



ARTIFICIAL INTELLIGENCE AND GLOBAL SOCIETY

Islombek Abdulakhatov

San Francisco State University 1600 Holloway Avenue San Francisco, CA 94132
iabdulakhatov.dev@gmail.com

Abstract

The rapid development of information technologies led to a battle between machine intelligence and human intelligence, and today's trend shows that machines will likely surpass human intelligence in the near future. Starting from the economic sector to the healthcare sector, artificial intelligence can transform our lives in almost every area. Information technology has a high market space in all countries and has become the top priority in the fields of infrastructure construction, electronic governance, education, software development, and manufacturing. This article attempts to cover areas where AI may have positive or negative consequences, the advantages, and disadvantages of integration of AI, techno-logical unemployment, and questions and doubts about AI.

Keywords: Artificial Intelligence, Autonomous cars, Industries, Technological unemployment, Machine learning, Ethics, Privacy concerns, Economic and Social impact, Governance, Robotics, Deep Learning, Neural Networks.

Introduction

Nowadays, most of us are familiar with the term Artificial Intelligence also known as AI which is a high-level integration of social and technical characteristics. AI is expected to make many changes in our lives, economies, communities, and in our personal life. The future AI technologies will bring us autonomous and flying cars, people could live longer than today, AI could solve many health and medical problems, and also learn ways how to treat diseases. We already see how AI is integrated into our daily life such as online shopping algorithms, facial recognition, Alexa and Siri, translation platforms, car safety functions, cybersecurity, building security systems, self-driving cars, and so on. AI is very helpful in keeping our workplace safe, for instance, AI doesn't get tired, stressed, or sick, which are the most common human factors, which affect the efficiency of work. AI will replace dangerous human jobs, which have more risk factors such as working with chemicals, roof and climbing works, and working with drugs. AI will create lots of opportunities and easy accessibility for people with disabilities. Now we have virtual assistants in our gadgets that could assist us with different tasks such that making a phone call, navigation,





transcripts of voicemails, reading a message, or giving information about our device's activity. On the other hand, there are some ethical challenges such as lack of transparency of AI tools and privacy concerns that need to be solved, or a bias problem, which occurs when results couldn't be generalized widely, in addition, it will cause a big loss in an employment structure, affect relations between countries, which could cause issues in government management, social stability, and economic security. So, are we able to avoid these issues with AI and get better benefits that will serve humanity?

AI Applications in Various Sectors

According to IBM Artificial Intelligence is the “use of computers and machines to mimic problem-solving and decision-making capabilities of the human mind”. If we look to history the first ideas of AI go back to ancient times about 2700 years ago when ideas of self-moving devices and robots were explored. AI programs started developing after computers became more available and cheaper in the 1960s and in 1997 the grandmaster and worlds chess champion lost to a Deep Blue AI machine made by IBM, which became a motivation for research in the field of AI technology especially in exploring new directions in medicine, drug development, patient diagnostic and surgery. Nowadays, artificial intelligence become the main factor in the development of our society and we are expecting lots of positive and useful discoveries, which could make our life easy and happy. Some people believe that AI should be integrated into our lives, but also there is a group of people who don't agree with the development of AI technologies. Artificial Intelligence almost covered all industries and areas of our life, which bring us new innovations and high-level technologies, which are able to make a decision now and then. There are many industries assisted by AI technologies, let's list some of these areas. In the gaming industry, AI is creating video games and controlling emotions, audio settings, behaviors, and analyzing the game's non-player characters. Personal assistants such as Alexa, Amazon, Duplex, Bixby, Siri, and Cortana are able to perform simple tasks without human interaction. Another example is computer vision, which is used for autonomous vehicles, barcodes, x-ray and blood samples, traffic cameras, and financial data, which are real-life examples and have a fast process time. Even in the music industry, AI creates and enhances music, assists in monetization, and produces unique musical effects and sounds. In the retail industry, AI controls the management of items on store shelves and automatically replaces items when they are sold, automates checkouts, and makes recommendations based on customer feedback. There are lots of positive expectations and changes in the agriculture industry as well,





“AI is expected to bring a potential food revolution as it demands forecasting, lack of regular irrigation, fertilizer, and pesticide overuse, and improves crop yields through real-time advisory, advance detection of pest attacks, etc. Drones are also used to detect several factors that contribute to crop yield – weather, soil, rain-fall, pests, etc. – and send real-time feedback on their status and suggest necessary actions to be taken.” AI had progressed in the healthcare industry, which detects various diseases in their early stages, virtual nurse systems able to control patient health progress and suggest treatment plans based on their history of illness, and also self-health monitoring devices for detection of health-related issues. What’s more, artificial intelligence is also integrated into the sports industry as part of sports training. There are chatbots for websites that produce team stats, ticket information, and news. Also, there is a technology that monitors players’ health and gives effective movement suggestions during sports activities. Besides these examples, there are many areas where AI is used efficiently that are definition comparison, foundational fields, statistics, neuroscience, mathematics, computer engineering, economics, control theory, psychology and linguistics. Along with the advantages of AI, it is important to mention that the integration of Artificial Intelligence into our society could lead to massive job losses, as robots will be able to do a job instead of people.

Technological Unemployment and Job Displacement

Technological unemployment is a concept that is the integration of AI in our work society, which means that new innovations could lead to massive job loss. But mostly AI will replace low-skilled jobs. Some people believe that automation will not that much affect job spaces, much because it is already impacted many factories and industrial fields, and nowadays most of the manufacturing steps are controlled by AI. There is a myth that AI will take the jobs of lots of people, which will lead to massive unemployment and cause poverty. In 1964, a group of Nobel Prize winners predicted that robots will pull people out of work and bring a catastrophic level of unemployment. But in process of transformation of AI technologies, there may also be created new professions and jobs. From history, it is known that technological change first degraded and then boosted new living standards and employment by creating new areas of business and development opportunities. So, we don’t know that AI will totally impact employment, but people will need to level up their skills and abilities to work in cooperation with new machines. According to California Governor Gavin Newsom, massive un-employment is expected to be in the field of warehousing and trucking.





EU Total Employment at Risk of Computerization, by Country

Rank	Country	Risk of Computerization (Percent)
1	Austria	54.10
2	Bulgaria	56.56
3	Croatia	57.91
4	Czech Republic	53.65
5	Estonia	53.94
6	Finland	51.13
7	France	49.54
8	Greece	56.47
9	Hungary	55.34
10	Ireland	48.51
11	Italy	56.18
12	Latvia	51.08
13	Lithuania	51.85
14	Poland	56.29
15	Portugal	58.94
16	Romania	61.93
17	Slovakia	54.70
18	Slovenia	53.19
19	Spain	55.32
20	Sweden	49.59

For instance, a robot that could pick plants without causing bruises, which is able to do tasks for thirty people, is more financially effective and gives full control over the workplace. The massive development industry of AI is autonomous cars which will cover all the transportation services, almost each auto manufacturer is working on the atomization of their cars. Self-driving cars with millions of milage experience will assist you 24 hours 7 days a week at any time and ride to any place you wish, it also will have a safety system, chat support, estimated price, and most of the functions which Uber or Lyft has. Drug discovery is another area where AI could help us. There are a lot of dangerous diseases and viruses that are difficult to discover and finding out treatment for these diseases is a key factor. There are many error and trial cases in traditional drug processing, which also takes more time, AI could help us to do this job faster and find better pat-terns using deep learning. According to statistics, AI could replace hundreds of millions of non-soft skill job positions over the coming decades. By 2030 be-tween 400 and 800 million employees could be replaced by AI, and around 375 million will need to switch their profession to totally new job which does not exist yet by learning new skills to fit the new job. Calculations say if reemployment happens within one year, then the stability of the economy could be kept, but if it will take years to find a job, the economy could dip as the unemployment rate will increase. Prediction on how technological revolution will impact the workforce in the US shows that the US has a lower percentage of impact on the job market compared to other European countries. 47% present of total employment at risk of automation in the next 20 years.





It should be noted that nowadays about half of working companies use AI in their job. Predictions tell us that AI will likely take the jobs of billion of people around the globe, so without re-skilling and retraining, it will be hard to find new work for people who lost their jobs. On the other hand, AI could create about 58 million new job areas and produce 15.7\$ trillion in economic gross by 2030. Elon Musk says that “computers, intelligent machines, and robots seem like the work-force of the future.” “And as more and more jobs are replaced by technology,” he says, “people will have less work to do and ultimately will be sustained by payments from the government.” Along with massive job losses, AI could deliver significant benefits as well, 19% of workers admitted that AI can make their job easier at some tasks, and 90% of managers agree that AI will handle tedious tasks, which gives people more opportunities to enjoy another creative and interesting tasks and explore careers that give workers well being and better sense. The statistic shows that in many countries people believe that computers and AI robots could certainly finish tasks better than humans. AI will mostly affect people’s jobs in agriculture, transportation, production, and different tasks that need problem-solving, planning, learning, and reasoning. Generally, AI will mainly replace jobs where physical activity is required, and it will have less impact on social interaction jobs and managing people such as HR managers, event planners, project managers, software developers, and so on. However, there are still questions and doubts regarding of integration of AI, because AI could cause some negative impacts on our community, and nobody can guarantee that AI will not go out of control.

Ethical Challenges and Bias in AI

Most of the judges in the US use AI applications to make a decision regarding prisoners because AI systems could offer unbiased information. But there are many examples where AI shows vulnerability to bias, for example, a program, which plays an important role in criminal justice decisions several times estimated that black defendants as likely repeat offenders compared to white defendants. The second example is that the AI advertising system shows fewer ads for women than men where the job pays more than \$200,000. AI robots are becoming cheaper and more accessible for employers, which don’t need any services that humans could require. Employers could save more without giving to workers health insurance, sick days, breaks, and pay raises. 43% of businesses would like to change workers to automated machines. According to 48% of experts, AI will replace blue and white-collar jobs which will bring increased unemployment and income inequality. It is important to mention how wealth will be distributed and who will be responsible for AI, a lot of





autonomous wealth will be created by machines and the main questions are: who will own these machines, and how the wealth will be consumed and distributed? AI could become racist and sexist because AI has information about gender and race it is able to give different treatment to each person. For example, men in their 20s and 40s take less vacation time than women because of pregnancy, and knowing this statistic, AI is more likely to hire men than women. In addition, military robots are equipped enough to kill humans, they have the ability to make autonomous decisions and have higher intelligence than humans. Another question is regarding the identity and rights of AI, if it has fewer rights then there is a possibility that humans will abuse it, but if we will give it more rights it could take control over us, so what kind of rights should be given to AI? Can we teach machines compassion, empathy, and ethics? Thirdly, how can we protect our privacy, when AI can track us? Is there any chance that AI can be turned against humanity? Who is responsible for the failure of AI? These are the main question I feel confused about and which needs to be answered. After researching several articles and topics related to AI I found that we already have an integration of AI in our daily life, we already have an impact of robots in job losses, we already have self-driving cars, and in my opinion, it will not stop as technology is rapidly developing. I agree that there are chances of failures of AI, but it shouldn't stop us from developing new ideas, maybe there could be a way to limit the actions of AI only in areas where it is dangerous for us.

Conclusion

In conclusion, I would like to say that Artificial Intelligence will make our life easier more secure, effective, and will create a technologically developed community, but of course, there could be some issues related to AI. AI will help us in almost every field of the job sector, AI doesn't have a limitation, it could be integrated into any field such as medicine, education, sport, accounting, game development, car industry, and so on. We can overcome these problems if we build AI-assisted law rules that will indicate healthy development of the AI field and re-view security, ethical, and socio-political issues related to AI. In the near future robots could replace many jobs, and companies and businesses will choose AI robots and tools for better and more effective management of their businesses. However, countries could limit massive job losses by teaching and training people to adapt to new job types. In order to make AI safe and secure universities should add AI-related studies and classes, and give students opportunities to test and train AI in laboratories. In fact integration of AI has more positive aspects than negative, and I believe that we can obey these disadvantages by avoiding them to make AI better benefit mankind.





References

1. Building AI-Assisted Rule of Law for the Future, Seeking Advantages and Avoiding Disadvantages to Make AI Better Benefit Mankind (Yadong Cut), China, 2019.
2. Puneet Kumar, Vinod Kumar Jain, Dharminder Kumar. (2021). Artificial Intelligence and Global Society, Impact and Practices. <https://www-taylorfrancis-com.jp11net.sfsu.edu/books/edit/10.1201/9781003006602/>
3. Tom Taulli. The Future of AI , USA 2019.
4. Artificial Intelligence (AI) – Top 3 Pros and Cons. <https://www.procon.org/headlines/artificial-intelligence-ai-top-3-pros-and-cons/>
5. Five myths about artificial intelligence. https://www.washingtonpost.com/outlook/Five-myths/Five-myths-about-artificial-intelligence/2018/04/27/76c35408-4959-11e8-827e-190efaf1fee_story.ht
6. The Myth of AI, Morten Goodwin (TEDxBergen). <https://www.youtube.com/watch?>
7. <https://www.zippia.com/advice/ai-job-loss-statistics/#:~:text=Worldwide, 23+> Artificial Intelligence and job loss statistics 2022.
8. https://en.wikipedia.org/wiki/Artificial_intelligence
9. Gadhoum, Y. (2022) A Proposed Model of a Future University in the Era of the Artificial Intelligence Transformative Society: From Why to How. Creative Education, 13, 1098-1119. doi: 10.4236/ce.2022.133069.
10. Laarri, A. (2022) Biometrics as a Matrix: The Short Distance between Crime and Security Systems, Prompting an Artificial Intelligence to Invent Electronic Biometrics ID!. International Journal of Intelligence Science, 12, 1-8. doi: 10.4236/ijis.2022.121001.
11. Patrick, Henry Winston. (1999), Artificial Intelligence, Addison Wesley, New Delhi: 10-12.
12. Saloky, T. (1993). Applications of Artificial Intelligence Techniques. Kosice Elfa, ISBN 80- 7079-227-1.

