Philosophy of Artificial Intelligence Society as the Main Strategy for Increasing National Competitiveness

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ABSTRACT

Relevance. The development of artificial intelligence (AI) as a societal foundation has become crucial for leading economies, who view it as a key driver of national competitiveness and security. In an era defined by rapid technological advancement and industrial transformation, nations strive to lead in the international science and technology arena, taking advantage of AI to address challenges across sectors such as agriculture, astronomy, and cybersecurity. AI's role in enhancing productivity, sustainability, and security highlights its strategic importance, underscoring the urgency for countries to actively pursue AI development to secure a competitive edge in a globalised world.

Methodology. The study employs a multi-faceted methodological approach. First, a comprehensive literature review and analysis of AI applications in various sectors, including agriculture, astronomy, and cybersecurity, is conducted to provide context on current advancements and trends. Secondly, a comparative analysis examines the strategic AI policies of leading nations to assess how different countries are positioning AI within their national agendas. Third, case studies of AI implementation in specific sectors, such as precision agriculture and cybersecurity, illustrate the practical impacts and potential benefits of a society-oriented approach to AI. The aim of this study is to analyse the strategic value of fostering an AI-driven society as a means of enhancing national competitiveness and securing leadership in international technological innovation. It aims to explore how AI can be harnessed to support sustainable development, improve sectoral efficiency, and protect against security threats, thus contributing to the overall socio-economic resilience and global standing of a nation.

Results. The study reveals that the integration of AI across diverse sectors has led to significant efficiency gains, particularly in resource management, sustainability, and security. AI-driven advancements in agriculture, such as precision farming, contribute to higher productivity and environmental sustainability, while applications in astronomy support large-scale data processing for deep space exploration. In cybersecurity, AI has proven instrumental in identifying and countering cyber threats in real time. These findings confirm that an AI-centric societal model can enhance national resilience, drive economic stability, and bolster a country's competitive position on the global stage.

Keywords: artificial intelligence, philosophy of society, national competitiveness, strategy

INTRODUCTION

The world's largest developed countries consider the development of an "artificial intelligence society" as a key strategy for enhancing national competitiveness and protecting national security and strive to take a leading position in international scientific and technological competition. Accelerating the development of next-generation artificial intelligence is a strategic issue related to whether countries can take advantage of the next-generation opportunities brought about by the scientific and technological

revolution and industrial transformation. A new round of scientific and technological revolution and industrial transformation has begun to bloom. In this competition, which concerns our future and destiny, we must seize opportunities, catch up and strive to surpass.

Methodology. The study employs a multi-faceted methodological approach. First, a comprehensive literature review and analysis of AI applications in various sectors, including agriculture, astronomy, and cybersecurity, is conducted to provide context on current advancements and trends. Secondly, a comparative analysis examines the strategic AI policies of leading nations to assess how different countries are positioning AI within their national agendas. Third, case studies of AI implementation in specific sectors, such as precision agriculture and cybersecurity, illustrate the practical impacts and potential benefits of a society-oriented approach to AI. **The aim** of this study is to analyse the strategic value of fostering an AI-driven society as a means of enhancing national competitiveness and securing leadership in international technological innovation. It aims to explore how AI can be harnessed to support sustainable development, improve sectoral efficiency, and protect against security threats, thus contributing to the overall socio-economic resilience and global standing of a nation.

RESEARCH RESULTS

In the summer of 1956, scientists such as McCarthy and Minsky met at Dartmouth College in the United States to discuss "how to use machines to model human intelligence". They first proposed the concept of "artificial intelligence (AI)", which contributed to the birth of the intellectual disciplines (Digital transformation of socio-economic, managerial and educational systems of modern society, 2022). Artificial intelligence is an emerging technical science that studies and develops theories, methods, technologies, and application systems that can model, extend, and augment human intelligence. The goal of AI is to promote intelligent machines capable of listening (speech recognition, machine translation), reading (image recognition, text recognition), speaking (speech synthesis, human-computer dialogue), thinking (human-machine game, theorem proving), learning (machine learning, knowledge representation), and acting (robots, autonomous driving, cars) (Brian, Griffiths, 2020).

Artificial intelligence technology is revolutionising traditional agriculture and agricultural processes and methods, increasing yields while reducing waste. Precision agriculture is a process that uses artificial intelligence to make agricultural production more controlled, using predictive analytics to improve crop management and production. Artificial intelligence can help create a more sustainable and efficient agricultural sector, thereby increasing profits in a sector that has seen its labour force shrink dramatically and many small family farms die out as it struggles to compete with multinationals.

The role of artificial intelligence in astronomy is incredibly important in processing the huge amounts of data generated by observatories and telescopes scanning the galaxies. The use of artificial intelligence in astronomy provides much-needed assistance in deep space exploration, allowing us to better understand distant ideas and hypotheses that are almost impossible to implement using our own observations.

Data security. AI plays a vital role in detecting and countering cyber threats and hackers by monitoring network traffic, noting malicious behaviour, alerting those in charge of possible attacks, and detecting anomalies.

Using artificial intelligence in data security protocols, this proactive approach greatly enhances data security and significantly reduces the likelihood of a private network being hacked and sensitive information stolen, which could be used maliciously or held for ransom (Cherep, Voronkova, Nikitenko, Cherep, 2024). The financial industry can benefit from AI in many ways, both in terms of security and in terms of generating higher returns for businesses and investors.

Artificial intelligence helps algorithmic trading, automated stock trading, and fraud detection systems improve security and prevent unauthorised financial transactions or hackers from trying to trick the system to make a quick buck.

In the gaming industry, AI is changing the industry by creating immersive interactive experiences that are not just the usual video game sights, but are so realistic that players feel part of the game world. Artificial intelligence allows players to play longer with players from other parts of the world, helping to develop highly complex gaming environments, creating characters and opponents that are highly personalised and adapted to each player's gaming strategies.

The impact of AI on healthcare could be life-changing. Artificial intelligence can help in the early diagnosis and detection of diseases, as well as in the development of individualised treatment plans. This can both improve patient care and increase the efficiency of hospital and clinic management. AI algorithms can also analyse medical data faster and more accurately than humans, thereby improving patient outcomes and recovery rates (Strategies for the development of network platforms in the digital society: innovative approaches,2024).

In the world of e-commerce, AI analyses customer behaviour, enabling brands to provide visitors with a personalised shopping experience. AI can also make inventory management and logistics more streamlined and efficient, optimising the supply chain while reducing operating costs and increasing profits. The development of self-driving cars is one of the most innovative developments in the field of artificial intelligence. Self-driving cars will eventually change local and regional transport in general, creating a more efficient and safer system. But it will take a long time, as there are still many challenges ahead, both ethical concerns and resistance from the traditional transport industry (Formation of digital culture in the era of technological change, 2024).

Artificial intelligence can make our homes smarter, more efficient, and more dynamic, providing us with a good place to live, relax, and entertain. AI can quickly learn about our preferences and automatically control simple things like lighting and temperature, improving our daily lives by reducing the number of small tasks that we don't realise are taking up our time.

AI is being used to optimise routes, predict delays and improve overall efficiency in the travel sector. AI can not only enhance the travel experience and make it more efficient, but also improve the management of various resources by implementing strategic and logistical coordination to reduce environmental impact. The future of artificial intelligence is both exciting and uncertain. Nevertheless, AI can accurately analyse and process huge amounts of data at a speed that humans cannot match. Because of this, AI's ability to solve complex problems while increasing productivity and efficiency has become a valuable tool in a variety of industries.

As the technology behind AI continues to evolve rapidly, AI will become more personalised and intuitive. This will allow more complex tasks and solutions to become part of our daily lives and workplaces. However, this progress will bring with it a host of ethical and social issues and changes that could both create problems and prevent AI from reaching its full potential. Some of these issues include privacy concerns, the real possibility of dismissal, and the need to regulate the development and implementation of AI when it comes to ethical issues or concerns (Marienko, 2024).

Artificial intelligence has become integrated into virtually every aspect of our lives, which shows a significant shift in our coexistence with this relatively new technology in a short time. Artificial intelligence is more than an innovative tool. It has become a companion in our daily activities, enhancing our abilities as professionals and people alike by providing quick and easy solutions to complex problems and everyday tasks. As artificial intelligence continues to evolve, its potential to change our world is limitless if it is properly implemented, given the many ethical and moral issues associated with its inclusion in virtually everything we do.

The digital immortalisation of consciousness is a concept that envisages the possibility of transferring human consciousness into the digital environment, storing it there and even prolonging its existence after physical death. The explanation of digital immortalisation of consciousness may include the following aspects:

1) The first stage may be the collection of data about a person's consciousness. This may include information about their thinking, memories, emotions, beliefs and other aspects of their consciousness.

2) Using technologies such as neurointerfaces and neuromorphic data processing, it is possible to scan the structure of the brain and its functioning to create a detailed model.

3) Based on the data obtained, it is possible to create a digital emulation of consciousness that can function in an interactive environment.

4) Transfer to virtual reality: this emulation can be used to create a virtual self or individual digital agent that can interact with other people and artificial intelligence.

5) The digital copy can continue to exist after the death of the physical body, perhaps in the form of a virtual agent or even integration into other technological systems. Of course, the concept of digital immortalisation of consciousness raises many ethical, philosophical and technological questions, and many challenges remain to its implementation, including privacy, data security, and ethical issues related to rights and controls in a post-information society (Philosophy of the communication paradigm of the post-information society: challenges and prospects for development, 2024)

The "artificial intelligence society" will push humanity towards an inclusive smart society. The flow of information is leading to a new era of artificial intelligence, and artificial intelligence will increase the operational efficiency of various industries in the next five years. Economic and social transformation and modernisation will create significant demand for artificial intelligence. International competition in the field of artificial intelligence has now begun and will become increasingly fierce. In April 2018, the European Commission planned to invest USD 24 billion in artificial intelligence between 2018 and 2020. In May 2018, the French President announced the "French Artificial Intelligence Strategy" with the aim of launching a new era of artificial intelligence; developing intelligence and transforming France into an artificial intelligence. In June 2018, Japan's "Investment Strategy for the Future 2018" focused on promoting the creation of the Internet of Things and the application of artificial intelligence; the world's military powers have also gradually formed a competitive situation focused on accelerating the development of intelligent weapons and equipment (Slyusar, 2024).

The formation of artificial intelligence philosophy is on the agenda. In order to ensure the healthy and sustainable development of artificial intelligence and make the results of its development useful to people, it is necessary to systematically and comprehensively study the impact of artificial intelligence on human society from a sociological point of view, formulate and improve laws and regulations on artificial intelligence, and avoid possible risks. In September 2017, the United Nations Institute of Crime and Justice Research (UNICRI) decided to establish the first UN Centre for Artificial Intelligence and Robotics in The Hague, to regulate the development of artificial intelligence. The White House has organised numerous seminars and consultations on legal and regulatory issues in the field of artificial intelligence. Industrial giants such as Tesla have taken the initiative to create organisations such as OpenAI, which aims to "promote and develop friendly artificial intelligence in a way that benefits all of humanity by countering threats to humanity" (Cherep, Voronkova, Nikitenko, Cherep, 2024).

It should be recognised that there are risks of overheating and bubbles in the development of artificial intelligence. In particular, there are still many issues that deserve attention in terms of fundamental research, technological systems, application ecology, and innovation. The development of artificial intelligence has overarching advantages in terms of market size, application scenarios, data resources, human resources, smartphone popularisation, investment, and national policy support. The outlook for artificial intelligence is promising. The 2017 report "Artificial Intelligence: Driving China's Economic Growth" published by Accenture, a leading global management consulting firm, shows that artificial intelligence is expected to increase productivity in China by 27% by 2035. The "New Generation Artificial Intelligence Development Plan" predicts that by 2030, the scale of the mainstream artificial intelligence industry will exceed 1 trillion yuan, resulting in a scale of related industries exceeding 10 trillion yuan (Management of changes in the information and innovation sphere of the enterprise in the era of digital transformation, 2024).

The vigorous development of artificial intelligence requires deep thinking. A rational and pragmatic development concept should be developed. The development of something cannot always be at a

high level. The progress of something cannot always be at a high level. The achievement of autonomous and general machine intelligence in any real-world environment still requires medium- to long-term theoretical and technical accumulation. Moreover, the penetration and integration of artificial intelligence into traditional industries such as industry, transport, and healthcare will take a long time. Therefore, the development of artificial intelligence should fully consider the limitations of artificial intelligence technology, realise the long-term nature of artificial intelligence changing traditional industries, rationally analyse the needs of artificial intelligence development, rationally set goals for artificial intelligence development, and rationally choose the path of intelligent development. The pragmatic promotion of artificial intelligence development measures can ensure the healthy and sustainable development of artificial intelligence, solving the problems of digital humanism, digital inequality, and digital justice (Nikitenko, Voronkova, Tupakhina, Sorokina, 2024).

An advanced basic theory of artificial intelligence is the cornerstone of technological breakthroughs in artificial intelligence, industry innovation, and industrialisation. We should make major breakthroughs in the basic theories and advanced technologies of artificial intelligence, and strive to achieve disruptive breakthroughs in the development of artificial intelligence and theories.

We should be problem-oriented to focus on key core technologies, accelerate the establishment of a new generation of key general artificial intelligence technology systems, comprehensively enhance the scientific and technological innovation capabilities of artificial intelligence, and ensure the firm implementation of key and core artificial intelligence technologies, focus on the development of a "new core and high ground" in the field of artificial intelligence: a new ecology of open innovation, such as the integration of industry academia and research;

"High" refers to high-end integrated application systems and platforms, such as machine learning software and hardware platforms, big data platforms, etc.

"Basic" refers to basic theories and methods with great original significance and technological advances, such as brain development.

At the same time, attention should be paid to the development of standards for artificial intelligence technologies, product performance, and system security testing to accelerate the process of economic and social transformation and modernisation of organisations engaged in digital reconstruction and modernisation, including axiological, ontological, and hermeneutical approaches (Voronkova, Nikitenko, Vasylchuk, Kahanov, Metelenko, 2024).

Today, developed countries control the input resources of the industrial chain with the help of technological innovations in the field of artificial intelligence. The insurmountable technological gap and industrial barriers may further widen the gap in productivity development between developed and developing countries. Among developing countries, China is expected to become a leader in the global competition in the field of artificial intelligence, and should create an open and common platform for AI technologies and applications that is high quality, low cost, and benefits the whole world. Artificial intelligence (AI) is set to be one of the most exciting technological breakthroughs humanity has faced since the Industrial Revolution. While doomsday theorists and thrillers often tout the concept of AI, the reality is that artificial intelligence will actively contribute to changes in the world we live in. AI will not only improve business performance, but will also change the way we work, ultimately unlocking new potential for creativity and intelligence.

In fact, according to a study by Accenture, AI is expected to help many developed countries double their economic growth rates, complete the transformation of employment, and cultivate new relationships between humans and machines by 2035. Accenture's research predicts that AI technologies used in business will increase labour productivity by up to 40%. We believe that instead of using human potential, artificial intelligence will take over the banner of driving business growth in the future. As AI develops, it could become the antidote to the productivity stagnation and skilled labour shortages of recent decades. Although artificial intelligence is still in its infancy, we are already seeing its impact. The combination of artificial intelligence with cloud computing, complex analytics, and other technologies has begun to change the way humans and computers do work. Artificial intelligence is also changing the

way businesses interact with consumers, as it transforms society, the economy, and people. Due to the ubiquity of computing, low-cost cloud services, cheap data storage with virtually unlimited capacity, the emergence and development of new algorithms, and various other technological innovations, artificial intelligence has made great progress.

Artificial intelligence algorithms are also rapidly evolving due to the proliferation of open source software, including neural networks, mini-robots, natural language processing, face, gesture and video recognition, biometrics, etc., together with the development of intelligent technologies, including deep learning, sensor processing, knowledge representation, computer vision, machine learning, inference engines, expert systems and machine automation.

Artificial intelligence is not a single technology, but an umbrella term for different types of software and systems that serve different applications in different ways. Equally important is the dramatic increase in data availability. Artificial intelligence cannot think independently and must rely on external information obtained through software to gain insight into the world. The richer the information that AI receives, the deeper its understanding will be. Over the past decade, the internet and social media have led to a particularly obvious increase in the amount of information available to the entire population. In their daily lives, people upload huge images, videos, social media comments, and chat records. All of this can become the object of machine learning, turning them into labelled data (Voronkova, Cherep, Nikitenko, Cherep 2024).

While many people believe that artificial intelligence will replace humans, we believe that artificial intelligence is most likely to allow more people to start doing more complex work. It is true that AI will lead to the disappearance of many professions, but it will also significantly increase productivity. Innovative AI technology can enable people to use their time more efficiently, allowing them to do what humans do best, such as create, imagine, and design new things (Marienko, 2024).

Whether it's general technology or artificial intelligence, a key element of successful value creation is "people centricity". But to achieve the transformation that AI will enable, both companies and governments must recognise the challenges they face and adapt their behaviour. Businesses and governments need to be fully prepared intellectually, technologically, politically, ethically, and socially. They should:

- Help prepare the next generation. We need to reassess the types of knowledge and skills we will need in the future in terms of education and training needs. Artificial intelligence offers the opportunity to create a completely new pool of skilled workers that doesn't exist yet. This training should specifically help those groups of people who will typically be left unemployed or affected by wage cuts due to the popularity of AI (Voronkova, Nikitenk, 2024).
- Promote and propose a set of ethical principles for artificial intelligence. Negotiating ethical standards will not be an easy task, and this discussion should be based on documented standards and best practices found in the development and application of intelligent machines.
- Use machine intelligence to improve human intelligence. Companies should start rethinking their business processes and restructuring their work to take advantage of the benefits of machines and humans.

The practice of a large government agency in Italy is a great example of how artificial intelligence can work together with humans and increase the efficiency of human labour. Once upon a time, the agency's employees had to spend most of their time answering daily inquiries from visitors to the agency. The goal of the collaboration between the agency and Accenture is to use artificial intelligence to automate this aspect of the work. Intelligent applications called "virtual assistants" now take on tasks such as voice calls and real-time online chats using both cognitive semantic analysis and machine learning algorithms. In just three months, the virtual assistant app has successfully served more than 70,000 users.

This frees up employees to do more valuable, thoughtful work, which has a positive impact on employee engagement. To encourage AI-powered regulation[17], outdated laws need to be updated, using artificial intelligence to write new laws and regulations that adapt to reality and can improve to

help bridge the gap between technological change and updates to laws and regulations. The government must take new measures to adapt to the new situation.

It also means that more people with a science and technology background should join government agencies and play an active role in shaping the new nature of digital consciousness (Voronkova, Kyvliuk, Nikitenko, 2023).

The use of machine intelligence to improve human intelligence is aimed at companies rethinking business processes and restructuring their work to take advantage of the advantages of machines and people. IDC's forecasts show that the total global market for content analysis, detection and cognitive systems software will grow from USD 4.5 billion in 2014 to USD 9.2 billion in 2019. In fact, Accenture's Technology Vision 2016 surveyed more than 3,100 global business leaders and IT executives, showing that more than 70% of respondents have significantly increased their investment in AI compared to 55% two years ago; % of respondents plan to implement machine learning and embedded AI technologies

CB Insights researchers said that funding for AI companies has increased by 746% since 2011, when it stood at USD 282 million, reaching USD 2.4 billion in 2015. The number of patent registrations for artificial intelligence has also quadrupled compared to a decade earlier. In the last four years alone, the number of AI startups in the US has increased 20-fold.

The "artificial intelligence society" as the main strategy for increasing national competitiveness in the context of the technological transformation of the world is a complex and multifaceted process that includes several key dimensions:

1) Technological dimensions of the "artificial intelligence society", which includes the development of AI and automation in the context of which artificial intelligence is rapidly evolving, changing almost all aspects of human life – from work to entertainment. Automation of production processes leads to changes in the labour market, where many traditional professions may disappear or be transformed.

2) The economic dimensions of the new economic model, in which the AI society promotes the emergence of new economic models, including the sharing economy and the data economy. AI can also influence productivity, efficiency, and innovation in various sectors of the economy, which will contribute to economic growth.

3) Social dimensions of changing social structure, as AI is changing social structures and relationships. This can lead to social inequality if access to technology is restricted. Ethical and legal issues also arise in the context of AI use.

4) Environmental dimensions leading to sustainable development, as AI can contribute to environmental sustainability through optimising resource use, developing green energy, and waste management. However, there is also a risk of increasing the environmental burden through energy consumption and technology production.

5) Philosophical dimensions, which address the redefinition of human nature, as the AI society raises the question of what it means to be human in the age of technology. The ideas of transhumanism and posthumanism question traditional concepts of human identity and consciousness (Cherep, Voronkova, Andriukaitene, Denysenko, 2023).

6) The political dimension, which is based on regulation and policy, as the use of AI requires new approaches to legislation and regulation. Data privacy, security, and liability issues are critical in the context of technological transformation.

7) Military dimensions, as AI has an impact on military affairs: AI is actively used in the defence sector, which is changing the nature of modern warfare. Automated systems, drones, and robotic soldiers are becoming a reality, requiring a new approach to security and morality.

8) Post-war reconstruction of Ukraine, where AI can play a key role in restoring infrastructure, economy, and social stability. It includes the use of AI to rebuild cities, optimise costs and resources, and support social programmes (Voronkova, Metelenko, Nikitenko, Kyvliuk, Oleksenko, 2023)

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All these aspects show that the formation of an AI society is a complex process that requires a comprehensive approach and coordination between different sectors of society.

CONCLUSION

The emergence and development of the "artificial intelligence society" in the context of the technological transformation of the world is a process in which societies adapt to the profound changes caused by the introduction and development of artificial intelligence (AI) technologies. This process includes several key aspects:

Economic change, based on the automation of production processes, leading to increased efficiency and productivity.

The creation of new markets and business models based on AI capabilities, including the redistribution of jobs and changes in employee skill requirements.

Social change, which is based on changing the way people interact with each other and with technology.

Transition to smart cities and communities, where AI helps to manage resources and ensure the comfort of life.

Impact on education, health and other areas of life through the introduction of personalised AI-based solutions.

Cultural changes aimed at transforming the values and worldview associated with AI technologies; emergence of new cultural practices and media formats based on AI; development of digital culture and its impact on traditional cultural forms.

Political and ethical challenges, including defining new regulatory and legal frameworks for AI regulation; ensuring ethical use of AI, avoiding discrimination and ensuring fairness; managing risks related to data security and privacy.

Technological development, based on the continuous improvement of AI algorithms and models; integration of AI into various sectors of the economy and everyday life; development of infrastructure to support the large-scale implementation of AI (e.g. 5G networks, data centres).

This process reflects the overall technological transformation of the world, where AI is becoming an integral part of economic, social, cultural, and political life.

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ABSTRACT

Relevance. The development of artificial intelligence (AI) as a societal foundation has become crucial for leading economies, who view it as a key driver of national competitiveness and security. In an era defined by rapid technological advancement and industrial transformation, nations strive to lead in the international science and technology arena, taking advantage of AI to address challenges across sectors such as agriculture, astronomy, and cybersecurity. AI's role in enhancing productivity, sustainability, and security highlights its strategic importance, underscoring the urgency for countries to actively pursue AI development to secure a competitive edge in a globalised world.

Methodology. The study employs a multi-faceted methodological approach. First, a comprehensive literature review and analysis of AI applications in various sectors, including agriculture, astronomy, and cybersecurity, is conducted to provide context on current advancements and trends. Secondly, a comparative analysis examines the strategic AI policies of leading nations to assess how different countries are positioning AI within their national agendas. Third, case studies of AI implementation in specific sectors, such as precision agriculture and cybersecurity, illustrate the practical impacts and potential benefits of a society-oriented approach to AI. The aim of this study is to analyse the strategic value of fostering an AI-driven society as a means of enhancing national competitiveness and securing leadership in international technological innovation. It aims to explore how AI can be harnessed to support sustainable development, improve sectoral efficiency, and protect against security threats, thus contributing to the overall socio-economic resilience and global standing of a nation.

Results. The study reveals that the integration of AI across diverse sectors has led to significant efficiency gains, particularly in resource management, sustainability, and security. AI-driven advancements in agriculture, such as precision farming, contribute to higher productivity and environmental sustainability, while applications in astronomy support large-scale data processing for deep space exploration. In cybersecurity, AI has proven instrumental in identifying and countering cyber threats in real time. These findings confirm that an AI-centric societal model can enhance national resilience, drive economic stability, and bolster a country's competitive position on the global stage.

Conclusion. The emergence and development of the "artificial intelligence society" in the context of the technological transformation of the world is a process in which societies adapt to the profound changes caused by the introduction and development of artificial intelligence (AI) technologies. This process includes several key aspects: economic change, based on the automation of production processes, leading to increased efficiency and productivity; the creation of new markets and business models based on AI capabilities, including the redistribution of jobs and changes in employee skill requirements; social change, which is based on changing the way people interact with each other and with technology; transition to smart cities and communities, where AI helps to manage resources and ensure the comfort of life; impact on education, health and other areas of life through the introduction of personalised AI-based solutions; cultural changes aimed at transforming the values and worldview associated with AI technologies; emergence of new cultural practices and media formats based on AI; development of digital culture and its impact on traditional cultural forms; political and ethical challenges, including defining new regulatory and legal frameworks for AI regulation; ensuring ethical use of AI, avoiding discrimination and ensuring fairness; managing risks related to data security and privacy; technological development, based

on the continuous improvement of AI algorithms and models; integration of AI into various sectors of the economy and everyday life'; development of infrastructure to support the large-scale implementation of AI (e.g. 5G networks, data centres); This process reflects the overall technological transformation of the world, where AI is becoming an integral part of economic, social, cultural, and political life.

Keywords: artificial intelligence, philosophy of society, national competitiveness, strategy

Dirbtinio intelekto visuomenės filosofija kaip pagrindinė nacionalinio konkurencingumo didinimo strategija

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SANTRAUKA

Aktualumas. Dirbtinio intelekto (DI) kaip visuomenės pagrindo plėtojimas tapo itin svarbus pirmaujančioms ekonomikoms, kurios jį laiko pagrindiniu nacionalinio konkurencingumo ir saugumo varikliu. Epochoje, kurią apibrėžia sparti technologinė pažanga ir pramonės transformacija, šalys siekia pirmauti tarptautinėje mokslo ir technologijų arenoje, pasinaudodamos dirbtiniu intelektu, kad išspręstų iššūkius tokiuose sektoriuose kaip žemės ūkis, astronomija ir kibernetinis saugumas. Dirbtinio intelekto vaidmuo didinant produktyvumą, tvarumą ir saugumą pabrėžia jo strateginę svarbą, kad šalys turi skubiai aktyviai siekti dirbtinio intelekto plėtros, kad užsitikrintų konkurencinį pranašumą globalizuotame pasaulyje.

Metodika. Tyrime taikomas daugialypis metodologinis požiūris. Pirma, atliekama išsami literatūros apžvalga ir dirbtinio intelekto taikomųjų programų įvairiuose sektoriuose, įskaitant žemės ūkį, astronomiją ir kibernetinį saugumą, analizė, siekiant pateikti kontekstą apie dabartinę pažangą ir tendencijas. Antra, lyginamojoje analizėje nagrinėjama pirmaujančių šalių strateginė dirbtinio intelekto politika, siekiant įvertinti, kaip skirtingos šalys pozicionuoja DI savo nacionalinėse darbotvarkėse. Trečia, DI diegimo konkrečiuose sektoriuose, pavyzdžiui, tiksliojo ūkininkavimo ir kibernetinio saugumo, atvejų tyrimai iliustruoja į visuomenę orientuoto požiūrio į DI praktinį poveikį ir galimą naudą. Šio tyrimo tikslas – išanalizuoti strateginę dirbtiniu intelektu grįstos visuomenės puoselėjimo vertę kaip priemonę didinti nacionalinį konkurencingumą ir užtikrinti lyderystę tarptautinių technologinių inovacijų srityje. Ja siekiama išnagrinėti, kaip DI būtų galima panaudoti darniam vystymuisi remti, sektorių efektyvumui didinti ir apsaugai nuo grėsmių, taip prisidedant prie bendro tautos socialinio ir ekonominio atsparumo bei pasaulinės padėties.

Rezultatai. Tyrimas atskleidžia, kad dirbtinio intelekto integravimas į įvairius sektorius labai padidino efektyvumą, visų pirma išteklių valdymo, tvarumo ir saugumo srityse. Dirbtiniu intelektu grindžiama pažanga žemės ūkyje, pavyzdžiui, tikslusis ūkininkavimas, prisideda prie didesnio našumo ir aplinkos tvarumo, o astronomijos taikomosios programos padeda apdoroti didelio masto duomenis giluminiams kosmoso tyrimams. Kibernetinio saugumo srityje dirbtinis intelektas pasirodė esąs labai svarbus realiuoju laiku nustatant kibernetines grėsmes ir kovojant su jomis. Šios išvados patvirtina, kad į dirbtinį intelektą orientuotas visuomenės modelis gali padidinti nacionalinį atsparumą, paskatinti ekonominį stabilumą ir sustiprinti šalies konkurencinę padėtį pasaulinėje arenoje.

Išvados. Dirbtinio intelekto visuomenės atsiradimas ir vystymasis pasaulio technologinės transformacijos kontekste yra procesas, kurio metu visuomenės prisitaiko prie esminių pokyčių, kuriuos sukelia dirbtinio intelekto technologijų diegimas ir plėtra. Šis procesas apima keletą pagrindinių aspektų: ekonominius pokyčius, pagrįstus gamybos procesų automatizavimu, dėl kurio padidėja efektyvumas ir našumas; naujų rinkų ir verslo modelių, pagrįstų DI pajėgumais, kūrimą, įskaitant darbo vietų perskirstymą ir darbuotojų įgūdžių reikalavimų pokyčius; socialinius pokyčius, kurie grindžiami žmonių tarpusavio sąveikos ir technologijų pokyčiais; perėjimą prie pažangiųjų miestų ir bendruomenių, kur DI padeda valdyti išteklius ir užtikrinti gyvenimo komfortą; poveikį švietimui, sveikatai ir kitoms gyvenimo sritims diegiant individualizuotus DI grindžiamus sprendimus; kultūrinius pokyčius, kuriais siekiama pakeisti vertybes ir pasaulėžiūrą, susijusią su DI technologijomis; naujų kultūrinių praktikų ir DI grindžiamų žiniasklaidos formatų atsiradimą; skaitmeninės kultūros raidą ir jos poveikį tradicinėms kultūros formoms;

politinius ir etinius iššūkius, įskaitant naujų DI reglamentavimo ir teisinių sistemų nustatymą; etišką DI naudojimo užtikrinimą, išvengiant diskriminacijos, ir teisingumo užtikrinimą; rizikos, susijusios su duomenų saugumu ir privatumu, valdymą; technologinę plėtrą, grindžiamą nuolatiniu DI algoritmų ir modelių tobulinimu; DI integravimą į įvairius ekonomikos sektorius ir kasdienį gyvenimą; infrastruktūros, kuria remiamasi diegiant didelio masto DI (pvz., 5G tinklų, duomenų centrų), kūrimą. Šis procesas atspindi bendrą technologinę pasaulio transformaciją, kai DI tampa neatsiejama ekonominio, socialinio, kultūrinio ir politinio gyvenimo dalimi.

Raktiniai žodžiai: dirbtinis intelektas, visuomenės filosofija, nacionalinis konkurencingumas, strategija.