

## Artificial Intelligence : its Promise and perils.

### Outline

#### 1. Introduction

**Thesis Statement:** In an era marked by technological advancements, artificial intelligence is shaping a whole new reality defying the bounds of our expectation. On one hand, AI ensures a promising future of mankind and on the other hand, it poses severe threats to the humanity. However, these threats can be mitigated by taking effective measures.

#### 2. Two schools of thoughts emerging from the advent of AI-epoch.

#### 3. Promises undertaken by AI.

- a) Assurance of economic boon
- b) A miracle in the health sector
- c) Advocate of peace and social order
- d) Evolving the education sector

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e) A guarantor of global food security.

f) Ensuring a promising future by acting as an agent of environmental conservation.

#### 4) Perils of AI.

a) Privacy breach and data leakage.

b) AI related cyber crimes.

c) Job displacement due to automation.

d) Algorithmic bias perpetuates discrimination.

e) Spreading chaos, hate and manipulated content.

f) Risks associated with AI driven military technology.

#### 5) Ways to mitigate AI perils.

a) Ethical frameworks: highlighting the importance of establishing guidelines for AI development.

b) Regulation and governance.

c) Public awareness and preventive measures.

d) Transparent algorithms: advocating for open source algorithms.

e) Enhancing skilful youth.

#### 6) Conclusion

"Predicting the future of mankind is not magic, it's artificial intelligence", said Dave waters. In an era marked by Artificial Intelligence, states worldwide are awakening to the neverending potentials of this technology. AI marked a new epoch in the human history. Things that were considered impossible and beyond one's sight are now possible and reachable to mankind. Thus, AI has made the modern world magical which the ancient man could only dream. AI is a simulation of human intelligence that is generated through computer systems. To be specific, it's a form of intelligence that isn't human. AI is a mixed blessing for the human race. The sagacious can benefit while the foolish are tormented. <sup>AI</sup> On one acts as a double edged sword. On one hand it ensures a promising future by assuring economic boom, advocating peace and social order, guaranteeing global food security, and conserving environment. On the other

hand, it poses serious threats which include; breaching privacy, displacing jobs due to automation, spreading biased content and ~~no~~ enhancing security risks.

The rapid advancement of AI, fueled by curiosity and competition necessitates a cautious approach to ensure ethical and safe deployment.

There are two schools of thoughts that emerged <sup>from</sup> ~~with~~ the advent of AI epoch namely; AI as a saviour and messiah and AI as an existential threat to humanity. The first school of thought is of the view that AI has the potential to address the shortcomings and problems faced by human beings. Whereas, the second school of thought opines AI as a threat to mankind. As former US state secretary of state, Henry Kissinger said, "AI is more dangerous and deadly than nuclear weapons because of its the inability to control robots on the one hand, and the

scale of destruction caused by smart weapons, which exceeds the destructive capability of the nuclear weapons on the other hand"

Artificial Intelligence acts as a tool for economic boon. It has revolutionized the economic sector by contributing to the development of the economic capabilities of the countries through e-commerce, <sup>and</sup> automation of factories. It improves overall economic productivity and promotes industrial profits and innovation. AI is expected to contribute about \$13 billion to the growth of the global economy, an increase of about 1.2% annually by 2030 (IPRI Journal, 2022). Thus, AI promises economic progress by acting as a new production factor that contributes to the increased economic growth, cost reduction and risk reduction.

AI is emerging as a miracle in the health sector. It has the potential to diagnose early, advance

The surgeries, discover the drugs, and control the epidemics. AI technologies have played a crucial role in the development of medical and health sciences, the development of the medical devices industry, medicines and effective treatments, and a role in alleviating and eliminating viruses and epidemics. For example, AI lead technologies have contributed to mitigating the physical and human effects and damage caused by corona pandemic, by collecting and analyzing epidemiological, clinical and genetic data (IPri journal, 2022).

Thus, AI contributes to the global health by reaching out to the effectiveness of multiple vaccines in record ~~time~~<sup>time</sup> to reduce pandemic damage as much as possible.

Another promise undertaken by AI is the promotion of peace and social order. AI based technologies can help in the deterrence of criminals. AI

technologies have the ability to detect criminals through facial recognition system and geo fencing technique. It has the ability to simplify complex process and contributes to preventing criminal and terrorist activities (Ralph Thiele, Artificial Intelligence - A key enabler of hybrid warfare, 2020). Thus is how, AI promises a peaceful existence and secure environment.

Moreover, Artificial Intelligence has revolutionized the education sector. It has the potential to act as a translator, a personal tutor and a counselling service advisor etc. AI is a form of intelligence that includes learning, auto-correction etc. It can help students in the areas of research work by providing them effective framework. Study published in Finance Research letters showed that chat GPT could be successfully used to write a finance paper fit for an academic journal, and that after

adding human expertise to cover the programme's limitations, the end result was positive. Hence, chatbots help students in receiving the required information through personalized attention. It enables learners to learn at their pace and level of understanding.

Furthermore, AI promises guaranteeing global food security with the help of climate smart seeds, pest control and spraying tools and land topography. Using AI technology, farmers can generate insights based on the data to apply precision agriculture or predictions for improving yields, while conserving precious resources. According to the International Food Policy Research Institute, data-driven agriculture techniques can increase farm productivity by as much as 67% by 2050 while simultaneously cutting down on agricultural and food losses. Hence, AI technologies, sensors and drones



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can help increase agricultural productivity and sustainability. In this way AI promises guaranteeing food security at global level.

Moreover, AI ensures a promising future by acting as an agent of environmental conservation and disaster management. It helps in early warning, disaster forecasting, geo-mapping and ecological surveys. It is used to help mankind adapt to the impacts of climate change by improving the system's ability to predict extreme weather events and providing decision-support tools to help us respond more effectively. It plays a fundamental role in increasing our resilience to the effects of climate change by identifying the risk factors and developing plans to mitigate them. It helps people build early warning systems that can provide timely alerts about upcoming events. For example, by analyzing data from weather stations, satellite images and sensor networks,

AI can help us identify conditions conducive to extreme weather events like floods and wildfires. Thus, AI can help in efficiently managing the crisis by providing tools to identify people at risk of being affected by the event, and the resources they need.

Besides ensuring a promising future, AI has another school of thought that focuses on the existential threats. There are numerous perils of using artificial intelligence, the chief among them is ~~that~~ ~~that~~ threat of breaching one's privacy. It can leak data, and malicious links. In 2020, the Capital One breach exposed personal data of over 100 million customers, showcasing the vulnerability to sensitive information to hacking. Thus, privacy of individual is potential victim of AI.

Furthermore, cyber crimes have significantly increased recently with the

advent of AI. Attackers use various tactics such as malware attacks and social engineering scams etc. In April 2021, a \$5 million Bitcoin payment was made to hackers who were capable of tapping into the American Colonial pipeline by accessing a virtual private network that did not have multifactor authentication. Thus, cybercrimes and security risks are a major peril of using AI.

Another threat posed by AI is the displacement of jobs due to automation. This further leads to social unrest arising from economic inequality and unemployment. "By 2025, automation and a new division of labour between humans and machine will disrupt 85 million jobs globally" (World Economic Forum).

Furthermore, the manufacturing sector has seen significant job losses due to automation. Between 2000 - 2010, the US lost around 5.6 million manufacturing jobs. This loss

of jobs results in exacerbating poverty. The loss of job accompanied with poverty and social unrest triggers crimes in the society.

Another peril imposed by AI is biasness and discrimination. The <sup>increased</sup> cases of gender discrimination have been found in the epoch of AI. For example, Amazon's recruiting tool was found to favour male candidates over females ones, highlighting the gender bias present in AI algorithms. Thus, women are underrepresented in the field related to AI. According to UNESCO, women make up only 22% of AI professionals globally. This is how biasness inculcated by AI is evident.

Moreover, AI has the potential to spread fake news. The spread of fake news through social media, amplified by AI algorithms, has been shown to influence public opinion and election. Deep fake videos, have been used to

create fake political speeches and celebrating endorsements. Thus, AI can exacerbates socio-political tensions by manipulating content.

Last but not the least peril of AI include risks associated with AI driven military technology. Russian President Putin said in 2017, "those who own and control AI have the ability to control and lead the world." So, he issued several strategic plans to gain leadership in AI by 2030. He announced in 2018, that his country would combine traditional and modern technologies. Russia looks forward to converting 30% of its military equipments into robots by 2025. Thus, more the weapons laden by AI, more the <sup>military</sup> threats.

Keeping in view the perils of using AI, effective measures should be taken timely to control the threats imposed by AI lead technologies. Firstly, ethical frameworks should be designed by highlighting

the importance of establishing guidelines for AI development. The European Union's General Data Protection Regulation (GDPR) sets standards for data protection including regulations around AI. There is dire need for international AI regulations to ensure safety and security of AI tools.

Secondly, establishment of international and national regulatory frameworks for AI development and deployment play a crucial role in mitigating the dangers imposed by AI. Collaboration with industry experts, policy makers, and ethicists to develop responsible AI guidelines is the need of the hour. Furthermore, there should be enforcement of accountability and transparency in AI systems through legal and regulatory measures.

Thirdly, public awareness is of prime importance in order to counter perils of using AI. Universities being the hub of creative knowledge and discoveries

should chalk out a comprehensive strategy of how to integrate AI into formal educational process and infrastructure.

Moreover, seminars should be organized to promote <sup>public</sup> awareness about the usage of AI.

Furthermore, transparent algorithms should be focused. Researchers should develop methods to make AI algorithms more interpretable, allowing users to understand how decisions are made.

Moreover, government should invest in educating and training programs to equip the workforce with skills that complement AI technology. There is need to upskill the youths to adapt changing job roles. Marc Banioff said, "I think a lot of people don't understand how deep AI already is in so many things."

To conclude, it can be said that AI is a mixed blessing for

human race. It acts as a double-edged ~~to~~ sword for mankind. It promises a revolutionized future by contributing in various fields of industry, health, education. It has the ability to complete tasks in quick ways, at a lower cost, and with high efficiency. Besides advantages, there are some perils associated with AI usage. These dangers include breaching privacy, cyber crimes, increasing chaos, hate speech, and discrimination. Now, it is upto man that how he utilizes AI technology. It can benefit the sagacious while the foolish are tormented. By employing suitable measures discussed above i.e. designing ethical frameworks, public awareness and skill enhancement, the threats imposed by AI can be mitigated and maximum advantages can be achieved/gained.