International Journal of Multidisciplinary Research and Growth Evaluation.

Evaluating the Promises and Pitfalls of Artificial Intelligence in Language Education

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Article Info

ISSN (online): 2582-7138
Volume: 06
Issue: 03
May - June 2025
Received: 06-04-2025
Accepted: 07-05-2025
Page No: 1723-1726

Abstract
Artificial intelligence is dominating headlines in medical services, money, technology, and now it's starting to change the way people learn language. AI has been deployed in a number of language learning websites such as Duolingo, (a free, fun, and game-like platform for learning languages through a mobile app or website. It offers courses in over 40 languages, utilizing gamification and personalized learning methods to make language acquisition engaging and effective); Babbel, (a subscription-based language learning app, it focuses on teaching conversational language skills through bite-sized lessons, real-time feedback, and interactive exercises) and Rosetta Stone approach (approach uses interactive bite-sized lessons and gives learners instant feedback about their pronunciation).
This article will discuss the strengths and weaknesses of AI in language learning, as well as its ability to revolutionize the way we learn a foreign language.

Keywords: AI tool, AI language learning, advantages of AI, disadvantage of AI

Introduction

Computer software or programs based on artificial intelligence (AI) algorithms to assist students who are trying to learn and acquire skill sets for a foreign language are referred to as AI language learning tools. AI language technologies, but is not limited to, text or speech translation programs that in an instant render a language to another, educational programs that provide lesson and feedback tailored to maximize a user's learning trajectory and generative technologies that are capable of creating original text from AI parameters in a selected language. Interest in using AI to learn language has multiplied in recent times because of its convenience and effectiveness. In an era where intelligent devices and the Internet are more widely used, individuals can easily discover other methods of learning a language as well. Al language learning software can provide the student with time as they are able to help them with half of the specific work, and they can show a more personalized interface as they are able to adapt to the learning speed and need of the student. A lot types of AI software are available for purchase with different features and functionality. Some of the most popular examples of AI language learning platforms are Duolingo, Elsa Speak, and Google Translate. These are used by individuals and businesses all over the world to improve their language abilities for school, business, and entertainment. AI language learning platforms have evolved leaps and bounds over the last couple of years when it comes to effectiveness and user-friendliness.

Ways that teachers can be better prepared to apply Al tools in teaching of a foreign language:
a. The development of professional skills: Al powered tools offering foreign language teachers many opportunities for professional development, including workshops, courses, or seminars, would help to promote awareness and learning about the range of AI-powered tools and techniques that educators have available to them, as well as how to apply these to their teaching (Nazaretsky, Ariely, Cukurova & Alexandron, 2022) [21].
b. Guidance given by a mentor: Experienced teachers can share their knowledge and experience with their colleagues and help them in the process of incorporating AI-powered tools into teaching (Pedro, Subosa, Rivas, & Valverde, 2019) [22].
c. Learning to each other: It is beneficial for less experienced teachers are partnered with veteran foreign language teachers. Veteran teachers can instruct in how to incorporate.

AI-powered tools in the classroom and share their knowledge and experience to their colleagues (Pedro, Subosa, Rivas, & Valverde, 2019) [22].

Foreign language teachers can exchange their experiences by engaging in collaborative learning activities like professional learning groups or online discussions.

d. On-demand resources: Al powered tools grant foreign language instructors' access to on-demand resources, like webinars or online tutorials, can allow them to obtain the knowledge efficiently.

e. Instructions and assistance: AI provide the foreign language instructors with continued support and mentorship as they begin incorporating AI-powered tools into their classroom instruction will allow them to thrive and diminish any fear they may have or challenges they will face in utilizing the tools. This support can include technical support, responding teachers' questions as well as giving them tips and recommendations on how to incorporate AI-powered tools into their classroom instruction. Foreign language teachers will be better capable of using AI-powered tools in their teaching (Pokrivcakova, 2022), which will, in turn, help their students learn languages using AI tools in a way that has good and useful results

Types of AI Tools used in language learning

A lot of types of AI language learning programs used with specific objectives and purposes. Some of them are:

- **Machine translation software:** Teachers can use AI algorithms to facilitate real-time voice or text translation from a source language to a target language. They are typically used as a tool for quick translation of brief sentences or words in cell phone applications or other websites. Some excellent examples of machine translation technology are Google Translate, Amazone translate, Bing Translator and so on (Ducar & Schocket, 2018) [7].
- **Language teaching systems:** AI language teaching systems offer personalized language teaching and feedback (Woo & Choi, 2021) [29]. These systems can be used to design interactive or automate tasks for language learners to practice their grammar, vocabulary, and speaking (Mahdi & Abu-Naser, 2016) [19]. Automated language teaching systems can be found in stand-alone apps, websites, and mobile apps.
- **Language generation systems:** Various systems use AI algorithms to create new forms of written text in a target language from a set of input parameters (Gatt & Krahmer, 2018) [19]. AI can generate written text in the form of news articles, reports, and social media posts. A variety of language generation systems can be used through web applications or integrated into software applications using tools such as OpenAI's GPT-3 and Hugging Face's Transformer. Other forms of language learning AI systems use a combination of systems, as chatbots rely on algorithms based on natural language processing, or NLP (Haristiani, 2019). The systems can also be used to practice languages and provide information and support to users (Woo & Choi, 2021) [29].

Application of AI for language learning and teaching

a. **Personalized learning experience:** AI tools can also evaluate a student's language competence and learning style, and it can make lessons more interesting by altering the content and steps to provide experiences in learning a language for the students (Chen, Zou, Xie, & Cheng, 2021) [3].
b. **Immediate feedback:** AI-based applications can provide students with timely feedback (Porter, & Grippa, 2020) [26], allowing them to make revisions frequently to enhance their learning experiences while studying a language.
c. **Efficiency:** AI-based applications are able to help save teachers' time by automating repetitive tasks; providing instant and convenient means of measuring the progress of each student.
d. **Engagement:** According to Johnson, Vilhjálmsson, & Marsella, 2005 [14]; De Hass, Vogt & Krahmer, 2020 [12] and Xu, Dugdale, Wei &Mi, 2022 [31]: artificial intelligence-based learning software that personalizes content according to the requirements of the students and allows room for interactive learning can enhance the level of student engagement and motivation.
e. **Accessibility:** AI-powered tools can provide comprehensible learning opportunities for students with learning-disabilities (Morris, 2020) or for students who live or learn in remote or poor regions.
f. **Enhanced learning outcomes:** EFL teachers can improve learning outcomes through enhanced learning experiences by integrating AI tools into the more traditional methodologies that they employ (Murtadha, 2019) [20].

AI Language Education tools

These additional examples will help you to learn more about the types of ways that AI language-learning tools can be used in the real world.

No	AI tools	Descriptions
1	Duolingo	The application - which focuses on language-learning - is widely known and uses AI algorithms to accumulate user-centered educational experiences and deliver individual feedback to learners. The application includes interactive lessons, practice activities which are available in 30 plus languages; moreover, the application is available on both computer, and mobile devices.
2	English Language Speech Assistant	If learners are looking to improve their pronunciation in English, an app that utilizes AI to help users practice their speaking skills would be beneficial. This app. Uses speech recognition technology to assess pronunciation during active and real time spoken conversation. Ultimately, the goal of the app is to increase the learner's accuracy in speaking and pronunciation.
3	Rosetta Stone	A software application that teaches an AI programming language provides customized education and feedback for the user. It is an interactive application that allows users to select from over 30 languages and contains lessons, exercises and quizzes. It can be utilized on mobile as well as desktop devices.
4	Google Translate	This is an artificial intelligence (AI) automatic translation tool for fast and real time text or speech translation between languages. AI translation tools are available as apps on mobile or online in the web, with over 100 languages supported.
5	Glossika	An application for acquiring a new language, that employs a mass sentence training strategy along with artificial intelligence to help users better their transactional language. The application offers user-responsive training based on user's goals and progress. The application also has recordings of native speaker's pronunciation.

The advantages of AI Integration in language learning

The ability to personalize learning is one of the most prominent advantages of AI in the learning experience. AI algorithms can provide a personalized learning experience and identify the learner's skill level, learning style, and progression through the material. Personalization means that the learner will be given material that is consistent with their learning level and learning needs and thereby offer them a higher likelihood of speed of learning and overall learning effectiveness. Another advantage of AI usage in language learning is the immediacy of the feedback that it offers, which can alter the access to language learning tools. AI language learning programs can adequately analyze the learners speech, pronunciation, and grammar, and then provide immediate feedback after the learner has practiced their language skills. Immediate feedback is a time saver in the process of language learning and also allows the learner to make adjustments to their errors which is an essential part of the language learning process.AI language learning programs can effectively analyze a learner's speech, pronunciation, and grammar, and deliver instant feedback while the learner practices their language skills. Instant feedback saves time in the language learning process and permits the learners to develop modifications to their errors, which is an important part of language learning. AI language learning programs also provide interactive features (chat box, voice recognition, and virtual reality) that are meant to enhance the learning experience more enjoyable and fun and help keep students motivated to engage in language learning activities.

The disadvantages of AI in language learning

Besides its advantages, language learning using AI also has its drawbacks. One of the most significant weaknesses of AI is the lack of communication and connection between individuals. Language learning is a social experience, and in order for students to master a new language, they need to talk to native speakers. AI-based language learning websites cannot replace human interaction, and students may lose the cultural context and context that go with human interaction. Another shortcoming of AI in language acquisition is that it lacks a poor ability to learn culture and context. Language is not simply vocabulary and grammar; it is also culture and context! AI learning systems likely cannot help learners learn about the cultural and context-based knowledge required in a language, which is certainly an important element in effective communication. Language learning is not merely the memorization of vocabulary and grammar rules; it is also learning how to play with language creatively. AI language learning websites probably will not be able to help learners analyze and express language in cleverly and actively ways, which are both necessary in exchanging information.

The Promise of Integrating AI into Language Learning

Despite the limitations, AI-based second language learning has a huge potential to transform the second language learning process. AI-based language learning platforms and sites can design efficient, personalized, and adaptive language learning environments accessible to global learners. Language learning via AI can also address the global language learning crisis. According to a British Council report, there are only 1.5 billion people who speak English, of which 6.5 billion do not have English language classes. Language learning via AI can provide language lessons to learners anywhere in the world, regardless of where they are, what they are worth socioeconomically, or what educational background they have. AI for language learning can also be used to encourage linguistic diversity and help languages at risk of becoming extinct due to a decline in the number of native speakers survive. Half of the world's 6,000 languages are endangered, and one language disappears every two weeks or so, according to estimates from UNESCO. Language learning websites using AI could help save endangered languages, by providing opportunities for language learning as well as developing the variety of languages spoken in a specific area or across the globe.

Conclusion

Lastly, language learning AI has its drawbacks and benefits, but its potential to transform foreign language learning is not debatable. AI foreign language learning websites and software applications can potentially provide personalized, efficient, and enjoyable foreign language learning experiences that reach learners all over the globe on the planet, helping to solve the global language learning crisis and enable language diversity. However, language learning AI is incapable of replacing human interaction and has the potential to have limited ability to transfer culture, context, creativity, and critical thinking. Therefore, one must utilize AI in language learning as an add-on to human interaction and traditional methods of learning a language.

References

1. Al-Gindy A, Felix C, Ahmed A, Matoug A, Alkhidir M. Virtual reality: Development of an integrated learning environment for education. Int J Inf Educ Technol. 2020;10(3):171-5.
2. Blyth C. Immersive technologies and language learning. Foreign Lang Ann. 2018;51(1):225-32.
3. Chen X, Zou D, Xie H, Cheng G. Twenty years of personalized language learning. Comput Educ. 2021;140:103599.
4. Choi IC. Efficacy of an ICALL tutoring system and process-oriented corrective feedback. Comput Assist Lang Learn. 2015;28(1):1-20. doi:10.1080/09588221.2014.960941
5. De Haas M, Vogt P, Krahmer E. The effects of feedback on children's engagement and learning outcomes in robot-assisted second language learning. Front Robot AI. 2020;7:101.
6. Dodigovic M. Artificial intelligence and second language learning: An efficient approach to error remediation. Lang Aware. 2007;16(2):99-113.
7. Ducar C, Schocket DH. Machine translation and the L2 classroom: Pedagogical solutions for making peace with Google translate. Foreign Lang Ann. 2018;51(4):779-95.
8. Folstad A, Brandtzaeg PB. Users' experiences with chatbots: findings from a questionnaire study. Qual User Exp. 2020;5(1):1-14.
9. Gatt A, Krahmer E. Survey of the state of the art in natural language generation: Core tasks, applications and evaluation. J Artif Intell Res. 2018;61:65-170.
10. Golonka EM, Bowles AR, Frank VM, Richardson DL, Freynik S. Technologies for foreign language learning: A review of technology types and their effectiveness. Comput Assist Lang Learn. 2014;27(1):70-105.
11. Guo M. Advantages and disadvantages of artificial intelligence in business English teaching. In: Proceedings of International Conference on Educational Innovation and Teaching Methodology; 2020:115-20.
12. Hassani K, Nahvi A, Ahmadi A. Design and

implementation of an intelligent virtual environment for improving speaking and listening skills. Interact Learn Environ. 2016;24(1):252-71.
13. Ismail HM, Harous S, Belkhouche B. Review of personalized language learning systems. In: 2016 12th International Conference on Innovations in Information Technology (IIT); 2016:1-6.
14. Johnson WL, Vilhjalmsson H, Marsella S. Serious Games for Language Learning: How Much Game, How Much AI? In: Looi CK, McCalla G, Bredeweg B, Breuker J, editors. Artificial Intelligence in Education. IOS Press; 2005:306-13.
15. Kannan J, Munday P. New Trends in Second Language Learning and Teaching through the lens of ICT, Networked Learning, and Artificial Intelligence. CALL EJ. 2018;19(1):1-12.
16. Khanzode KCA, Sarode RD. Advantages and disadvantages of artificial intelligence and machine learning: A literature review. Int J Libr Inf Sci. 2020;9(1):30-6.
17. Kessler G. Technology and the future of language teaching. Foreign Lang Ann. 2018;51(1):205-18.
18. Lu X. Natural Language Processing and Intelligent Computer-Assisted Language Learning (ICALL). TESOL Encycl Engl Lang Teach. 2018:1-6.
19. Mahdi AO, Abu-Naser SS. An intelligent tutoring system for teaching grammar English tenses. Eur Acad Res. 2016;4(9):1-15.
20. Murtadha Y. LABEEB: Intelligent Conversational Agent Approach to Enhance Course Teaching and Allied Learning Outcomes Attainment. J Educ Technol Syst. 2019;48(2):175-92.
21. Nazaretsky T, Ariely M, Cukurova M, Alexandron G. Teachers' trust in AI-powered educational technology and a professional development program to improve it. Br J Educ Technol. 2022;53(4):914-31. doi:10.1111/bjet.13232
22. Pedro F, Subosa M, Rivas A, Valverde P. Artificial intelligence in education: Challenges and opportunities for sustainable development. UNESCO; 2019. Available from: https://unesdoc.unesco.org/ark:/48223/pf0000366994
23. Parmaxi A. Virtual reality in language learning: A systematic review and implications for research and practice. Interact Learn Environ. 2020;28(6):1-13.
24. Pokrivčáková S. Preparing teachers for the application of AI-powered technologies in foreign language education. J Lang Cult Educ. 2019;7(3):135-53. doi:10.2478/jolace-2019-0025
25. Pokrivcakova S. Teacher Trainees´ Attitudes Towards Integrating Chatbots Into Foreign Language Classes. In: INTED2022 Proceedings. IATED; 2022:8294-302.
26. Porter B, Grippa F. A Platform for AI-Enabled Real-Time Feedback to Promote Digital Collaboration. Sustainability. 2020;12(24):10243.
27. Ruane E, Birhane A, Ventresque A. Conversational AI: Social and Ethical Considerations. In: Proceedings of AICS 2019. 2019:104-15.
28. Villegas-Ch W, Palacios-Pacheco X. Integration of Artificial Intelligence as a Tool for an Online Education Model. In: International Conference on Innovation and Research. 2020:94-105.
29. Woo JH, Choi H. Systematic Review for AI-based Language Learning Tools. arXiv. 2021:2111.04455.
30. Xie H, Chu HC, Hwang GJ, Wang CC. Trends and development in technology-enhanced adaptive/personalized learning: A systematic review of journal publications from 2007 to 2017. Comput Educ. 2019;140:103599.
31. Xu X, Dugdale DM, Wei X, Mi W. Leveraging artificial intelligence to predict young learner online learning engagement. Am J Distance Educ. 2023;37(3):185-98.