SUN'IY INTELLEKTNING

THE ROLE AND PROSPECTS OF ARTIFICIAL INTELLEGENCE TECHNOLOGIES IN FOREIGN LANGUAGE LEARNING

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Abstract: This thesis explores the role, potential, and effectiveness of artificial intelligence technologies in the process of foreign language learning. Based on experimental results, it discusses the integration of AI tools into education, their advantages, limitations, and future prospects. The work presents new academic insights and practical recommendations on how AI is transforming language teaching methodology in the digital age.

Keywords: Artificial intelligence, foreign language, educational technologies, ChatGPT, Duolingo, interactive methods, innovation in education, personalization, modern language teaching, blended learning, digital pedagogy.

Annotatsiya: Ushbu tezis sun'iy intellekt texnologiyalarining xorijiy til oʻrganish jarayonidagi oʻrni, salohiyati va samaradorligini oʻrganadi. Eksperimental natijalarga asoslanib, AI vositalarini ta'limga integratsiya qilish, ularning afzalliklari, cheklovlari va kelajakdagi istiqbollari tahlil qilinadi. Ishda sun'iy intellekt raqamli asrda til oʻrgatish metodikasini qanday oʻzgartirayotgani haqida yangi ilmiy xulosalar va amaliy tavsiyalar bayon etilgan.

Kalit so'zlar: sun'iy intellekt, xorijiy til, ta'lim texnologiyalari, ChatGPT, Duolingo, interaktiv metodlar, ta'limdagi innovatsiya, personalizatsiya, zamonaviy til o'rgatish, aralash ta'lim (blended learning), raqamli pedagogika.

Introduction: In recent years, artificial intelligence (AI) technologies have led to significant changes not only in manufacturing and services but also in the education system. In particular, in the field of foreign language learning, AI tools have enabled the creation of personalized, individualized, and interactive learning environments for students. With the help of these technologies, the learning process becomes not only more convenient but also more effective, faster, and highly motivating.

By 2024, the global market for AI-based language learning technologies reached \$14 billion, with an annual growth rate of 20% (EdTech Analytics, 2024). This indicates the great potential of this field.

1. Modern AI Tools and Their Capabilities AI applications such as ChatGPT, Duolingo Max, Google Translate Real-time AI, YouGlish, Elsa Speak, Speechling, and others enable students and teachers to simplify and automate the learning process and apply new methodological approaches. ChatGPT allows learners to communicate through Q&A, practice essay writing, understand grammar, and analyze incorrect sentences. Duolingo teaches through gamified

lessons, motivating users and tracking their achievements. Elsa Speak helps in improving pronunciation and learning phonetics. DeepL Write enhances written speech, improves style, and adapts texts to language norms. Babbel uses AI algorithms to adapt course materials for contextual learning and vocabulary expansion. Glossika offers an AI-based spaced repetition system focused on memorization and speech development.

2. Research Methodology and Results

An experimental study was conducted with two groups. The first group (n=45) actively used AI technologies, while the second group (n=42) followed traditional learning methods. The experiment lasted for 8 weeks, with both groups studying the same topics.

According to the research results: In the AI-supported group, vocabulary increased by 30%, and grammatical accuracy in writing improved by 45%.

Fluency in speaking improved by 27% in the AI group compared to 15% in the traditional group. In a self-assessment survey, 85% of AI group participants expressed satisfaction with the learning process (compared to 62% in the traditional group). Class absenteeism dropped by 18% in the AI group. These results show that AI tools are truly effective in education and should be systematically integrated.

3. Advantages and Limitations of Artificial Intelligence Advantages: Personalization: Individual approach to each learner, automated analysis: Identifying students' strengths and weaknesses, motivation: Engaging interfaces, reward systems, and gamification, abundant resources: Wide availability of written, oral, and audiovisual materials;24/7 accessibility: Availability at any time, Cultural context: Ability to teach cultural aspects along with language, Real-time feedback: Immediate detection and correction of errors.

Limitations: Technical issues: Dependence on internet and devices, Data security: Protection of personal information; Limited creativity, AI suggestions may sometimes be stereotypical; Digital divide, Not all students have equal access to modern technologies, Changing role of the teacher: Teachers must adapt to new conditions.

4. International Experience Numerous successful initiatives have been launched globally to integrate AI into language education: In Singapore, the Ministry of Education launched the "AI Companion" program in public schools in 2023, resulting in a 22% improvement in students' English proficiency. In Finland, AI-based language labs were introduced in schools under the "Language AI Bridge" project, improving the country's educational rankings by 15%. In South Korea, AI platforms integrated with AR/VR technologies are being used for language learning.

In conclusion, artificial intelligence technologies have ushered in a new era in language education. Their effectiveness is supported by experimental evidence, and the field is still in a phase of active development. In the future, AI- assisted language learning is expected to become even more interactive, personalized, and high-quality.

The Uzbek education system can also benefit greatly from these opportunities by adapting AI tools to national curricula, developing local AI resources, and increasing teachers' knowledge in this area — thus elevating education quality to a new level

References:

- 1. Kukushkin V.S. AI v obrazovanii. Moscow, 2022.
- 2. Duolingo Research. AI in Language Learning, 2023.
- 3. OpenAI. ChatGPT Use in Education, 2024.
- 4. Andreeva, T.V. Artificial Intelligence Technologies and Their Application in Education. Moscow: Znanie, 2022.
- 5. Oxford University Press. Technology and Language Education, 2021.
- 6. Brown, H.D. Principles of Language Learning and Teaching. Pearson Education, 2019.
- 7. UNESCO. AI and the Future of Education, 2020.
- 8. World Economic Forum. The Future of Jobs Report, 2023.
- 9. EdTech Analytics. Global AI in Education Market Analysis, 2024.
- 10. Mirziyoyev Sh.M. Strategy of New Uzbekistan. Tashkent, 2022.
- 11. Global Education Futures. Education Ecosystems 2030, 2023.
- 12. Cambridge University Press. The Impact of AI on Language Learning, 2023
- 13. Johnson, L. & Adams, S. Technology Outlook for Education 2025. The New Media Consortium, 2022.
- 14. Rahimov, M. Innovative Educational Technologies in Uzbekistan. Tashkent: Akademnashr, 2023