01 Introduction & Types Of AI

What is AI?

AI Referts to the simulation of human intelligence that is programmed to think like humans which helps in decision making.

Turing Test.

Turing proposed that the computer can be said to be intelligent if it can mimic human desponses under specific conditions. The turing test is used as a baseline as to know if the machine can think like a human.

Types of AI based on capabilities.

1. Narrow AI (Weak AI)

Narrow AI is trained to perform a narrow task. Since it perform anything else than the predefined task, this could mean that it may be better at performing that task compared to humans. But since it is only able to perform a predefined task and requires Humans to train it, it is still called as Narrow AI. Is the the only form of AI that we have available currently. ex. Alexa, Siri, etc.

2. Strong AI (Artificial General Intelligence or General AI)

This is theoretical AI which in theory can simulate humans in the best way possible. It can use previous learnings and skills to accomplish new tasks in a different context, without the need for humans to train that model.

3. Super Intelligent AI

Super Intelligent AI can make decisions, have needs, have emotions & beliefs like how humans can. If Super AI gets realized, it would think, reason, learn, make judgements and possess cognitive abilities that surpass those of human beings.

Types of AI based on functionality.

1. Reactive Machine

Does not rely on past data & will only react on current existing situations similar to AI used for chess. reactive machine AI are systems which are designed to perform a very specific specialized task. It stems from statistical math and analyses vast amount of data to make smart decisions. ex. Deep Blue chess AI.

2. Limited memory AI.

Can use past events and moutcomes and monitor specific objects over time and can use past and current data to find the most desirable outcome. example: generative AI chatbot which can predict the next word, etc.

3. Theory of Mind AI.

Could infer human motives and reasoning and use it to personalize its interactions with the individuals based on their unique needs. ex. Emotion AI -> it is an AI currently in development and will have the ability to analyze voices, images and other data to understand and respond to human feelings.

4. Self Aware AI.

Self aware AI is thought to havehuman level consciousness. Self aware AI would have the ability to understand its own internal conditions and traits, leading to its own set of emotions, needs and beliefs.