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Exploring the Impact of Artificial Intelligence on Humanity

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Abstract:

This study discusses whether artificial intelligence will pose a threat to human beings. This topic is chosen as AI affects everyone in the 21st century and the problem of it being a threat will come to if nothing is done. Signs of AI can be seen everywhere, from robots to phones, and even dishwashers, this piece of technology has grown to become an irreplaceable figure in the lives of humans. However, as the speed of development of technology increases, AI might get out of control and even become a threat to people. This research has stated some threats it will cause and their solutions. Much literature written by technology experts has been read and used as references in this research to provide reliable data. This research can be used to help solve or mitigate the problem in the future as it explains in detail what could be done. From this research, it concluded that without humans doing anything to interfere with this problem, AI will threaten humans someday. However, this day might not come so soon due to factors like countries refusing to sell microchips to China because of competition. Therefore, if the solutions listed in the research are used, the probability of AI becoming a threat to people will decrease dramatically.

Keywords: Artificial Intelligence; transparency; hallucinations; mental and physical health.

1. Introduction:

Artificial intelligence is a type of advanced technology that tries to stimulate human intelligence using machines. There are many ways to mark the development of AI, and the Turing test is a notable example [1]. It tests whether AI has a conscience or emotion which is a needed factor for it to be a good employee. AI such as OpenAi from the USA, Ernie from China, and a47 from Abu Dhabi can match any human skills by 2030 and they can learn algorithms on their drawing from mountains of data. Artificial intelligence will become a threat to humans if humans do not think of ways to mitigate and prevent it. Ways that AI might threaten humans include making people unemployable, hurting people mentally or physically, and hallucinating and spreading false information. This needs to be prevented before it happens by coding and setting rules for it to be human-centric, and by punishing it before it violates.

This research focuses on the points of view from technology experts in the 21st century focusing on the different ways Artificial intelligence can impact people and when that will happen; this research is very meaningful as the consequences AI brings people not only effects the experts, but it effects everyone as one are living in a world where AI can be seen everywhere and anywhere ; this research mainly focuses on the possible threats caused by AI that might come way and solutions and mitigating methods; the literature analysis method is used to analyse relevant materials and documents through searching and reading different articles, the advantage of this method is that it can better analyse and compare the quotes said by experts, their prediction, and reality which is conducive to the conduct of research; the ultimate research goal of this study is to understand the impacts Artificial intelligence has brought to lives and what rule are already there in regards to that and what rules could still be brought up. To achieve this goal, much literature will be read, analyzed, and presented clearly in this research. There would be more quotes and evidence that are brought up in articles as there isn't an experiment or survey that could be done for the topic.

2. Different Ways AI Can Threaten People

2.1 Making Humans Unemployable

AI will cause huge amounts of us to lose jobs as they work more efficiently, accurately, and cheaply allowing the companies to gain more profit Kwon Hyang-jin, an Italian restaurant owner in eastern Seoul said "I don't have to worry about hiring people anymore [2]. It never gets sick or complains about its workload." This proves how and why company owners prefer artificially intelli-

gent employees. Chinese robots are proven to be preferred by restaurant owners as they are cheaper, and their functions are just as good as Korean-made ones. To conclude, there will be mass employment of AI by lots of companies because of its working quality, cost, and efficiency.

AGI (artificial general intelligence) is the next step scientists are trying to achieve, and it would elicit mass unemployment because it behaves more similarly to humans. For example, if a question is asked, AI would just simply respond to it using its database, but AGI would try and understand the question before it gives off an answer that is more easily understandable and one that more directly responds to the person's needs [1]. Mario Amodei, the co-founder and CEO of Anthropic said that he expects a 'human level could be developed in 2-3 years [1]. Shane Legg, Google DeepMind's co-founder and chief scientist estimated that there is a 50% chance that AGI will be fully developed by 2028, which is in four years and Sam Altman, CEO of OpenAI believes that it could be reached sometime in the next 5 years. They are AI examining the risks of many concerns and soon AI will be advanced enough to take over humans in jobs. This might not mean that unemployment will start, but it marks the beginning of a new stage in AI [3].

AI transparency has also been looked upon, it helps build trust between customers and employees, enhances the accuracy and performance of AI systems, and ensures fair and unbiased AI systems. However, there are also weaknesses to this transparency [4]. Transparent AI models are vulnerable to hacking, can expose proprietary algorithms, and are generally hard to design. Examples of civil rights include the right for people to work, eat, be educated, and live where they want. However, AI making people unemployed violates the right of people to work [1].

An AI safety project at the nonprofit Machine Intelligence Research Institute, surveyed 2,778 experts in fall 2023, all of whom had published peer-reviewed research in prestigious AI journals and conferences in the last year. Many experts thought that high-level machine intelligence would be 50% more likely to be feasible by 2047 as they accomplish every task cheaper and better than humans. In conclusion, AI will probably be mass-employed within the next half a century, studies have shown that in 100 years, the generations then would most likely only have to work for 15 hours a week, but they still are not sure of when specifically, humans will become unemployable [5].

However, some limitations stop AI from making us unemployable so quickly.

Economically, AI must be accessible and cost-effective for businesses to implement. To create mass unemployment in humans, the process of training modern AI needs to be less expensive and less complicated [1]. An Nvidia A100 semiconductor chip, widely used for AI training, costs around $10,000 and can perform roughly 20 trillion FLOPS, and chips developed later this decade will have higher performance still. However, estimates for the amount of computing used by the human brain vary widely from around one trillion floating point operations per second (FLOPS) to more than one quintillion FLOPS, making it hard for AI to make every industry unemployable.

Even though AI might be able to reach some standard to be mass employed, the microchips have not reached a stage of development that matches the human brain capacity. Microchips are essential in training AI. However, there is a massive shortage of them due to the high costs of production. According to Lam Research, expertise to etch circuits into silicon wafers is rare, limiting the number of workers that could make the chips [6]. Additionally, the cost of an advanced fab - a factory that can produce the semiconductor- can cost 20 billion dollars keeping in mind that this was almost 45 years ago. These statistics show how expensive and valuable they are. In the existing microchips that are left, the US, South Korea, Japan, and Taiwan refuse to sell them to China under Chip4alliance. Therefore, AI cannot cause mass unemployment until there are enough chips to train the programs to take over.

AI being employed can cause many substantial risks to arise from potential intentional misuse or unintended issues of control relating to alignment with human intent. It also is detrimental to a country's economic state. This is due to more and more people getting paid and the government needs to give out more and more social welfare.

To conclude, even though it is not known for certain when AI will make us unemployable, as the development speed increases, mass employment of artificial intelligence is being approached more and more closely. However, many barriers are blocking the development, for example, the cost of the microchips and the refusal to trade microchips with China. The reason why there will be mass employment in AI is because of its cheap cost (relative to the salary of human employees) and its efficiency and accuracy. AI should be designed, developed, and used in a manner that is safe, human-centric, trustworthy, and responsible.

Many ways have been thought of to prevent AI from making us unemployable. Employees who have been replaced by more efficient AI workers would lose their steady income and would be jobless. This is a detriment to the workers themselves and to the governments who have to pay for more social welfare. For example, slowing the development of AI in some countries will lead to the country falling behind internationally and causing more competition. Some international cooperation has also been worked upon. The International World AI Safety Summit estab-

lished the rules for what AI can do and what it cannot do; the Bletchley Development Conference in 2023 proposed that perhaps the countries should work together.

Furthermore, the UK government is aiming to lead the global collaboration needed to address the challenges and opportunities presented by the rapid advancement of AI technology.

2.2 Hurting Humans Mentally and Physically

Once an AI that has not been coded right or has extremely strong self-consciousness has been developed, it will be hard to control it, and it might perform actions that will hurt humans mentally and physically.

Immature artificial intelligence designs such as unmanned vehicles like drones or automated cars [7]. "These can kill or maim people, and where this is undesirable, care should be taken in order not to make a civilian car driving system a people-targeting computer." However, this would only happen if the automakers listened to the philosopher who says that automated cars should be equipped to solve the trolly problem.

It has been decided by many governments that AI should not take part in war, childcare, and elderly care as the technology must be developed ethically. The global safety standards will help everyone manage and monitor the risks of artificial intelligence.

AI can also be used as a tool that leads to privacy and data protection threats that hurt humans mentally through the miscoding or intentional harm of the AI deployers [7]. Some state of affairs like unauthorized access to personal data, inference of sensitive information, and surveillance and tracking impact the data owner severely. The leakage might cause the data owner to get cyberbullied and make rumors about it. Furthermore, AI provides profiling and targeting based on people's online behavior. This allows people to see posts on social media which might be incorrect but is what they like. This will provoke arguments because the posts that have been recommended to them are what they would like to see instead of what is right [8].

"Social media and excessive screen time are already being blamed for an epidemic of anxiety, depression, suicide, and mental illness among America's youth. Chatbots and other AI tools and applications are expected to take online engagement to even greater levels." This is because AI chatbots can learn the user's emotional states and interests from their conversations and their browsing histories. "For example, a chatbot could recommend a video featuring avatars of trusted friends and family endorsing an unhealthy diet, which could put the user at risk of poor nutrition or an eating disorder."

Statistics have shown that as technology is used on a more regular basis, the rates of mental illness have increased significantly as well [8]. A 2021 survey by the Substance Abuse and Mental Health Services Administration found that 5.5 percent of adults aged 18 or older—more than 14 million people—had serious mental health illness in the past year (SAMHSA 2021). Among young adults aged 18 to 25, the rate was even higher: 11.4 percent.

This could be mitigated by improving the security of personal data and blocking unfriendly comments or posts.

2.3 By Hallucinating and Spreading False Information

In addition, hallucinations are regularly made by AI. It describes the mistakes that narrow AI makes based on corrupt databases. For example, a weather predicting AI model might give off false information like that it is going to rain tomorrow while there is no evidence that there will be any precipitation in the forecast; or if an AI hasn't seen a word before, it would just assume what the word means regarding the context which is not always accurate [9].

In February 2023, Gemini, Google's Bard chatbot incorrectly stated that NASA's James Web Space telescope took the first pictures of an exoplanet outside of solar system. AI hallucinates so that it can always provide an answer even if it might be wrong [10]. Hallucinations happen perhaps because of insufficient or biased data storage and improper training from its creator. This might lead to conflict between humans or other impacts caused by the spread of fake news.

This will become a threat as AI will face more and more difficult challenges as the technology develops [11]. It will then make up answers to the questions they don't know from reading the context and looking for keywords in their database. This will lead to the spread of false information which is a threat as wouldn't know what that it said is a hallucination and what it is not. Furthermore, as reliance on artificial intelligence increases, the data provided by it will become commonly used for creation and investigation, which will pose a significant threat as everything becomes unreliable.

The rate of hallucinations could perhaps be decreased by increasing its accurate data storage. This will lead to AI making less things up as often.

3. Discussion

So that even when AI develops self-consciousness, it will still perform as it is told and not disobey its coder.

AI has already been banned from taking part in war, childcare, and elderly care as the technology must be developed ethically. The global safety standards will help everyone manage and monitor the risks of artificial intelligence.

The Bletchey Declaration countries believe that there will

soon be a mass of AI allowed to work but they should be inhibited in battles and in taking care of children or the elderly [12]. This rule is present to prevent artificial intelligence from killing or hurting as these are unpreventable in the jobs.

AI needs to be punished by the government before it violates the social contract and inalienable rights like life, liberty, and property so that they will develop a clearer and more secure understanding that it is wrong to violate rules. It should be punished before it acts as it will be too late.

According to John Locke, government exists because, in the state of nature, there is no fair and equitable punishment so if AI were to violate some type of code, law, or situation, the government has a right to punish it before it violates, and the government must prevent it from happening too.

These methods can prevent or mitigate the threats listed above to an extent. However, more methods should be looked upon if things turn out to be more out of control.

4. Conclusion

To conclude Artificial intelligence will come as a threat to us unless solutions are performed to prevent it. Even though the threat may not appear soon, it will come to us at last. There are many barriers that affect the development of artificial intelligence however, it will be overcome someday.

This essay discusses the possible harms and threats artificial intelligence will bring to us from different research published by experts. It also stated some suggestions of solutions and mitigations both ones that have already been set as a rule and ones that should be looked upon.

This research aims to bring more attention to this problem as it will affect everyone if it is not stopped or sorted in time. This piece of research has brought positive outcomes for future references in this area as it listed possible circumstances and the solutions to keep humans safe.

Therefore, if AI performs actions that threaten humans, it should be stopped or sorted. AI should be designed, developed, and used in a manner that is safe, human-centric, trustworthy, and responsible.

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