JOURNAL OF MULTIDISCIPLINARY SCIENCES AND INNOVATIONS
VOLUME 04, ISSUE 10
MOPNTHLY JOURNALS
ISSN NUMBER: 2751-4390
IMPACT FACTOR: 9,08

USING ARTIFICIAL INTELLIGENCE IN TEACHING RUSSIAN TO MEDICAL STUDENTS IN UZBEKISTAN

Norbibish Sharopovna Rakhimova.
Asia International University

Annotation: The article analyzes the possibilities and prospects of integrating artificial intelligence (AI) technologies into the process of teaching Russian to students of medical universities in Uzbekistan. The special significance of the Russian language as a tool for access to modern scientific knowledge, international cooperation and professional communication in the field of medicine is considered. The paper analyzes key AI technologies, such as large language models, intelligent learning systems, and chatbots, and assesses their potential for developing language competencies.. Particular attention is paid to the practical aspects of AI application, including the development of academic writing skills, overcoming terminological barriers, and increasing student motivation through personalization of the learning process In the context of digitalization of education in Uzbekistan, the advantages and challenges of introducing new technologies are considered, and recommendations for their successful adaptation in the educational environment of medical universities are formulated.

Introduction

In the context of globalization and digitalization of education, proficiency in Russian for students at medical universities in Uzbekistan is becoming not just an academic requirement, but a professional necessity.. Reading specialized literature, participating in international conferences, consulting with foreign colleagues and writing scientific articles require future doctors to have a high level of language proficiencyThis article examines how artificial intelligence (AI) technologies are transforming approaches to Russian language learning in the context of medical education in Uzbekistan..

The Importance of Integrating AI into the Educational Process.

Professional Necessity - For medical students, the Russian language serves as a bridge to modern scientific knowledge and international collaboration. As research notes, "English has become an important means of communication in science and medicine," and this is particularly true for Russian in the context of Uzbekistan, given its historical and cultural ties. Teaching languages in non-linguistic universities, especially medical ones, faces a number of challenges: low language proficiency upon entry, lack of motivation, insufficient teaching hours, large groups, and a shortage of quality teaching materials. . These challenges require innovative solutions that artificial intelligence can offer.

Large Language Models (LLM) and Chatbots. Modern language models such as ChatGPT show significant potential in language learningThey have an outstanding ability to understand and generate text, making them a valuable tool for developing students' speaking skills.Intelligent teaching systems (ITS) are software solutions that can adapt to the individual needs of students. These systems are capable of creating personalized learning programs, conducting testing, and providing additional materials for learning professionally oriented vocabulary.

Table 1: Possibilities of AI technologies in teaching Russian language

AI technology	Didactic opportunities	Application in medical education
Large Language Models (ChatGPT)	Developing writing skills, translation, and text generation	Writing medical articles, preparing presentations, improving grammar
Chatbots	Developing conversational skills, communication practice	Simulation of professional situations (communication with patients, colleagues)
Intelligent teaching systems	Personalized learning, adaptive testing	Selection of exercises based on medical terminology, monitoring of progress

For future medical students, the ability to write scientific articles, theses, and reports in Russian is especially important. Research shows that "students who use AI in their learning demonstrate improvements in writing skills, information structuring, and grammar." . Language models can act as assistants in the creation and editing of texts, improving their quality and compliance with academic standards..

Medical vocabulary in Russian presents significant challenges for students. AI systems can specifically address professional terminology by creating contextual tasks and simulating real-life healthcare situations.This allows students to learn specialized vocabulary in a practical context.The use of artificial intelligence technologies makes the learning process more engaging and personalized... A survey of undergraduate students shows that the majority of students are "interested in supplementing traditional foreign language classes with artificial intelligence programs.". The possibilities of metaverses and virtual campuses, where learning takes place through avatars, significantly increase student engagement.Uzbekistan is creating favorable conditions for the implementation of innovative educational technologies. The implementation of the state program "Digital Uzbekistan – 2030" is promoting the active integration of digital technologies into the higher education system, including medical universities.

Medical universities in the country, such as Tashkent the Samarkand State Medical University, the Bukhara State Medical Institute, and the Samarkand Medical Academy have already begun using e-learning elements through LMS platforms. This creates an infrastructure foundation for the implementation of more specialized AI solutions in language training.

The opening of Yandex ML School in Uzbekistan—the first specialized educational center focused on training specialists in artificial intelligence—also contributes to the development of the necessary competencies for the implementation of such technologies in the educational process.

Key benefits of integrating artificial intelligence into Russian language teaching include:

- Adaptation to each student's individual pace and level of preparation

- Ability to study anytime, anywhere

- Instant assignment checking and error correction

- Interactive learning formats increase student engagement

Potential challenges and limitations:

- not all universities in Uzbekistan have sufficient digital infrastructure

Need for teacher training: Many teachers require additional training to effectively work with AI technologies

- Risk of technological dependence: it is important to maintain a balance between the use of AI and the development of students' independent skills

- Language specifics: the need to adapt existing AI solutions to the specifics of medical terminology in Russian## Перспективы и рекомендации

To successfully integrate artificial intelligence into Russian language teaching for medical students in Uzbekistan, it is necessary:

1Developing specialized AI solutions that take into account the industry-specific needs of medical education and the specifics of Russian-language medical terminology.

2. Improving the digital literacy of faculty through professional development courses and the sharing of best practices Improving the digital literacy of faculty through professional development courses and the sharing of best practices.

3. Creating a hybrid learning model that harmoniously combines traditional teaching methods with innovative AI technologies.

4. Development of inter-university cooperation both within Uzbekistan and with international partners for the exchange of experience and technologies.

5. Conducting further research on the effectiveness of various AI tools in the context of teaching Russian as a professional language in the medical environment.

Conclusion

The integration of artificial intelligence into Russian language instruction for medical students in Uzbekistan represents a promising approach that could significantly improve the quality of language training for future doctors. Despite existing challenges related to infrastructural limitations and the need to adapt technologies, the potential of AI to create personalized, interactive, and effective educational pathways cannot be overstated. Responsible and balanced implementation of these technologies into the educational process will enable the training of highly qualified medical specialists prepared for professional interaction in an international context. Based on the sources provided, I prepared an abstract, keyword list, and references for your article. The materials allowed me to highlight the main aspects of the topic, although some issues were not fully addressed.

References

1. Azizova F.Kh., Shigakova L.A., Moldakaryzova A.Zh., Raimkulov K.M., Iriskulova E.U. USE OF ARTIFICIAL INTELLIGENCE IN TEACHING FUNDAMENTAL DISCIPLINES: INTEGRATION OF EDUCATIONAL PLATFORMS AND INTERUNIVERSITY COOPERATION IN THE CONTEXT OF MEDICAL EDUCATION // Journal of Humanities and Natural Sciences. - 2025. - Vol. 1, No. 21. - P. 175-178 .

2. Lee M.G., Kudaibergenova A.Zh. Artificial Intelligence in Medical Education: Application and Further Prospects // Foundations and Trends in Modern Learning. - 2024. - No. 7.

3. Ramazanova N.T. The Russian Language in Medicine: An Indissoluble Connection and Global Significance // International Journal of Artificial Intelligence. – 2025. – P. 918-920 .

4. Rahimova Norbibish Sharopovna. (2025). INTERACTIVE METHODS IN TEACHING RUSSIAN AS A FOREIGN LANGUAGE: A SYNERGY OF PEDAGOGY AND DIGITAL TOOLS FOR B1-B2 LEVELS. *Journal of Applied Science and Social Science*, *15*(09), 424–428. Retrieved from https://www.internationaljournal.co.in/index.php/jasass/article/view/1804

5. Norbibish Sharopovna Rakhimova. (2025). TRKI IN UZBEKISTAN: LINGUISTIC BRIDGE TO EDUCATIONAL MOBILITY AND INTERNATIONAL INTEGRATION. *Journal of Applied Science and Social Science*, *15*(10), 599–604. Retrieved from https://www.internationaljournal.co.in/index.php/jasass/article/view/2081