

A. Zhiznevskaya

А. И. Жизневская

БГСХА (Горки)

Научный руководитель М. Н. Гаврилова

THE IMPACT OF ARTIFICIAL INTELLIGENCE ON THE LABOR MARKET

Влияние искусственного интеллекта на рынок труда

This article presents an analysis of the dual impact of Artificial Intelligence (AI) technologies on the global labor market. The research focuses on the dichotomy between substitution (the threat of automating routine tasks) and augmentation (increased productivity and the creation of new jobs). The main conclusion is that systematic investment in continuous education and the development of unique human competencies are critical for a harmonious transition to an AI-driven economy.

The active implementation of Artificial Intelligence (AI) and its subsystems, such as Machine Learning (ML) and Generative AI, has become a key factor defining the transformation of the global economy in the 2020s. The impact of AI on the labor market is a subject of intense debate, as it is not confined to traditional sectors but actively penetrates areas requiring cognitive skills. The impact of technology on labor is traditionally viewed through two models:

1. The Displacement Effect Model: Technology automates tasks previously performed by humans, leading to a reduction in demand for labor and potential technological unemployment, especially in routine areas.

2. The Augmentation/Creation (Productivity/Reinstatement) Effect Model: Technology increases labor productivity in non-automated tasks, boosts demand for workers to perform new tasks related to supporting and developing the technology itself, and reduces overall costs, stimulating demand in other economic sectors.

In practice, the influence of AI is complex, combining both effects, which leads to labor market polarization – an increase in demand for highly skilled (strategic) and low-skilled (non-automatable) workers, concurrent with a reduction in middle-skill routine jobs.

AI acts not only as a substitute but also as a super-augmenter of human labor, particularly in high-skilled roles.

Productivity Increase: AI implementation can boost labor productivity in specific tasks by 10–40 %, allowing workers to focus on non-routine, creative, and strategic aspects of their work. For instance, using AI assistants for coding significantly accelerates the work of engineers.

New Professions: A steady demand is emerging for specialists who manage AI systems.

The harmonious integration of AI into work processes is only possible if technological progress is accompanied by socially-oriented strategies to prevent a sharp increase in the social divide.

References

1. *Acemoglu, D. Robots and Jobs: Evidence from US Labor Markets* / D. Acemoglu, P. Restrepo // *Journal of Political Economy*. – 2020. – № 128(6). – P. 2188–2244.
2. *Artificial Intelligence and Jobs: Evidence from Online Vacancies* / D. Acemoglu, D. Autor, J. Hazell, P. Restrepo // *NBER Working Paper*. – 2021. – № 28257.
3. *OECD Employment Outlook: Artificial Intelligence and the Labour Market* / Organisation for Economic Co-operation and Development (OECD). – Paris : OECD Publ., 2023.

A. V. Zimokha

А. В. Зимоха

БГТУ (Минск)

Научный руководитель А. Ф. Круталевич

CURRENT TRENDS IN THE DEVELOPMENT OF THE GLOBAL ECONOMY, USING CHINA, INDIA AND RUSSIA AS EXAMPLES

Современные тенденции в развитии мировой экономики на примере Китая, России и Индии

The global economy is undergoing significant transformations driven by rapid technological progress, demographic changes, geopolitical dynamics, and increasing environmental concerns. Emerging economies such as China, India, and Russia play pivotal roles in shaping these trends due to their large populations, economic potential, and strategic position in global affairs.

The primary objective is to explain how China, India, and Russia are changing and growing in the global economy by using technology, improving trade, and responding to new challenges.

China has made significant technological advances in areas like 5G, AI, electric cars, and online shopping, led by companies such as Huawei and Alibaba. Over the past 40 years, China shifted from cheap exports to higher-quality products and innovation, fueling rapid economic growth. Today, it is the world's second-largest economy with a GDP of about \$17 trillion. The Chinese yuan is now the second most used reserve currency globally, reflecting China's growing economic influence and ambition to strengthen its role in international trade and finance.

India's economy is rapidly growing thanks to technology, with widespread internet use and government support for digital services like online payments. The country's software, IT, and e-commerce sectors create jobs and generate foreign income. India is also investing heavily in solar and wind energy to promote sustainability and reduce pollution. Additionally, India is boosting domestic production and expanding exports