

ARTIFICIAL INTELLIGENCE WILL OVERTAKE HUMANS

1) Introduction

2) Thesis

Without timely and appropriate measures, Artificial Intelligence (AI) may surpass human abilities, overtaking humans in various aspects of life.

3) The core concept of "intelligence" and its classification into Artificial Intelligence (AI) and Human Intelligence

4) AI has the potential to overtake humans in various spheres of life

A) Humans are subjected to "bounded rationality"; AI is not

B) Technological Singularity: The potential of AI to surpass human control

C) Artificial Super Intelligence (ASI): AI's ability to surpass human cognition

D) The Cognitive Evolution Theory
: Intellectual evolution of AI
like that of Homo-sapiens.

5) The threats that "AI supremacy" poses
to mankind

A) Economic threats

AI can cause technological
unemployment - John Maynard

B) Social threats

The implications of 'deepfake'
AI technology and misuse
of data

C) Political threats

misuse of AI's potential:
disinformation campaigns

D) Existential threats

misuse of AI to fulfill
terrorists' incentives,
threatening human life

~~(E)~~ Ethical threats

6) Countering the optimist arguments for future of AI posing it as a non-threat

A) AI is a man-made tool thus it is under human control (A narrow approach)

AI * requires hñl

B) AI is a tool that augments human capabilities rather than replacing them - Andrew Ng
(A shortsighted argument)

7) Precautionary measures that may help in mitigating the threat of AI

A) Establishment of regulatory and ethical frameworks

B) AI safety research

C) Transparency in AI manufacturing and programming

8) Conclusion

Artificial Intelligence will Over-take humans

The plot of Matrix (1999) - an all-time thriller science fiction movie, is such that the machines develop an ability to self learn which gives rise to an extraordinary degree of automation. These machines go rogue and capture humans in order to use them as an energy source, while humans fight against these machines to get freedom.

Though pure fiction, the initial stages of this plot are quite analogous to the real world scenario involving humans and Artificial Intelligence (AI). [Though] "ChatGPT" (an AI tool) has ~~snatch~~ yet not decided to imprison humans like the ^{evil} machines in matrix do; However, it does not mean that there is no such threat. Without timely

and appropriate measures, artificial intelligence may surpass human abilities, overtaking humans in various aspects of life. Given the advanced forms of AI such as Artificial Super Intelligence^(ASI) and Artificial General Intelligence (AGI) with extraordinary capabilities and unprecedented technological abilities such as cognition and reasoning which were previously exclusive to humans, AI is showing a significant potential to replace humans in various spheres of life. This poses a significant threat to the economic welfare of general public as it may cause technological unemployment. The technologies such as "deep fake" raise concerns regarding privacy and ethics. Moreover, AI, given its unprecedented technological capabilities, can be misused to ~~fulfill~~^{aid} terrorist entities or to do dirty politics, which is a threat to

existence and socio-cultural institutions respectively. However, appropriate measures including ethical regulation, safety research, and transparency may contribute to mitigation of risks that AG entails.

Intelligence is generally referred as the ability to acquire and implement knowledge. It is also associated with the processes of cognition and reasoning, which are attributes of humans. Humans have created AI and have "programmed" these attributes into it. However, at the end of the day, the human intelligence is exclusive to humans, as it is accompanied by ethics, compassion, drive, motivation, instincts of survival, social behaviour and last but not the least, feelings. All these elements contributed to

the formation of "civilization", the development and evolution of which has brought man to a stage where he is able to create tools such as AI that are so advanced efficient and marvellous. Thus, the ~~comparision~~^{competition} between the creator (human) and the creation (AI) is complicated. History has ~~seen~~^{witnessed} the events when man has unknowingly created his own destruction and followed by regret and remorse, as Oppenheimer - the maker of atomic bomb - said in regret, "Now I ~~am~~^{become} death, the destroyer of worlds".

Despite Humans' exclusiveness and intelligence, they ~~are~~ have bounded rationality. Man is considered as a rational being who tends to act in his best interest based upon the available information. Since a normal human is
brain

not does. not have immediate access to all the information, It acts on the basis of limited information available at that time. AI is not bound by limited information. Humans have thus started to depend upon information AI for information. AI tools such as Chat GPT have immediate access to a vast pool of information entailed by extraordinary cognition speed and reasoning ability. The fact that most of the students now a days rely on AI for creative tasks and assignments is the proof that AI is overpowering human tendencies. Such extraordinary abilities of AI signify its potential to overtake humans.

Technological singularity is the point where technology will be anticipated to become so advanced that it may surpass human

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control. Beyond this point, the technology is supposed to self-learn and self-improve without any human intervention. Today, AI has been equipped with machine learning and automation softwares that point towards technological singularity. Artificial Super Intelligence (ASI) is equipped with neural networks - a technology that recognizes the patterns of human brain and then mimics them. Furthermore, Artificial General Intelligence (AGI) has the ability to perform intellectual tasks such as cognition, reasoning and deep learning.

'Transhumanists' is a school of thought that believes that world will reach technological singularity by 2060. If this happens, humans may become too dependent on AI and given the self

learning and self-improving capabilities, AI may ~~surpass~~ human become out of control or maybe rogue like in matrix.

The cognitive evolution theory of AI suggests that AI will undergo a similar evolution to humans. However, given the pace of technological development and enhancement of AI, this evolution will not take millions of years like human evolution; it will be fast, rapid and uncontrollable. Like humans overtook all the other species of the world due to evolution, it is quite possible that AI will overtake humans in future. Sam Altman, CEO of open AI, ^{says} ~~said~~ that he is often afraid of his own creation. Elon musk labelled AI as one of humanity's biggest

threats. Such statements by people who are influential and relevant to the field also point towards the risks of AI in coming future.

The robust development leading to potential supremacy of AI over mankind pose significant threats in various spheres of life including economic, political, and social, existential and ethical threats.

AI comes with significant economic implications which is a threat to public welfare.

AI has the potential to replace human workforce due to advancements like Robotic Process Automation (RPA) which involves use of AI to automate rule based tasks. According to the Journal of Artificial

Intelligence and research (2018), self-driving AI powered vehicles may replace millions of driving jobs in the coming decade. Moreover, some industrial jobs including manufacturing industrial jobs have been replaced by AI powered robots. For example, Tesla uses AI powered robots for manufacturing rather than using human labor.

Thus, AI's advancement comes with economic drawbacks for humans as AI is overtaking humans in job sector.

AI ~~ex~~ has the potential to influence the societal structure, posing a threat to the peace and harmony of a society. AI technology known as "deepfake" has been used to create fake images of and videos of people. Such misuse of

AI has resulted in the propagation of misinformation and unrest in society. During Rohingya Crisis in Myanmar (2017-18), misinformation and hate speech spread widely on Facebook using AI generated deepfake videos to incite violence against the minority Muslims in Rohingya. There were digitally altered videos showing Muslims attacking Buddhists, which were later confirmed to be AI generated. Thus AI can cause extremism, unrest and violence in a society, making it a potential threat to social structures.

AI has often been used to alter the political processes. Such incidents have adverse affects on the states democratic integrity and people's

political perception. During Since 20 In 2023, the Republican National Party used an fake AI generated video showing the re-election scenario of Joe Biden portraying a scene of economic collapse. It was an effort to influence public opinion through artificially generated visuals. Thus AI has power over the political process as it can play ~~the~~ a role in manipulating public opinion through artificially generated content.

Furthermore, AI has power over kinetic actions that point towards an existential threat to humans. ISIS conducted Islamic State of Iraq and ~~Libya~~ Sham (ISIS) conducted AI powered drone attacks in Syria in

2017. Moreover, AI powered robots do have the capability to take a human life whether it is due to malfunction or ~~mis~~ misuse. As per National Highway Traffic Safety Administration (NHTSA), Tesla autopilot - which is an AI powered feature - caused multiple accidents. Some of these accidents were fatal and the causes of these accidents included incorrect navigation and failing to recognize objects. Thus AI has the potential to threaten human existence.

Critics of the opinion that "AI will overtake humans" often argue that since AI is a man-made tool, its potential is limited to the point where the creators want it

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to be. However given the technologies such as AGI and ASI, AI is able to self-learn and self improve. Chat GPT-4 works by a mechanism called Reinforcement Learning from Human Feedback (RLHF): It improves by self learning through human interactions without any additional programming or command. Since AI is not dependent on humans for improvement, it has the tendency to improve beyond human capability. Thus it is a false notion that AI would remain within human control just because it is human's creation.

Andrew Ng is of the view that AI is a tool to augment human capabilities rather than replacing them.

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but

though it is true that it augments human capabilities, ~~there~~ we can not ignore the threat it entails.

This augmentation can create tremendous dependency of humans on AI. Yuval Noah Harari predicts the "rise of useless class" as a result of overdependence on AI for daily tasks. Thus complete dependence of humans on AI would support the notion that AI has overtook humans rather than the notion that it has augmented their capabilities since becoming useless is not a success but a loss.

Despite the threats of AI, several timely and precautionary measures may aid in mitigation of threats posed by AI. These measures include establishment of regulatory and

ethical frameworks, AI safety research and transparency in AI manufacturing and programming.

Establishment of a regulatory body to mitigate the threats of AI is crucial. Such bodies should work on registration of AI softwares and a system for tracking their activity throughout the globe like any other regulatory body. [Global AI Governance/ Authority (GIAA)] is

There is a need of an independent international organization that ensures safe, ethical and fair use of artificial intelligence.

Moreover, safety research programs should be developed in order to develop precautionary strategies to in order to any ~~signi~~ tackle any significant threat AI poses

to the welfare of mankind.

To add to the safety measures, transparent manufacturing and programming should be ensured.

This can be done by incentivizing the registry of developed softwares. moreover, ethical hacking should be used as a tool against the ones who misuse AI. The misuse of AI should be traced down through efficient cyber policing at national and global level. In this way transparent use of AI will promote ~~the~~^{its} positive utilization ~~and~~ with minimal threat.

When all is said and done, it is quite rational to recognize the tremendous potential of AI and the threat it comes with. AI has the potential of comp-

lete automation. This can be dangerous if not controlled through timely and appropriate precautionary measures. Moreover, the potential of AI can be seen in its newly developed softwares such as ASI and AGI. The tremendous power of AI, if not regulated properly can have adverse implications for humanity, threatening the economic, socio-cultural, political and ethical welfare of public. However, robust and efficient measures can prevent the terminator coming to life and it can also prevent matrix (1999) from becoming a reality.

