

The Role of Artificial Intelligence in Personalizing Language Learning

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ABSTRACT

Language learning is a complex and dynamic process that is highly influenced by the needs, preferences, and abilities of individual learners. In recent years, artificial intelligence (AI) has emerged as a powerful tool for personalizing the language learning experience and providing tailored guidance and support for learners at different proficiency levels. The purpose of this article is to explore the role of AI in personalizing language learning by reviewing its applications, benefits, and challenges. This paper begins by discussing the potential of AI for adapting language learning content to the needs of individual learners. AI-powered systems can analyze learner performance data, identify strengths and weaknesses, and create personalized learning materials, exercises, and assessments. Additionally, AI-based virtual language teachers can provide real-time feedback and guidance, as well as adapt teaching strategies to suit learners' individual needs and learning styles.

Next, this paper explores the benefits of AI in promoting learner engagement and motivation. AI-powered language learning platforms can integrate interactive and immersive elements such as chatbots, virtual reality simulations, and gamified activities to make the learning experience more fun and personalized for learners. Additionally, AI systems leverage natural language processing and machine learning techniques to enable language practice that is relevant to authentic contexts, thereby facilitating meaningful language acquisition. However, this paper also addresses the challenges associated with integrating AI into language learning. Ethical considerations, privacy concerns, and the potential for over-reliance on AI systems are among the key issues that need to be carefully addressed. Additionally, this article explores the importance of AI-driven personalization and human interaction in language learning contexts, as human teachers play a critical role in providing emotional support, cultural insight, and differentiated language instruction. The importance of maintaining balance between interactions is also discussed.

Finally, this paper highlights the important role of AI in personalizing language learning. AI technology has the potential to revolutionize language teaching by customizing instruction, increasing learner engagement, and providing adaptive feedback. However, to use AI responsibly and effectively in language learning environments, a comprehensive understanding of the benefits and challenges associated with AI integration is essential. By harnessing the power of AI and complementing it with human expertise, educators can create personalized language learning experiences that help learners achieve their language goals.

Keywords: Artificial Intelligence, Personalizing, Language Learning, Adaptation, Individual Learners

INTRODUCTION

In the field of language learning, personalization is a major tool in ensuring effective and engaging educational experiences. Each learner has their own unique strengths, learning methods, weaknesses, and goals. Meeting these individual needs can greatly improve their language acquisition journey.

With the quick evolution in technology, especially in the area of artificial intelligence (AI), educators and language learning platforms, and educators have seized the opportunity to implement the power of AI to personalize language instructions like never before.

Digitalization has played a major role in the change in education generally and instructional practices in the classroom, in particular in the past decade. While most innovations in the past were related to an increased use of computers and the internet in the classroom, artificial intelligence (AI) technologies implementation is a far better optimization of the learning process. In education, artificial intelligence has been embedded in many technological innovations that offer learning analytics, recommendations, and diagnosis tools in diverse ways and for different purposes.

With its access to a vast knowledge base, AI can adapt to individual learners and provide real-time feedback, it has revolutionized the way languages are taught and learned.

Via robust algorithms and machine learning techniques, AI can assess learners' proficiency levels, detect their areas for improvement, and design specific instructional materials accordingly. This customized approach not only improves the learning process but also engages the learners, motivates them, and enhances their language fluency.

Based on existing reviews related to AI in language learning, there has been a vision to develop tutoring systems, writing assistants, virtual reality environments, chatbots, and other types of adaptive learning systems/software. The main purpose of these tools has been to generate personalized and customizable learning experiences with the sole aim of optimizing language learning by maximizing autonomy, motivation, engagement, and effectiveness. For example, NLP-based tutoring systems are designed to offer specific feedback, suggestions, and materials. With the recent rapid development of AI, these tools can adapt the content in real time to specific learning paces and preferences.

The Need for Bilingualism in the Global Era

The advancement of globalization has led to indispensable interactions among people belonging to different cultures and languages. The importance of Bilingualism has earned considerable worth within the academic world. In this section, a novel socio-ecological approach is examined and the intricate relationship between bilingualism and its broader socio-ecological context.

With the advancements of globalization, more individuals become bilingual or multilingual. In the age where people can connect to the internet, where mass media offers information from around the world, and where multilingual and multicultural societies are significant to migration. The importance of learning multiple languages become more apparent than before. Languages like English, Spanish, French, and Spanish, due to cultural and political reasons are like wildfire because of their international use in communication, trade, and tourism. Mandarin for example is likely to substitute one or two aforementioned world languages in the future.

Generally speaking, a bilingual speaker may be someone with different levels of proficiency in the two languages, using both languages in diverse contexts, or learning a new language due to immigration, educational requirements, or other business and life needs. As our social and economic spheres continue to globalize, there is a growing need for multilingualism to improve effective communication and collaboration. Recognizing this evolution, UNICEF has been actively helping multilingual programs in educational systems. The director of the British Council Thailand representing UNICEF during the 2019 UNICEF Bangkok conference reiterated the significance of multilingual education in preparing learners for the challenges of the 21st century. It was noted that language not only fosters cultural diversity but also improves connections between people, enhances understanding, and builds trust.

All over the world, Countries like the United States are facing a significant influx of people who are residents of a country different from their country of birth. In 2011, the United States was home to over 20 million people who primarily spoke languages other than English. This demographic shift highlights the need for a linguistically competent workforce in the future.

In summary, the rate of increasing interconnectedness of the globalized world demands a greater emphasis on multilingualism. This is obvious from the efforts of organizations like UNICEF to promote multilingual education, as well as the demand for a linguistically diverse workforce in countries such as the United States.

BENEFITS OF BILINGUALISM

Research has shown that Bilingualism offers cognitive benefits. Early Bilingualism, learned at an early age, results in cognitive benefits that persist throughout a lifetime. Bilingual people show faster information processing and conflict resolution skills even in nonverbal tasks. Even infants raised in bilingual environments demonstrate improved attention-switching abilities and memory generalization processes.



Neuroplasticity and Cognitive Control:

Bilingualism infuses neuroplastic changes in the brain, especially in areas associated with executive control. Bilingual individuals possess a better improved and developed executive control network, leading to better cognitive control. These neurocognitive advantages improve the bilingual brain's resistance to cognitive decline and provide a cognitive reserve against aging-related neurodegenerative diseases.

CAREER-WISE

1. **Access to multiple points of view:** Studies have proven that one's mind and thought process are directly influenced by the language he speaks. The more languages you speak is proportional to the more points of view you have access to. In addition, communicating in more than one language aids in better understanding the cultural perspective of each speaker. This makes one an incredibly valuable asset to companies across many horizons, but especially those organizations that are looking to establish memorable and lasting customer engagements and that may be motivated to expand into new markets.
2. **Wide Range Of Communication:** Possessing strong language skills can aid companies' expansion to newer markets, thereby offering a wider range of services to customers. The ability to connect with a bigger audience directly translates to a greater profit. This makes language proficiency a highly valuable and marketable skill
3. **High Demand In Variety of Fields:** In today's fast-paced globalized world, being bilingual gives you a distinct advantage and opens up numerous opportunities across various industries. As technology continues to advance and globalization accelerates, there is a growing demand for bilingual individuals, particularly in sectors such as hospitality, healthcare, information technology, customer service, and communications. Embracing bilingualism can significantly enhance your prospects in these fields and position you as a valuable asset in the job market.

BENEFITS FOR CHILDREN

Children possess a natural aptitude for acquiring new vocabulary and sounds, effortlessly breaking down words into their sounds, and categorizing them accordingly. Bilingual children leverage this innate ability to form connections and establish strong relationships in their second language, thereby cultivating vital interpersonal skills in our increasingly diverse societies.

Moreover, bilingual children develop the capacity to recognize and appreciate cultural similarities and differences, enabling them to adapt more easily to new environments. They also demonstrate heightened emotional expression and sociability, as their adaptable temperament surpasses that of monolingual individuals. Early exposure to a second language yields positive effects on a child's intellectual growth and fosters their mental, linguistic, and emotional development.

The notable distinction between bilingual and monolingual individuals lies in the frequent switching between languages that bilinguals effortlessly navigate. They seamlessly transition between conversing with their parents in one language and communicating with their spouse in another. This linguistic flexibility extends to other aspects of their lives, such as monitoring their surroundings while driving. Over time, these language transitions become automatic, akin to the familiarity of operating a manual transmission car. The power of language is undeniable, and bilingual individuals possess a twofold advantage over those who only speak one language. Therefore, it is crucial to recognize the hidden potency of the words we hear and the sentences we speak, as they leave an indelible impact on others, even if we may not be fully aware of it.

THE EVOLUTION OF LANGUAGE LEARNING

The field of language instruction has evolved and significantly changed over time. The advancement of digital/online platforms has completely revolutionized the way languages are taught. English language teaching is conducted, improving accessibility, flexibility, and interactivity. We will take a look at the history of this age-long evolution now, and how it moved from traditional classrooms to the dynamic realm of online learning

1. Conventional Classroom Instruction: Historically, language instruction and education started in physical conventional classrooms, where teachers and students interacted face-to-face. This conventional approach offered a structured learning environment, offering students the privilege to engage in conversations, practice their speaking abilities, and also receive corrections. Meanwhile here are some of the methods utilized in this section over time:

1900s - The Direct Method

During this era, language educators made use of the direct method, where students established a direct physical connection between objects or ideas and the corresponding words in the target language. At this point, teachers relied majorly on visual aids, objects, and real-life examples to demonstrate vocabulary

1920s - The Oral Approach

In the next two decades, there was a shift in focus to the Oral Approach which shockingly reiterated speaking and listening skills. Language was presented in daily contexts, enabling the students to mainly listen and repeat. Lessons were formed and implemented based on the principles of selection, progression, and presentation.

1940s - The Audiolingual Method

Succeeding the oral Approach is the Audiolingual method which is also known as the " Army method " formed in the United States. This event took place after the Second World War. This language teaching approach focused on the quick development of language proficiencies, via intensive oral drilling of the target language.

Emergence of Humanistic Approaches

After the Audiolingual method, as the 1940s progressed, humanistic approaches to language education started to gain recognition and influence in the world.

1960s - Situational Language Teaching

This method was developed in the 1960s, Situational Language Teaching shares similarities with the Oral Approach and the Audiolingual method. It reiterated presenting vocabulary and grammar in practical and real-life situations. This method holds oral and aural proficiencies above linguistic accuracy

Total Physical Response

Still in the early 1960s, the Total Physical Response method emerged and it focused on offering learners students instructions and commands that entail physical movement. This is a very similar action to how children acquire their first language, the initial reiteration was on receptive skills before focusing on developing productive skills.

1963 - The Silent Way

In 1963, the Silent Way emerged and advocated for minimal intervention from the educator, helping students to produce language independently.

1970s - Harmonious Learning Method(Suggestopedia)

A visionary psychologist Georgi Lozanov, created the Harmonious Learning Method and transformed language education by emphasizing the importance of a relaxed and serene environment. This approach implemented the powerful influence of music to create an optimal atmosphere for learning.

Collaborative Language Acquisition

The Collaborative Language Acquisition approach placed great emphasis on group dynamics and the role of the teacher as a supportive counselor, guiding learners in their language comprehension and expression.

1980s - Interactive Language Instruction

In the 1980s, Interactive Language Instruction was a dominant approach to language instruction and was quickly recognized. The significance of this interaction played a major role in language learning. Communication became the main objective, with accuracy taking the passenger's role.

1983-The Organic Approach

This approach was Introduced by Tracy Terrell and Stephen Krashen in 1983, the Organic Approach postulated that language acquisition happens naturally through extensive exposure to the target language. It focused on providing learners with ample authentic language input.

1987 - Task-Oriented Language Learning

Task-Oriented Language Learning was introduced by N. Prabhu in 1987. It revolutionized language education by using authentic language usage in meaningful tasks. A typical lesson comprises three stages: pre-task, task execution, and post-task review.

1990s - The Lexical Paradigm

As postulated by Michael Lewis, the Lexical Paradigm shifted the focus from rigid grammatical structures to the recognition of language as a collection of lexical units. It emphasized the comprehension and production of these lexical units in language learning.

1994 - Content and Language Integrated Learning (CLIL)

Getting Closer to Civilization, Coined in the mid-1990s, Content and Language Integrated Learning (CLIL) involves teaching a specific curriculum content entirely in the target language. This approach draws strength from the successful Immersion approach pioneered in Canada and is gaining traction in countries like Australia, where language enrollment rates are reducing steadily.

2. THE RISE OF C.A.L.L

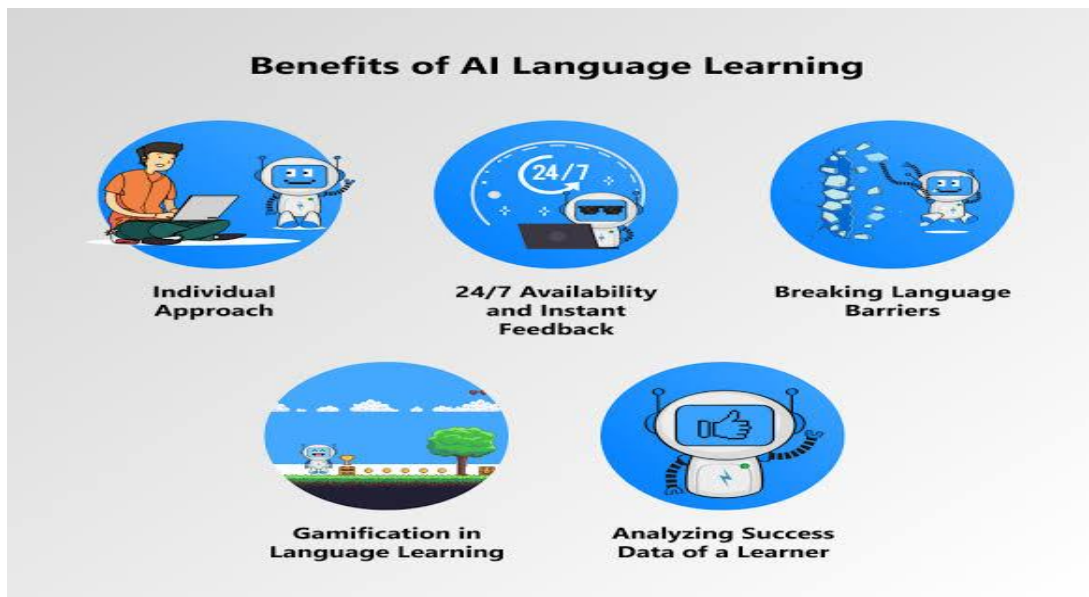
The rise of Computer-Assisted Language Learning (CALL) significantly changed the way languages are taught. With the introduction of computers and language learning software, language teaching methodologies underwent a notable change. CALL revolutionized the learning process by integrating interactive exercises, multimedia resources, and the ability for students to learn at their own pace. This innovative approach offers students a broader selection of learning materials and the flexibility to practice their language skills whenever and wherever they prefer.

3. RISE OF ONLINE LANGUAGE TECHNIQUES

The ascent of online language learning platforms became prominent as the internet became widely accessible. These platforms provided virtual classrooms, live video conferencing, and integrated tools that facilitated collaborative learning. Students were able to engage with teachers and classmates from diverse geographical locations, fostering cultural exchange and deeper global awareness. Additionally, online platforms offered personalized learning experiences, adaptive assessments, and abundant self-study resources, catering to individual needs and preferences.

Advantages of Online Language Learning

a.



Accessibility and Convenience: Geographical limitations are eliminated, allowing learners of diverse races to access high-quality language education at their convenience. This flexibility accommodates diverse schedules and individual learning preferences.

b. Interactive and Engaging Tools: Online platforms offer a huge list of resources, interactive exercises, and gamified learning experiences, encouraging students' engagement and motivation. Language learning apps and virtual reality simulations further enhance the learning process.

c. Personalized Learning: Online platforms use data-based approaches to deliver customized instruction. Adaptive algorithms identify learners' individual needs and preferences, provide targeted feedback, and suggest personalized study plans thereby improving learning outcomes.



d. Global Community and Cultural Exchange: Online language instructions establish a connection between learners from different cultures, promoting cross-cultural understanding and communication. Students can partake in language exchanges, discussion forums, and virtual immersion experiences, expanding their linguistic and cultural horizons.

e. Diverse Learning Materials: It is easy to access a wide range of learning materials in various formats, such as videos, podcasts, e-books, and interactive modules online. These various collections meet the needs of every student's learning style, and let them explore content aligned with their interests and preferences.

f. Real-time Feedback and Assessment: Online language instruction often includes instant feedback and assessment features. Students receive an immediate evaluation of their speaking, writing, and listening skills, enabling them to identify areas for improvement and track their progress. Prompt feedback enhances the learning experience and facilitates targeted skill development.

g. Flexibility and Individualized Pace: Online language learning allows students to learn independently and at their own pace. Learners with different proficiency levels can access suitable and appropriate content and progress at a pace that suits their needs. This flexibility accommodates various learning styles and enables students to allocate time based on their availability and preferences.

h. Access to Native Speakers and Experts: Online platforms give learners the opportunities for students to interact with native speakers and language experts worldwide. This improves learners' listening and speaking skills, creating a more engaging language learning experience.

LIMITATIONS

While online language learning provides several benefits, it also poses numerous challenges to educators and learners:

1. Technical Requirements: Not everyone has the opportunity to access reliable internet access, compatible hardware, and software which are essential for effective online learning. Bridging the digital divide is important to give all learners equal opportunity.

2. Teacher-Student Interaction: Establishing rapport and maintaining student engagement is only easy with physical presence. Educators must generate instructional strategies to establish a supportive, engaging, and motivating virtual learning environment.

3. Self-Discipline and Time Management: Online learning requires self-motivation, discipline, and effective time management skills. Students must actively participate, complete assignments, and seek help when needed.

4. Technical Support and Infrastructure: Online language instruction mainly depends on technology, and technical issues can emerge anytime. Learners may face challenges related to internet connectivity, hardware compatibility, or software glitches which they may not be able to handle. Adequate technical support and infrastructure are crucial for a seamless learning experience and to minimize disruptions.

5. Digital Literacy Skills: Basic digital literacy skills from learners are needed to navigate online platforms, access resources, and effectively engage in virtual classrooms. Some learners, particularly those from underserved communities or older age groups, may struggle with adapting to the digital learning environment. Providing support and resources to enhance digital literacy can help bridge this gap.

6. Student Engagement and Motivation: Maintaining high levels of student engagement and motivation can be more challenging in an online setting compared to a physical classroom. Distractions, lack of face-to-face interaction, and potential feelings of isolation can impact learner motivation. Educators must employ interactive teaching strategies, and varied learning activities, and foster a sense of community to keep learners engaged and motivated throughout their online language learning journey.

7. Assessment and Academic Integrity: Assessing students' progress and ascertaining academic integrity online can be complex. Educators need to implement effective assessment strategies that accurately measure learning results. Additionally, protocols should be in place to prevent plagiarism and cheating, such as online proctoring tools or alternative assessment methods that focus on critical thinking and the application of knowledge.

8. Cultural and Linguistic Diversity: Online language teaching brings together learners from diverse cultural and linguistic backgrounds. This diversity may help create a global community but it also presents challenges in terms of diverse perspectives, cultural norms, varying proficiency levels, and communication styles. Educators should be careful of these differences and encourage an inclusive and supportive learning environment that celebrates cultural diversity and encourages effective cross-cultural communication.

TECHNOLOGICAL ADVANCEMENT IN LANGUAGE LEARNING

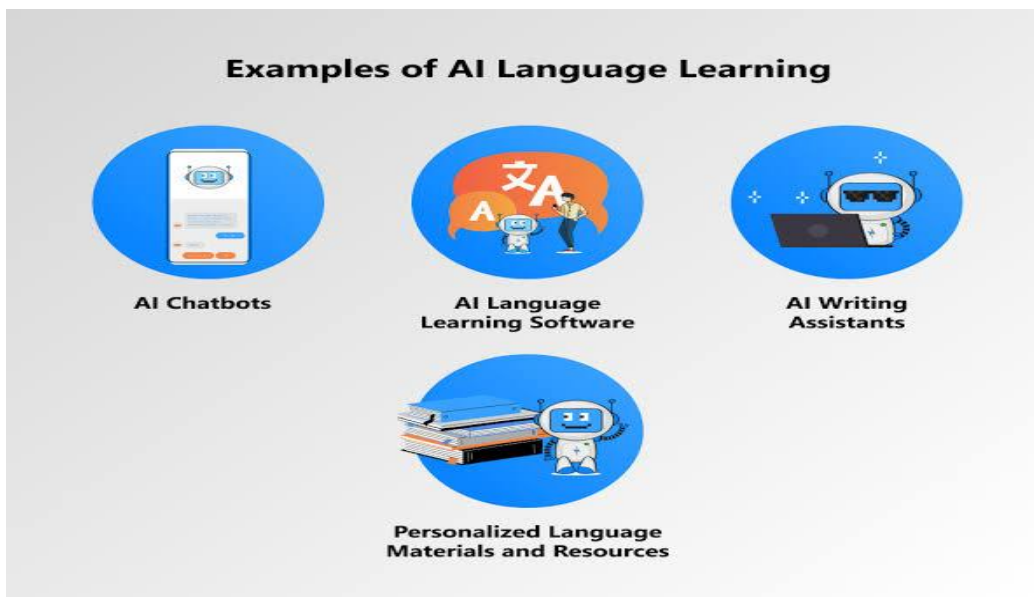
One of the significant advancements in language education brought about by technology is the shift toward interactive and personalized learning methods. Online platforms and digital tools have evolved the way language instruction is delivered, providing learners with more engaging and customized learning experiences. This shift has been instrumental in enhancing language acquisition and fluency.

Interactive Learning Experiences: Technology has enabled the creation of interactive learning environments where learners can actively engage with the language. Through multimedia resources, virtual simulations, and gamified activities, students can practice their language skills in a dynamic and immersive way. Interactive exercises promote active participation, encourage critical thinking, and foster a deeper understanding of language concepts.

Personalized Instruction: With the aid of technology, language learners can now access personalized instruction tailored to their specific needs and learning styles. Online platforms leverage artificial intelligence and adaptive learning algorithms to analyze learners' strengths, weaknesses, and progress. Based on this analysis, the platforms can recommend targeted learning materials, provide individualized feedback, and offer customized learning paths. This personalized approach allows learners to focus on areas that require improvement, accelerating their language learning journey.

These and many more are the benefits of technological advancements in language learning. Most of them have been discussed in the advantages of online learning platforms. It is significant to note a technological advancement that is revolutionizing the language learning field now, which is the integration of Artificial intelligence (AI) into language learning. AI makes online learning platforms easier.

Artificial Intelligence in Personalizing Language Learning



The Impact of AI on Language Learning: Personalization and Interactive Experiences

The implementation of Artificial intelligence (AI) in language learning has evolved the education field by introducing customizable and optimized tools. AI technologies such as Natural Language Processing (NLP), chatbots, machine learning algorithms chatbots, and Virtual language tutors have greatly improved the language learning experience

Natural Language Processing (NLP)

NLP, a branch of AI, lets computers comprehend, interpret, and generate human language. This technological tool allows for the extraction of meaning, emotions, and context from just textual data. It also aids in facilitating tasks like translation, sentiment analysis, and chatbots. NLP plays an important role in establishing solid communication between humans and machines

Machine Learning Algorithms

Machine learning algorithms, another primary AI component, enable computers to adapt and study patterns and relationships within data without explicit programming. These algorithms continually enhance their performance as they interact and learn from exposure to more data. They are capable of contributing to tasks such as speech recognition, and natural language processing in language learning.

Chatbots and Virtual Language Tutors

Chatbots and virtual language tutors are AI-based tools that provide interactive learning experiences. Chatbots can emulate human conversation and discuss with learners in conversational practice. By doing this, it can provide immediate feedback, answer questions, and offer language exercises. Virtual language tutors play the role of personalized instructors, utilizing AI and machine learning to assess learners' proficiency levels, identify strengths and weaknesses, and generate personalized learning paths.

The use of AI in language learning brings several benefits. Personalization and adaptive learning allow each learner to follow a customized learning path based on their proficiency level and weaknesses. Real-time feedback and assessment provide immediate corrections and suggestions, aiding continuous improvement. Gamification elements make language learning engaging and immersive, with quizzes, challenges, and rewards motivating learners to practice. AI also overcomes common challenges, such as the fear of speaking, by offering a non-judgmental environment and aiding understanding via translation tools. Access to several learning resources, 24/7 availability, and flexibility accommodate different learning styles and schedules. Additionally, AI enables the generation of learning communities, establishing a sense of community and cooperation among learners.

Overall, the implementation of AI in language learning has evolved the field, providing customized and interactive experiences that improve learning results. With AI-powered tools, learners can partake in dynamic and engaging language learning activities, receive real-time feedback, access various resources, and connect with a supportive learning community. Another important aspect of AI tools is the application of Voice recognition tools. Here are a few examples of how AI is applied in voice recognition:

1. Pronunciation Analysis: AI-powered speech/voice recognition systems can assess learners' pronunciation and detect their intonations, thereby providing instant feedback. By comparing learners' speech to native speaker models, AI Algorithms can identify errors, note areas for improvement, and also offer suggestions for better pronunciation. With this, learners can practice speaking and receive immediate feedback, which aids in refining their pronunciation skills.

2. Interactive Speaking Practice: AI-based language learning platforms frequently implement interactive speaking exercises. Learners have the opportunity to discuss with virtual language tutors or chatbots, simulating real-life conversations. AI Algorithms analyze learners spoken responses and evaluate their intonation, accuracy, and fluency. With these, it then provides feedback accordingly. Learners can now enhance their oral communication skills by practicing speaking exercises.

3. Voice Recognition for Language Practice: AI-powered language learning tools allow users to practice speaking and receiving feedback using voice recognition technology. Learners can speak into their devices, and AI Algorithms covert their speech to text. This interactive practice helps learners gain confidence in their speaking abilities.

4. Conversational AI Assistants: AI chatbots or virtual language tutors equipped with speech recognition capabilities engage learners in conversational practice. Learners can have dialogues with these AI assistants, asking questions, responding to prompts, and discussing various topics. The AI assistant recognizes and processes the learners' spoken responses, providing appropriate feedback and guiding the conversation. This interactive and dynamic practice enhances learners' speaking fluency and confidence.

5. Language Proficiency Assessments: AI-powered speech recognition is employed in language proficiency assessments. Learners can take oral exams or tests using speech recognition technology, allowing AI algorithms to evaluate their

speaking abilities objectively. The algorithms analyze factors such as pronunciation, grammar, vocabulary, and fluency to provide accurate assessments of learners' oral proficiency levels.

These examples demonstrate how AI-driven speech recognition technologies are used to enhance language learning by providing learners with interactive speaking practice, personalized feedback, and objective proficiency assessments. By leveraging AI in speech recognition, language learners can improve their pronunciation, fluency, and overall oral communication skills more dynamically and engagingly.

SUCCESS AND CASE STUDIES

AI has been increasingly implemented in language learning, providing various benefits. There have also been few case studies of these AI integration into language learning. Here are a few examples of case studies which have been a successful integration of AI into language learning;

1. Duolingo

This is a popular language-learning platform that utilizes AI to customize learning experiences. With the use of AI Algorithms, Duolingo tailors lesson plans based on personal preference and individual strengths. The platform has haloed millions of users worldwide in language acquisition and it has done that more effectively than regular online platforms.

2. Rosetta Stone: Rosetta Stone, another language-learning software company, has implemented AI into its language courses. Their AI-powered speech/voice recognition technology offers learners real-time feedback on pronunciation and fluency. This has significantly improved the user's language-speaking proficiencies in terms of pronunciation and intonation.

3. Lingvist: Lingvist is an adaptive language-learning platform. It was launched as a public free beta version in 2014. With AI, Lingvist's software analyses various text sources, such as subtitles or articles to determine the frequency of words in a given language. Lingvist adapts to users' proficiency levels and attempts to teach the users quickly, starting with the most relevant words. An interesting fact is that while there are grammar references, the primary method of Lingvist is not in teaching grammar but in teaching the language as it is used naturally. By doing this, Lingvist optimizes the learning process, helping learners progress effectively

4. HelloTalk: HelloTalk was deployed in 2012 by Zackery Ngai, it is one of the world's largest language learning and cross-cultural exchange apps. The service is utilized by over 20 million users in 200 countries to learn languages by communicating with each other. HelloTalk implements a proprietary algorithm to best match language partners who are studying each other's native language, which is called a "language exchange." Instant translations, transliterations, transcriptions, partner corrections, and more are all AI-assisted tools built into the software to make conversing easier. Hello Talk helps you to learn by Chatting; Since the best way to learn a language is to speak it! HelloTalk connects you with native speakers to chat with for free. But this isn't your regular social app. The interface is packed with innovative tools to make it fun and effortless to learn a new language. You can chat with individual members, or join group chats for a collaborative learning experience. HelloTalk also provides course content as both self-guided lessons and live-stream classes with instructors. More than 150 languages are supported, such as Chinese, English, Japanese, French, Korean, German, Spanish, Italian, Arabic, Thai, and Hindi. The task of connecting with native speakers of target languages is now executed more efficiently by HelloTalk.

5. Babbel:

Babbel is a German subscription-based language-learning software and e-learning platform. It was made available in various languages in January 2008. The platform provides diverse resources for effective language learning such as the Babbel self-study app, Babbel Live classes, Babbel podcasts, Babbel for Business, and Toucan products, all designed to emphasize practical language use in real-life scenarios with real people. The curriculum includes over 60,000 lessons in 14 languages. Babbel was the first online language-learning platform, first to introduce a language-learning app with over 16 million subscriptions, it is now the most-sold language-learning platform globally.

Babbel's effectiveness in language learning has been confirmed via collaborative studies with Yale University and Michigan State University. These studies confirm the platform's ability to help a user achieve language proficiency in a short timeframe. Yale University also found that after three months of Babbel use, users exhibited diverse Spanish-speaking abilities, ranging from basic greetings to discussing activities and plans. User feedback revealed a 95% satisfaction rate with Babbel's user-friendly interface, and 75% successfully met their language learning goals.

Michigan State University also noted that participants logging a minimum of 10 hours on Babbel experienced enhanced grammar and vocabulary test scores, with 97% showing improvement. After 12 weeks, nearly all participants demonstrated significant gains in oral proficiency, grammar, and/or vocabulary knowledge. The platform has assisted numerous individuals in achieving their language-learning goals.

6. ELSA Speak: ELSA Speak, like Rosetta Stone also focuses is a language-learning app on improving pronunciation skills. ELSA, English Language Speech Assistant, is a fun and engaging platform specially designed to help users improve their English pronunciation. ELSA's artificial intelligence technology was designed using voice data of diverse people speaking English with diverse accents. This enables ELSA to recognize the speech patterns of non-native speakers, setting it apart from most other voice recognition technologies. It utilizes AI technology to assess learners' pronunciation accuracy and provides personalized feedback and exercises to help users refine their speaking abilities. ELSA Speak has been widely recognized for its effectiveness in helping learners speak with their accents.

These examples all highlight the positive impact of AI in language learning, ranging from personalized curriculum to speaking the right intonation or connecting with a native speaker, AI has everything covered.

Challenges and Ethical Consideration Of Language Learning Tools:

AI language learning tools have several challenges and limitations that need to be considered:

a. Insufficient human interaction: Though AI language tools are very efficient, a significant limitation is the lack of direct human interaction. Regardless that some tools offer opportunities for live conversations with native speakers or tutors, the majority of the learning experience is self-guided, which may not be suitable for learners seeking a more personalized and interactive procedure.

b. Difficulty in capturing cultural and contextual nuances: A lot of misunderstandings or communication errors, especially in complex or technical language contexts can occur because AI language tools can't replicate cultural and contextual nuances like colloquialisms, idioms, and regional accents.

c. Reliance on extensive training data: AI language learning tools heavily depend on large amounts of data for training. This can pose difficulties for underrepresented languages or dialects, as there may be a lack of resources or biased learning materials available for these languages.

d. Limitations in handling creative language: As effective as AI is, it may struggle with comprehending creative or original language such as poetry or fiction. They may also be challenged with tasks involving ambiguous grammar or vocabulary and tasks requiring advanced language proficiency.

e. Limited error recognition capabilities: Due to the lack of human interactions, learners can develop incorrect habits or continually make errors, without proper intervention because AI language learning tools don't have the same level of accuracy as human teachers or tutors

Ethical Considerations:

A very important and crucial to address when implementing AI in language learning is ethical considerations which include;

a. Privacy: User data should and must not be shared without explicit permission and appropriate measures should be taken to ensure data security. Protecting learners' personal information such as progress, learning preference, and proficiency levels should be made a priority. User data must be protected at all costs.

b. Fairness and bias: AI Algorithms can perpetuate or amplify discriminations present in language learning resources or teaching practices. It is essential to proactively handle this and eliminate any potential biases to ensure fairness and equity in AI language learning tools for all learners

c. Accessibility: It is paramount to consider the needs and resources of all learners. Not all learners have equal access to technology and the internet and this can limit their utilization of AI language learning tools. These tools must be made accessible to a diverse range of individuals

d. Human interaction: The value of human interaction in language learning can't be underemphasized. Though AI language tools can perform tasks at an efficient rate, they should be seen as a complement to human teachers rather than a complete replacement.

e. Transparency: There should be transparency in providing a user's learner data, this transparency enables learners to make well-informed decisions about their usage and this encourages trust in the technology.

CONCLUSION

In conclusion, it is paramount that in this globalized and digital world, bilingualism should be considered as it boosts the mind's executive processes and places one ahead in career opportunities. Due to bilingualism or multilingualism, you are first considered before any other applicant because of the wide range of communication and marketing you can offer. This also develops great cognitive processes in the mind. The advantages are numerous, not to mention that you have access to other cultural views and perspectives. The integration of AI technology further enhances its value. AI not only makes language learning more attainable but also more personalized and effective.

AI technology not only makes language learning more accessible and achievable but also designs it to suit individual needs, making the process more personalized and effective. As AI continues to advance, we can expect even more innovative solutions that will further enhance language education and empower learners to thrive in our diverse and interconnected world.

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