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Equip English Language Learners in the Age of AI

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ABSTRACT

This paper handles the idea of AI, its avocation, and its applications in the field of English Language overall. The dawn of AI controlled huge language models [LLM], for example, Open computer based intelligence's Talk GPT, will essentially improve the way English as a foreign Language (EFL) is instructed and learnt. English, as a global language, is particularly affected by the advancements in AI technology. This research paper aims in the first place to explore the role of AI in assisting English Language Learners (ELLs) in their language acquisition journey. We discuss various AI-powered tools and techniques that can enhance language learning, address the challenges faced by ELLs. Second, it centers to prepare students about the execution of computer based intelligence in the field of ESL/EFL. Third, it sums up the consciousness of applying artificial intelligence controlled apparatuses for foreign language instruction. Featuring the capability of it offering as constant customized criticism on student's performance, better support and empower English Language Learners in the age of AI.

Key Words: Artificial Intelligence tools, Language Education, E-Learning, Feedback

Introduction

While most developments in the previous ten years connected with an expanded utilization of PCs and the web in the homeroom, the following wave will be founded on man-made reasoning (simulated intelligence), or on mixes of artificial intelligence and different advancements. In schooling, recommendations and diagnosis tools and in different ways and for different purposes.

In view of existing surveys connected with AI in language realizing, there has been an emphasis on creating coaching frameworks, composing partners, augmented reality conditions, chat bots, and different sorts of versatile learning frameworks/programming. The fundamental expectation of these apparatuses has been to produce customized and adjustable growth opportunities for the reasons for upgrading language advancing by increasing independence, inspiration, commitment, and adequacy. For instance, NLP-based tutoring systems are designed to provide tailored feedback, recommendations, and materials. Recently, with the rapid development of AI, these tools can meticulously adapt content in real-time to the learning pace, preferences, and needs (e.g., cognitive, affective, social) of each user (Jackson et al, 2019). (Aly Abdul Samea Qoura)

Changes brought by AI in Education and Instruction

Baker and Smith (2019) divide AI tools used in education into three groups: a) learner-facing, b) teacher-facing, and c) system-facing ones. A. Learner-facing AI tools are software that students use to learn a subject matter. b. Teacher-facing systems are used by teachers with the purpose to reduce their workload and make their output more effective in specific automating tasks, such as administration, assessment, feedback, and plagiarism detection. c. System-facing AI tools provide information for administrators and managers on the institutional level, for example, they help monitor attrition patterns across faculties or colleges. (Aly Abdul Samea Qoura)

Indeed, even noticeable instructive establishments and associations, for example, Khan Academy and Educational Testing Service (ETS), have proactively executed artificial intelligence in their frameworks to further develop learning results and evaluation processes (Khan Academy, 2023; Runyon et al., 2022).

Accordingly, the requirement for compelling coordination of such innovation in EFL educating and learning could be the solution to moderate the weight of material plan and help educators with material advancement as well as different undertakings easily and productivity. Innovation reconciliation in language training has become more common than any other time in recent memory (Chapelle, 2001; Kukulska-Hulme & Shield, 2008), and educators around the world need to keep up.

As the latest and, disputably, the most imaginative LLM, ChatGPT demonstrates the power of AI in language education, with its high level regular language handling abilities and humanoid connection (Floridi & Chiriatti, 2020, MacNeil et al., 2022). The presentation of such innovations offers a one-of-a-kind open door to reconsider the role of AI in EFL education. This paper aims to investigate the potential applications of ChatGPT in two key areas

at the teacher level: content development and evaluation. By focusing on these areas, I hope to shed light on how ChatGPT can serve as a valuable tool in any EFL teacher's toolkit and to have a say in the equipping of EFL education.

As the readers ought to consider the absence of exact examination with respect to the utilization of ChatGPT in language education, particularly its effectiveness and quality of output. This gap is understandable considering the recent emergence of ChatGPT, this paper is written in hopes of adding to the literature on the capabilities of ChatGPT as an LLM and its relevance in the context of EFL education. (Koraishi)

AI-Powered Language Learning Tools for ELLs

1. **Language Learning Apps:** AI-driven language learning apps offer personalized learning experiences by adapting to individual learners' proficiency levels, strengths, and weaknesses. These apps use Natural Language Processing (NLP) to provide interactive exercises, pronunciation feedback, and real-time language practice.
2. **Chatbots and Virtual Tutors:** AI-powered chatbots and virtual tutors engage ELLs in conversation, simulating real-life language interactions. These systems can answer questions, correct errors, and provide immediate feedback, enhancing the language learning process.
3. **Gamified Learning Platforms:** AI-based gamified platforms utilize adaptive learning algorithms to tailor challenges and activities based on learners' progress, making. (Woo)

Changes brought by AI in the Teaching and Learning of English as a Second or Foreign Language (TESL/TEFL)

AI writing assistants (based on NLP and machine learning) help users through various steps of the writing process (augmented writing). Using AI systems, they correct grammatical errors within a written text (via conducting a continual error analysis), give ideas for additional improvement and give extra assets to additional review. In foreign language classrooms, these frameworks assist students with going through the creative cycle exclusively, right themselves, and contemplating the actual cycle. Involving artificial intelligence in this manner works with students' self-basic comprehension and independence. The examples of AI writing assistants are Grammarly, ProWriting Aid, Textio, AI Writer, Textly AI and Essaybot.

Chatting robots (chatbots) Chatbots are specialized devices that address one illustration of human-machine communication. A human client and a PC (robot) are engaged in informal chat (in a written or spoken form) using a natural language. Chatbots are most frequently utilized in marketing communication; however, they may be used effectively in foreign language classrooms as well (Dargan, 2019; Jia, 2008; Kerly, Hall, & Bull, 2007). Learners can learn through the process of direct communication with a robot. In addition, chatbots can provide customized answers in response to learners' messages, grade their performance, and provide tips on what learners need to improve.

The research conducted by Fryer and Carpenter (2006) showed that most students enjoyed using the chat bots and they generally felt more comfortable conversing with the bots than a student partner or teacher, which might seem a surprising finding. Jia and Chen (2008) in their study investigated how a Chatbot could be used to motivate learners to practice English. Results revealed that students felt comfortable and believed that the approach could help them with language learning. However, as Lotze (2018) argues, AI dialogic systems still need to meet some key criteria (especially spontaneity, creativity and shared knowledge) before they can serve as substitutes for a real-life language teacher.

AI-powered language learning software (platforms and apps) When it comes to language learning, online platforms are increasingly becoming the norm. Cloud-based online platforms incorporating NLP, crowd sourcing, gamification elements, automatic speech recognition, automatic speech generation and AI writing assistant applications belong to the most popular learning aids used by young users. Examples: Duolingo, Busuu, Speexx, Babbel, Memrise, Magiclingua and many others. In addition, AI provides with several resources to people who speak different languages or have hearing or visual difficulties. Presentation Translator provides subtitles in real-time mode, which is an AI based system application. For example, with the help of google translator students can read and hear in their national language.

Intelligent tutoring systems (ITS) have enormous potential, especially in large-scale distance teaching institutions, which run modules with thousands of students, where human one-to-one tutoring is impossible (Zawacki-Richter et al., 2018, p. 5). It is one of the sophisticated ways of information presented to the students. Like a teacher, it teaches each student according to his or her knowledge level and priorities ITS initially, teaches and presents theory, etc. with examples. IT then asks questions from the students. It has the ability to understand the answers provided by the students and to determine their knowledge, which affects what should be presented and asked from the student. The student can also ask questions and the system has the ability to answer or solve the problems in the specific knowledge domain. (Schmid, Blanc and Toepel 2021).

More specifically, AI applications and tools have been enhancing ESL/EFL learners' language skills. The section below exemplifies these effects on the teaching and learning foreign language.

Implementing AI in Language learning

In order to implement AI in language learning a number of Tools and policies have to be in place. In this section tools available for implementing AI in the ESL/EFL contexts are delineated. Woo and Choi (2021) synthesized information on AI tools that were developed between 2017 and 2020. A majority of these tools utilized machine learning and natural language processing, and were used to identify errors, provide feedback, and assess language abilities.

They reported a number of tools based on AI and the impact of these tools on language learning (Ai, 2017; Choi, 2019; Huang, Lee, Kwon, & Kim, 2017, Kannan & Munday, 2018; Khalifa, Kato & Yamamoto, 2019; Lee, 2020; Tai & Chin, 2020; & Woo & Choi, 2021b).

The main aim of teaching English is to develop communicative competence, which is achieved through knowing how to use language elements and vocabulary to develop the skills of listening, speaking, reading, and writing. It also includes how to use language to produce texts, and how to use it to understand reading passages. Thus, it is necessary to use AI applications such as simulation and communication programs to simulate real life situations for conversation and communication in English, introduce practical training in language skills, and educational games based on language. Communication tools based on AI help design situations for practicing the accurate pronunciation of letters and words through sound drills and visual media. Such tools provide exercises for describing and interpreting images and everyday situations, for listening, and for practicing guided pronunciation. They also allow learners to practice language skills and provide feedback for guidance. Some programs have language drills that give training in communication through using language skills to guarantee that learners reach proficiency levels (Barnes et al, 2016, p. 6).

Speaking and Listening are made better by the help of AI tools that include a. Intelligent personal assistants like Alexa by examining comprehensibility, usability, and improvements in listening comprehension, speaking proficiency, and willingness, b. programmable robots were used in group conversations, c. neural network (NN)-based dialogue system was used for free conversation practice and d. An NN-based multimodal dialog system was also developed to holistically assess spoken language in terms of delivery, content, vocabulary, and grammar.

Writing has been enhanced, thanks to the tools included machine translators, software for free-form writing, and a blended course with automated feedback on self-correcting tasks. There were also specialized systems focused on citations and referencing, and classifying sentences into rhetoric categories.

Pronunciation has been promoted due to the use of **Deep learning algorithms**. Pronunciation diagnosis, training, and evaluation systems were developed using the attention mechanism and various types of NN (e.g., convolution, long-short term memory). For instance, a multimodal system illustrating speech features, and an interactive tool generating personalized voice models have recently been developed.

These tools helped the learners improve their fluency, comprehensibility, tone, and pronunciation accuracy. With regard to perceptions, the learners described these tools as interesting, easy to use, and helpful for fluency, intonation, and tone training (Kao, 2020).

Grammar utilized a number of AI tools that reduced many challenges learners faced in this respect. Tools included games, applications, immersive environments, and intelligent systems that utilized NN, ML, and NLP. For example, to create customized study plans, NN modeling was used to predict grammatical challenges that learners may encounter based on their first language.

By using these tools, the learners were able to use English articles more accurately and experience a greater sense of immersion, presence, and realism while learning. In regard to perceptions, the learners viewed these tools as effective, efficient, accurate, enjoyable, satisfactory, and easy to use (Lee and Cho, 2020).

Vocabulary: AI tools for vocabulary included systems, platforms, robots, games, and mobile applications that have been developed using ML (e.g., conditional random field models) and NLP. For instance, in an ICALL platform, part-of-speech (POS) annotation and syntactic parsing in NLP were used to visually enhance targeted vocabulary items by automatically generating multiple-choice gaps.

After using these tools, the learners demonstrated gains in emotion, word use, and semantic knowledge of phrasal verbs. In regard to perceptions, the learners generally viewed these tools as interesting, easy to use, useful, and helpful for language learning (Li, Chang, and Wu, 2020).

Reading: Machine learning was used to diagnose reading problems and push appropriate resources. Additionally, an ML model was developed to identify pedagogical factors distinguishing high-achieving from low-achieving readers to improve ESL reading instruction (Chew & Chua, 2020).

Benefits and Challenges

Nobody can deny the **benefits** that AI-powered education (AI-Ed) —offers the possibility of learning in more personalized, flexible, inclusive, and engaging environment. It can provide teachers and learners with the tools that allow them to respond not only to what is being learnt, but also to how it is being learnt, and how the student feels. It can help learners develop the knowledge and skills that employers are seeking, and it can help teachers create more sophisticated learning environments than would otherwise be possible.

Along with external factors (lack of material equipment, insufficient technical support, inflexible curriculum, time stress), this reluctance to apply CALL is determined by many internal factors, such as: • lack of information and ICT skills, • lack of experience with ICT as a learner, • lack of motivation, • struggle to integrate ICT with teacher's existing learning style and practices, • feeling like being out of their comfortable zone, • fear of losing a dominant position in the classroom, • fear of a weakening control over students, • as well as losing students' respect.

Also, to address the lack of evidence verifying the language learning effectiveness of AI, efforts should be made to acquire information on the pedagogical effects and learner perceptions of AI-based language learning tools. With this information, teachers can gain a deeper awareness of available AI-based tools which will enable them to facilitate the use of these tools effectively and appropriately. (Aly Abdul Samea Qoura)

Ethical Considerations in AI-Assisted Language Learning

1. **Data Privacy and Security:** The use of AI in language education involves collecting and analyzing learners' data, necessitating robust data protection measures and transparency in data handling.
2. **Bias and Fairness:** AI algorithms may carry inherent biases, leading to unfair or inaccurate evaluations of ELLs' language skills. Ensuring fairness and unbiased language assessment is crucial.
3. **Human Interaction and Emotional Connection:** While AI tools offer valuable support, human interaction and emotional connection in language learning remain essential for building confidence and cultural understanding. (Nguyen)

Conclusion

As AI continues to shape the landscape of language education, it presents both exciting opportunities and ethical challenges for English Language Learners. The integration of AI-powered tools in language learning can significantly benefit ELLs by providing personalized, interactive, and engaging experiences. However, it is essential to navigate the ethical considerations associated with AI, such as data privacy, bias, and the importance of human interaction. By striking a balance between AI support and human instruction, educators can effectively equip English Language Learners in the age of AI, empowering them to thrive in an increasingly interconnected world. (Manoharan)

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