ARTIFICIAL INTELLIGENCE AND NEURAL NETWORKS: PROMISING FUTURE AND NEW PROBLEMS FOR HUMANITY

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Annotation. This paper considers modern technologies such as Artificial Intelligence (AI) and neural networks, their impact on society and the problems that they create. The paper will delve in examining the role of AI in digital transformation and its advancements while also describing the future potential of AI in shaping the future.

Keywords: artificial intelligence, neural network, programming, machine learning

Introduction. It is obvious that AI and neural networks do change our life. A lot of people use it really often. It is possible to generate pictures, texts, search for information using neural networks instead of googling it and even generate simple code for programming.

The concept of artificial intelligence was once considered more of a fantasy than a reality. However, AI has now become a part of our daily lives. Through machine learning using neural networks that replicate the functions of real neurons AI enables machines to process intricate data and deliver precise information. The advancements and progress in AI have made it highly sought after, positioning it as the forefront of technological innovation. Consequently, AI is expected to remain a dominant force in technology for years to come. Undoubtedly, AI has significantly enhanced the quality of people's lives [1].

Main part. Artificial intelligence (AI) is becoming more and more essential in today's society, with the potential to transform numerous industries such as healthcare, finance, education, and beyond. Its utilization has already enhanced efficiency, lowered expenses, and heightened precision in a wide range of sectors [2].

Neural networks also have a huge potential for development. For example, improvement of search engine using neural networks can greatly improve users' Internet experience. There are already some neural networks which can partly do these tasks: ChatGPT, Google Bard, Copilot.

On the other hand, AI can cause some serious problems. Elon Musk has repeatedly raised concerns about the potential hazards associated with artificial intelligence (AI), sparking debates and discussions on the topic. His arguments encompass a range of key points highlighting the risks of AI:

1. Superintelligence

    In E. Musk's opinion it can be unleashing an uncontrollable demon, suggesting that AI may not align with human values and objectives, potentially resulting in unpredictable and adverse outcomes.

2. Weaponization of AI

    E. Musk is wary of the militarization of AI, particularly autonomous weapons systems. He fears a global arms race in this domain, which could escalate into unmanageable and catastrophic conflicts.

3. Human Dependence and Job Displacement

    E. Musk cautions against the increasing reliance on AI, as it could lead to widespread unemployment and societal upheaval. He argues that excessive automation could render humans redundant, raising concerns about the economic and social implications.

E. Musk's warnings about the dangers of AI have stimulated crucial conversations about the future implications of this technology. While his statements may be contentious, they underscore the necessity for thoughtful deliberation and careful decision-making as we navigate the evolving

landscape of increasingly advanced AI systems [3]. For example, AI can replace graphic designers and the neural network MidJourney has already made huge steps in this direction (Figures 1, 2):
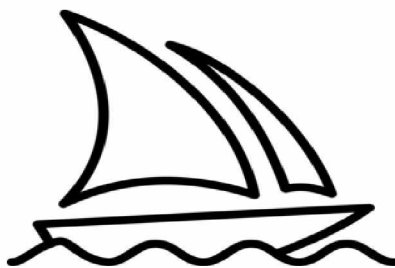

Figure 1 – Logo of Midjourney

Figure 2 – Picture generated by Midjourney

As technology continues to advance, programmers may face challenges in the future. While neural networks currently struggle to create complex code without errors, there is a possibility that they may become more proficient in the future, potentially impacting the job market for junior programmers. This trend is not limited to programming; other professions such as data entry, customer service, and even creative fields like writing and design could also be affected by the rise of automation and AI. As we navigate this evolving landscape, it will be crucial for individuals to adapt, upskill, and embrace new technologies to remain competitive in the workforce. The same problem can happen to other jobs listed below:

1. Data entry and administrative tasks
2. Customer service representatives
3. Telemarketers
4. Retail salespeople
5. Accountants and bookkeepers
6. Drivers (e.g. taxi drivers, truck drivers)
7. Assembly line workers
8. Paralegals and legal assistants
9. Fast food workers
10. Medical diagnostic technicians.

Conclusion. Thus, AI and neural networks serve as valuable tools for performing a wide range of tasks in diverse areas such as computer vision, natural language processing, problem-solving, and planning. These technologies have a great influence on various aspects of our daily life by efficiently processing vast amounts of data and accelerating the diagnosis of diseases compared to human experts.

However, concerns exist regarding the potential of AI to displace human workers which could lead to widespread unemployment. Additionally, there is a possibility of the emergence of uncontrolled AI systems that could pose existential threats to humanity.

In spite of endless brainstorming about how AI and neural networks affect our lives, only the future will show whether it will be a cutting-edge technology that helps accelerate the development of our world or it will be the last and most dangerous technology that humanity has ever created.

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