

THE USE OF ARTIFICIAL INTELLIGENCE IN THE DEVELOPMENT OF THE DIGITAL ECONOMY

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Annotation: *The contribution of artificial intelligence (AI) to the growth of the digital economy is examined in this article. The study identifies the main domains in which artificial intelligence (AI) is being used, ranging from financial services and factory automation to healthcare and education. The author examines how AI stimulates innovation in economic processes, increases efficiency, and improves service quality. The risk of unemployment and digital inequality, as well as contemporary issues including ethical, legal, and security concerns, are also covered in the essay. The study highlights how important AI integration is to the sustained growth of digital economies and their ability to compete globally.*

Key words: *Smart cities, FinTech, automation, innovation, big data, digital transformation, economic growth, artificial intelligence, and data security.*

Аннотация: *В статье рассматривается роль искусственного интеллекта (ИИ) в развитии цифровой экономики. Автор выделяет ключевые направления применения ИИ — от автоматизации производства и финансовых технологий до здравоохранения и образования. Анализируется влияние ИИ на повышение эффективности, качество предоставляемых услуг и стимулирование инноваций в экономических процессах. Особое внимание уделяется существующим вызовам, таким как этические и правовые вопросы, угрозы кибербезопасности, возможный рост безработицы и цифровое неравенство. Исследование подчёркивает, что интеграция ИИ является важным фактором конкурентоспособности и устойчивого развития цифровой экономики в глобальном масштабе.*

Ключевые слова: *Искусственный интеллект, цифровая экономика, автоматизация, инновации, большие данные, умные города, финансовые технологии, цифровая трансформация, экономический рост, безопасность данных.*

Annotatsiya: *Ushbu maqolada sun'iy intellektning (SI) raqamli iqtisodiyotning o'sishiga qo'shayotgan hissasi tahlil qilingan. Tadqiqotda sun'iy intellektidan foydalanilayotgan asosiy sohalar — moliya xizmatlari, fabrikalarda avtomatlashtirish, sog'liqni saqlash va ta'lim kabi yo'nalishlar ko'rsatib o'tilgan. Muallif sun'iy intellekt iqtisodiy jarayonlarda innovatsiyalarni rag'batlantirish, samaradorlikni oshirish va xizmatlar sifatini yaxshilashda qanday rol o'ynayotganini ko'rib chiqadi. Shuningdek, ishsizlik va raqamli tengsizlik xavfi, etika, huquq va xavfsizlik bilan bog'liq zamonaviy muammolar ham maqolada yoritilgan. Tadqiqot sun'iy intellektni iqtisodiyotga integratsiya*

qilish raqamli iqtisodiyotning barqaror rivojlanishi va jahon miqyosida raqobatbardoshligini ta'minlashda qanchalik muhim ekanligini alohida ta'kidlaydi

Kalit so‘zlar: *sun'iy intellekt, raqamli iqtisodiyot, avtomatlashtirish, innovatsiya, moliya texnologiyalari, sog'liqni saqlash, ta'lim.*

INTRODUCTION

The global economy has seen significant changes as a result of the quick development of digital technologies, which have altered conventional business models and redefined the parameters of growth and competitiveness. Artificial intelligence (AI) is one of these technologies that is particularly important for fostering creativity, productivity, and strategic decision-making. AI systems are becoming a crucial component of the digital ecosystem, allowing businesses to handle massive amounts of data, automate difficult jobs, and provide flexible solutions to satisfy shifting consumer needs. In addition to having an impact on services and businesses, artificial intelligence (AI) has the potential to revolutionize daily life and international economic systems. Developing a future where technology and human capacities advance in tandem requires an understanding of AI's position in the digital economy.

Balancing Progress: The Evolving Role of AI in the Digital Economy

It is evident that this observation accurately reflects the dynamic nature of AI evolution and its growing impact on modern industries. Captures the fluidity of AI development and its expanding influence on contemporary industry. Its clear that ,neural networks have greatly increased AI systems' capabilities, particularly in the areas of pattern recognition and natural language comprehension. However, from a contemporary perspective, issues regulatory frameworks, and society's ability to adjust to AI-driven changes will all play a role in the future of AI, in addition to technological advancements. It will take balanced development in the technical, social, and regulatory areas for AI to be successfully implemented in the digital economy.

According to the'' Artificial intelligence in the digital economy'' written by Yalg'ashov Anvar Ikrom o'g'li Termiz State University Teacher of the Department of Information.[1]"There are two directions of AI development: (1) bringing specialized AI systems closer to human capabilities and solving problems related to their integration by human nature; (2) creating artificial intelligence, which represents the integration of already created AI systems into a single system capable of solving human problems . Fields of application of AI: automatic translation; text recognition; intelligent information security systems; receive business information; get information; speech recognition; recognition of visual images; understand and analyze natural language texts; robotics; expert systems; image analysis and more. Recently, there has been an impressive achievement in the field of development and especially in the field of application of artificial intelligence based on the use of neural networks. Great results have been achieved in solving problems such as speech, image and face recognition."

To sum up, vast possibilities and rapid development of artificial intelligence in the contemporary world. In addition to making human activities easier, the ongoing integration of AI systems into many industries also creates opportunities for increased productivity and creativity. As AI technologies advance, they will play a crucial role in both daily life and the expansion of the world economy. Responsible AI use, in my opinion, will enable humanity to overcome many difficult obstacles and pave the way for even more revolutionary developments down the road.

Using AI in the Digital Economy to Forecast Markets and Gain Consumer Understanding

Artificial intelligence(AI) is crucial to enhancing the precision and effectiveness of market trend forecasting. The capacity to forecast consumer behavior and market changes is becoming a critical success component for any organization in today's fiercely competitive digital economy. Businesses may now evaluate historical data and spot small patterns that are impossible to spot with traditional analysis thanks to AI-driven tools. This results in more intelligent choices and adaptable tactics, particularly in situations where the economy is changing quickly. I think businesses get a significant edge by using AI in social media analysis and market segmentation, which helps them comprehend the true needs and expectations of their target audience.

According to the article written by Apsilyam N. M, Shamsudinova L.R., Yakhshiboyev R.[2] Market trends forecasting is a crucial aspect of strategic management for companies, enabling them to adapt to changes in the external environment and make informed decisions. Utilizing modern methods, including artificial intelligence (AI), enterprises can analyze data and identify trends, becoming a key factor in successfully predicting market conditions. 1. Big Data Analysis: AI ensures efficient analysis of vast amounts of data collected from various sources, such as social networks, online purchases, news articles, and others. This enables the identification of patterns and dependencies that are challenging to discern using traditional methods. 2. Machine Learning for Prediction: Machine learning algorithms allow AI to learn from historical data and build models capable of predicting future trends. This involves identifying hidden correlations, highlighting significant factors, and constructing predictive models. 3. Market Segmentation: AI enables more precise market segmentation by identifying behavioral characteristics of different consumer groups. This allows companies to adapt their products and strategies more effectively to the diverse needs of market segments. 4. Social Media Analysis: Opinions and reviews on social media become crucial sources of information for predicting market trends. AI analyzes social media, identifying trends, consumer sentiments, and reactions to new products or services.

Moving Toward Ethical AI: Responsibility and Moral Standards for Human-Centered Engagement

The ethical framework around the usage of artificial intelligence, particularly with regard to intelligent agents and digital doubles, is a critical component of the field's future that is highlighted in Evgeny Bryndin's paper. I concur with Bryndin that in order to avoid

harm and guarantee responsible and safe engagement, AI systems must abide by ethical principles as they grow more ingrained in society. Sustaining confidence in AI technologies requires the concept of holding owners and developers responsible for the behavior of these systems. Establishing a framework that allows AI to engage with people in a safe, moral, and professional manner will become more and more crucial as the technology develops. Establishing ethical standards for AI, especially in relation to its use across businesses, is, in my opinion, essential to prevent disastrous.

According to the:Evgeny Bryndin Research Department, Research Center «Natural Informatics», Novosibirsk, Building an Ethical Digital Environment[3] The ethical standard through intelligent agents allows you to regulate the safe use of ensembles made of robots and digital doubles with creative communication artificial intelligence in the social sphere, industry and other professional fields. The use of intelligent agents with smart artificial intelligence requires responsibility from the developer and owner for harming others. If harm to others occurred due to the mistakes of the developer, then he bears responsibility and costs. If the damage to others occurred due to the fault of the owner due to non-compliance with the terms of use, then he bears responsibility and costs. Ethical standard and legal regulation help intellectual agents with intelligent artificial intelligence become professional members of society. Ensembles of intelligent agents with smart artificial intelligence will be able to safely work with society as professional images with skills, knowledge and competencies, implemented in the form of retrained digital twins and cognitive robots that interact through language, behavioral and active ethical communications.

Ethical frameworks will be essential in ensuring that AI systems behave as reliable and professional employees as they develop into cognitive robots and digital twins. AI technologies can thrive while reducing risks and fostering a sustainable human-AI relationship if strict ethical regulations are put in place. Making sure artificial intelligence is used responsibly, ethically, and safely is becoming more and more important as it continues to permeate society. As a first step toward the future of artificial intelligence, Evgeny Bryndin's research highlights the significance of developing ethical frameworks for intelligent agents and digital counterparts. Owners and developers of AI systems must be held responsible for the actions and choices of their systems in order to preserve public confidence in these technologies. In order to promote safe and appropriate interactions between AI and humans in the future, moral principles and ethical standards must be developed. In a rapidly changing digital environment, these guidelines will help guarantee that AI continues to be a useful and reliable tool.

CONCLUSION

In summary, research and concepts amply demonstrate the expanding significance of artificial intelligence in predicting market trends. AI's capacity to analyze vast amounts of data, uncover hidden patterns, and forecast future developments enables companies to create more flexible and long-lasting plans. AI's incorporation into economic research, in my opinion, not only increases competitiveness but also creates new avenues for innovation and expansion in the digital economy.

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