

Topic:- Artificial Intelligence ; its promise and perils

1) Introduction:-

Thesis Statement

- 2) Evolution of AI ~ A rapid development
 - a- Birth of AI as a concept ~ mid 20th century
 - b- Rise of data driven AI ~ 2000's
 - c- The future of AI from now onwards
- 3) Pre-development promises of AI
 - a- enhancement of productivity through automation
 - b- AI's role in innovation and discovery
 - c- Convenience for humanity ~ virtual assistant
 - d- Its role as a philanthropist ~ medicine
 - e- Creativity as a core objective of AI
- 4) Post-development Perils of AI
 - a- Jobless at individual level
 - b- Privacy and security concerns for society as well as state.
 - c- Ethical and emotional weakness
 - d- Zero human interference ~ unintended consequences
 - e- Regulatory or accountability challenge
- 5) Mitigating Perils and maximizing profits
 - a- Massive public awareness ~ ethical education
 - b- Regulatory measures for creators
 - c- Pledges for ethical AI development ~ Treaty
 - d- Bias detection and mitigation ~ AI algorithms

6) Conclusion

→ Once, there were two friends living in a city of Techville. Both had a passion of cooking, and decided to open their own restaurants. Alex was an advocate of latest technology, while Sam believed in traditional ways of cooking. Alex's restaurant, "The Robo Chef," was technology marvel; Robots cooked, served, cleaned the restaurant. Customers loved that initially due to accuracy and minimal staff involvement. On contrary, Sam's "Classic Kitchen" was stuck to traditional methods. After some time ~~people~~ customers were absurd with technology everywhere, began to miss personal interactions, and unique flavours. It is evident that many aspects of AI can enhance the productivity, but it cannot replace fully human interactions. Before its development, AI promised to enhance productivity, innovations and discovery, one's virtual assistant, its role as a philanthropist, and creativity as its core objective. After its development, it impacts employment level, privacy and security risks, least emotional capability along with no human interference as the major perils of AI. Collective efforts can mitigate the perils through public awareness, regulatory measures in the form of agreements or treaties and unbiased detection of negative Algorithms used. Contemporary, growth of AI is a positive sign for human transformation. This advancement also brought several consequences with itself. Collective and critical efforts can lessen these consequences before it gets too late.

⇒ Artificial Intelligence is not a new concept, rather it evolved with the passage of time. It entered into the sphere of world during mid 20th century. At the initial phase it was based on symbolic reasoning along with rule-based approaches. It was not for deep multi-tasking or relearning rather it was a simple technology with few algorithms which can easily solve limited problems. During the initial phase of AI, it did not have the ability to learn or relearn the complexities. ~~Initially, it was for~~ ~~the~~ due to funding challenge, and least awareness ~~of~~ among general public lead to decline in AI interests and funding.

⇒ Evolution of AI, ~~continues~~ has been continue till date; whereas its graph shows visible upward shift ~~in~~ during 2000's. The only reason behind this swift growth was machine learning techniques along with neural networks and algorithms ~~which~~ ^{which} support vector machines. With the passage of time it introduced the concept of machine learning due to its ability to process data in bulk quantity. This ability was deployed, being inspired by the structure of human brain, revolutionized tasks like image and speech recognition. The evolution ~~of~~ and transformation of AI is a

long process from simple machines to complex creatures.

⇒ From mid 20th century till date, it is still evolving and one cannot predict its future, but there are some observations. On one side of the picture, it played crucial role in the development of human societies, while on the other side, its future prospects are akin to nuclear destruction. AI development is continuously under the scientist's ambit and making it a more intense and complex machine without exploring the negatives. Researchers are exploring quantum computing, reinforcement learning etc. The evolution of AI reflects a journey from symbolic logic to data-driven machine learning and deep learning process.

⇒ Before the development of AI it promised to enhance the productivity through automation of technical gadgets. It is seen quite helpful recently, where the inclusion of AI in technical gadgets increases the output of one's task. AI and its related softwares lessen the burden from human shoulders with accuracy as its primary objective. AI is currently automate time consuming tasks including data entry, file organization, email sorting etc. Through the task sharing, now humans can focus on more

valuable tasks which involve critical thinking or skills. Thus, AI replaced multiple tasks with accuracy and enhanced productivity many folds.

⇒ With the enhancement of productivity, AI is also useful in innovation of new products along with discovery of hidden treasures. AI is an abstract space with collection of enormous data. Through that data it can innovate new products in the form of designs, music, art, etc. Where as, the role of AI in discovery of hidden resources is quite helpful in the field of medicine, crimes, materials etc. It was obvious that Divalicefalin, which is a pain-relief drug developed with the assistance of AI. In this discovery, researchers used machine learning algorithms to analyze the data from clinical trials. Hence, AI is also quite helpful before its full potential.

⇒ Other than its role in innovations, it play the role of virtual ~~assistant~~ assistant for human beings. The purpose of virtual assistant is for task sharing and reminders during complex and hectic routines. Virtual assistants are more similar with human assistants, where they help individual in doing complex tasks and taking decisions. The role of Siri, Alexa, Chat GPT are consider as

virtual assistant for its users, every day and every time. This role of AI helps corporate businesses in the form of efficiency, excellence, scheduling etc. It was the promise of AI before development which seemed fulfilled.

→ Its role as virtual assistant, further extended to safeguard the world as a philanthropist. AI playing the duty of philanthropist in medicine arena is quite ~~and~~ useful, and till now with the positive use of AI many lives were saved. AI can predict trends and potential crisis, enabling philanthropic organizations to proactively respond to emerging issues. AI driven simulations and modeling assist in disaster response planning, and help authorities in best allocation of resources, evacuation routes, and emergency shelters in preparation for a disaster. Moreover the role of AI ~~in~~ in philanthropic activities is accurate and proactive than human's involvement.

→ Collectively, all the promises of AI before development is for the welfare of human ~~and~~ as a innovative creature for long-term benefits. Till now, in most of the fields of life it ~~is~~ has been used as service delivery creature, and helping humans during complexities and disasters.

AI can be used to predict the nature of water and its requirement for effective agricultural activities. In South West England AI will be going to predict pollution before it happens, and help prevent it. With the positive use of technology mankind can get benefits from its usage.

⇒ On contrary, AI is also considered as eye-opener for mankind with its perils including unemployment at the top of list. It had ~~been~~ observed that most of the jobs which require human activities were now replaced with AI bots, performing human ~~and~~ duties. This rise in unemployment level ~~is~~ is effecting the both developed and developing countries, where the rate of unemployment is already on upward trend. This transforming role of AI may be helpful for enterprises, but at state level it effects the demographic ^{situation} badly. According to Catherine Thorbecke's report in ~~an~~ CNN July, 23 AI driven tech firms cut off employees around 212,294 in 2023 alone, whereas, around 169,709 workers were already laid off in 2022. This was a huge number and in long run it will impact the country's growth and development.

Other than job security, it have the ability to sabotage one's privacy and secrets of state too. From this perspective it is obvious that the role of AI in a world full of conflicts and issues is more threatening than beneficial. There is the increasing risk of hackers who try to sabotage the access data of citizens via utility firms in the country. In 2021 hackers extract around 30 GB data of users of K-electric and want ransom of money of 2.5 million dollars in return. In case of non-payment they threatened to leak this data on dark-web. After incident hype it was reported that data included citizens contact numbers, CNIC, address, organisation's funds details etc. From the above issue it is obvious that how AI can sabotage one's private information, and also a security ~~breach~~ breach for state's enterprises.

⇒ Moreover, beyond privacy issue, AI a machine with installed data lacks emotional and in ethical weakness. It already imparted with certain predefined patterns which lacks its decision-making power, which in return ^{impact} humans' lives. AI lack moral judgment and ethical reasoning which is against human values and ethical principles leading to ethical dilemmas in various contexts. AI can be used to generate

deepfake content along with fake voiceovers, this negative impact is affecting the lives of many married couples. It is also used for political gains through spread of misinformation. These dilemmas are in constant debate, and this non-ethical content is affecting the lives of many people around the world.

⇒ AI being non-emotional and non-ethical, also ~~it is~~ not interfered by humans at most of the stages, lead to utter destructions. Violent activities or violent agenda if run through using AI will not stop until specific commands given. It can also be used to exploit individuals and organizations in the form of hacking, cyber security risks, cyber-terrorism. AI can be employed to enhance distributed Denial-of-Service (DDoS) attacks by dynamically adjusting attack vectors and targets in real time, making them more challenging to mitigate. These algorithms are only one time intruded by humans, which later performs its tasks at its own. This type of threat is more severe than nuclear usage.

⇒ Above mention risks / threats of AI is because of no regulatory authority, which is more dangerous than the existing threats. The severity of threats have ~~not~~ doubled with no surveillance or human oversight over the malicious activities conducted via AI platform. AI system trained on biased data, can perpetrate and even exacerbate societal biases and discriminations. Without proper regulations, there may be no oversight to ensure that AI algorithms are fair and unbiased. Without proper human oversight or regulations these technologies are more disastrous than ~~benefits~~ benefits for human beings.

⇒ Despite various perils of AI, its profits can be maximized by ~~an~~ public awareness at ~~low~~ greater level. It is the human perception that drives its actions, and it can be altered from time to time. Complete and thorough awareness campaigns can mitigate the threats manifold. By informing the users about mediums of threats and means or ways to secure them will work ~~most~~ effectively. Highlighting the uses and abuses of AI can mitigate or lessen the threats manifold. It should be organized by tech companies or their interlinked sponsors will be quite effective in this regard.

⇒ Beside awareness campaigns, regulatory measures are also required to control and oversight their developed softwares. Human surveillance over learned machines is necessary, due to its biased contents and emotionless outcomes. Regulations can establish ethical guidelines for AI development, addressing concerns related to bias, discrimination, and the misuse of AI technologies. Regulations can mandate that AI systems provide explanation for their decisions. This transparency enhances trust and accountability. Regulatory measures for creators are necessary for responsible and ethical AI development.

⇒ Along with creator regulations, international organisations which are concerned with the welfare of greater public should pressurize the states ~~along with~~ for greater consensus. AI is also perceived as persistent threat which should be countered with the efforts of states and non-state actors. After the development of nuclear weapons, the threat was obvious, which is countered with international treaties, conventions and code of conducts. AI with its negatives can be controlled via general treaties by involving UNO, and specialized agencies to pressurize creators and their companies to sign accords for fair use and legality. General agreement is

a common interest of all the states to conform the procedures for ethical and positive use of AI.

⇒ After general treaty and regulations, all the bias and discriminatory algorithms should be removed by the designed bodies. Among the consequence, most of them were due to biasness and ~~impar~~ partiality of algorithms. By eliminating the bias and discriminatory algorithms the system would be streamline, and only use for benefit purpose for all human-races. Most of the AI responses are non-ethical and emotionless due to these ~~algos~~ bias coding. Cyber crimes, cyber-terrorism, cyber warfare are all the biased codes which installed to harm the humanity at greater scale. By elimination of these bias algos AI will become a peaceful creation ever made by humans for welfare purpose.

⇒ In summation, one can analysed from above discussion that AI is a double edge sword which can be use for the betterment of humans, and ~~on the~~ also for destruction of humanity. On one side AI play a pivotal role in societal development.

through creation of new designs ; on the other hand , it can cause privacy and security related issues for human beings , and states . A collective action of states , non-states actors and responsible international organisations can prevent the ~~misuse~~ threats posed by negative use of AI . It also regulates the actions through general consensus , treaties , accords , conventions etc . Through these actions perils can be eliminated along with ~~profit~~ benefit maximization .

