СЕКЦИЯ «СОТРУДНИЧЕСТВО БЕЛАРУСИ И КИТАЯ В ГУМАНИТАРНОЙ СФЕРЕ»

THE IMPACT OF ARTIFICIAL INTELLIGENCE ON THE WORLD ECONOMY

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Abstract. *In the article* the potential benefits and opportunities offered by AI *in the world economy are considered. In the course of the research benefits and tendencies of artificial intelligence in the world economy were revealed, the main directions of development and barriers of artificial intelligence adoption are analyzed and revealed. Nowadays artificial intelligence (AI) is going mainstream, driven by machine learning, big data and cloud computing.*

There is no universally accepted definition of AI. Marvin Minsky defined AI as "the science of making machines do things that would require intelligence if done by men". The present volume uses the definition provided by Nils *J.* Nilsson: "Artificial intelligence is that activity devoted to making machines intelligent, and intelligence is that quality that enables an entity to function appropriately and with foresight in its environment" [1].

Forms of AI in use today include, among others, digital assistants, chatbots and machine learning. AI works in four ways:

– automated intelligence: automation of manual/cognitive and routine/non-routine tasks;
– assisted intelligence: helping people to perform tasks faster and better;
– augmented intelligence: helping people to make better decisions;
– autonomous intelligence: automating decision making processes without human intervention [2].

And almost no business today is run without the help of digital technologies. Most automatable sectors are accommodation and food services, manufacturing, transportation and warehousing, agriculture, retail trade, mining. There are many reasons why companies currently use AI: automated communications that give firms data they can use to make effective business decisions; automation that eliminates manual and repetitive tasks; automated communications that give consumers data they can use to make effective decisions; monitoring and alerts about the health of business; automated data-driven reporting etc.

In recent years, artificial intelligence has left the machine room and entered the world of mainstream business. Within the next five years, AI will have a major impact in all industries, according to research conducted by BCG and *MIT Sloan Management Review*. The research found that more than 70% of executives expect AI to play a significant role at their companies [3].

The start-up landscape is also vibrant. Research from CB Insights (2017) reported that funding raised by AI start-ups increased from USD 589 million in 2012 to over USD 5 billion in 2016. In 2016, nearly 62% of the deals went to start-ups from the United States, down from 79% just four years before. Start-ups from the United Kingdom, Israel, and India followed. By 2020, the "AI market" is projected to be worth up to USD 70 billion [1].

According to the PwC analysis [2], global GDP will be up to 14% higher in 2030 as a result of the accelerating development and take-up of AI — the equivalent of an additional USD 15,7 trillion. Of this, USD 6,6 trillion is likely to come from increased productivity and USD 9,1 trillion is likely to come from consumption-side effects.

The economic impact of AI will be driven by:

1. Productivity gains from businesses automating processes (including use of robots and autonomous vehicles).

2. Productivity gains from businesses augmenting their existing labour force with AI technologies (assisted and augmented intelligence).

3. Increased consumer demand resulting from the availability of personalised and/or higher-quality AI-enhanced products and services.

Improvements to labour productivity will account for over half of all economic gains from AI between now and 2030, while increased consumer demand resulting from product enhancements will account for the rest.

Regional gains will be most strongly felt in China, which will receive a 26% boost to GDP in 2030, followed by North America (14,5%). Together, these regions will account for almost 70%, or $10.7 trillion, of AI's global economic impact. China has become a world leader in AI development. Accenture analysis [4] shows that AI could boost China's productivity by 27% by 2035. Europe and developed countries in Asia also stand to benefit significantly (9-12% of GDP in 2030), while developing countries in Africa, Latin America and Asia will experience only modest gains (less than 6%).

There are also many barriers to AI adoption: unclear or no business case for AI applications; competing investment priorities; security concerns resulting from AI adoption; attracting, acquiring, and developing the right AI talent; cultural resistance to AI approaches; limited or no general technology capabilities; lack of leadership support for AI initiatives.

In the meantime, the use of AI and industrial robots will no doubt bring new opportunities to raise incomes, create new types of jobs and businesses and improve economic and social well-being. Beyond the promise of AI to improve efficiency, resource allocation, and thus drive productivity gains, AI also promises to help address complex challenges in many areas such as transport, health and security. But there will be costs and bumps along the way. It is up to policy makers to play their part by helping make the digital transformation beneficial for all.

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MODERN BUREAUCRACY IN THE CONSTRUCTION
OF SERVICE-ORIENTED GOVERNMENT

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Abstract. *The construction of Service-oriented Government relies on organizational formations and management tools. Although Modern bureaucracy is full of controversy, it is still adaptive in the construction of Service-oriented Government. The order services, system services, and information services are inseparable from the modern bureaucracy. The modern bureaucracy plays an important role in maintaining stability, fairness and justice of order services, ensuring fairness, effectiveness, and consistency of system services, and coping with*