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Outline.

## Artificial Intelligence: Advantages and disadvantages.

① Introduction. AI or Artificial Intelligence has revolutionized the world and helped to fuel unprecedented social and economic progress. But it has also created disruption, new vulnerabilities, and harmful repercussions which have got to be mitigated or effectively managed.

2. Understanding the Concept of Artificial Intelligence.

2a) Brief historical background.

2b) Advanced Technological developments including Biotechnology, genetic engineering, Robotics, and quantum computing etc.

( "The Coming Wave" by Mustafa Suleyman)

3. Advantages of Artificial Intelligence (AI).

3a) AI is cheap, easily accessible, and free of cost; within seconds it can generate numerous texts, pictures, and videos.

3b) Shaping Public Perception and ensure Justice through social media campaigns.

( AI-Generated Image " All eyes on Rafah" was shared more than 44 million times

in less than 48 hours amid Gaza conflict)

3c) AI-chabots including chat GPT and others helps in improving the quality education.

( As per UNESCO, AI-Based Assistive Technologies have improved access for over 300 million students with disabilities globally).

3d) Enhancing the creativity of artists, authors and others.

(According to 2020 Adobe Survey, 74% of creative professionals believe that AI can enhance creativity by automating repetitive tasks, allowing them to focus more on conceptual and creative aspects of their work).

3e) Improving the health sector and assisting doctors and scientists to identify the best possible solutions.

(A 2020 Study published in Nature Medicine demonstrated that an AI model could detect breast cancer with 94.5%

accuracy, outperforming human radiologists by 11.5% in sensitivity and 5.7% in specificity).

3f) Revitalizing the Film Industries, using AI-generated models, actors, without any need of human assistance.

(Bollywood Film Industry released its first movie "Kalki 2898 AD", 2024, generated AI-characters.)

3g) Advancing Businesses, bringing innovations, thus contributing to stimulate economies.

(The McKinsey Global Institute estimates that AI could boost global productivity growth by 1.2% annually by 2035).

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### 3e) Revolutionizing the Agriculture Sector.

(A Report by the Food and Agriculture Organization (FAO) found that AI-driven precision agriculture techniques can increase crop yields by up to 20% by)

### 3f) Assisting humans to combat climate change.

(The United Nations Disaster Risk Management (UNDRR) - AI-driven early warning systems could reduce disaster-related losses by up to 30% saving lives and reducing economic damage)

### 3g) Ensuring the transparency in the democratic elections and builds effective policy making for effective governance)

(UK AI Candidate Steve can handle up to 10,000 conversations, acts as a Copilot and enhances the political connecting between politicians and their constituents.)

### 3h) AI-based weaponry system strengthen deterrence, spares human lives.

(As per 2022 report by the Center for Strategic and International Studies, AI-enhanced targeting systems can improve strike accuracy by up to 30% )

## 4- Disadvantages of Artificial Intelligence (AI)

4a) Exacerbating power imbalances, and concentrating wealth in the hands of a few.

(A 2021 Report by WEF, developing countries could capture only 25% of

the global economic value from AI by 2030, while developed countries (75%).

4b) Weakening creativity thinking abilities of the students.

(A study published in the Journal of Educational Psychology, AI-generated

feedback helped improve grammar and structure, it often missed nuances in creative or critical thinking (which are better addressed through human interaction).

4c) AI-generated content steals the work of creators or artists without permission.

(As per Survey of Design Automation Conference found that 27% of creative professionals worried about their AI replacing their jobs).

4d) Minor Error in AI-machines can cause disastrous issues in health sector.

4e) AI-Generated Fake content spreads misinformation and influences public perception thus undermine transparent electoral processes.

(Case Study of BREXIT)

4f) Tech-empowered 'Bad actors' erodes States stability to provide security to its citizens.

(Study of Combating Terrorism Center at the West - AI used by Terrorists groups i.e. Al-Qaeda).

4g) AI-advanced weaponry system causes mass-scale genocide.

(Example: Hasbora AI-system used by Israel)

3h) Deepfakes and weaponizing of information pose another threat, contributing to Technology Assisted Gender-Based violence.

(As Per Pew Research Study, while 26% of women age<sup>d</sup> 18-24 years experience cyberstalking, only 7% of men in the same age range do so).

5) Conclusion.

Modern Technology has powered multiple positive developments — empowering people, improving lives, increasing productivity, advancing medical and scientific knowledge and transforming societies. Conversely, it has also exacerbated power imbalances, concentrating wealth in the hands of a few, undermining human rights, and increasing global tensions. Due to this reason, the United Nations, Secretary General, António Guterres has said that global divisions and conflicts must end to clear a world's two existential threats: Climate change and negative impacts of the AI-boom i.e. Artificial Intelligence. Therefore, Artificial Intelligence not only contributes to assist humans in economic productivity, but it also improves the social life in the form of attaining good quality education, improving the health sector by assisting the doctors and scientists for the best possible

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solutions for any problem; ensures the justice through the help of AI-generated pictures used on social media campaigns; improving the creativity skills of artists, and other professional workers; revitalizing the film industries and much more. However, it also underscores a grave situation in the form of spreading misinformation, generating deepfakes of commoners, influencers, and politicians which results in security issues for mankind. It also poses a grave threat when some bad actors used it for spreading terrorist or extremist activities. AI-based weaponry system by military establishment can create a mass-scale genocide. Moreover, it also creates a widening gap between the developing and the developed countries to take advantage of AI because of lack of education and resources. Not only this, AI can also hinder the creative thinking abilities of the children and students. It steals the work of creative artists and authors by plagiarizing the already available data. Hence, these are some concerns that needs to be tackled through its effective and ethical usage. Therefore, one can say that Artificial Intelligence or AI has revolutionized the world and helped to fuel unprecedented social and economic progress. But, it also created disruption, new vulnerabilities,

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and harmful repercussions which have get to be mitigated or effectively managed.