Artificial Intelligence for Language Learning

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Artificial Intelligence (AI) is an important paradigm which is having an increasingly powerful impact on many fields, including education. Thanks to rapid developments in AI, a lot of learning tools are now available to make digital language learning truly personalized to each learner. This article provides some concrete examples of how AI is being used to enhance the language learning experience.

What is AI?

Artificial Intelligence is often used to describe intelligence demonstrated by machines, which mimics cognitive functions of the human mind, such as learning and problem solving. In fact, a more helpful term for thinking about what AI can do is machine learning. Machine learning is using large data sets to train computers to make models which predict the outcome of some future event. For example, in language learning, AI can collect personal data, adapt in real time to learner behavior, calculate each learner's vocabulary strengths and weaknesses, and generate an entirely personalized set of study materials.

How AI can help language teachers and learners

Implementing AI in language teaching and learning can bring about astounding advantages to both teachers and students.

In large-size classes, it is not feasible for a teacher to find the right approach and provide one-on-one practice with each student. But thanks to AI, the needs

of each individual student can be taken into consideration. Teachers can collect lots of data about learners, their interests, their abilities, and so on. The data also allow teachers to understand what is going on in the minds of their students and predict their future performance. Furthermore, AI systems can pinpoint weaknesses in their curriculum and help them see what can be improved in their lectures or assignments, and which learners need additional guidance. Teachers can utilize classroom time for instruction instead of practice, while AI helps them track progress and do the grading. Teachers, therefore, will have more time to facilitate the learning process and mentor students. One more benefit that can also be of great value to teachers is textbook customization. If teachers could upload their materials into an AI system, the system could generate textbooks customized for a specific course or even group of students.

On the part of learners, AI learning platforms allow them to have personalized learning experience. Knowing their personal areas of strengths and weaknesses, they can work at their own pace, emphasizing things they have trouble with, or engaging with the tasks they are best at. Students can also benefit from tailored feedback and automatic grading system, which allows them to instantly take action to correct their mistakes and avoid future errors. Their classroom time can be optimized for focusing on their skills and improving their capabilities.

Some examples of AI-powered learning tools

Enskill English, an AI-driven learning product, is a finalist for the British Council's 2019 award for digital innovation in English language teaching. With Enskill's AI technology, students can improve their speaking skills with immersive simulations and personalized exercises. For example, Enskill Effective & Persuasive Communication (EPC) is a course that draws on business communication

techniques in simulated work settings. Learners practise skills such as making presentations, explaining strategies with AI avatars representing managers and workers. Using AI technology, the Enskill EPC course automatically detects elements of an argument and coaches how to bring them together in a well-structured way. The course evaluates the language the learners use to ensure they communicate their ideas clearly and persuasively. On completion of each exercise, learners get feedback on their performance, and are scored on their progress toward mastery. They also receive personalized instruction in the areas where they need to improve, which promotes rapid skill development and behavior change.

Intellias is a software development company that implements AI in language acquisition. Together with Alphary, Intellias created a set of smart Android, iOS, and web applications that help students learn English vocabulary. These applications can mimic the behavior of a human English tutor who gives automated and intelligent feedback. Moreover, the app provides contextualized vocabulary practice thanks to a huge corpus of authentic English texts offered by the Oxford suite of Learner's Dictionaries. An integrated AI named FeeBu (Feedback Butterfly) uses four basic criteria to evaluate learner success in language acquisition: grammar, spelling, meaning, and word choice. The app has proved so successful that Oxford University Press purchased it and licensed the technology for worldwide distribution.

Another example is Parla AI, an app that enables people from all over the world to study at any pace with their very own personal tutor. Parla can teach English for almost any topic, from general to specialized English. Parla provides a digital teacher who can do the same things a human teacher can, like giving assignments and correcting them as they are completed.

Speexx is the first intelligent language-learning platform that helps to build, develop and assess language skills. Speexx uses AI to provide personalized learning and spaced repetition for vocabulary training, as well as for writing and listening skills and even pronunciation. For pronunciation training, a speech recognition software is specifically developed and AI is used to predict user behavior. Augmented Reality (an interactive experience of a real-world environment – AR) and Virtual Reality (a simulated experience that can be similar to or completely different from the real world – VR) will also be used to take users to any place to learn a language in a geographical or role-based context. When it comes to assessment, Speexx offers the opportunity to take Cambridge English's BULATS test and Business English Certificates.

CleverTube is a smart tool for people to learn English from YouTube. It was created by a Vietnamese developer, who won first prize in Startup Wheel 2018, and has been in use for a while. CleverTube uses AI to allows users to learn English through real life objects and translate real life texts. CleverTube with backend system (the system for users to access the phone) uses smart tools to build lesson content within seconds. This backend tool automatically downloads YouTube video content, selects new vocabulary related to the topic in the video and then generates exercises for the new words.

Conclusion

The future of AI is about saving time and giving both teachers and students greater experience. Depending on how AI is used, it will continue to prove effective in the teaching and learning process.

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