Mains Practice Question

Q. Introduce the concept of Artificial Intelligence (AI). How does AI help clinical diagnosis? Do you perceive any threat to privacy of the individual in the use of AI in healthcare? (150 Words, UPSC Mains 2023)

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Approach:

- Begin your answer by discussing the relevance Artificial Intelligence (AI)
- Discuss the role of AI in healthcare and its potential to revolutionize clinical diagnosis. Also, discuss the concerns of AI in healthcare.
- Conclude with a balancing approach.

Introduction:

Artificial intelligence (AI) is the epitome of information technology excellence in the world right now. It is the closest that we have come to developing a human-like intelligence in a computer and it is based on processing a plethora of data.

Body:

AI in clinical diagnosis

- **Comprehensive Analysis**: AI can help process a large amount of data and based on previous medical history it can provide a comprehensive analysis of the patient's health.
- **Early Detection:** Patterns in data are easily detectable by AI. Through data sets of thousands of people, AI can predict a disease that is possible for a particular individual with particular symptoms.
  - For example, AI has been reported to recognize patterns in people with family history of heart disease and suggest which ones of them were at risk.
- **Helping Hand**: Rather than replacing doctors, AI can help by supplementing their efforts and making the decision easier to take.
- **Monitoring**: AI based wearable devices can help monitor the levels of various parameters of health of an individual.
  - For example, monitoring of blood pressure by smart watches.

Threats of privacy

- **Big Data**: AI becomes 'intelligent' by processing huge amounts of data. People's consent becomes necessary, but it is generally not adhered to.
- **Data Breach**: With big databases comprising individual's medical records, the value of security goes up significantly as the data breach can lead to serious repercussions.

Conclusion:

The advent of Artificial Intelligence continues to cause massive changes throughout the world in all sectors. Healthcare has already been revolutionised by technology but its better utility depends on proper redressal of concerns