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**MODERN TRENDS IN THE DEVELOPMENT OF DISTANCE  
EDUCATION: INTEGRATED PLATFORMS, MEASURING SYSTEMS  
AND NEURAL NETWORKS.**

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This paper analyzes current trends in the development of education, focusing on remote forms of learning. Methods are considered to promote the development of integrated educational platforms, the introduction of information and measurement systems, taking into account pedagogical aspects, as well as the use of neural networks. The possibilities, importance and role of virtual educational systems in the context of distance education are analyzed.

Education is a purposeful activity of people aimed at acquiring and developing knowledge and skills. Important aspects in this area are the quality and duration of training. The introduction of centralized education systems, where political and economic aspects play an important role, is aimed at achieving certain competencies according to established educational standards. The development of computer telecommunications and their integration into the educational process has created opportunities for the use of various pedagogical techniques [1]. Distance learning is

successfully developing and uses the interactive capabilities of the Internet. Social networks and computer games are becoming increasingly important for individual learning. Today, there are many different software products designed for educational and research purposes. However, there are also many challenges that make it difficult to effectively use information and communication technologies in education. It is not only about the technical infrastructure of educational institutions and their ability to keep up with constant technological progress, but also about the question of which methods are most effective in a given field.

Author's methods often come down to demonstrating research results, adapting data to specific highly specialized tasks, and even to equipment used in the learning process. Assessing the effectiveness of such a pedagogical system seems to be an extremely difficult task. Sometimes research that takes many years to complete is introduced into educational practice under the pretext of “pedagogical innovation” without proper justification. Often, this is driven by the interests of individual corporate groups and entrepreneurs. This is a particularly noticeable phenomenon in the case of distance education (DL), where learning takes place using electronic media. However, since the requirements for technological infrastructure for DL vary significantly not only between schools in the same area and universities, but also between different countries, the desire to use some centralized minimum, such as connecting to the Internet and running simple applications, can may be a reasonable solution in many cases, but is not always the best option.

Distance education (DL) is faced with the problem of determining criteria for assessing the mastery of educational material. Monitoring and assessing knowledge in further education is, as a rule, based on standard, static methods. Tests, quizzes, and other assignments, whether taught synchronously or asynchronously online, can be easily completed using online resources. There are methods that allow for better monitoring and assessment of students' knowledge. Unfortunately, however, these approaches are currently focused on highly specialized areas such as nuclear plant operators, aviation and space, military technology, surgery, and others. In addition,

the use of these methods requires significant financial investments and is not yet suitable for solving the problems of general education.

It is worth noting, however, that the variety of forms of distance education (DL) provides a wide range of opportunities. This list includes a variety of online courses, interactive television, popular social networks, virtual schools (for example, Internet schools and CIBERschool), actively developing augmented reality (AR), multispectral and other integrated systems. An example of such a system is the network three-dimensional world Second Life, which today is the most popular implementation of an integrated platform with elements of a social network.

However, it is worth noting that advanced systems of 3D visualization and virtual reality (Virtual Reality, VR), which are already successfully used with economic benefit in many industries, remain outside the interests of distance education (DL) [2]. However, there is an industrial and technological barrier here that requires not only specialized virtual environment systems, but also high-speed data networks. At the same time, the widespread use of virtual reality systems in education causes controversy among supporters of DL technology. The question is not so much about the cost, but about the uncertainty of using VR in the educational process and its place in the educational system. Some experts point to the illusory nature of mass adoption of imperfect technology, while others warn of the potential negative effects of VR on human consciousness. However, in the USA, in leading European countries, Japan, China and some other Asian countries, three-dimensional information and measurement systems are being actively developed, and general education programs are being integrated using high-speed networks, neural networks and virtual reality systems. It is believed that the use of integrated VR systems with transcranial brain stimulation and neural networks will significantly increase the level of knowledge and skills, as well as reduce training time, which will make the introduction of new technologies economically feasible.

Despite some of the technological challenges associated with conducting development research in the human-VR-neural net system, there is enormous potential for education and training, as well as the possibility of “evolutionary”

learning. However, the impact of such an integrated system on human consciousness still requires further study. In a world where the computer industry is rapidly developing, virtual integrated systems will occupy an increasingly important place in the educational process [3], as well as in other areas of human activity, which may displace traditional teaching methods.

However, the question is not only whether we can rebuild and develop our own educational methods, but also whether we can adapt them primarily for our citizens, for the younger generation, instead of mechanically copying outdated methods and lagging behind other cultures. It is necessary to actively research and develop our own educational strategies to ensure our place in the rapidly changing world of education and technology.

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## **РАЗНОВИДНОСТИ ИИ В ОБРАЗОВАНИИ И ИХ ПРИМЕНЕНИЕ**

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В современном мире образование стремительно развивается под влиянием искусственного интеллекта (ИИ). ИИ открывает новые возможности для персонализации обучения, повышения вовлеченности учащихся и создания более эффективных образовательных систем.

В этой статье мы рассмотрим, как ИИ трансформирует образование, делая его доступным, увлекательным и продуктивным для каждого учащегося.

Мы изучим различные виды ИИ, используемые в образовании, такие как адаптивное обучение, интеллектуальные обучающие системы, автоматизация заданий, виртуальные помощники и системы оценки обучения.