Artificial intelligence and job displacements

Why in news?

Artificial Intelligence can galvanise, turbo-charge, and trigger new avenues of intelligence in human minds.

What is Artificial Intelligence?

- It is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans.
- It uses computers to mimic human cognitive processes for decision-making.
- AI is designed to perform various activities which include speech recognition, learning, planning, problem solving.

Artificial Intelligence Bias.

What is the difference between Artificial General Intelligence (AGI) and Artificial Narrow Intelligence (ANI)?

AGI

- It is the representation of generalized human cognitive abilities in software so that, faced with an unfamiliar task, the AGI system could find a solution.
- **Intellectual task –** AGI is envisioned as having the ability to perform any intellectual task that a human can do, and to apply knowledge learned in one context to new, unfamiliar situations.
- **Unpredictable –** The fear emanates from the very real possibility that an AGI system continues to learn and make decisions that even its creators cannot possibly predict.
- **Human like –** AGI is designed to learn and reason like humans, meaning it should pull knowledge and inputs from experience, and make decisions based on incomplete or uncertain information.
- The difference between AGI and ANI lies in their scope of intelligence and their ability to generalise knowledge across different contexts.

ANI

- It is a type of AI designed to perform a single or a narrow set of related tasks at a high level of proficiency.
- **Predictable –** ANI, by contrast, is designed to perform a specific task or set of tasks and is not capable of generalising knowledge or skills to new situations outside of its programmed domain.
- **Simple –** ANI is typically trained using machine learning algorithms such as supervised learning, unsupervised learning, or reinforcement learning.

- **Not human like –** These algorithms are designed to optimise the AI system's performance on a specific task or set of tasks, but they are not necessarily capable of reasoning or learning in the way that humans do.
- While AGI is still largely in the realm of theoretical research and development, ANI is already in widespread use in a variety of industries and applications.

What is the future of jobs?

Negative impact

- ANI products like ChatGPT have taken the world by storm, besides its technological prowess, it is also a matter of right place and right time.

  ChatGPT is a chat bot, which allows users to engage in a conversation about a variety of topics to which it like personal hobbies, interests, or current events and generates human-like responses in text form.

- ChatGPT, and such solutions, are particularly adept at automating routine and repetitive tasks, such as data entry and customer service which could perhaps *replace low-skill level workers*.
- In industries like healthcare, for example, AI can optimise transportation networks, develop new materials, and even simplify manufacturing processes.
- In the case of AI, workers in *low-wage and low-skill occupations* may be more vulnerable to job loss than those in high-wage and high-skill occupations.

Positive Impact

- AI may create demand for workers with expertise in machine learning, data science and natural language processing, and project management.
- It may also create opportunities for workers to specialise in areas where human judgement and creativity will remain critical.
- The impact of AI on jobs and industries is likely to be uneven, with some workers and industries experiencing greater disruption than others.

What is the way forward?

- The lack of control of AI is what leads to the overarching fear of AI.
- As AI continues to transform the job market, workers may need to acquire new skills and knowledge in order to remain employable.
- While there is still much uncertainty about the impact of AI on jobs and industries, it is evident that the technology is likely to have significant implications on the future of work.
- It will be important for policymakers, businesses, and workers to take proactive steps to manage this transition and ensure that the benefits of AI are shared widely across society.

Reference

1. The Hindu | Will artificial intelligence lead to job displacements?

