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ВЛИЯНИЕ И РОЛЬ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА В СОВРЕМЕННОМ МИРЕ

**THE INFLUENCE AND ROLE OF ARTIFICIAL INTELLIGENCE ON THE
MODERN WORLD**

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Аннотация: Искусственный интеллект стал преобразующей силой в современном обществе, проникая в различные аспекты человеческого существования, от здравоохранения и образования до промышленности и развлечений. В статье рассматривается многогранное влияние искусственного

интеллекта на мировую экономику, подчеркивая его роль в революционном преобразовании производственных процессов посредством автоматизации и оптимизации. Повышая эффективность, сокращая затраты и улучшая качество обслуживания клиентов, искусственный интеллект меняет отрасли и вызывает изменения на рынке труда, тем самым вызывая необходимость переподготовки и адаптации к возникающим изменениям. Несмотря на множество преимуществ, в статье также рассматриваются проблемы и риски, связанные с его внедрением.

Abstract: Artificial intelligence has become a transformative force in modern society, permeating various aspects of human existence, from healthcare and education to industry and entertainment. The article examines the multifaceted impact of artificial intelligence on the global economy, highlighting its role in revolutionizing manufacturing processes through automation and optimization. By increasing efficiency, reducing costs and improving the customer experience, artificial intelligence is disrupting industries and driving changes in the labor market, thereby creating the need to reskill and adapt to emerging changes. Despite the many benefits, the article also discusses the challenges and risks associated with its implementation.

Ключевые слова: *искусственный интеллект, алгоритм, данные, машинное обучение, безопасность, экономика.*

Keywords: *artificial intelligence, algorithm, data, machine learning, security, economics.*

Artificial intelligence is a term that has begun to appear frequently in the modern world, reflecting the rapid and progressive development of technology in which machines will be able to think, learn and act similar to or even surpass the human mind. Artificial intelligence has become an important part of our daily lives, intertwined with various aspects of our existence - from medicine and finance to entertainment and transportation [1]. However, what does the term “artificial intelligence” actually mean and what are its basic principles and prospects? This is what we will find out now.

Artificial intelligence is the ability of a computer to learn, make its own decisions and carry them out, which is characteristic of human intelligence. In other words, we

can note that these are technologies that can perceive our environment, learn from experience, make decisions and solve problems, and interact together with people.

History and development of artificial intelligence.

The idea of creating nanotechnology with intelligence has intrigued humanity for many years. Already in ancient times, scientists dreamed of creating artificial creatures. However, real scientific research in this area began with the development and expansion of computer technology.

In the 1950s, artificial intelligence emerged as an academic discipline, fueled by the pioneering work of famous scientists such as Alan Turing and John McCarthy. Turing's seminal work laid the foundation for defining a machine's ability to exhibit intelligent behavior, while McCarthy coined the term "artificial intelligence."

In the 1970s and 1980s, software systems developed rapidly that used the knowledge of experts in a particular field to solve complex and optimal problems. This was a globally important step in the beginning of the development of artificial intelligence, which has found application in various sectors of the economy [2]. But in the late 1980s and early 1990s, artificial intelligence research encountered some problems, and the period was even given the name "AI Winter." However, with the development of computer technology and nanotechnology, the emergence of new rational teaching methods and machine learning algorithms, interest in artificial intelligence has increased again and is growing more and more every year.

Artificial intelligence has now become one of the most significant and influential phenomena of the modern century. Its impact on our world is felt in various areas, from industry to everyday tasks.

Artificial intelligence is bringing global changes to the economic aspects of the world. One of the key ways that artificial intelligence is impacting the economy is by automating and optimizing production processes [3]. Automation using artificial intelligence allows companies to reduce labor costs, increase the quality and quantity of finished products, and also reduce production time. This leads to lower product costs and increased competitiveness in the market. Machine learning algorithms can identify defects and predict equipment failures, which helps prevent problems and improve the

final product. Artificial intelligence is also being used to improve customer experience, which helps companies attract and retain customers. Automated data processing and analytics systems make it possible to predict customer needs, personalize offers and provide more comfortable and high-quality service.

With the advent of artificial intelligence, the structure of the labor market is changing. Some jobs are becoming redundant due to automation and robotics, while others require new skills and competencies related to data processing, programming and analytics. This can lead to retraining and reskilling of the workforce, which is a big plus for the economy.

Artificial intelligence has also brought tremendous changes to the medical field. It can be used in the diagnosis of diseases. Machine learning algorithms can analyze medical data, including images, biochemical tests and electronic medical records, to identify pathologies and make diagnoses with high accuracy and speed. This allows doctors to make diagnoses faster and more accurately, which in turn improves treatment procedures [4]. It can also improve patient care by providing them with access to medical information, consultations and diagnostics through telemedicine platforms and mobile applications. This simplifies the process of seeing a doctor, reduces the cost of medical services and improves access to healthcare for all people. Artificial intelligence helps specialists improve their qualifications and skills. Virtual reality systems are used to simulate medical situations and develop clinical thinking among medical professionals.

Artificial intelligence is also becoming a key element in the transformation of the educational sphere, introducing new teaching methods, personalized approaches and innovative technologies. With its help, education becomes more accessible and attractive to students of all ages. It helps improve learning and assessment by offering new methods for analyzing data and generating feedback [5]. With the help of machine learning, test results and completed assignments are analyzed, trends and errors are identified, and recommendations are offered to teachers and students to improve the educational process. The use of artificial intelligence in education expands the possibilities of distance learning. Interactive educational platforms using

nanotechnology allow students to gain knowledge from anywhere in the world, communicate with teachers, classmates, and complete assignments in real time.

Despite all its advantages, artificial intelligence has its disadvantages. One of the big disadvantages is the threat to jobs. Automation of production and service processes under the control of artificial intelligence leads to a reduction in the human workforce in many industries, which can potentially cause social and economic problems, such as increased unemployment. Another very big negative aspect is the issue of data confidentiality. Collecting and processing large amounts of personal information to train algorithms can lead to data leaks and privacy violations, posing a threat to user privacy. The next important disadvantage is the threat to cybersecurity. Artificial intelligence technologies can be used by attackers to create and distribute virus programs and attacks on computer systems and networks, which can lead to serious consequences [6]. There is also a high risk of creating dependence on artificial intelligence technologies. The gradual introduction of artificial intelligence into our lives may lead to people becoming dependent on this technology to such an extent that they lose the ability to make independent decisions.

In conclusion, would like to note that artificial intelligence is one of the most significant and peak achievements of modern technology, which has a profound impact on various aspects of life. It brings a number of significant advantages, such as process automation, improving and facilitating the quality of life, and new advances in science [7]. However, at the same time, we must remember that artificial intelligence carries a number of risks, for example, such as loss of jobs, potential threats to security and data privacy. In order to make the most of artificial intelligence and minimize its negative consequences, it is necessary to pay special attention to security and regulatory issues. Moreover, it is important to remember that artificial intelligence is a tool that can improve our lives, but it will never replace human intelligence and empathy. Therefore, when developing and applying it, it is necessary to maintain a balance between technological progress and human values, and also strive to create a future in which man and machine will interact with mutual understanding. With the right approach,

artificial intelligence can be a means to solve many of the complex problems facing the modern world and help create a more progressive society.

Литература

1. Носова С.С., Норкина А.Н., Морозов Н.В. Искусственный интеллект и будущее современной экономики / Инновации и инвестиции. 2023 №1
2. Вахрушева М. А. Искусственный интеллект // Интеллектуальный потенциал XXI века: этапы познания. 2011 № 6
3. Морхат П.М. К вопросу определения понятия «искусственный интеллект» // Право и государство: теория и практика. 2017 № 12 (156)
4. Горохов Александр Владимирович, Мартынов Вячеслав Андреевич, Гаврин Виталий Алексеевич. Искусственный интеллект // Скиф. 2022 № 4 (68)
5. Дворянкин Олег Александрович. Искусственный интеллект – новейшие информационные технологии Интернета будущего // EESJ. 2021 № 10-4 (74)
6. Шкаленко Анна Викторовна, Фадеева Екатерина Алексеевна. Влияние искусственного интеллекта на креативные индустрии: тенденции и перспективы // Вестник ВолГУ. Экономика. 2022 № 3
7. Семина Татьяна Васильевна, Guo Wei. Влияние технологий искусственного интеллекта на социальные отношения // Социология. 2022 № 3

References

1. Nosova S.S., Norkina A.N., Morozov N.V. Artificial intelligence and the future of the modern economy / Innovation and investment. 2023. №1.
2. Vakhrusheva M. A. Artificial intelligence // Intellectual potential of the 21st century: stages of knowledge. 2011. № 6
3. Morhat P.M. On the question of definition of the concept of Artificial intelligence // Law and State: Theory and Practice. 2017. № 12 (156)
4. Gorokhov Alexander Vladimirovich, Martynov Vyacheslav Andreevich, Gavrin Vitaly Alekseevich. Artificial intelligence // Skif. 2022. № 4 (68)
5. Dvoryankin Oleg Aleksandrovich. Artificial intelligence – The future latest information technology of the internet // EESJ. 2021. № 10-4 (74)

6. Shkalenko Anna Viktorovna, Fadeeva Ekaterina Alekseevna. Influence of Artificial intelligence on creative industries: trends and prospects // Bulletin of VolSU. Economy. 2022. № 3
7. Semina Tatyana Vasilievna, Guo Wei. Impact of Artificial intelligence technologies on social relations // Sociology. 2022. № 3

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