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GLOBAL STRATEGIC LANDSCAPE OF ARTIFICIAL INTELLIGENCE ECONOMY

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Abstract. The prerequisites are substantiated, the world experience of adopting national strategies in the field of artificial intelligence is studied. A comparative analysis of the content of the artificial intelligence strategies of the world's leading countries is carried out, the basic directions and principles that will shape the economy of artificial intelligence are highlighted. Attention is focused on the importance of the role and participation of the state, the need to build institutional and strengthen digital infrastructure, ensure legislative regulation and funding, apply new approaches to measuring the effectiveness of artificial intelligence strategies in terms of economic and strategic advantages, as well as predicting possible social and ethical negative consequences. The basic aspects, external and internal factors of acceptance and implementation of the concept of artificial intelligence in Ukraine are outlined.

Key words: sustainable development, innovations, digital transformation, artificial intelligence, artificial intelligence strategy, artificial intelligence economy.

The article clarifies the peculiarities of the formation of the strategic landscape of the AI economy in terms of the economies of the countries of the world. The interpretation of the concept of "AI" formed by the authors is based on studying the works of scientists and their vision. The prerequisites for the adoption of AI technology are determined - on the one hand, the desire to meet modern

trends of technological progress, and on the other hand, the general deterioration of the state of the world economy in the third decade of the XXI century.

A comparison of the AI Readiness Index by world governments is presented. In 2020, the top 5 countries were the USA, the United Kingdom, Finland, Germany, and Sweden. Based on the study of such a rating, the leaders are the

countries of North America and Western Europe.

The article summarizes the results of the study of the national strategies of about 50 countries of the world and singles out the main areas of AI, the development of which will have a positive impact on the economy of the countries transport, finance, ecology, health care, national security, and the agricultural sector. Considerable attention is paid to the study of the role of the governments of countries that widely implement AI in the spheres of the economy - the government is the author of transformational changes, attracts investments, deepens public-private partnerships to accelerate innovations, etc.

The basic approach to measuring effectiveness is to determine the growth level of the country's GDP with the long-term use of AI. The positive effect of the introduction of AI is expected in the growth of world GDP in 2030 by 14%, that is, almost 16 trillion US dollars.

Considerable attention was paid to the study of the Ukrainian national AI strategy, the plan of which was approved in 2021. Its main areas are education, science, economy, cyber security, information security, defense, public administration, legal regulation, and justice. In addition, the principles that should guide the government in the concept implementing process are proposed.

References

- 1. Elon Musk's Neuralink Neurointerface as protection of humanity from the threats of Artificial Intelligence. msmb.org.ua. Retrieved from: https://msmb.org.ua/biblioresursi/bibliografiya/osobistosti/neuralink-ilona-maska-neyrointerfeys-yak-zahist-lyudstva-vid-zagroz-shtuchnogo-intelektu/ [in Ukrainian].
- 2. Neuralink will test the neurointerface on humans in six months. forklog.com. Retrieved from: https://forklog.com/news/ai/neuralink-protestiruet-nejrointerfejs-na-lyudyah-cherez-polgoda [in Russian]
- 3. The ten biggest economic risks of 2022: what threatens the world economy. Bloomberg. www.slovoidilo.ua/ Retrieved from: https://www.slovoidilo.ua/2021/12/29/novyna/ svit/desyat-najbilshyx-ekonomichnyx-ryzykiv-2022-roku-zahrozhuye-svitovij-ekonomiczi-bloomberg [in Ukrainian].
- 4. The calm before the perfect storm: What caused the new global crisis. As the IMF sees it. mind.ua. Retrieved from: https://mind.ua/publications/20248597-zatishshya-pered-idealnim-shtormom-shcho-sprichinilo-novu-svitovu-krizu-yak-ce-bachat-v-mvf. [in Ukrainian].
- 5. Strategy and Vision for AI in Malta 2030. Retrieved from: https://malta.ai/
- 6. Causes of Argentina's economic failures. www.dniprotoday.com. Retrieved from: https://www.dniprotoday.com/biznes/pricini-ekonomicnih-nevdac-argentini-1441 [in Ukrainian].
- 7. Oxford Insights' AI Strategy Series: Argentina and Uruguay. www.oxfordinsights.com. Retrieved from: https://www.oxfordinsights.com/insights/2021/1/8/oxford-insights-ai-strategy-series-argentina-and-uruguay

- 8. AI Readiness Index 2020. www.oxfordinsights.com. Retrieved from: https://www.oxfordinsights.com/government-ai-readiness-index-2020#profile
- 9. 50 National AI Strategies. www.holoniq.com. Retrieved from: https://www.holoniq.com/notes/50-national-ai-strategies-the-2020-ai-strategy-landscape
- 10. Artificial Intelligence. Solving problems, growing the economy and improving our quality of life. data61.csiro.au. Retrieved from: https://data61.csiro.au/~/media/D61/AI-Roadmap-assets/19-00346_DATA61_REPORT_AI-Roadmap_WEB_191111.pdf?la=

en&hash=58386288921D9C21EC8C4861CDFD863F1FBCD457

- 11. AI4 Belgium. www.ai4belgium.be. Retrieved from: https://www.ai4belgium.be/wp-content/uploads/ 2019/04/report_en.pdf
- 12. AI Can'19. Annual Report of the CIFAR Pan-Canadian AI Strategy. cifar.ca. Retrieved from: https://cifar.ca/wp-content/uploads/2020/04/ai annualreport2019 web.pdf
- 13. Artificial Intelligence Strategy. Germany. https://www.ki-strategie-deutschland.de. Retrieved from: https://www.ki-strategie-deutschland.de/home.html?file=files/downloads/Nationale_KI-Strategie_engl.pdf
- 14. The national artificial intelligence research and development strategic plan: 2019. www.nitrd.gov. Retrieved from: https://www.nitrd.gov/pubs/National-AI-RD-Strategy-2019.pdf
- 15. How Government is Transforming with AI. Thailand Digital Government Development Plan 2021. www.dga.or.th. Retrieved from: https://www.dga.or.th/wp-content/uploads/2019/02/file_310433b825a546dcfd59203b423ca175.pdf
- 16. For a meaningful artificial intelligence towards a french and European strategy. www.aiforhumanity.fr. Retrieved from: https://www.aiforhumanity.fr/pdfs/Mission Villani_Report_ENG-VF.pdf
- 17. Why artificial intelligence (AI) is both a risk and a method of risk management. www.ey.com. Retrieved from: https://www.ey.com/uk_ua/assurance/why-ai-is-both-a-risk-and-a-way-to-manage-risk [in Ukrainian].
- 18. Summary Global Report 2018. Governance of AI rountable. www.worldgovernmentsummit.org. Retrieved from: https://www.worldgovernmentsummit.org/ api/publications/document?id=ff6c88c5-e97c-6578-b2f8-ff0000a7ddb6
- 19. 42 countries have adopted the OECD principles of artificial intelligence. nangs.org. Retrieved from: https://nangs.org/news/it/printsipy-iskusstvennogo-intellekta-oesr-prinyali-42-strany [in Russian]
- 20. The macroeconomic impact of artificial intelligence. www.pwc.co.uk. Retrieved from: https://www.pwc.co.uk/ economic-services/assets/macroeconomic-impact-of-ai-technical-report-feb-18.pdf.
- 21. Artificial Intelligence and International Affairs. www.chathamhouse.org. Retrieved from: https://www.chathamhouse.org/2018/06/artificial-intelligence-and-international-affairs/4-economic-implications-artificial
- 22. On the approval of the Concept of the development of artificial intelligence in Ukraine. Decree of the Cabinet of Ministers of Ukraine of December 2, 2020 N 1556-

- p. Retrieved from: https://zakon.rada.gov.ua/laws/show/1556-2020-p#Text [in Ukrainian].
- 23. Project of the Recovery Plan of Ukraine Materials of the working group "Digitalization". uploads-ssl.webflow.com. Retrieved from: https://uploads-ssl.webflow.com/ [in Ukrainian].