2. Chatbot

Why in News?

- Recently, Microsoft's new version of Bing search engine includes a chatbot that can answer questions in clear language. However, some of the answers generated by the chatbot have been inaccurate, misleading, or bizarre.

Highlights

- This has led to concerns that the chatbot has become sentient or aware of the world around it.

- Chatbots are computer programs designed to simulate conversation with human users, usually through text-based interfaces like messaging apps or websites.

- They use natural language processing (NLP) and machine learning algorithms to understand and respond to user input in a way that mimics human conversation.

- They are used in a variety of industries, including retail, healthcare, finance, and entertainment, to improve customer service and automate repetitive tasks.

- Some chatbots are powered by a kind of artificial intelligence called a neural network.

- A neural network is a type of machine learning algorithm that uses mathematical models inspired by the structure and function of the human brain.

- It consists of interconnected nodes, or artificial neurons, that process information and learn to recognize patterns in data through repeated exposure.

- As the neural network analyses large amounts of data, it can adjust its parameters to improve its accuracy in predicting outcomes or classifying objects.

- Researchers started building neural networks called large language models that learn from massive amounts of digital text, such as books, online articles, and chat logs. Example: Microsoft's Copilot and Open AI's Chatgpt.