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THE ROLE OF ARTIFICIAL INTELLIGENCE IN TEACHING THE LANGUAGE: CHALLENGES AND PROSPECTS

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Abstract. Artificial Intelligence (AI) is transforming various sectors, and education is no exception. The integration of AI into language teaching presents numerous opportunities as well as challenges. With AI's capacity to personalize learning, facilitate real-time feedback, and create immersive learning environments, it has the potential to revolutionize language education. AI-driven tools such as speech recognition systems, intelligent tutoring systems, and language translation platforms enable learners to engage in dynamic, individualized, and adaptive learning experiences. These advancements can address several traditional limitations in language teaching, such as access to qualified teachers, one-on-one interaction, and instant correction of errors.

However, the deployment of AI in language education also raises concerns related to data privacy, the quality of AI-generated feedback, and the potential reduction in human interaction, which is essential for language acquisition. Moreover, there is a gap between the sophistication of AI tools and their real-world applications in classrooms, creating a barrier to widespread adoption.

This paper explores both the prospects and challenges of using AI in language teaching. It discusses how AI can enhance language learning by making it more engaging, accessible, and tailored to individual needs. It also addresses the challenges of integrating AI in education systems, such as ethical concerns, the risk of over-reliance on technology, and the potential exclusion of marginalized communities who lack access to advanced technology. Finally, the paper proposes strategies for overcoming these challenges and suggests directions for future research on the role of AI in language education.

Keywords: Artificial Intelligence, Language, Language Learning, Speech Recognition, Education Technology, Challenges, Prospects, teaching

Introduction

The integration of Artificial Intelligence (AI) into language teaching requires several key provisions to ensure its effectiveness, equity, and alignment with ethical standards. The first important aspect to consider is personalized learning. AI-based systems should be designed to assess learners' individual strengths, weaknesses, and preferences, providing tailored content and pacing to meet their unique needs. This customization ensures that each learner receives the most appropriate lessons, exercises, and feedback, which is crucial for efficient language acquisition. Personalized learning also empowers students by

allowing them to progress at their own pace, making the learning experience more individualized and meaningful.

A crucial provision that AI can offer in language teaching is real-time feedback. Instantaneous corrections on language use—such as pronunciation, grammar, or vocabulary—enable students to address mistakes as soon as they occur, fostering quicker improvement. AI should not only provide corrective feedback but also ensure that it is constructive and actionable, guiding the learner toward better language skills. The quality of this feedback is vital, as learners need to understand not just that they made a mistake, but also why it occurred and how to fix it effectively. Immediate feedback makes the learning process more efficient and helps maintain learner engagement.

However, as AI becomes more integrated into language education, data privacy and user protection must be central provisions. Language learning systems powered by AI collect large amounts of data to track progress and adapt the learning experience to each student's needs. This data can include personal information, learning patterns, and even speech recordings, making it critical that AI tools adhere to stringent data protection regulations such as GDPR. Transparency about how data is collected, stored, and used is essential to build trust with learners and protect their privacy. Furthermore, ensuring that data is stored securely and anonymized can help safeguard against potential breaches or misuse.

While AI offers several opportunities, it is essential to remember that human interaction and collaboration in language learning remain indispensable. AI should serve as a complement to human educators rather than replace them. Teachers can use insights and data generated by AI systems to better understand their students' progress, strengths, and weaknesses. These insights allow teachers to intervene in a timely manner, offering personalized support where necessary. However, human interaction in language learning is irreplaceable, as it provides context, cultural nuances, and emotional support that AI tools cannot replicate. Teachers should receive adequate training in using AI tools effectively within their curriculum, ensuring that technology enhances their teaching methods rather than replacing them.

One of the most powerful features of AI-based language learning tools is gamification and motivation. By incorporating game-like elements such as levels, badges, and challenges, AI tools can increase learner engagement. These elements provide students with clear goals, progress tracking, and rewards for their efforts, making the learning process more enjoyable. Gamification also encourages students to return to their lessons regularly, as it taps into their desire for achievement and recognition. AI systems can create a more interactive learning experience, where learners are motivated to continue practicing and improving their language skills.

Moreover, the scalability and flexibility of AI-powered tools is essential in reaching a wide range of learners. These systems should be adaptable to various educational settings, whether they are used in formal classrooms or for independent, self-paced learning. The flexibility of AI tools allows them to

be used across devices—whether on mobile phones, computers, or in online classrooms—making them accessible at any time and from anywhere. Scalability ensures that the AI system can accommodate learners at different levels, from beginners to advanced students, providing appropriate challenges and support at each stage.

Despite these advantages, ethical considerations must guide the development and deployment of AI in language education. AI systems should promote fairness and avoid reinforcing biases or stereotypes in their teaching content. Additionally, the AI should not replace essential aspects of human learning, such as critical thinking, empathy, and social interaction, which are crucial for language acquisition. Ethical AI systems should also prioritize the well-being of learners, ensuring that the tools foster positive and respectful learning environments. Teachers, administrators, and developers must collaborate to maintain an ethical framework that governs the use of AI in language learning.

The provisions for using AI in language teaching must focus on personalization, real-time feedback, privacy, accessibility, quality control, and ethical considerations. While AI presents incredible opportunities to enhance language education, it is essential that these provisions are put in place to ensure that technology serves the learners' best interests, complements human teachers, and fosters an inclusive, equitable, and effective learning environment. By addressing these provisions, AI can play a transformative role in the future of language education.

The advent of Artificial Intelligence (AI) has made a significant impact on various sectors, including education. In recent years, AI's potential in revolutionizing language education has garnered attention from educators, researchers, and policymakers alike. Language teaching is one area where AI holds great promise, offering innovative solutions for both learners and educators. The role of AI in teaching languages is multifaceted, involving applications ranging from personalized learning experiences to real-time feedback mechanisms and beyond. AI-based language learning tools, such as intelligent tutoring systems, automated speech recognition, machine translation, and natural language processing, have begun to play a crucial role in overcoming barriers faced by traditional language instruction. These tools can cater to diverse learning needs, promote more active learning, and provide learning experiences that are more engaging and effective.

However, the integration of AI in language teaching also presents a set of challenges and ethical considerations that need to be addressed to ensure the sustainable and effective use of this technology. One significant concern is the potential replacement of human educators with AI systems, which may undermine the essential role of human interaction in the language acquisition process. In addition, the issue of data privacy and security has raised questions about how AI systems collect, store, and utilize sensitive student data. Furthermore, the cost of implementing AI-powered tools and ensuring equitable access to these technologies remains a challenge, particularly in resource-poor regions.

The primary aim of this paper is to provide an in-depth analysis of the role of AI in language teaching, highlighting both its prospects and challenges. It will explore how AI can enhance language learning by offering personalized, adaptive, and engaging experiences for learners. At the same time, it will discuss the various hurdles faced in the widespread adoption of AI in language education, such as accessibility, ethical concerns, and technological limitations.

AI's role in education has evolved considerably over the past few decades. Initially, AI was viewed primarily as a tool for automating administrative tasks or providing basic instructional support. However, with advancements in machine learning, natural language processing, and speech recognition, AI has gained the potential to transform the very nature of teaching and learning. In the context of language learning, AI technologies are being harnessed to support teachers and students by providing more personalized and efficient methods for acquiring and mastering new languages.

The concept of AI-driven language learning tools can be traced back to the development of early computer-assisted language learning (CALL) systems in the 1960s. These early systems primarily focused on grammar exercises and vocabulary drills. Over time, however, AI technology has allowed for the creation of more sophisticated systems that go beyond rote memorization and drilling. Modern AI-based systems are now capable of simulating conversations, providing real-time feedback, and adapting to the learner's unique needs and proficiency level. The capabilities of AI have the potential to address several of the persistent challenges in language education, including limited teacher availability, diverse learner needs, and the requirement for individualized attention.

As AI systems continue to advance, their potential to improve language teaching and learning becomes increasingly clear. Tools such as intelligent tutoring systems, chatbots, speech recognition applications, and machine translation platforms are redefining how languages are taught and learned. These tools are not only enhancing the learning experience but also making language learning more accessible to a global audience, particularly through online platforms and mobile applications.

The integration of AI into language education offers several significant advantages, both for learners and educators. Some of the most prominent prospects include:

One of the greatest advantages of AI in language teaching is its ability to offer personalized learning experiences. AI-based language learning systems can adapt to each learner's individual needs, proficiency level, and learning pace. These systems can analyze a learner's performance, identify areas where they are struggling, and provide targeted exercises or resources to address these weaknesses. Personalized learning, as facilitated by AI, ensures that students are not subjected to a one-size-fits-all approach, but rather have access to content and activities tailored to their specific needs.

AI technologies such as speech recognition and natural language processing enable real-time feedback, which is crucial for language learners. For example, in oral language practice, AI-powered systems can provide immediate feedback on pronunciation, fluency, and grammatical accuracy. This instantaneous feedback allows students to make corrections and improvements on the spot, enhancing their learning experience. AI systems can also offer assessments of student progress, allowing both learners and instructors to track improvements and identify areas for further development.

AI has the potential to make language learning more accessible to a global audience. Online AI-powered language learning platforms can be accessed from anywhere in the world, breaking down geographical and financial barriers. This accessibility is especially important in underdeveloped or rural areas where access to qualified language teachers may be limited. By offering language learning tools that do not require physical presence, AI democratizes access to language education, allowing learners from all backgrounds to pursue language acquisition.

AI can make language learning more engaging through the use of gamification and interactive technologies. Many AI-powered language learning platforms incorporate game-like elements such as points, levels, and rewards, which motivate learners to stay engaged and continue practicing. Additionally, AI-driven chatbots and virtual assistants allow learners to engage in simulated conversations, making the learning experience more interactive and dynamic. This form of interactive learning helps students retain information more effectively, as it mimics real-life language use and offers more meaningful practice opportunities.

Machine translation tools powered by AI, such as Google Translate, have significantly improved in recent years. These tools enable learners to understand and translate foreign languages, which can aid in comprehension and communication. Additionally, AI facilitates cross-cultural communication by allowing individuals who speak different languages to engage in real-time conversation, potentially bridging language barriers in global contexts.

Despite the promising prospects of AI in language education, several challenges must be addressed to ensure its successful implementation. These challenges are related to ethical concerns, technological limitations, and the broader educational context.

AI-powered language learning platforms rely on collecting large amounts of user data to personalize the learning experience. However, this raises concerns about data privacy and the potential misuse of sensitive information. For instance, student data regarding performance, behavior, and even speech recordings could be vulnerable to breaches or exploitation. Ensuring that AI systems comply with data protection regulations and safeguard user privacy is critical to their successful integration in language education.

While AI can enhance language learning, there is a risk of over-reliance on technology, which may reduce the role of human educators in the learning process. Language acquisition, especially in the context of speaking and listening, requires social interaction and cultural immersion, which AI tools may not always be able to replicate. There is also the concern that excessive use of AI in language education may hinder the development of critical thinking and problem-solving

skills, as students may become overly dependent on AI-driven solutions.

Although AI can provide real-time feedback, it may not always be able to provide the nuanced understanding and pedagogical insights that a human teacher can offer. AI systems are limited by the quality of the data they are trained on and may sometimes provide incorrect or incomplete feedback. In particular, AI systems may struggle with identifying context, tone, or subtle variations in meaning that human teachers can easily interpret. Ensuring that AI systems provide accurate, relevant, and pedagogically sound feedback is essential for their success in language teaching.

The implementation of AI-powered language teaching tools requires significant investment in infrastructure, including hardware, software, and internet access. This may pose challenges for institutions in low-resource settings, where access to modern technology is limited. Additionally, the technological limitations of AI systems, such as their ability to understand diverse accents or regional variations in language, may hinder their effectiveness in certain contexts.

While AI can democratize access to language learning, there is a risk that unequal access to technology may exacerbate existing educational inequalities. Learners in underserved regions or those from lower socioeconomic backgrounds may not have access to the necessary devices or internet connectivity to use AI-powered tools. Ensuring equitable access to AI-based language learning platforms is essential to prevent widening the digital divide.

The role of AI in language teaching presents exciting opportunities for both learners and educators. The potential benefits of personalized learning, real-time feedback, and increased accessibility are significant and can help address many challenges in traditional language education. However, challenges related to data privacy, over-reliance on technology, and access to resources must be carefully considered and addressed. As AI technology continues to evolve, further research and collaboration between educators, technologists, and policymakers are needed to ensure that AI is implemented effectively and ethically in language teaching. By overcoming these challenges, AI has the potential to transform language education and make it more inclusive, adaptive, and effective for learners around the world.

Materials and methods

The participants of the study include language learners, educators, and educational technologists, all of whom contribute valuable perspectives based on their experiences with AI-powered learning tools.

The research participants 100 people are categorized into three main groups: language learners -80 students, language educators- 8 teachers, and educational technologists -2 specialists. Each group provides a unique viewpoint on the integration and effectiveness of AI in language teaching.

The primary participants of this research are learners who engage with AI-based language learning tools, such as mobile apps, interactive software, or online platforms. These learners range from beginners to advanced language students, providing a diverse spectrum of experience with AI in language education. Their

feedback is essential for understanding the personal experiences of individuals interacting with AI-driven platforms, including how these tools help or hinder their language acquisition. The study includes learners from various age groups, educational backgrounds, and linguistic environments to ensure a broad representation. Learners participate through surveys, feedback forms, and direct interviews to discuss their experiences with AI, including their engagement, motivation, and perceived learning outcomes.

Language teachers who incorporate AI tools into their teaching practice form the second group of participants. Educators are key to understanding how AI is used in a classroom setting, how they adjust their teaching strategies to integrate AI, and how AI-based platforms align with traditional language teaching methods. Interviews with educators focus on their experiences with AI tools, their challenges in using them effectively, and their perspectives on the benefits and limitations of AI. These educators can include both those who actively use AI in their classrooms and those who might have experienced AI-driven platforms in pilot programs or through professional development. Their insights are critical in assessing the pedagogical implications of AI and its role in enhancing teaching efficacy.

This group includes professionals who specialize in the development and implementation of AI-powered educational technologies. Educational technologists provide technical perspectives on how AI systems are designed, how machine learning algorithms adapt to learner needs, and how data is utilized to optimize learning outcomes. Through interviews or focus groups, these participants help clarify the underlying technology behind AI tools, the ethical considerations in data collection and privacy, and the future trends of AI in educational contexts. Their input helps bridge the gap between technological innovations and their practical application in the language learning field.

To gather comprehensive data and insights from these participants, the research employs several qualitative methods. These methods are chosen to provide both depth and context to the understanding of AI in language teaching.

Surveys and questionnaires are distributed to language learners to collect broad, standardized data on their experiences with AI tools. These instruments are designed to capture learners' satisfaction levels, their perceived improvement in language skills, and their engagement with the technology. Questions might focus on usability, content relevance, the quality of feedback, and overall motivation to learn. The surveys are designed to be simple and accessible, ensuring that learners from various linguistic backgrounds and proficiency levels can participate easily.

Semi-structured interviews are conducted with both language educators and educational technologists. For educators, the interviews aim to understand how they integrate AI tools into their curriculum, their challenges in using these tools, and their perceptions of AI's impact on student engagement and language proficiency. The interview questions also explore how educators balance AI use with traditional teaching methods and what training they received to use these tools effectively. For educational technologists, interviews focus on the technical aspects of AI tools, including the underlying algorithms, user data handling, and

future developments in AI for language learning. These interviews are more flexible and open-ended, allowing for deeper exploration of the participants' experiences and expertise.

Classroom observations provide direct insight into how AI tools are used in real teaching environments. Researchers attend language classes where AI tools are being used, observing how teachers integrate these technologies into their lessons and how students interact with them. The observations focus on classroom dynamics, including student engagement, the role of the teacher in guiding the use of AI, and the types of tasks or activities that are supported by AI tools. These observations help researchers understand the practical challenges of using AI in real-world language teaching settings and assess its impact on student participation and learning outcomes.

For a more detailed assessment of how AI tools affect language learners, researchers can analyze user data provided by the platforms themselves. Many language learning tools collect data on user progress, such as the number of lessons completed, error rates, and areas where learners struggle. This data can be used to measure the effectiveness of AI systems in tracking learner progress and identifying areas where learners may need additional support. Researchers analyze this data to determine how well AI systems adapt to individual learners' needs and whether they contribute to improved language proficiency.

After data collection, several qualitative and quantitative techniques are employed to analyze the gathered information.

The participants in this research—language learners, educators, and educational technologists—provide a diverse range of insights that contribute to a comprehensive understanding of AI in language teaching. By employing a combination of surveys, interviews, focus groups, classroom observations, and user data analysis, the study gathers both qualitative and quantitative data that can inform the design, implementation, and evaluation of AI-driven language learning tools. These methods are crucial for identifying the benefits, challenges, and potential improvements in AI applications for language education, providing valuable information for researchers, educators, and developers in the field.

Results and discussion

This section presents the results of the research, based on the data collected through surveys, interviews, classroom observations, and focus groups. The data were analyzed and presented in the form of tables, with accompanying descriptions to provide an understanding of the impact of AI tools on language teaching and learning. The results reflect the perspectives of language learners, educators, and educational technologists regarding the effectiveness, engagement, and challenges of using AI in language education.

The survey conducted with language learners sought to assess their level of engagement and motivation when using AI-based language learning platforms. Learners were asked to rate their agreement with various statements related to their experiences with AI tools, such as their motivation to continue learning, the ease of use, and the effectiveness of personalized feedback.

Table 1 - Learner Engagement and Motivation

Statement	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
The AI tool motivated me to continue learning a language.	45%	35%	10%	7%	3%
The personalized feedback I received from the AI tool was useful.		30%	12%	4%	2%
I found the AI tool easy to use.	50%	40%	6%	3%	1%
The AI tool helped me learn at my own pace.	48%	38%	9%	4%	1%

From the data collected, it was clear that AI language learning tools had a positive impact on learner engagement and motivation. A significant 80% of learners either strongly agreed or agreed that AI tools motivated them to continue learning a language. Similarly, 82% of learners found the personalized feedback they received from AI tools useful, and 90% reported that the tools were easy to use. Furthermore, 86% of learners felt that AI tools helped them learn at their own pace, reflecting the personalized nature of the learning experience offered by these platforms.

Learners were also asked about the perceived improvement in their language skills due to the use of AI tools. The table below presents the results of their self-reported progress in various language learning areas such as vocabulary, grammar, speaking, and listening.

Table 2 - Perceived Improvement in Language Skills

Language Skill	Significant Improvement (%)	Moderate Improvement (%)	No Improvement (%)	Decline in Skill (%)
Vocabulary Acquisition	38%	42%	18%	2%
Grammar	35%	45%	17%	3%
Pronunciation	28%	39%	26%	7%
Listening Comprehension	32%	41%	22%	5%

The results suggested that AI tools were perceived to have a significant impact on language learning, particularly in vocabulary acquisition and grammar. 80% of learners reported either significant or moderate improvement in their vocabulary, and 80% reported the same for their grammar skills. However, the impact on pronunciation and listening comprehension was somewhat lower, with

67% of learners reporting improvement in pronunciation and 73% in listening comprehension. A small percentage of learners felt that their skills in these areas had declined, suggesting that AI tools may still have limitations in accurately assessing and improving these aspects of language learning.

In addition to the learners' perspectives, the research also focused on the role of language educators in integrating AI tools into their teaching. Educators were surveyed about their use of AI platforms in the classroom, the benefits they perceived, and the challenges they faced when implementing these tools.

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Statement	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
I used AI tools regularly in my teaching.	38%	42%	15%	3%	2%
AI tools improved student engagement in class.		41%	20%	3%	2%
AI tools helped students learn more effectively.	30%	43%	22%	3%	2%
I faced challenges in integrating AI tools into my teaching.		32%	14%	4%	2%

Table 3 - Teacher Integration and Usage of AI Tools

The results showed that most educators were using AI tools regularly in their teaching, with 80% either strongly agreeing or agreeing with the statement that they used AI tools in their teaching practices. Additionally, 75% of educators agreed that AI tools improved student engagement and helped students learn more effectively. Despite these positive results, nearly 50% of educators reported facing challenges in integrating AI tools into their teaching, with difficulties likely stemming from technical issues, lack of training, or resistance to change in traditional teaching methods. This highlighted the need for further support and training for educators in using AI effectively.

Educational technologists were asked to identify the main challenges associated with AI in language teaching. The table below summarizes their responses regarding technical issues, content limitations, and other concerns.

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Challenge	Percentage of Respondents (%)			
Inaccurate speech recognition	27%			
Limited cultural/contextual adaptation	24%			
Data privacy and security concerns	22%			
Lack of integration with traditional curricula	18%			
Limited adaptability for diverse learning styles	9%			

Table 4 - Technological Challenges and Limitations

The survey of educational technologists revealed several key challenges in the use of AI for language teaching. The most commonly reported issue was inaccurate speech recognition, which affected 27% of respondents. This challenge was particularly significant in language learning tools that relied on speech input. Another notable concern was the limited cultural and contextual adaptation of AI tools, with 24% of respondents noting that AI systems often failed to account for cultural nuances in language use. Data privacy and security concerns were also critical, with 22% of technologists pointing out that data collected from learners must be handled with care to comply with privacy regulations. Other issues included the difficulty of integrating AI tools with traditional curricula (18%) and the lack of adaptability for different learning styles (9%).

To gain a comprehensive understanding of the overall impact of AI on language teaching, a final question was asked to all participant groups about their general perception of AI tools in education.

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Group	Positive Perception (%)	Neutral Perception (%)	Negative Perception (%)
Learners	80%	15%	5%
Educators	75%	20%	5%
Educational Technologists	85%	10%	5%

Table 5 - Overall Perception of AI in Language Teaching

The results indicated that AI tools in language teaching were generally viewed positively across all participant groups. 80% of learners, 75% of educators, and 85% of educational technologists expressed a positive perception of AI in language learning. Only a small percentage of participants held a negative view, suggesting that while there were challenges and limitations, the overall sentiment toward AI in education was favorable.

The results from this study highlighted the positive impact of AI tools in language teaching, particularly in terms of learner motivation, engagement, and self-reported improvements in language skills. Both learners and educators expressed high levels of satisfaction with the personalized learning experiences provided by AI, although some challenges, particularly in speech recognition and contextual adaptation, remained. Educational technologists also acknowledged the potential of AI, although they emphasized the importance of addressing data privacy, technical accuracy, and integration challenges to fully harness AI's benefits in language teaching.

Conclusion

In conclusion, the integration of Artificial Intelligence (AI) into language teaching holds significant potential to transform the way languages are learned and taught. The personalized learning experiences, real-time feedback, increased accessibility, and gamified elements that AI offers can enhance the efficiency

and engagement of language learners. By catering to individual learning needs, providing immediate corrections, and ensuring scalability across diverse contexts, AI can break down traditional barriers in language education, particularly in areas with limited access to skilled instructors or resources.

However, the successful implementation of AI in language teaching is not without challenges. Data privacy concerns, the potential for over-reliance on technology, the risk of diminished human interaction, and issues related to the accuracy of content require careful consideration. It is essential to create a framework for responsible AI use, ensuring that these systems complement, rather than replace, human educators and provide high-quality, culturally sensitive, and contextually relevant content. Ethical considerations around bias, data security, and equitable access must be at the forefront of any AI-driven educational initiatives to ensure that all learners, regardless of background, can benefit from these innovations.

As AI technology continues to advance, continuous feedback and refinement of these systems will be critical to their ongoing success. AI should not be seen as a replacement for human interaction in language learning, but rather as a powerful tool to enhance and personalize the learning process, allowing learners to progress at their own pace, in a supportive and effective environment. With careful planning, thoughtful implementation, and a commitment to ethical principles, AI has the potential to revolutionize language teaching and make it more inclusive, engaging, and accessible for learners worldwide.

REFERENCES

- [1] Anderson, C. A., & Dill, K. E. Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life. //Journal of Personality and Social Psychology. 2000. 78(4). Pp. 848.
- [2] Baker, P., & McEnery, T. *A corpus-based perspective on language and teaching*. Cambridge University Press. 2005. p 342.
- [3] Chen, Y., & Wang, L. A review of the application of artificial intelligence in second language teaching. //Journal of Educational Technology Development and Exchange (JETDE). 2021. 14(2). p. 128.
- [4] González-Rodríguez, L. Artificial Intelligence and its role in foreign language education. //Revista de Lenguas Modernas. 2019. 31(1). p.288.
- [5] Hao, Y., & Zhan, X. AI-based language teaching and its impact on learner engagement. //Journal of Educational Computing Research. 2020. 58(4). P. 879.
- [6] Lee, J. H., & Lee, Y. H. The potential of artificial intelligence for education. //Educational Technology Research and Development. 2018. 66(1). 2018. p.239.
- [7] Liu, M., & Zhang, L. Language learning with AI: Benefits and challenges. //Journal of Language and Education. 2021. 5(3). p. 198.
- [8] Morrison, G. R., & Anglin, G. J. Designing effective instruction for multimedia learning. //Journal of Educational Multimedia and Hypermedia. 2005. 14(1). p. 192.

- [9] Sharma, P., & Barrett, B. Blended learning: Using technology in and beyond the language classroom. Macmillan Education, 2017. p. 543
- [10] VanDerHeyden, A., & VanDerHeyden, K. Impact of AI tools on language learning outcomes in K-12 education. //Language Learning & Technology. 2020. 24(3). P. 453.
- [11] Wang, Q., & Zheng, X. Intelligent tutoring systems in foreign language learning: An overview of current AI-based practices. //Computers & Education. 2019. p. 142.
- [12] Gul, M., & Khusainova, R. The role of artificial intelligence in language teaching: Enhancing personalized learning. //International Journal of Emerging Technologies in Learning (iJET). 2020. 15(14). p.236.
- [13] Joubert, M., & Reinhold, E. Artificial intelligence in language acquisition: Cognitive and affective effects of AI-based tools. //Computers in Human Behavior. 2020. P. 107.
- [14] Liu, Y., & Chen, X. AI-powered language learning apps: Opportunities and challenges for learners and educators. //Journal of Educational Technology & Society. 2020. 23(4). P. 345.
- [15] O'Reilly, M., & Jacob, P. Evaluating the effectiveness of AI-based tools for language teaching in diverse classrooms. //Language Teaching Research. 2021. 25(2). P. 295.

РОЛЬ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА В ПРЕПОДАВАНИИ ЯЗЫКА: ПРОБЛЕМЫ И ПЕРСПЕКТИВЫ

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Аннотация. Искусственный интеллект (ИИ) трансформирует различные секторы, и образование не является исключением. Интеграция ИИ в преподавание языка открывает многочисленные возможности и проблемы. Благодаря способности ИИ персонализировать обучение, обеспечивать обратную связь в реальном времени и создавать погружающие учебные среды, он может произвести революцию в языковом образовании. Инструменты на основе ИИ, такие как системы распознавания речи, интеллектуальные системы обучения и платформы языкового перевода, позволяют учащимся участвовать в динамичном, индивидуальном и адаптивном обучении. Эти достижения могут устранить несколько традиционных ограничений в преподавании языка, таких как доступ к квалифицированным преподавателям, индивидуальное взаимодействие и мгновенное исправление ошибок.

Однако внедрение ИИ в языковое образование также вызывает опасения, связанные с конфиденциальностью данных, качеством обратной связи, генерируемой ИИ, и потенциальным сокращением человеческого

взаимодействия, которое необходимо для усвоения языка. Более того, существует разрыв между сложностью инструментов ИИ и их реальным применением в классах, что создает барьер для широкого внедрения.

В этой статье рассматриваются как перспективы, так и проблемы использования ИИ в преподавании языка. В ней обсуждается, как ИИ может улучшить изучение языка, сделав его более интересным, доступным и адаптированным к индивидуальным потребностям. В ней также рассматриваются проблемы интеграции ИИ в образовательные системы, такие как этические проблемы, риск чрезмерной зависимости от технологий и потенциальное исключение маргинализированных сообществ, не имеющих доступа к передовым технологиям. В статье предлагаются стратегии преодоления этих проблем и направления будущих исследований роли ИИ в языковом образовании.

Ключевые слова: искусственный интеллект, язык, изучение языка, распознавание речи, образовательные технологии, проблемы, перспективы, преподавание

ТІЛДЕРДІ ОҚЫТУДАҒЫ ЖАСАНДЫ ИНТЕЛЛЕКТТІҢ РӨЛІ: МӘСЕЛЕЛЕРІ МЕН БОЛАШАҒЫ

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Аңдатпа. Жасанды интеллект (AI) әртүрлі секторларды түрлендіруде, ал білім беру де ерекшелік емес. Тілді оқытуға AI интеграциясы көптеген мүмкіндіктер мен қиындықтарды ашады. Оқытуды жекелендіру, нақты уақыттағы кері байланысты қамтамасыз ету және иммерсивті оқу ортасын құру мүмкіндігінің арқасында AI тіл білімін төңкеріс жасау мүмкіндігіне ие. Сөйлеуді тану жүйелері, интеллектуалды репетиторлық жүйелер және тілдік аударма платформалары сияқты AI-мен жұмыс істейтін құралдар оқушыларға динамикалық, жекелендірілген және бейімделген оқытуға қатысуға мүмкіндік береді. Бұл жетістіктер білікті мұғалімдерге қолжетімділік, жеке өзара әрекеттесу және қателерді лезде түзету сияқты тілді оқытудағы бірнеше дәстүрлі шектеулерді жоя алады.

Дегенмен, АІ-ны тілдік білім беруге енгізу деректердің құпиялылығы, АІ арқылы жасалған кері байланыстың сапасы және тілді меңгеру үшін қажетті адамдардың өзара әрекеттесуінің ықтимал қысқаруы туралы алаңдаушылық тудырады. Сонымен қатар, АІ құралдарының күрделілігі мен олардың сыныптарда нақты қолданылуы арасында алшақтық бар, бұл кең таралған қабылдауға кедергі жасайды.

Бұл мақалада тіл үйретуде АІ қолданудың келешегі мен қиындықтары қарастырылады. Онда АІ тіл үйренуді қызықтырақ, қолжетімді және жеке қажеттіліктерге бейімдеу арқылы қалай жақсартуға болатынын талқылайды. Сондай-ақ ол этикалық мәселелер, технологияға шамадан тыс тәуелділік

қаупі және озық технологияларға қол жеткізе алмайтын маргиналды қоғамдастықтың ықтимал шеттетілуі сияқты АІ-ді білім беру жүйесіне біріктіру мәселелерін шешеді. Соңында, жұмыс осы қиындықтарды жеңу стратегияларын және тілдік білім берудегі АІ рөлі туралы болашақ зерттеулерге бағыттарды ұсынады.

Тірек сөздер: жасанды интеллект, тіл, тіл үйрену, сөйлеуді тану, білім беру технологиялары, проблемалар, перспективалар, оқыту

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