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AN ALGORITHM FOR DETECTING EYE DISEASES USING ARTIFICIAL INTELLIGENCE.

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Annotation. *This article analyzes the importance of Deep Learning technologies in education today. Deep learning technologies are an advanced form of artificial intelligence that can work with large amounts of data. This technology is widely used to personalize the educational process, provide learning materials tailored to the needs of students, and develop interactive assistants. Deep learning methods also help teachers identify student achievement and analyze their learning activities. However, there are also problems in implementing these technologies, such as technical shortcomings, data security, and training teachers to work with technology. The article examines the conditions and opportunities necessary for the effective use of deep learning technologies in education.*

Key words: *Deep Learning technologies, education, analytics, data, artificial intelligence, personalization, educational materials, technical flaws, data security.*

Аннотация. *В статье анализируется важность технологий глубокого обучения в образовании сегодня. Технологии глубокого обучения являются передовой формой искусственного интеллекта, которая может работать с большими объемами данных. Эта технология широко используется для персонализации образовательного процесса, предоставления учебных материалов, адаптированных под потребности учащихся, и разработки интерактивных помощников. Методы глубокого обучения также помогают учителям выявлять достижения учащихся и анализировать их учебную деятельность. Однако существуют и проблемы внедрения этих технологий, такие как технические недостатки, безопасность данных и обучение учителей работе с технологиями. В статье рассматриваются условия и возможности,*

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необходимые для эффективного использования технологий глубокого обучения в образовании.

Ключевые слова: *технологии глубокого обучения, образование, аналитика, данные, искусственный интеллект, персонализация, учебные материалы, технические недостатки, безопасность данных.*

Today, the development of technology is bringing about significant changes in the field of education. The use of new technologies in the teaching and learning process is improving the quality of education and expanding its accessibility. In particular, deep learning technologies help make education more effective. The development of deep learning technologies, as a part of artificial intelligence, is changing the methodology of education around the world. This article will provide a detailed analysis of the importance of deep learning technologies in the educational process and how they are used today.

Deep learning is one of the most advanced forms of artificial intelligence (AI) technologies and is known as a branch of machine learning. Deep learning algorithms have the ability to self-optimize and learn, allowing them to make the right decisions using large amounts of data. In other words, this technology is a way for a program or system to self-update, improve, and solve problems.

The most common applications of deep learning technologies are in the fields of facial recognition, speech recognition, nature understanding, and medical diagnostics. However, in recent years, this technology has also found its place in the field of education.

Application of deep learning technologies in education. Deep learning technologies benefit the educational process in several ways: Personalized learning.

With the help of deep learning technologies, it is possible to create learning processes that are tailored to the individual needs of students. For example, artificial intelligence-based systems can analyze the reading level of students and help identify their strengths and weaknesses. After that, it becomes easier for teachers to create personalized lesson plans. This helps to increase the effectiveness of learning.

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Intelligent assistants. With the help of deep learning technologies, it is possible to create interactive assistants for students, for example, virtual assistants. These assistants are used to provide students with quick answers, help with questions, and support the learning process. They, in turn, make the teacher's work easier.

Helping teachers. Deep learning technologies help teachers assess students and determine their level of mastery. With the help of artificial intelligence, teachers can obtain accurate analysis of student changes over time, changes, and successes. This helps teachers develop effective teaching strategies.

Adaptability of learning materials. The use of deep learning technologies allows for further customization of learning materials. For example, educational resources (books, videos, interactive exercises) can be presented in a personalized form by artificial intelligence. Depending on the interests and needs of students, learning materials are optimized and improved.

Developments in Online Education. The growth of online education during the pandemic has accelerated the use of deep learning technologies in education. Artificial intelligence is being used effectively to improve student participation in online classes, deliver educational materials, and analyze student learning activities. This can improve the effectiveness of online education.

Disadvantages of Deep Learning Technologies in Education. While the use of deep learning technologies in education offers many advantages, there are also some disadvantages. These include:

Technical glitches and system failures: Deep learning systems can experience problems such as technical errors or server failures, which can temporarily interrupt the learning process.

Data privacy and security: The confidentiality of data provided to the systems by students and teachers may be at risk. Measures are needed to store and protect data.

Limitations on teachers' use of the technology in teaching: Some teachers may not fully master the use of deep learning technologies, which limits the use of the technology to its full potential.

Deep learning technologies are transforming education, providing students with personalized and effective learning experiences. Their integration into the educational process can help improve the quality of education, support teachers, and increase student achievement. However, privacy, security, and technical challenges need to be addressed to fully benefit from the technology. At the same time, it is important to develop the knowledge and skills of teachers and students in the technology for the effective use of deep learning technologies in education.

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