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AI IMPACT ON LABOUR MARKET. DO WE REALLY NEED IT?

Introduction. We live in period of impressive development of humanity and have an incredible opportunity to observe significant worldwide transformations. Various types of computers are widely used nowadays; it is commonplace to see the computer in the shop, office and factories. The first real computer appeared not so long ago. Nevertheless, nowadays there's an unbelievably wide range of computers with a long list of their capabilities. Rarely do we think about the danger that can be brought by such skillful machines especially those powered by AI? Together with new technologies we encounter with new challenges. Consequences of the introduction of new technologies are no less important, regardless of the sphere of human activity in which they were implemented.

Artificial intelligence is the simulation of human intelligence processes by machines, especially computer systems. Specific applications of AI include expert systems, natural language processing, speech recognition and machine vision. AI technology is widely used throughout industry, government, and science. Some high-profile applications are the following: advanced web search engines (e.g., Google Search), recommendation systems (used by YouTube, Amazon, and Netflix), interacting via human speech (such as Google Assistant, Siri, and Alexa), self-driving cars (e.g., Waymo), generative and creative tools (ChatGPT and AI art), and superhuman play and analysis in strategy games (such as chess and Go). [4]

The history of artificial intelligence begins in the distant past, the first person who really advanced in this direction was Alan Turing. Turing's research in the early 1950s laid the foundation for modern computer science. He worked on a test that became known as the "Turing test". This test made it possible to determine whether a machine can conduct a conversation in such a way that its interlocutor cannot distinguish it from a real person.

Another key figure in the development of artificial intelligence was Marvin Minsky, who developed a model of artificial neural networks and made a significant contribution to the development of machine learning. Marvin Minsky is an American researcher in the field of artificial intelligence, co-founder of the artificial intelligence laboratory of the Massachusetts Institute of Technology, author of works on artificial intelligence and philosophy. Minsky's inventions include the first virtual reality helmet (1963) and the confocal microscope (1957). Together with Professor Seymour Papert, the first "KTurtle" (an educational programming environment included in the KDE Edutainment Project educational program package. KTurtle offers a simple way to learn programming, designed for children.). Also in 1951 he built the first neural network with random connections Stochastic Neural Analog Reinforcement Calculator. [3]

Advantages and disadvantages of AI. Despite the fact that artificial intelligence is a highly developed concept, we still observe its weaknesses that prevent it from surpassing the capabilities of the human brain. AI does not have advanced creative skills like a human. We have all seen situations where it may output some strange answers, especially when it comes to feelings or logical thinking. This program is very useful in some areas, but when

brainstorming is required, it offers no benefits. On the other hand, humans can be too emotional, which can lead to undesirable results. "Artificial intelligence systems with human and competitive intelligence can pose serious risks to society and people," wrote Apple co-founder Steve Wozniak, along with other tech leaders, including Tesla and SpaceX owner Elon Musk.

Artificial intelligence is widely used in many areas, such as:

1. **Voice assistants.** Numerous companies (e.g.: Apple, Google, Amazon and Microsoft) offer their AI-powered digital assistants that can help search the web, send messages, make calls, and many more. An assistant can also answer questions about the weather, location, and other information. Some of them may be used as personal assistants, helping people remember appointments and tasks.

2. **Security robots.** Artificial intelligence is actively used in the field of security, both physical and cybersecurity, for large corporations or states, as well as for individuals. There are several examples. For instance, startup Comply Advantage is a leading source of data on financial crime risks and detection technologies. Dtex Systems uses user behavior analytics to help businesses detect cybersecurity threats without compromising privacy. Trueface.ai is an API platform for facial recognition based on deep learning. And Cobalt Robotics creates security robots that work alongside people to maintain security.

3. **Education.** Artificial intelligence is widely used by students worldwide, and while it has positive consequences such as saving time and making various tasks easier and faster, it also has negative consequences. Some students abuse the use of AI by relying on it to complete tasks without their own involvement. This worsens the student's academic results since different types of work help develop a person's worldview and skills needed for their future career. Of course, when a student has numerous tasks and time-saving is important, using AI can make their life easier, but only if used in moderation and without negatively impacting their studies.

4. **Business and finance.** Another area where artificial intelligence is highly in demand is business and finance. It can help increase profits, reduce costs, better identify and segment audiences, and assist with forecasting. Companies like Netflix, Google, and Amazon invest significant amounts of money in AI for a reason. For users, it helps with decision-making and convenience, but for companies, it is a serious business tool that boosts sales. Additionally, the use of neural networks can speed up decision-making and forecasting, replacing entire departments. For example, Google uses AI to review apps in the Play Market. [1]

On the one hand AI has lots of advantages, on the other hand a huge amount of people were fired because of its extraordinary features. Professions, which are based on simple algorithms, are the first ones on the verge of extinction. After conducting research in this sphere, several professions were identified as potentially-threatened and are likely to disappear in the near future. They are listed below.

1. **Telemarketing.** Telemarketing tops the list of jobs that will disappear in the future due to AI because powerful language models have enabled computing systems to talk to customers, answer their questions, resolve their queries and often solve their problems. Recently, a WSJ reported how home repair services company HomeServe has started using an AI bot name "Charlie" at its call center.

2. **Insurance Claims and Policy Processing Jobs.** It's not hard to imagine how AI will be able to perform background checks and validity of insurance claims 5-10 years down the road. Insurance claims and policy processing jobs are vulnerable to AI disruption

due to the automation of routine tasks, the possibility of advanced data analysis, rapid learning for decision-making, the variability of customer self-service, cost reduction, and the ability of AI to provide consistent and accurate results. While this may lead to job displacement, it also presents opportunities for employees to transition to roles requiring higher-order skills.

3. Mathematical Technician Roles. Almost every professional believes that technical mathematicians and experts in basic mathematics can be replaced by artificial intelligence in the future simply because artificial intelligence can answer every elementary math question in seconds. Moreover, to date, artificial intelligence has been quite successful in solving high-level mathematical problems, and it is quite likely that the developers will not stop there.

4. Entry-Level HR Roles. Entry-level HR roles include going through hundreds of job applications, comparing candidates' qualifications and job requirements before shortlisting, writing experience letters, replying to basic questions from company employees, processing attendance and payroll data, etc. All of these tasks can be easily performed by AI and as AI-based technologies evolve, HR roles will become redundant. [2]

5. Packers/Packagers. According to the website "Will Robots Take My Job?", there is a 100% chance that packers/packers roles will be automated in the future. In fact, several major retailers, including Amazon, have already begun deploying robotics and artificial intelligence technologies to pack, sort and organize packages in their warehouses. Such a replacement is beneficial to large companies in economic terms, which makes it more attractive for introduction into widespread use.

Conclusion. Ultimately, artificial intelligence is a great invention; however, it poses a threat to the job market. We can already observe how AI calculates data, predicts scenarios, generates plans to increase income, and creates videos instead of humans. People used to perform these tasks, but now they are being replaced. "People who become engineers, nurses, or lawyers have to study for a long time. The problem with SHS (Senior High School) is that it can constantly improve, while we can't," explains Gutierrez. Another example is "Tech giant IBM says it will stop hiring people for 7,800 jobs that can be filled by artificial intelligence," the BBC reported in May 2023. It is more profitable for big businesses to invest in AI development than to pay salaries to workers. However, this has consequences. The more advanced AI becomes, the more professions it will be able to master, leading to more people losing their jobs. This raises the question: who will consume products made by AI if unemployed individuals do not have the money to buy them?

The development of artificial intelligence is an incredible scientific achievement indeed, but the significant threats it poses to humanity cannot be ignored. Undoubtedly, artificial intelligence should develop further, but a person should limit its development in certain areas. It is undeniable that artificial intelligence expands the labor market, transforms to a great extent, by creating new professions, requiring new human skills, but it destroys the labor market more.

Practical significance of the conducted research is that it can be used for:

1. Further elaboration of clear framework for the development of artificial intelligence for greater control over its capabilities;
2. Mitigating possible negative consequences of the development of artificial intelligence on human life.

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