THE IMPACT OF ARTIFICIAL INTELLIGENCE ON EMPLOYMENT AND ECONOMIC GROWTH

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Annotation. *This article analyzes the impact of artificial intelligence (AI) technologies on the economy and labor market. The development and expansion of artificial intelligence have a significant impact on global economic growth and the formation of the workforce. The article provides a detailed analysis of how AI technologies are influencing changes in the labor market, particularly the creation and loss of jobs, as well as the effects of these processes on economic growth. AI technologies are leading to the emergence of new professions and changes in existing ones. The article also discusses the role of AI in increasing production efficiency, developing innovations, and strengthening global economic integration. Moreover, the impact of AI technologies on economic inequality and regional disparities is also analyzed. In conclusion, the article highlights both the positive and negative effects of AI on the economy and employment, as well as the necessary political and social measures to manage and balance these effects.*

Keywords: *artificial intelligence, economic growth, labor market, employment, automation, new jobs, job changes, production efficiency, technological innovations, economic inequality, global economic integration, AI technologies, economic changes, education system, cross-sectoral impacts.*

Introduction

Today, the development and implementation of artificial intelligence (AI) technologies are having a significant impact on all sectors of the global economy and society. AI refers to technologies based on modeling human intellectual activity, which was initially designed to automate simple tasks. However, over time, these technologies have expanded their capabilities and now play an active role in solving complex and high-level problems, including decision-making, creating new innovations, and establishing new jobs. Currently, the widespread implementation of AI technologies, ranging from

manufacturing to healthcare, education, finance, transport, and other sectors, is reshaping the global economy and society.

The impact of artificial intelligence on the economy is evident in two main areas. First, the role and importance of AI technologies in the labor market and employment issues are increasing. These technologies can create jobs but may also lead to the loss of jobs in some sectors. This process may affect economic stability and social equality in society. Second, the impact of AI technologies on economic growth is also substantial. They allow for increased production efficiency, accelerated innovation, and enhanced economic integration. These changes are altering the dynamics of the global economy and creating new global economic balances.

Main Body

The impact of artificial intelligence on the labor market is manifested in two directions: the creation and loss of jobs. AI technologies help create new opportunities in some professions while automating and reducing jobs in others. However, the course of this process depends on economic policy and the education system.

Creation of Jobs

The development and expansion of AI technologies lead to the emergence of new jobs. To understand this process, it is essential to consider the ability of AI to create new sectors and professions:

- *Technology sectors:* Engineers, developers, system designers, and data analysts are required to create and apply AI. These fields, focused on technology and data, open up many opportunities for those interested in working in them.
- *Healthcare*: AI is used to optimize diagnostics and treatment methods in medicine. For instance, AI can help conduct more accurate analyses, creating new medical specialists, such as data analysts and specialists who manage medical robots.
- *New business and services*: AI creates new jobs in automated services and products. New employees and managers will be needed to develop online services, e-commerce, and other new business models.

Loss of Jobs

The introduction of AI to increase productivity may lead to the loss of jobs in certain sectors. This is especially related to the development of automation processes and robotic technologies:

• *Routine and simple tasks*: AI technologies can automate many repetitive and routine tasks. For example, assembly lines in manufacturing or warehouse management can be automated, leading to a reduction in the number of workers.

• *Service sector*: Professions such as customer service, salespeople, and other service-oriented jobs may be negatively impacted by AI. For instance, chatbots or automated phone assistants automate customer service, reducing demand for human resources.

• *Transport and logistics*: The use of autonomous vehicles, such as self-driving trucks and drones, may reduce jobs in the transport and logistics sector.

Changes in Professions

With the development of AI, changes may also occur in existing professions. Some jobs may be entirely automated, while others will require new knowledge and skills. This forces workers to pursue further education and develop their skills. To ensure employment, innovations in the education system and vocational training are necessary.

Impact on Economic Growth

• *Increasing Labor Productivity*: AI technologies can increase productivity in both manufacturing and service sectors. This, in turn, accelerates economic growth. Automated systems and AI can speed up production processes, reduce errors, and lower prices.

○ *Efficiency Gains*: AI allows for the optimization of production processes, more efficient resource use, and cost reduction. This enhances the competitiveness of companies and supports economic growth.

○ *Global Supply Chain*: AI helps manage supply chains more efficiently, optimizing production and trade globally, thus accelerating economic growth.

• *New Economic Opportunities*:AI not only optimizes existing industries but also develops new economic sectors. For example:

○ *Startups and New Businesses*: The application of AI creates new business models and startups. Innovative solutions open up growth opportunities in new markets.

○ *New Services*: AI technologies, data analysis, cloud technologies, and automation help create new services, such as online education, AI-related consultancy services, and more.

Economic Inequality and Regional Disparities

The impact of AI on economic growth may not always be positive. If access to AI technologies is limited, it can exacerbate economic inequality:

- *Income Inequality*: Companies that develop and utilize AI technologies may remain economically powerful, widening the income gap between the wealthy and the middle or lower class.
- *Technological Gap:* Less developed countries and regions may lack access to AI technologies, thus increasing global economic disparities.

Conclusion

Today, the rapid development and implementation of AI technologies present new opportunities and significant challenges for the global economy and labor market. The impact of AI on economic growth, the labor market, employment, changes in professions, and social inequalities has been widely analyzed. AI technologies support economic growth by automating production processes, accelerating innovation, and ensuring the efficient use of resources. However, these technologies may also lead to job losses in certain sectors, particularly in routine and repetitive tasks. Nonetheless, AI is also driving the emergence of new professions and sectors, creating new job opportunities, especially in technology, healthcare, and new business models.

From this perspective, managing the economic and social impact of AI and mitigating its negative consequences requires political and social measures. If these technologies are properly managed and balanced, they can contribute to stable economic growth, job creation, and efficient resource use. The impact of AI technologies on society can vary across different sectors, so each country and region must manage this process according to its economic and social characteristics.

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