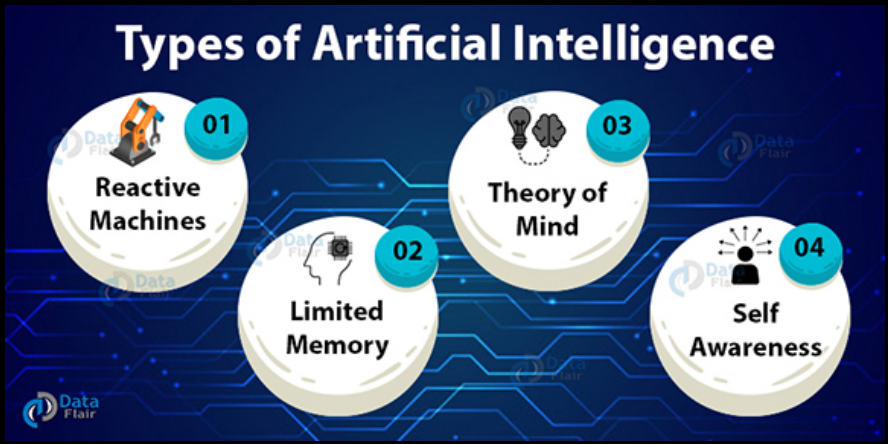
ARTIFICIAL INTELLIGENCE SNIPPETS

TYPES OF ARTIFICIAL INTELLIGENCE

Arend Hintze, an assistant professor at the Michigan State University, classifies AI into four types:

- Reactive Machines
- Limited Memory
- Theory of Mind
- Self Awareness


Types of Artificial Intelligence
01
Reactive Machines
02
Limited Memory
03
Theory of Mind
04
Self Awareness
Data Flair

Reactive Machines:

- Reactive machines do not store memories or learnings from past experiences.
- They simply react to the surroundings and choose the most optimal solution amongst available alternatives.
- It cannot infer from its prior experiences to build on.
- We all remember IBM's DeepBlue, a chess-playing supercomputer, which defeated international grandmaster Garry Kasparov.

- DeepBlue is capable of identifying pieces on a chessboard and even can predict what could be the next move of its opponent.
- It can also choose from the next possible moves, however, it is unable to retain any memory and bring past experiences into the picture while making decisions- which means that previous moves will not affect its future decisions.

Limited Memory:

- Limited memory machines retain data in a transient manner; meaning that its memory lasts for a short period of time, much like a goldfish, haha! Erm...shh, computers are more intelligent now! Let's not make fun of them! Coming back to the point, such a system can use experiences occurred in the recent past to inform future decisions.

- However, it cannot add these ‘experiences’ to its database or library.
- For example – a self-driven car stores the speed and pattern of changing lanes, etc of cars around it, and navigates on the basis of this data.
- However, perpetual storage of these observations does not occur.

Theory of Mind:

- With theory of mind, we can say that it's the type of AI that is yet to exist.
- The purpose behind building such an AI is to have computers that can simulate human emotions, beliefs, and desires, that impact future decisions.
- It relates to the understanding of the world that other entities also have thoughts, memories, and feelings.

- For two individuals to be able to work together, they need to have some sort of interaction between them.
- AI systems will interpret in the future that humans have expectations as to how they should be treated.
- Isn't that great?
- Most computers today use various models to drive their behaviour, but one with a mind of its own is yet to exist.

- Researchers are developing Bellhop Robot for hotels, which will predict the demands of people who intend to stay in the hotel.

Self-Awareness:

- What is all this meditation and spiritual stuff in the midst of artificial intelligence now?
- To answer that, let's first understand self-awareness.

- When an individual has conscious knowledge of their character and their own feelings, he/she becomes self-aware.
- An AI is self- aware when it is able to form representation about itself, and thus, be conscious about itself.
- A self- aware machine will understand its current state and use the information to infer the emotions of others.

- AI researchers and enthusiasts believe that this can prove to be the ultimate goal of AI development.
- Once this is achieved, AI will operate like a human and start predicting its own needs and demands and start thinking of others as an equal.
- Such an AI does not exist yet.