AI: its promise and perils

OUTLINE

1) Introduction

Thesis statement: The world has entered in a new age of modernization. Many advancements have been make in the field of technology with Artifical Intelligence being the prominent one. Like every coin consist of two sides, similarly, Artifical Intelligence has its pros and cons. It brought advancements in many fields along with concerns of overtaking humanity at the same time.

2) Artifical Intelligence and its Global Influence

3) Promises of Artifical Intelligence

a- Rejuvenating the field of medicine
b- Augmenting the economic sector
c- Enhancing the national security of country
d- Mitigating the impact of climate change
e- Advancement in the field of education
f- Increasing the efficency of transport sector
g- Boosting the yield of agricultural products

4) Perils of Artifical Intelligence

a- Invading the human privacy
b- Leading to unemployment in various sectors
c- Overpowering human will leads to destruction of humanity
d- Accelrating terrorism across the globe
e- Damage to creative and critical thinking capability of human beings
f- Cause of political unrest due to features like deepfakes
g- Digital divide among societies
h- Increase dependency on technology

5) Conclusion

Also suggest measures to overcome the perils

"Artifical Intelligence is like a double edged sword. It can improve human lives or can jeoparadise our future. It depends upon how we wield it."

~ Elon Musk

The world has truly entered in a new age of modernization. Many advancements have been made in the field of technology out of which Artifical Intelligence is the prominent one. Artifical Intelligence is the stimulation of human intelligence into a machine who can learn, understand and perform task that has been done by humans till its development. like every coin has two sides, similarly, AI has its pros & and cons. AI is making the lives of human easier by playing a crucial role in many sector including education, health, agriculture, climate etc. It's ability to deal with large data in a small time is laudable. At the same time, many people raise their concerns regarding its harmful impact on humans and inturn humanity. Many people believe that it will owerpower human and inreturn will create a catastrophic situation for human.

The concept of AI was first proposed in 1956 during the Dartmouth conference. From digital assistant like Siri and Alexa to movie recommendation on Netflix, AI subtly reshaping the world, with many advantages in the field of industry, education, health sector, agriculture

and many more. Many countries are investing in AI due to its profit potential. Countries like United States of America and china are the world most powerful countries with emerging economies are the major users of AI. As per IBM report : 58 pc chinese and 25 pc of US companies are using AI. This underscores the growing influence of AI all across the globe. AI has its merits as well as demerits.

Starting with pros of AI, it has been benifical in many sectors. with health sector being the prominent one. AI is rejuvinating the field of medicine by effective diagnosis and preventive measures. Robotic surgeries is one of the imperative feature of AI in health sector. According to the research conducted by University of Huwaii : deep learning AI technology is being widely used for breast cancer risk prediction. Researchers from (Greece) France and USA are using deeplearning on more than 1,00,000 imaging for the diagnosis of skin cancer. AI can improve health condition by reducing dosage errors. A study in "Nature Medicine" reveals that more than 70 pc of patients are not taking insuline in prescribed manner. AI driven smart watches and bands can flag the error in dosage administration. These smart watches can predict the level of glucose for insuline patients. AI can provide services as virtual nurse assistant

decreasing administrative load. According to a study conducted by "Harvard school of Public Health": AI based diagnosis will result in decrease in treatment cost by 50pc and will improve health outcome by 40pc. So, AI offers many advantages in health sector by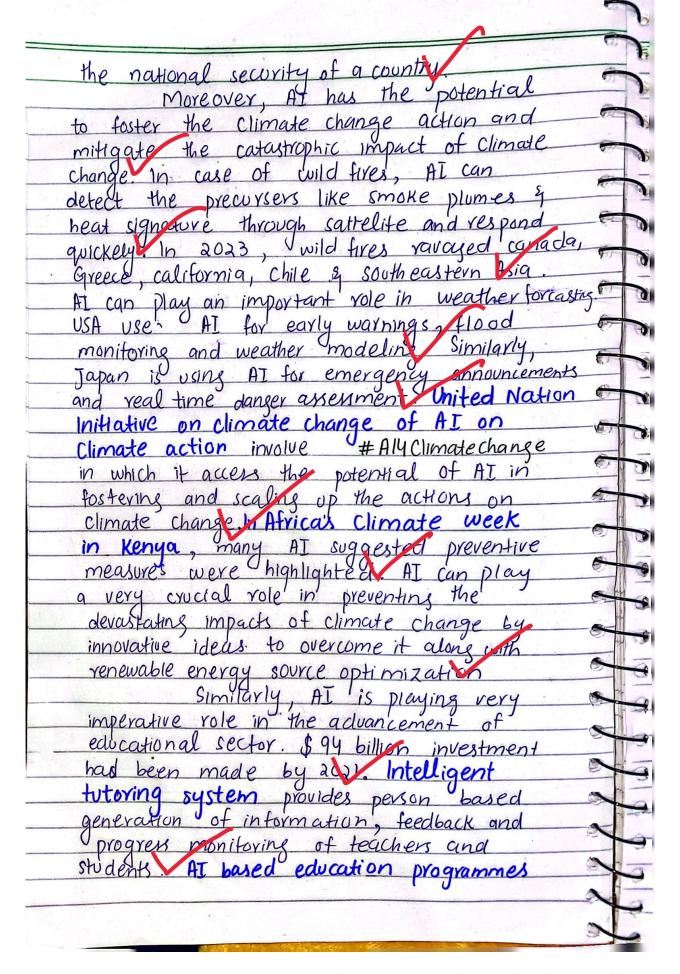 increasing efficency and reducing time cost It is benifical in monitoring, diagnosis and suggesting preventive measures to patients.

Similarly, AI plays a very imperative role in augmenting the economic sector. Countries all across the world is investing in AI due to its profit potential that will be benifical for their economies & bussinesses. According to a journel published by "European Parliment": AI has the potential to boost economic growth by increasing productivity and diffusing information. AI has the potential to rejuvinate economies of developing world As per the research conducted by "statista" AI will increase the GDP of USA by 21pc by the year 2030. Many firms are using AI to increase their productivity & get more innovative ideas to grow their bussiness. According to Forbes Advisor survey: 97 pc of bussiness man thinks that AI will increase their productivity. One in every three man refers to use Chat GPT for website content. 70pc says they will use Chat GPT to create content in different languages. Due to the increasing influence of AI across the globe, market

size of AI is increasing massively. According to the research conducted by "Marketsand market" the market size of AI is expected to increase upto $407 billion by 2027. Due to increase accuracy and efficency, AI is offering its services in the field of economy which has been applauded globally.

Furthermore, AI has the potential to increase national security of country. It can be used in cybercrime department to detect & prevent any illegal activity. According to the research published by Statista Research Department on 30 November 2023 : a survey reveal that more than 70 pc of cybersecurity personnel thinks that AI development and skill will be very useful in cyber crime department. Due to increase awareness of the potential of AI in the field of cyber security, the market size is expected to grow massively. As per the research conducted by "Accumen Research and Consulting" in July 2020 : the market of AI based cybersecurity products is expected to increase upto $133 billion by 2023 from $14 billion in 2021. AI enables the cybersecurity institutes to respond quickely than before. As per the study conducted by "Capgemini Research Institute" 75 percent of cyber security executive says that AI allow their organization to respond quickely to breaches. By providing imperative services in the field of cybersecurity, AI helps increase

the national security of a country.

Moreover, AI has the potential to foster the climate change action and mitigate the catastrophic impact of climate change. In case of wild fires, AI can detect the precursors like smoke plumes & heat signature through sattelite and respond quickely. In 2023, wild fires ravaged canada, Greece, california, chile & south eastern Asia. AI can play an important role in weather forcasting. USA use AI for early warnings, flood monitoring and weather modeling. Similarly, Japan is using AI for emergency announcements and real time danger assessment. **United Nation Initiative on climate change of AI on Climate action** involve **#AI4Climatechange** in which it access the potential of AI in fostering and scaling up the actions on climate change. **In Africa's climate week in Kenya**, many AI suggested preventive measures were highlighted. AI can play a very crucial role in preventing the devastating impacts of climate change by innovative ideas to overcome it along with renewable energy source optimization.

Similarly, AI is playing very imperative role in the advancement of educational sector. $ 94 billion investment had been made by 2021. **Intelligent tutoring system** provides person based generation of information, feedback and progress monitoring of teachers and students. **AI based education programmes**

include chatbots, formative assessment, dialouge based tutoring system that will result in advancement in sector of education.

Furthermore, AI will increase the efficency of transport sector. This will result in ease in communication. Automatic driven vehicals has been introduced making the life easier. According to the research conducted by "Market sandmarket": one in ten car will be automatic by 2030. AI can be used to purpose innovative ideas for resilient transport infrastructure. So, AI is very effective in the development of more efficient and modernized transport sector.

Moreover, AI is been used to increase the yield of agricultural products. It can be used for crop monitoring, soil analysis which will result in more informed decision by farmers that will ultimately increase the growth. According to the report by International data corporation (IDC) in 2021: AI in agriculture sector is expected to grow by 22.5 percent annually reaching to the market value of 2.5 billian dollars by 2024. AI can use satellite sensor drones to analyze the data. AI has a wide scope in the field of agriculture promoting it's yield and reducing the damage to it caused by different factors.

Along with many advantages, AI brings with it a wide range of disaduantages that is of serious concern for human beings.

One of the major demerit of AI is the breach of private information. AI handle vast (aim) range of data which if handeled improperly will result in breach of personal information. According to the study conducted by "Electronic Frontier Foundation" facial recognization in phone use photos from social media without user's consent.

As per IBM report: 41 percent of data breach involve personal information reflecting toward the need of handling data carefully. The smart watches or other AI driven (in) devices has the potential to breach users personal information. According to the study conducted by Northeastern University and Imperial collage London in 2019 smart watches speaker sometimes activate undelibrately and record the conversations of users without users consent. So, AI expose the user at the risk of breaching the personal information which is a matter of grave concern for people.

Furthermore, AI driven job automation at various sectors is a matter of concern for the people at various sector. Teachers are concerned to lose their job due to the integration of AI in educational sector. Office employees are concerned about their job due to integration of AI in bussinesses. As per the research conducted by world Economic Forum future job report reveals that AI is likely to (resultin) cause 85 million job displacement around

world by 2050. Similarly, another study by **Brooking Institution in 2019** reveals that jobs in manufacturing, office support and food services are more likely to be automated. These reports underscore the devastating influence of AI on the lives of human being resulting in economic disruption.

Moreover, their is rasing concerns of people that AI will overpower humans that will result in destruction of humanity. One of the major proponent of this school of thought is a famous philosopher **NICK Bostrome**. According to him, developing a machine more intelligent than human will result in technological singularity. He says that these machines then will replicate themselves without human assistance and that will result in destruction of humanity. **As per Nick Bostrome** "Machine intelligence is the last invention that humanity will ever need to make."

Similarly, one of the grave concern is the rause of terrorism due to AI. Misuse of AI by wrong hands will result in harrendous situation. **As per the joint report by United Nation Interregional Crime and Justice Research Institute** (UNICRI) **and United Nation Counter Terrorism center** (UNCCT) the report title Algorithim and terrorism: the malacious use of AI for terrorist purpose paints a bleak picture of use of AI by terrorist to increase violence. AI can turn drones

into killer robots. The scope of phenomena can be seen from the efforts on **Europole Referral Action Day** on which Europole and 17 other countries identified and removed more than 1906 URLS from more than 180 websites in only one day that promote terrorism. Misuse of AI at wrong hands pose a serious threat to humanity

Furthermore, AI integration in the field of education shift the focus of individual from knowledge retention to spoon fed information provided by AI. ChatGPT has been used for making & coping assingments resulting in increase concerns of cheating. AI demolish the critical thinking capability of childern because of the availability of readymade information. "Technology will make the life better for individual not for societies".(Bernie Hogan)

Similarly, their is raising political unrest due to the features like deepfakes that is being widely used to make fake audio, vedio and images. It has been used by political parties against their opponent by spreading hate speech. Their is increase concern of igniting international conflicts. Case in point: during Russia-Ukraine war, a deepfake vedio circulated on social media on which the president of Ukraine was asking their people to surrender. AI has the potential to create such content which will result in devastating consequences

Moreover, their is increase

in digital divide due to AI. People who have no access to internet and technology are deprived of the benifits of AI resulting in digital divide. On the other hand those people who have access to technology remains ahead in every field of life. As per sundar Pichai, the CEO of Alphabet: AI how will have more profound impact on humanity than fire, electricity and internet.

Similarly, AI has made people dependent on them for everything resulting in langour amoung people. Technology itself became a grave concern for people. The technological advancement in every sector of life including personal or professional life has made people so dependent that they cannot even think to survive without technology these days.

In a nutshell, Artifical Intelligence refers to a machine that has the ability to analyze, understand, collect and process data. It is the stimulation of human intelligence in a machine that brought many advantages and disaduantages along with it. AI proved itself advantagenous in many sectors including education, health, climate, agriculture and at the same time raise concerns of job automatation, raise in malacious activites, exsistential threat and many more. It all depends on human being how they use technology. If people will use it for

good purpose than it will be benifical for people.

"AI holds incredible promises, but we must tread carefully to ensure that serves humanity rather than harm it"

— Sunday Pichai