

THE INFLUENCE OF NEURAL NETWORKS ON THE CURRENT JOB MARKET

Solovey A.V.

Belarusian State University of Informatics and Radioelectronics, Minsk, Republic of Belarus

Lasarenko A.M. – Senior Lecturer at the Department of Foreign Languages

Annotation. The article examines how neural networks and artificial intelligence influence the current job market. It considers job displacement, the creation of new roles, statistical forecasts, and the need for workers to develop skills that complement AI technologies.

Keywords: neural networks, artificial intelligence, job market, employment, automation

Introduction: A Double-Edged Sword

Over the course of the last couple of years, neural networks have become an undeniable part of our lives. Their capabilities are growing rapidly, leaving those who lack adaptive skills behind in terms of effectiveness across a wide variety of job fields. As artificial intelligence advances, it becomes increasingly evident that its existence in its current state has a profound impact on the job market. With all that being said, it is necessary to understand the true scale of this transformation.

However, before we begin our investigation, we must ask ourselves a fundamental question: is this a problem or an opportunity? We know that through the mastery of AI, many people have been let go, but that statement alone does not mean the state of the job market has worsened. AI has also created new professions and optimized numerous manual tasks that people previously disliked doing themselves. AI assists individuals in writing and applying for jobs, creating opportunities that were never available before. Some have used AI to generate income, while others have leveraged it not only to make money but to build companies—and those companies, in turn, have created demand for more jobs. For these reasons, I argue that the influence of artificial intelligence on the current job market is controversial yet debatable. Its advantages, in many ways, balance out its disadvantages.

Review of Statistical Data

To ground our analysis in empirical evidence, we review studies that demonstrate the actual effects of AI development on key metrics such as salary, number of job openings, and employment trends.

According to statistics from Challenger, Gray & Christmas, Inc.:

"In 2025, companies referenced AI for 54,836 announced layoff plans, 5% of total cuts during the year. Since 2023, when this reason was first tracked, AI has been cited in 91,753 job cut announcements, approximately 3% of all layoff plans announced in that period."

While these figures may seem concerning, it is equally important to acknowledge the positive aspects of this transformation. Additional data from the *World Economic Forum* (WEF) provides a broader perspective:

- 92 million jobs could be lost to AI by 2030.
- However, AI could create 170 million new jobs.
- AI could already replace 11.7% of the US workforce, equivalent to \$1.2 trillion in wage value.
- High earners are most concerned about AI taking their jobs.
- 47% of all US workers could see their roles come under threat from AI in the next decade.
- Automating half of current tasks worldwide could take another 20 years.
- 60% of jobs in advanced economies are at risk of being replaced by AI.
- Yet only 26% of jobs in low-income countries are similarly exposed.
- Only 3% of workers with less than a high school diploma are in work considered "most exposed" to AI job losses.
- Workers aged 18–24 are 129% more likely than workers aged over 65 to worry that AI will make their job obsolete.

– 15% of workers in the US would consider having an AI boss.

Analysis of Key Statistics

The implications of these statistics are examined below.

The projection of 92 million jobs lost represents approximately 8% of the global workforce. While this figure may initially seem discouraging, it is crucial to recognize that most of these "lost" jobs are likely to be concentrated in professions most vulnerable to automation via generative AI tools, such as clerical work, writing, photography, and software development.

Nevertheless, the World Economic Forum's 2025 Future of Jobs Report offers a more balanced outlook. It predicts that job losses due to AI and other labor market transformations over the next five years will be more than offset by job gains. The report forecasts 170 million new roles—equivalent to 14% of the current workforce—resulting in a net global increase of 78 million jobs. This data partially supports the view that AI represents an opportunity rather than a primary cause for concern.

Many of these statistics are derived from US workers. Given that their society often reflects trends that may emerge in other countries. These foreign studies are used as a reference, as more comprehensive research on this topic is currently available abroad. In our own professional context, AI adoption is still relatively limited, but we are increasingly moving toward more frequent use, mirroring global trends.

A Critical Perspective on Risk

The statistic stating that 60% of jobs in advanced economies are at risk of being replaced by AI warrants closer scrutiny. Upon thorough consideration, the percentage and its implications may be misleading.

In the majority of countries with advanced economies, the service sector constitutes approximately 50% or more of total employment. The primary driver of this sector is intellectual output rather than manual labor. This is precisely why many fear that AI is "smarter" than humans (Figure 1). However, the main strengths of the human mind remain creativity and critical thinking. AI remains highly dependent on human input, guidance, and oversight. If an individual possesses genuine expertise and creative problem-solving abilities, no AI can fully replace them.

Conclusion

In conclusion, the influence of neural networks on the job market is neither purely destructive nor entirely beneficial. It is a transformative force that redefines existing roles while simultaneously creating new opportunities. The evidence suggests that while certain jobs will inevitably be displaced, the net effect—when viewed through a global, long-term lens—may be positive. The challenge, therefore, lies not in resisting AI but in adapting to it, fostering skills that complement technological advancements, and ensuring that the workforce is prepared for the evolving demands of the future economy.

References

1. Challenger, Gray & Christmas, Inc. (2026) *2025 Year-End Challenger Report: Highest Q4 Layoffs Since 2008; Lowest YTD Hiring Since 2010* [Electronic resource]. Mode of access: <https://www.challengergray.com/blog/2025-year-end-challenger-report-highest-q4-layoffs-since-2008-lowest-ytd-hiring-since-2010/>. Date of access: 15.05.2026.
2. Leopold T., Di Battista A., Játiva X., Sharma S., Li R., Grayling S. (2025) *The Future of Jobs Report 2025* [Electronic resource]. Mode of access: <https://www.weforum.org/publications/the-future-of-jobs-report-2025/>. Date of access: 15.05.2026.