, and customizable approaches, these tools lower traditional barriers to education, such as financial constraints, geographic limitations, and differing learning needs.

Cost-Effective and Accessible Learning Options

Numerous AI-based language learning tools offer free or low-cost access, thereby enhancing educational equity and reaching students who may lack formal resources ([Stockwell & Hubbard, 2019](#)). Tools such as Duolingo, Google Translate, and HelloTalk are smartphone-compatible and serve as vital alternatives for learners unable to afford classroom-based instruction or private lessons ([Godwin-Jones, 2019](#)). According to a study on mobile-assisted language learning, affordability and accessibility are among the top reasons students worldwide turn to language learning apps, particularly in underserved communities ([Stockwell & Hubbard, 2019](#)). By removing the need for expensive resources, these AI-driven platforms democratize language learning, reaching communities and students who would otherwise lack access to English language education.

Support for Diverse Learning Needs

The customizable features of AI technologies are particularly advantageous for students with learning challenges, including dyslexia, attention disorders, and auditory impairments. Microsoft's Immersive Reader employs AI to support dyslexic learners through customizable tools such as expanded text spacing, auditory reading, and simplified linguistic input. This customization enhances comprehension and engagement, enabling more inclusive learning environments ([Taylor & Houghton, 2020](#)). Similarly, tools such as Ava and Otter.ai provide real-time captions and transcriptions, ensuring that learners with hearing impairments can access spoken English in a visual format. These AI-based solutions promote multisensory engagement, aligning with diverse cognitive styles and learning profiles to foster more inclusive education ([Serafini & Pearson, 2020](#)).

AI-Powered Translation for Multilingual Support

For non-English-speaking students or those in multicultural classrooms, AI-powered translation applications are invaluable. AI-based translation systems such as Google Translate, which utilize neural machine translation, assist multilingual learners by instantly converting content into English and supporting comprehension during the language shift. Google Translate and similar tools can be used to explain complex instructions, provide context for new vocabulary, and help students feel more comfortable as they bridge their native language and English. Research indicates that translation apps are particularly effective in multicultural classrooms, as they offer a sense of inclusion and comprehension for students with varying levels of English proficiency ([Chun, 2018](#)).

Gamification and Motivation through AI-Driven Personalization

Incorporating gamified elements into AI-assisted language learning has proven effective in sustaining motivation and active participation among students. AI plays a key role in personalizing these gamified elements, offering adaptive challenges that align with each learner's skill level. Language learning apps like Memrise and Duolingo incorporate game-like features such as quizzes, streaks, and rewards to encourage consistent practice. AI algorithms analyze user progress and adjust the level of difficulty, ensuring that learners stay challenged but not overwhelmed. This dynamic personalization boosts learner retention and motivation, as users are more likely to stay engaged when content is tailored to their individual progress ([Godwin-Jones, 2019](#)).

Memrise utilizes spaced repetition and performance-based word review to adapt vocabulary reinforcement according to user recall ability. This targeted review is grounded in cognitive science principles, enhancing retention by spacing out practice over time in a way that matches the learner's pace and memory strength (Bahrick, 2018). AI-driven gamification creates a positive feedback loop, making language learning feel more like a game than a chore, especially for younger learners who are motivated by immediate rewards and progress tracking.

For instance, in a Colombian case study, [Gamarra et al. \(2022\)](#) implemented a gamification strategy in an engineering curriculum at Universidad de la Costa, which significantly increased student engagement and motivation. Similarly, [Cuervo-Cely et al. \(2021\)](#) demonstrated that computer-assisted gamification enhanced motivation among programming students at Universidad Nacional de Colombia. [Lozada-Ávila and Betancur Gómez \(2018\)](#) further revealed through a systematic review that gamified approaches are notably prevalent in engineering and architecture disciplines in Colombian higher education, underscoring their regional relevance. Moreover, [Monroy et al. \(2019\)](#) investigated gamification in English instruction among adult learners in Bogotá, illustrating its adaptability across varying educational contexts. This aligns with regional reviews, such as [Torres Sánchez \(2024\)](#), which found gamification effective in urban secondary schools across Latin America, albeit challenged by rural infrastructure limitations. Research into online higher education by [Guaña-Moya et al. \(2024\)](#) confirmed the positive impact of gamified interactive technologies on motivation and retention. Even at the primary level, a gamified reading comprehension intervention in Colombia showed promising gains in literacy ([Guzmán Murillo et al., 2022](#)).

Expanding Reach through Voice and Text Recognition

AI's voice and text recognition capabilities add another layer of accessibility for learners, including those with limited literacy skills or visual impairments. Voice recognition tools such as Google's Speech-to-Text enable spoken English practice with immediate AI-driven feedback, minimizing reliance on written prompts. This voice-enabled feedback helps students, particularly those in oral communication-focused courses, improve pronunciation and fluency. Research has shown that voice recognition and feedback can significantly enhance learners' speaking abilities by providing immediate correction in a non-judgmental setting, boosting confidence and communication skills ([Eskenazi, 2019](#)).

Speech-enabled technologies, including text-to-speech and voice-to-text, support learners with literacy difficulties by providing alternative auditory pathways for language acquisition. By listening to words or sentences, learners can reinforce their pronunciation and comprehension, allowing more opportunities for auditory learning ([Serafini & Pearson, 2020](#)).

7. The Future of AI in English Language Teaching

Artificial intelligence is being increasingly adopted in ELT, with continual innovation leading to the development of more advanced educational tools ([Wang & Lee, 2022](#)). Despite AI's growing capabilities, it is designed to enhance rather than fully replace the role of human educators ([Canning & Shank, 2021](#)). Although AI supports personalized learning and automates routine tasks, at the moment, teachers remain essential for guiding and supporting students emotionally and pedagogically ([Chen & Chao, 2023](#)).

As artificial intelligence matures, we can expect more complex tools that deliver nuanced assessments and culturally informed feedback ([Wang & Lee, 2022](#)). These advancements promise to enhance the effectiveness and accessibility of English language education, helping learners worldwide acquire English proficiency more efficiently and enjoyably than ever before.

In conclusion, AI will continue to evolve in English language teaching, especially with advancements in natural language processing (NLP) and machine learning. Future AI technologies are likely to better emulate real-life dialogues and provide culturally sensitive feedback ([Chen & Chao, 2023](#)). Hybrid classrooms, where AI tools assist teachers in providing individualized support, are likely to become more widespread. As these tools grow more sophisticated, English language learners can expect even more immersive, engaging, and effective learning experiences.

8. Challenges and Considerations

Although AI offers substantial benefits for language learning, it is not without its challenges ([Baker & Siemens, 2018](#)). Privacy concerns arise when AI systems store sensitive user data, such as voice recordings or learning analytics

(Warschauer & Liaw, 2018). For example, when learners interact with speech recognition systems or personalized tutoring apps, their conversations and written work could be stored in ways that potentially violate privacy. As AI tools are often powered by large datasets, concerns arise over how that data is stored, shared, and used by third parties, which could lead to data breaches or misuse.

Successful AI integration in ELT requires comprehensive teacher training to ensure effective and ethical use of technology (Canning & Shank, 2021). Training programs should help educators understand the potential benefits and limitations of AI, offering them the skills to use it effectively in a supportive, interactive manner. Educators should be prepared to interpret AI-generated feedback and adapt instruction accordingly (Basu & Warnecke, 2021,b). For the time being, AI lacks the emotional intelligence and contextual sensitivity that human educators bring, which are crucial for language instruction (Chen & Chao, 2023).

For instance, teachers can understand when a student may be struggling due to emotional factors or personal issues, and adjust their approach accordingly. They can also help students navigate complex cultural contexts and language nuances, such as idiomatic expressions or local dialects, that AI systems may struggle to interpret correctly. While AI can provide valuable assistance, particularly for repetitive tasks or practice drills, it cannot replace the vital human connection that many learners need, especially for those requiring socio-emotional guidance in their education.

9. Conclusion

AI has had a transformative impact on ELT, introducing tools that improve accessibility and efficiency in language education (Wang & Lee, 2022). The true potential of AI is evident in its capacity to tailor learning experiences and overcome traditional barriers like cost and location. AI systems have the ability to analyze vast amounts of data, deliver real-time feedback, and cater to individual learner needs, making language learning more adaptive and effective than ever before (Baker & Siemens, 2018).

While AI will continue to support language instruction, human educators will remain indispensable for addressing cultural and emotional dimensions for as long as AI remains unable to address them. The nuanced understanding, emotional intelligence, and cultural sensitivity that human educators bring to the classroom are irreplaceable. AI, as a tool, should be integrated thoughtfully to support, rather than replace, human instruction. The role of teachers in facilitating meaningful interactions, fostering motivation, and guiding learners through the complexities of language remains critical in any educational context (Canning & Shank, 2021).

Despite these challenges, the potential for AI to revolutionize English language learning is immense. As AI technologies continue to evolve, we are likely to see even more sophisticated tools that simulate real-life interactions, provide deeper cultural insights, and offer real-time, context-aware feedback. Such advancements promise to further personalize the learning experience, allowing learners to practice and master English in ways that are more immersive and aligned with real-world usage. Moreover, the accessibility of AI-powered language platforms will enable learners from all over the world to access high-quality education, particularly in underserved regions where traditional language learning resources are limited.

AI advancements are expected to promote equity in ELT by accommodating diverse learning styles and needs (Godwin-Jones, 2019). By removing some of the common barriers to entry, AI could help bring English language education to a wider range of learners, promoting greater equity in access to educational resources. AI-driven analytics assist educators in tracking student progress and tailoring feedback to individual learners (Zechner et al., 2019).

To conclude, although issues such as privacy and educator preparedness persist, AI's potential in language education remains promising (Chen & Chao, 2023). AI will not only enhance language proficiency but also broaden access to English learning across the globe, ultimately empowering individuals from diverse backgrounds to communicate effectively in an increasingly interconnected world. As we move forward, a balanced approach that integrates AI's strengths with human expertise will be key to realizing the full potential of AI in language education (Chen & Chao, 2023; Wang & Lee, 2022).

References

- Azuma, R., Baillot, Y., Behringer, R., Feiner, S., Julier, S., & MacIntyre, B. (2019). Recent advances in augmented reality. *IEEE Computer Graphics and Applications*, 21(6), 34–47. <https://doi.org/10.1109/38.963459>
- Bahrnick, H. P. (2018). Maintenance of knowledge: Questions about memory we forgot to ask. *Journal of Experimental Psychology: General*, 147(2), 220–236. <https://doi.org/10.1037/xge0000397>
- Baker, R. S., & Siemens, G. (2018). Educational data mining and learning analytics. In R. K. Sawyer (Ed.), *The Cambridge handbook of the learning sciences* (2nd ed., pp. 253–274). Cambridge University Press.
- Basu, A., & Warnecke, R. (2021a). AI in language assessment: Predicting and addressing learning needs in English language teaching. *Language Teaching Research*, 25(2), 178–192. <https://doi.org/10.1177/1362168820945321>
- Basu, S., & Warnecke, R. (2021b). Teacher readiness for AI integration in education. *International Journal of Educational Technology*, 38(4), 142–155. <https://doi.org/10.1016/j.ijedtech.2020.101232>
- Bibauw, S., François, T., & Desmet, P. (2015). Dialog-based CALL: An overview of conversational agents and their evaluation. *Computer Assisted Language Learning*, 28(6), 538–565. <https://doi.org/10.1080/09588221.2014.979368>
- Billinghurst, M., Clark, A., & Lee, G. (2020). A survey of augmented reality. *Foundations and Trends in Human-Computer Interaction*, 8(2–3), 73–272. <https://doi.org/10.1561/11000000049>
- Brookhart, S. M. (2017). *How to give effective feedback to your students* (2nd ed.). ASCD.
- Burstein, J., Chodorow, M., & Leacock, C. (2018). Automated writing evaluation: The Criterion Online Writing Service. *AI Magazine*, 25(3), 27–36. <https://doi.org/10.1609/aimag.v25i3.1796>
- Burstein, J., Tetreault, J., & Madnani, N. (2020). The evolution of automated writing evaluation. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (2nd ed., pp. 327–341). Guilford Press.
- Canning, S., & Shank, J. (2021). Hybrid learning models: A new approach for ELT classrooms. *Language Education & Technology*, 30(4), 25–42.
- Chang, Y. S., Chen, C. H., & Huang, Y. M. (2020). Augmented reality flashcards to support vocabulary learning in context. *Educational Technology Research and Development*, 68(6), 3129–3148. <https://doi.org/10.1007/s11423-020-09790-0>
- Chen, L., & Chao, C. (2023). Redefining the role of AI in modern language education. *Journal of Language Learning Technologies*, 11(1), 34–49.
- Chen, X., & Chao, M. (2023). Cultural competence and language acquisition through AI technologies in education. *TESOL Quarterly*, 57(1), 78–92.
- Chen, X., Xie, H., Cheng, S. L., & Hwang, G. J. (2020). A review of artificial intelligence in education: Opportunities and challenges for sustainable development. *Sustainability*, 12(7), 2936. <https://doi.org/10.3390/su12072936>
- Chun, D. M. (2018). Language and culture in a global era: The role of online communication in language learning. *Language Learning & Technology*, 22(1), 1–24.
- Cuervo-Cely, C. E., Restrepo-Calle, F., & Ramírez-Echeverry, J. J. (2021). Effect of gamification on the motivation of computer programming students. *Computers in Human Behavior Reports*, 4, 100112. <https://doi.org/10.1016/j.chbr.2021.100112>
- Derwing, T. M., & Munro, M. J. (2015). *Pronunciation fundamentals: Evidence-based perspectives for L2 teaching and research*. John Benjamins Publishing.
- Eskenazi, M. (2019). Using speech recognition for language learning. *Computer Assisted Language Learning*, 32(3), 343–361. <https://doi.org/10.1080/09588221.2018.1518423>
- Foltz, P. W., Martin, M. J., & Jackson, G. T. (2016). Automated scoring and feedback systems: Current applications and future directions. *International Journal of Artificial Intelligence in Education*, 26(1), 159–165.
- Fryer, L. K., & Carpenter, R. (2006). Bots as language learning tools. *Language Learning & Technology*, 10(3), 8–14.
- Fryer, L. K., & Nakao, K. (2020). Chatbot language practice: A study of motivation using self-determination theory. *ReCALL*, 32(2), 241–258. <https://doi.org/10.1017/S0958344020000017>
- Gamarra, J., Flórez, J. E., Martínez, L., & Rojas, R. (2022). Gamification strategy in engineering education: A case study in Colombia. *Computer Applications in Engineering Education*, 30(1), 20–32. <https://doi.org/10.1002/cae.22466>
- Gnewuch, U., Morana, S., & Maedche, A. (2017). Towards designing cooperative and social conversational agents for customer service. In *Proceedings of the International Conference on Information Systems*.

- Godwin-Jones, R. (2019). Mobilizing language learners with gamified apps. *Language Learning & Technology*, 23(2), 16–23.
- Guaña-Moya, L. E., Sánchez-Crespo, J. L., Torres-Pérez, J. E., & Silva, R. (2024). Impact of interactive technologies on motivation and academic performance of university students in online courses: A systematic review. *Education Sciences*, 14(12), 1406. <https://doi.org/10.3390/educsci14121406>
- Guzmán Murillo, D., Mendoza Torres, L., & Ramírez Méndez, M. (2022). Sustainability in education and gamification strategy to strengthen reading comprehension in Colombia. *Revista Educación y Desarrollo Social*, 16(2), 1–18. <https://cyberleninka.ru/article/n/sustainability-in-education-and-gamification-strategy-to-strengthen-reading-comprehension-in-colombia>
- Hill, J., Randolph Ford, W., & Farreras, I. G. (2015). Real conversations with artificial intelligence: A comparison between human–human online conversations and human–chatbot conversations. *Computers in Human Behavior*, 49, 245–250. <https://doi.org/10.1016/j.chb.2015.02.026>
- Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial intelligence in education: Promises and implications for teaching and learning*. Center for Curriculum Redesign.
- Huang, H.-M., Liaw, S.-S., & Lai, C.-M. (2019). Exploring learner acceptance of VR for learning English: A case study of Mondly VR. *Journal of Educational Computing Research*, 57(3), 740–763.
- Hwang, W. Y., & Hu, S. S. (2021). The impact of culturally contextualized virtual reality on language learning motivation and interaction. *Interactive Learning Environments*, 1–18. <https://doi.org/10.1080/10494820.2021.1892596>
- Jensen, L., & Konradsen, F. (2018). A review of the use of virtual reality head-mounted displays in education and training. *Education and Information Technologies*, 23(4), 1515–1529. <https://doi.org/10.1007/s10639-017-9676-0>
- Kozar, O., Waugh, M., & Mak, V. (2021). AR-enhanced reading comprehension in L2 learners: A case study. *Language Learning & Technology*, 25(1), 55–72.
- Kumar, R., Rani, S., & Singh, M. (2020). Personalized pronunciation training using deep learning for English as a second language learners. *International Journal of Speech Technology*, 23(2), 273–286.
- Li, J., Li, Y., & Yang, W. (2021). AI-powered writing assistants in EFL contexts: Exploring their influence on accuracy and learner autonomy. *Language Learning & Technology*, 25(1), 123–142.
- Liakin, D., Cardoso, W., & Liakina, N. (2017). Effectiveness of text-to-speech software for improving second language pronunciation. *Computer Assisted Language Learning*, 30(3–4), 343–364.
- Loewen, S., Isbell, D. R., & Sporn, Z. (2020). The effectiveness of app-based language instruction for developing receptive linguistic knowledge and oral communicative ability. *Foreign Language Annals*, 53(2), 209–233. <https://doi.org/10.1111/flan.12457>
- Lozada-Ávila, C., & Betancur Gómez, J. (2018). Juegos serios y gamificación en la educación superior: Una revisión sistemática. *Revista Ingenierías Universidad de Medellín*, 17(33), 115–134. <https://doi.org/10.22395/rium.v17n33a7>
- Lu, X., Liu, M., & Wang, Y. (2018). Effects of an AI-based language learning app on vocabulary acquisition and learner motivation. *Computer Assisted Language Learning*, 31(3), 285–309.
- Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). *Intelligence unleashed: An argument for AI in education*. Pearson.
- Merchant, Z., Goetz, E. T., Cifuentes, L., Keeney-Kennicutt, W., & Davis, T. J. (2018). Effectiveness of virtual reality-based instruction on students' learning outcomes in K–12 and higher education: A meta-analysis. *Computers & Education*, 70, 29–40.
- Monroy, A., Currea, M., & Carrillo Cruz, A. (2019). The impact of gamification strategies on motivation in EFL learning: A case study in a public school in Bogotá. *HOW Journal*, 26(2), 101–121. <https://doi.org/10.19183/how.26.2.520>
- Pane, J. F., Steiner, E. D., Baird, M. D., & Hamilton, L. S. (2015). *Continued progress: Promising evidence on personalized learning*. RAND Corporation. <https://doi.org/10.7249/RR1365>
- Roscoe, R. D., Snow, E. L., Allen, L. K., & McNamara, D. S. (2014). Automated formative feedback for improving writing: Results from two classroom studies. *Journal of Educational Psychology*, 106(3), 667–681. <https://doi.org/10.1037/a0034694>
- Serafini, F., & Pearson, P. D. (2020). Multiple modes of meaning: Literacy strategies for the digital age. *The Reading Teacher*, 73(5), 627–637. <https://doi.org/10.1002/trtr.1857>
- Spector, J. M. (2014). Conceptualizing K–12 blended learning environments. In A. G. Picciano, C. D. Dziuban, & C. R. Graham (Eds.), *Blended learning: Research perspectives* (Vol. 2, pp. 115–130). Routledge.
- Stockwell, G., & Hubbard, P. (2019). Mobile-assisted language learning: Opportunities and challenges. *ReCALL*, 31(1), 20–39. <https://doi.org/10.1017/S0958344018000022>
- Taghizadeh, M., & Farahani, E. (2020). The role of immediate feedback in language acquisition and grammar learning. *Iranian Journal of Language Teaching Research*, 8(1), 73–90.

- Taylor, M., & Houghton, R. (2020). Supporting diverse learners with Microsoft Immersive Reader. *Journal of Special Education Technology*, 35(4), 202–210. <https://doi.org/10.1177/0162643420933564>
- Tegos, S., Demetriadis, S., & Papadopoulos, A. (2020). AI-powered adaptive systems in ELT: A case study on engagement and performance. *Computer Assisted Language Learning*, 33(7), 789–806. <https://doi.org/10.1080/09588221.2019.1593192>
- Torres Sánchez, F. (2024). Gamification in Latin American education: Opportunities and challenges in secondary schools. *Constelaciones Pedagógicas*, 6(1), 45–62.
- Wang, Y., & Lee, J. (2022). The future of AI in second language education. *Computers and Education: Artificial Intelligence*, 3, 100065. <https://doi.org/10.1016/j.caeai.2022.100065>
- Warschauer, M., & Liaw, M.-L. (2018). Emerging technologies for English language learning and assessment. *TESOL Quarterly*, 52(3), 517–539. <https://doi.org/10.1002/tesq.446>
- Winkler, R., & Söllner, M. (2018). Unleashing the potential of chatbots in education: A state-of-the-art analysis. In *Proceedings of the 26th European Conference on Information Systems (ECIS)*, Portsmouth, UK.
- Yin, T., & Satar, H. M. (2020). Intelligent chatbots for language learning: A systematic literature review. *CALL-EJ*, 21(3), 1–19.
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education. *International Journal of Educational Technology in Higher Education*, 16(1), 39. <https://doi.org/10.1186/s41239-019-0171-0>
- Zechner, K., Higgins, D., Xi, X., & Williamson, D. M. (2019). Automated scoring of speaking items in language assessment. *International Journal of Artificial Intelligence in Education*, 28(1), 53–74. <https://doi.org/10.1007/s40593-017-0141-5>

