

Research Full Article

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DOI: <http://doi.org/10.15350/2409-7616.2024.1.57>**ON THE ISSUE OF DIGITALIZATION IN UNIVERSITY EDUCATION
IN THE CONTEXT OF A FOREIGN LANGUAGE**

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Abstract. *Modern education is gradually moving into a digital format, which has both advantages and certain disadvantages. Positive aspects include interactivity, speed, convenience, accessibility; negative characteristics include the impossibility of direct communication, not very high-quality testing of what has been learned, technical problems with Internet coverage and gadgets. Digitalization in education involves the use of various programs, applications and other digital resources for e-learning, both remotely and in a full-time format, for example, completing assignments on a tablet or laptop in a classroom format. Digitalization in education has manifested itself most significantly during and after the pandemic. When teaching a foreign language, digital technologies are also used, which will be discussed in this work. The relevance of the study is due to modern reality and the necessity and convenience of using the digital format in foreign language classes. The subject of the study is foreign language teaching. The object of the study is digital technologies in the foreign language educational process. The novelty of the work involves the development of recommendations for the effective use of numbers in the academic process. The practical significance of the study involves the use of the obtained materials and recommendations when teaching a foreign language at a university.*

Keywords: *digitalization, training, education, foreign language, teaching methods, digital format, development, accessibility.*

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Научная статья

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**К ВОПРОСУ О ЦИФРОВИЗАЦИИ В ВУЗОВСКОМ ОБРАЗОВАНИИ
В КОНТЕКСТЕ ИНОСТРАННОГО ЯЗЫКА**

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Аннотация. Современное образование постепенно переходит в цифровой формат, предусматривающий как преимущества, так и определенные недостатки. Положительные стороны включают интерактивность, быстроту, удобства, доступность, негативные характеристики предполагают невозможность непосредственного общения, не совсем качественную проверку изученного, технические неполадки с интернет – покрытием и гаджетами. Цифровизация в образовании предусматривает использование различных программ, приложений и других цифровых ресурсов для электронного обучения как удаленно, так и в очном формате, например, выполнение заданий на планшете, ноутбуке в аудиторном формате. Цифровизация в образовании наиболее значимо проявилась во время и после пандемии. При обучении иностранному языку также используются цифровые технологии, которые будут рассмотрены в данной работе. Актуальность исследования обусловлена современной реальностью, необходимостью и удобством применения цифрового формата на занятиях по иностранному языку. Предметом исследования является обучение иностранному языку. Объектом исследования выступают цифровые технологии в иноязычном образовательном процессе. Новизна работы предполагает разработку рекомендаций по эффективному использованию цифры в академическом процессе. Практическая значимость исследования предполагает использование полученных материалов и рекомендаций при обучении иностранному языку в вузе.

Ключевые слова: цифровизация, обучение, образование, иностранный язык, методика обучения, цифровой формат, развитие, доступность.

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INTRODUCTION

The process of digitalization in Russia went through several stages, namely, the first wave of digitalization included the development of computer literacy and the appearance of the first computers in classrooms. This was the period of 80-90 years. The second wave emerged in the mid-2000s and included the introduction of information and communication technologies into the educational process. This meant that digital devices began to be used not only in computer science classes. The third stage involves digital transformation, i.e. the use of digital technologies in all educational processes.

During the digital transformation in education, almost everything changes - content, goals, methods with technologies, as well as gadgets. A digital educational environment and technical means are appearing, and the concept of digital didactics is gradually coming into circulation. It is impossible to imagine modern society without digitalization, as well as without the Internet. Digitalization is gradually becoming an inevitable reality, the format of education is being transformed, and distance technologies in some of their variations have already become an integral part of the educational process [1].

The effectiveness of digitalization is confirmed in the following areas: organizational tasks are simplified, education becomes more convenient and accessible, some hybrid forms of the educational process arise, in addition, digitalization allows you to gain access to a wide range of educational content, it is possible to listen to lectures by teachers from various universities and countries, attend seminars online, receive test results quickly and using an individual approach; it is also possible to use various simulators to help develop a variety of competencies and competencies.

MATERIALS AND METHODS

However, in Russian higher education there are still problems in the digital segment that need to be eliminated and improved.

Firstly, the uneven distribution of Internet coverage, which creates certain difficulties for students when completing assignments online, when listening to online courses.

Secondly, the difficulties of working with special programs of remote technologies, their inconsistency when applied on a large scale.

Third, impractical and ineffective professional development courses for teachers in the context of digital technologies.

Fourthly, teachers' distrust of new digital educational technologies.

Fifthly, the low quality of digital education, lack of appropriate control of digital results.

Sixthly, the underdevelopment of digital didactics, in which modern digital education is still experimental [2].

AUTHORS' APPROACHES

Researchers identify several challenges of digitalization in modern realities. Firstly, it is important to develop the material infrastructure, this provides for the emergence of new communication channels, educational materials, as well as devices for the full use of digital educational technologies.

Secondly, it is necessary to introduce digital programs. This means creating, testing, and applying educational materials using e-learning technologies and artificial intelligence.

Thirdly, the development of online learning, which involves the abandonment of paper media.

Fourthly, the development of specialized online courses, the content of which is compiled by teachers, and the technical implementation remains with the programmers.

Fifthly, the creation of new models of educational institutions. This will allow us to understand the vector of digital education, direct it towards improvement and accessibility, as well as the simplicity of platforms and forms of learning.

It is worth noting a number of positive characteristics of digitalization in the educational process. Firstly, it is convenience, saving time and effort on moving and searching for information.

Secondly, it is practicality. If stored properly, electronic media will last forever. Resources can be accessed constantly. Thirdly, physical convenience. Electronic textbooks and manuals do not add up to any physical weight. Fourthly, mobility and accessibility of digital education. The course can be taken at any time and anywhere. Fifthly, saving money on paper textbooks. This has a positive effect on the conservation of forest natural wealth [3].

However, the introduction of digital learning has its drawbacks too. Firstly, digitalization has a bad effect on writing and, accordingly, reading skills, and students' motor skills also decrease, and therefore their thinking functions worse. Secondly, spending a long time in front of a computer screen leads to fatigue and vision problems. Thirdly, the mental activity and creative potential of students decrease, the physical development of students worsens, and problems arise with the socialization of the individual [4].

RESULTS

Now priority is given to communicativeness, interactivity, authenticity of communication, language learning in a cultural context, autonomy and humanization of learning. Many teachers believe that knowledge of language rules, grammatical structures and vocabulary are the basis of the learning process. However, creating real-life situations that encourage learning and behavior is a more effective approach. To prepare a student to participate in the process of foreign language communication, it is necessary to create conditions for this in the classroom. This determines the essence of communicative learning - to reproduce in a learning environment. Also, along with taking into account the individual characteristics of students and their personal characteristics, it is important to take into account the cultural context in which they study.

Open online courses, mobile applications, cloud technologies, virtual reality and other innovative technologies are becoming increasingly accessible and used in education.

One of the trending approaches in modern foreign language education is gamification. This approach uses elements of game design and game mechanics to increase student motivation and engagement in the learning process. Gamification includes the creation of tasks and lessons in the form of games, rewards for student achievements, social interaction and competitions between participants.

An example of the successful implementation of gamification in digital foreign language education is the Duolingo application. This application provides interactive lessons and tasks for learning foreign languages in a playful way. Students earn points and achievements for correct answers, which encourages them to progress in their learning [5].

Another innovative trend in digital education is the use of virtual and augmented reality technologies. These technologies enable the creation of interactive and engaging learning environments that can significantly enhance motivation and learning effectiveness.

Virtual reality allows for the creation of fully immersive learning environments in which students can immerse themselves in and interact with objects and situations that would be inaccessible in the real world. For example, students can study historical events about the country of the language they are learning, visit those countries and learn about the cultures better, and practice skills virtually.

Augmented reality, in turn, allows virtual objects and information to be added to the real world, creating unique learning opportunities. For example, learners can explore the geography of a target language country by adding virtual maps and local information to their device screen, and learn scientific concepts by adding virtual models and diagrams to the real world.

Overall, virtual and augmented reality represent a powerful learning tool that can significantly improve the motivation, efficiency and quality of learning in digital foreign language education. Although these technologies are still in their development stage, they have already found wide application in many fields, including education.

Artificial intelligence (AI) is a technology that allows computer systems to perform actions that require the intelligence typically associated with the human mind, such as speech recognition,

learning, decision making, etc. In recent years, AI has found wide application in many industries, including education.

In digital foreign language education, the use of AI can improve the learning process, making it more effective and personalized. For example, machine learning systems can analyze data about students' learning progress, interests, and preferences to create personalized learning programs. This will allow them to learn at their own pace and according to their individual needs [6].

In addition, AI can help teachers create new materials and assess students' knowledge. For example, automated checking systems can use AI to analyze the correctness of answers and assign grades.

The use of AI can also significantly improve the work with foreign language texts and spoken language. AI can be used to automatically translate texts, as well as recognize and analyze spoken language. This will make teaching foreign languages more accessible and effective.

In general, the use of AI in digital foreign language education represents enormous potential for improving the quality of education and expanding access to educational resources. However, it is necessary to consider the ethical and legal aspects of the use of AI in education and create appropriate regulatory mechanisms to ensure data security and privacy;

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Social learning in digital foreign language education is a learning process in which students learn to collaborate and communicate with each other in a virtual space. This approach is becoming increasingly popular in modern education due to the opportunities provided by digital technologies [8].

Social learning in digital foreign language education can be carried out using various tools, such as forums, chats, blogs, wikis, shared projects, etc. Students can communicate in different languages, which allows them not only to learn from each other, but also to improve their language skills.

Social learning also promotes the development of communication, leadership, project management, and teamwork skills. It is important to note that social learning not only increases the motivation of learners, but also helps them better understand the learning material as they can discuss it together and share their ideas and views.

An example of the successful implementation of social learning in digital foreign language education is the Classroom project from Google, which provides an opportunity for teachers and

students to communicate in real time, exchange ideas and resources, and collaborate on projects and assignments.

Thus, social learning in digital foreign language education is an effective tool for improving the quality of education and developing skills that may be useful to students in the future [9].

The next digitalization technology in the context of foreign language education is content analysis, which is a method of studying text, graphic and audio materials in order to determine the most frequently occurring topics, ideas, images, etc. One of the main tasks of content analysis in education is the analysis of educational materials for compliance with curriculum and quality standards. Content analysis identifies the most frequently occurring topics, concepts, and practices and determines how well they are represented in educational materials.

In addition, content analysis can be used to analyze the quality of feedback between teacher and student. Using content analysis methods, it is possible to determine which types of feedback are most effective in improving the understanding of a foreign language, as well as which aspects of language learning cause the greatest difficulties for learners. Content analysis can also be useful for assessing the effectiveness of foreign language online courses and educational platforms. Using this method, it is possible to analyze the level of student participation, the topics they enjoy most, and the topics that give them the most difficulty.

Thus, content analysis is a powerful tool for analyzing and assessing the quality of educational materials and platforms in digital foreign language education. It allows you to determine the most effective teaching methods, as well as identify topics and concepts that need to be improved or expanded upon.

Machine learning is one of the most promising technologies in digital foreign language education. It is used to create algorithms and systems that are capable of processing and analyzing large amounts of data. This allows teachers and students to receive a personalized learning experience and improve the overall quality of education.

Additionally, machine learning can also be used to create personalized educational plans for each learner based on their needs and abilities. Machine learning algorithms can analyze data about students' learning progress, interests, and preferences to create personalized learning programs.

Another example of the use of machine learning in foreign language education is the creation of an automatic translation system. Using machine learning algorithms, you can train a translation system in different languages, which allows you to provide fast and accurate translation of texts and speech in different languages [10].

Machine learning is becoming an increasingly popular technology in digital language education, enabling the creation of personalized learning programs, improved assessment processes, and fast, accurate translation across multiple languages.

CONCLUSION

In conclusion, we can say that innovative trends in digital foreign language education offer a wide range of new opportunities for students and teachers. The use of new technologies makes the learning process more effective and interactive. The main advantages of digital education in contrast to traditional ones are the following aspects.

The first is flexibility. This means that digital learning allows students to choose when and where they study, which is convenient for those who work or have other commitments.

Secondly, it is accessibility, which ensures that digital courses are available to students from different countries, which allows them to have access to quality education regardless of their place of residence.

Thirdly, it is interactivity. It is suggested that digital technologies allow students to receive feedback and personalized instruction, which can improve their understanding and learning.

Fourthly, this is diversity. This means that digital education provides more learning opportunities as students can choose courses from different areas of knowledge.

Fifthly, it is cost-effective; it is envisaged that digital education can be more accessible and economical than traditional education, since it does not require additional costs for transportation, accommodation, etc.

However, despite the promising opportunities, the use of digital technologies in foreign language teaching also presents some challenges. One of the main ones is the need to maintain trainee motivation and ensure a sufficient level of interpersonal communication, which cannot be completely replaced by technology.

It is also worth mentioning that innovative trends in digital foreign language education are in constant development. Therefore, it is very important not to completely replace the traditional principle of education. There are certain reasons.

Social interaction: Traditional education provides students with the opportunity to communicate and collaborate with other students and teachers in real time. Digital education can limit this opportunity and, in some cases, lead to social isolation.

Lack of supervision: In traditional education, there is a teacher who monitors the students and enforces discipline. In digital education, control can be weakened, which can lead to loss of focus and poor performance.

Lack of structure: In traditional education, learning materials are presented in a well-organized manner, making it easy to understand and assimilate. In digital education, structure may be less clear and students may have difficulty organizing their activities and materials.

Limited access to materials: Although digital education can provide access to a wide range of materials, some may not be available due to copyright or access restrictions.

Overall, digital education provides many benefits, but it should not completely replace traditional learning. The best approach is a combination of them that can maximize their advantages and minimize their disadvantages.

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