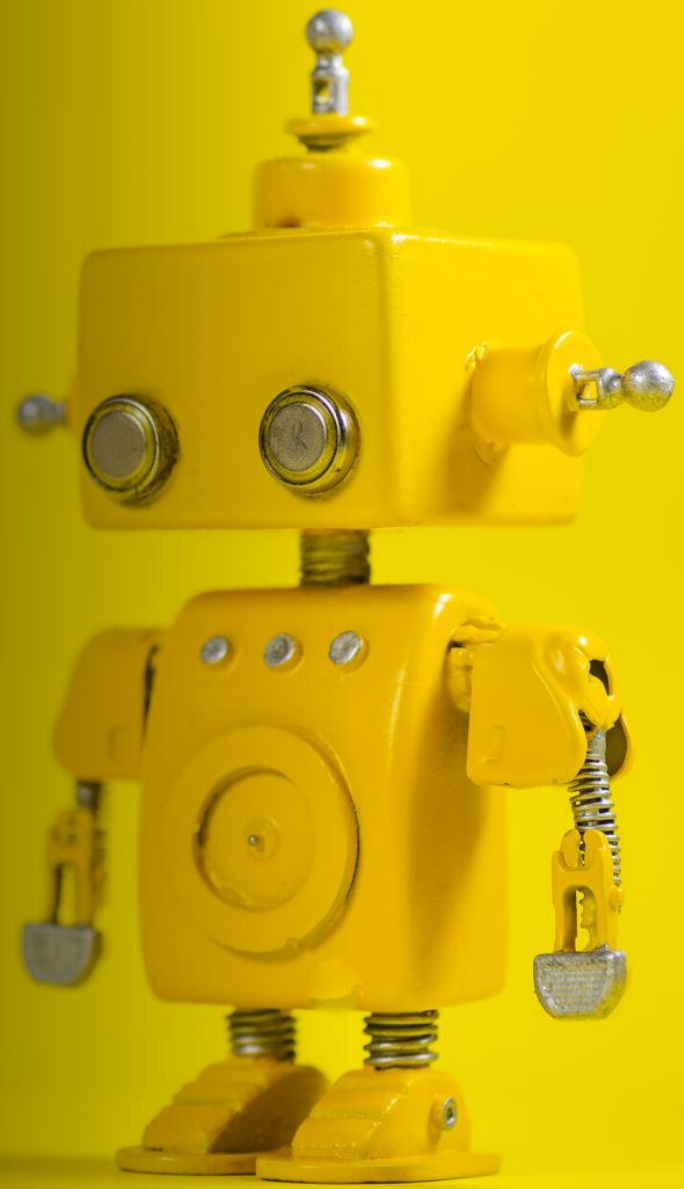
Artificial Intelligence



Artificial Intelligence

- What is intelligence
- What is artificial intelligence
- History of artificial intelligence
- Difference between human intelligence and machine
- Type of A.I.

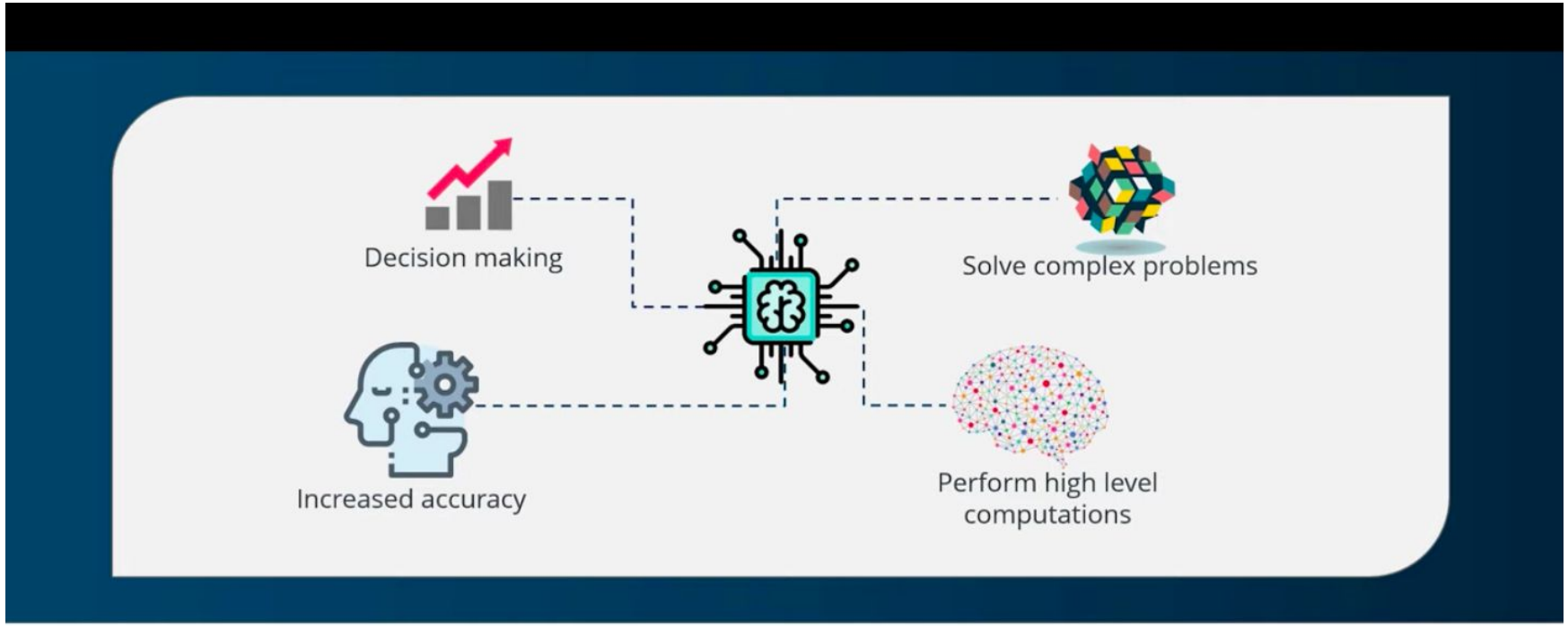
What is intelligence

WHAT IS INTELLIGENCE

Intelligence is the ability to think, calculate, reason and learn from experience, to solve problems and to adapt to new situations. Intelligence can also perceive relationships, learn from past experience,store and retrieve information from memory, solve problems, evaluate complex ideas, use natural language, categorize, simplify, and adjust new situations.intelligence is based on following parameters:

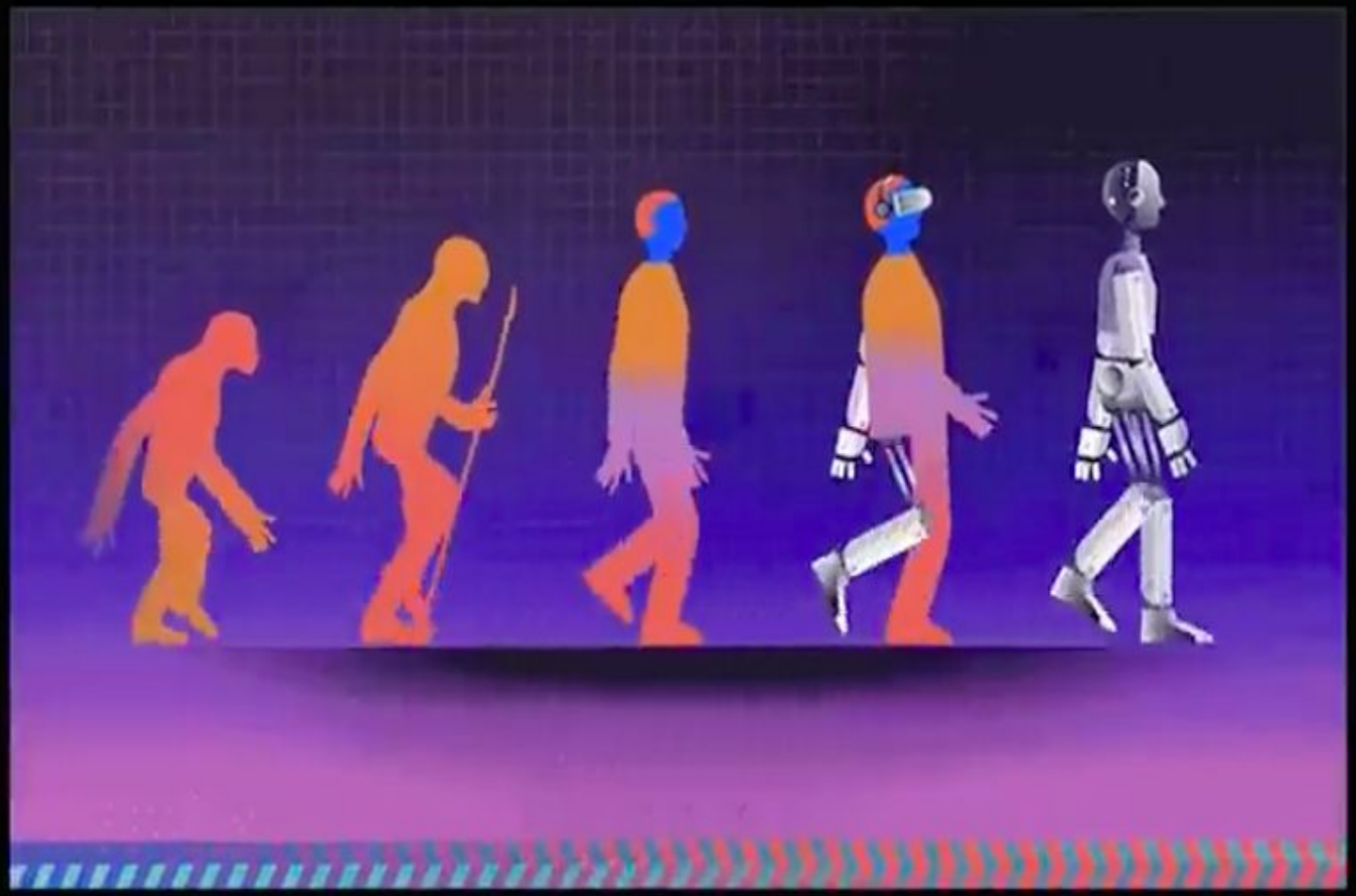
- Learning From Experience
- Identifying Problems
- Problem Solving
- Ability to Make Accurate Decisions
- Ability to prove the outcomes
- ability to think logically
- Ability to learn and improve

Artificial Intelligence



AI can also be defined as:

Artificial Intelligence is the development of computer systems that are capable of performing tasks that normally require human intelligence, such as decision making, object detection, solving complex problems and so on.



"Artificial Intelligence is the science and engineering of making intelligent machines."

INVENTOR OF ARTIFICIAL INTELLIGENCE

John McCarthy first coined the term Artificial Intelligence in the year 1956.

What Is Artificial Intelligence?

'The science and engineering of making intelligent machines.'

HISTORY OF ARTIFICIAL INTELLIGENCE

Healthcare

Robotics

Business
Analytics

Marketing

edureka!

WHY AI TODAY

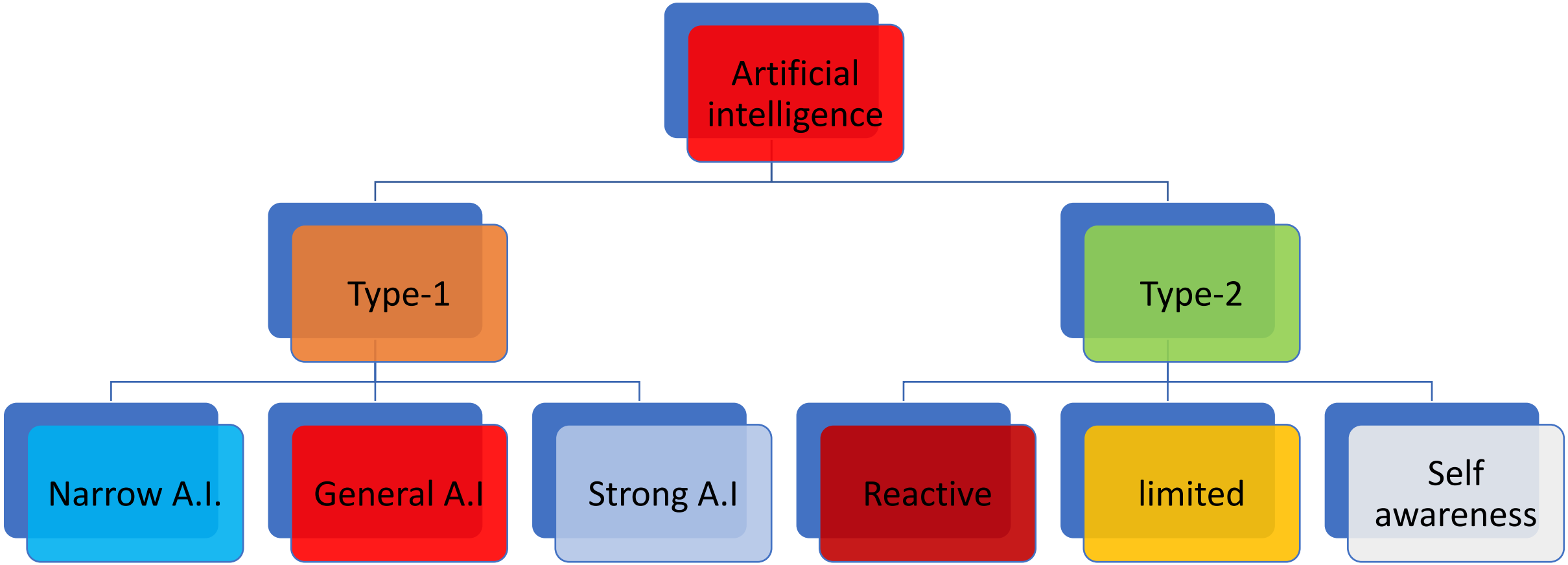
Artificial intelligence is a buzz word today ,in the field of computer science? The simple reason is that today we are technologically more advance and ready for better research.

We have computer with faster computational power.

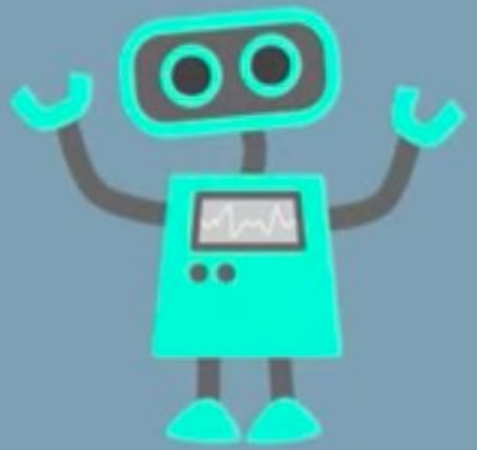
We are now becoming able to program.

Computers in much better way with complex and intelligent algorithm.

Types of A.I


Artificial intelligence
Type-1
Type-2
Narrow A.I.
General A.I
Strong A.I
Reactive
limited
Self awareness

Artificial Narrow Intelligence



Artificial General Intelligence

Artificial Super Intelligence

Weak or Narrow A.I.

- Artificial Intelligence involving machines that can perform only a narrowly defined set of specific tasks. At this stage, the machine does not possess any thinking ability, it just performs a set of pre-defined functions.
- **Examples** of Weak AI include Siri, Alexa, Self-driving cars, Alpha-Go, so on. Almost all the AI-based systems built till this date fall under the category of Weak AI.
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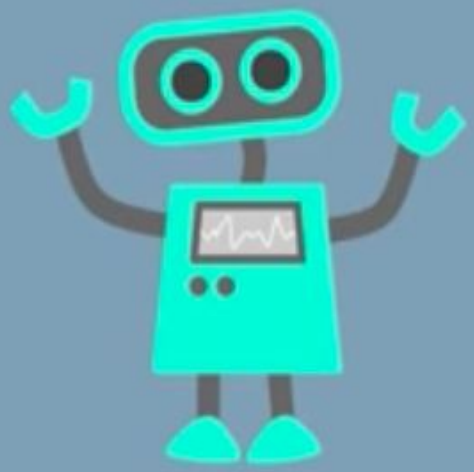
Artificial Narrow Intelligence (ANI)

Also known as Weak AI, ANI is the stage of Artificial Intelligence involving machines that can perform only a narrowly defined set of specific tasks.

Artificial Narrow Intelligence



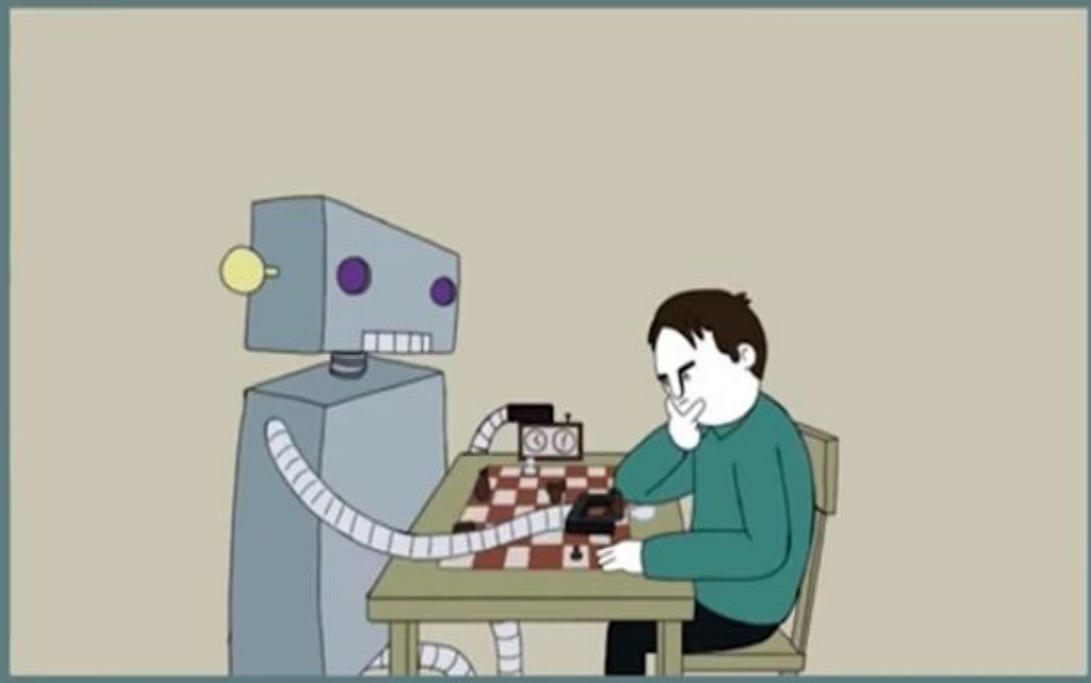
Artificial Narrow Intelligence (ANI) also known as weak AI involves applying AI only to specific tasks.

- **General A.I.**

- General AI is a type of intelligence which could perform any intelligent task with efficiency like a human.
- The concept behind the general AI is to make such devices or system which can act and think smartly like a human on its own.
- Till now we have no such system which can actually be called an example of general AI and can act or behave like a human. The system with general AI are still going through under research work, and it will take lots of efforts and time to develop such systems as this would be a major step towards AI.

Artificial General Intelligence

Artificial General Intelligence (AGI) also known as strong AI, involves machines that possess the ability to perform any intellectual task that a human being can.



Artificial General Intelligence (AGI)

Also known as Strong AI, AGI is the stage in the evolution of Artificial Intelligence wherein machines will possess the ability to think and make decisions just like us humans.

- **Strong A.I.**

- Artificial Intelligence wherein machines will possess the ability to think and make decisions just like us humans.
- There are currently no existing examples of Strong AI, however, it is believed that we will soon be able to create machines that are as smart as humans.

Artificial Super Intelligence (ASI)

Artificial Super Intelligence is the stage of Artificial Intelligence when the capability of computers will surpass human beings.

Artificial Super Intelligence

Artificial Super Intelligence (ASI) is a term referring to the time when the capability of computers will surpass humans.

Reactive Machine AI

Reactive Machine AI includes machines that operate solely based on the present data, taking into account only the current situation. Reactive AI machines cannot form inferences from the data to evaluate their future actions.

- **Limited Memory AI**
- Limited Memory AI, can make informed and improved decisions by studying the past data from its memory. Such an AI has a short-lived or a temporary memory that can be used to store past experiences and hence evaluate future actions.
- Self-driving cars are Limited Memory AI, that uses the data collected in the recent past to make immediate decisions. For example, self-driving cars use sensors to identify civilians crossing the road, steep roads, traffic signals and so on to make better driving decisions. This helps to prevent any future accidents.
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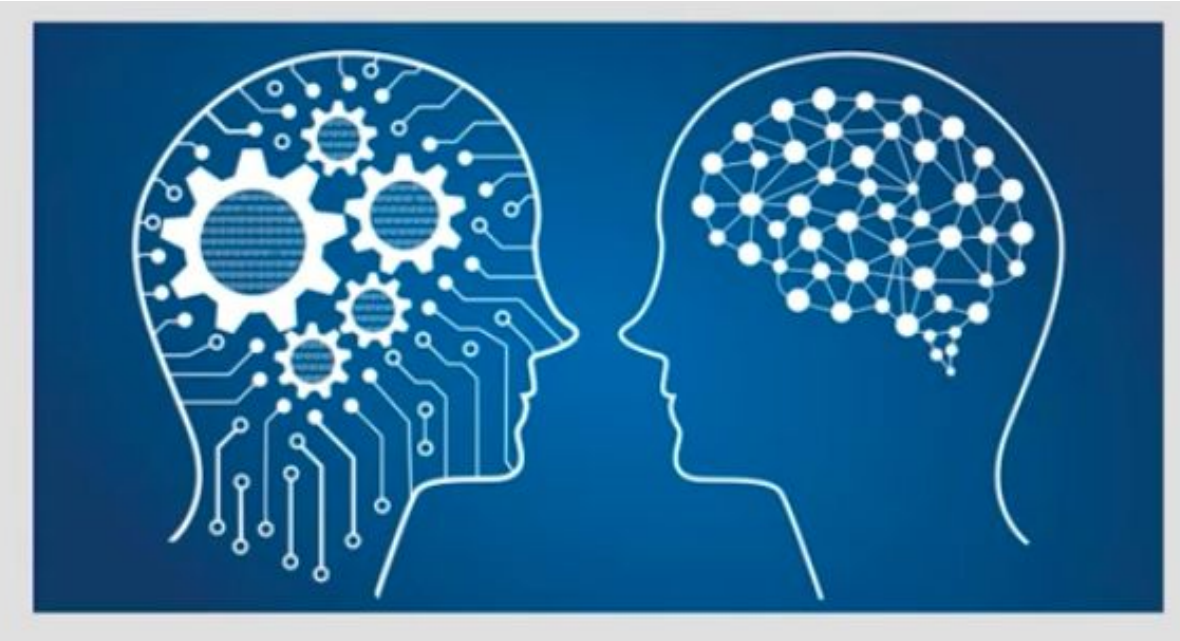


- **Theory Of Mind AI**
- The Theory Of Mind AI is a more advanced type of Artificial Intelligence. This category of machines is speculated to play a major role in psychology. This type of AI will focus mainly on emotional intelligence so that human believes and thoughts can be better comprehended.
- The Theory of Mind AI has not yet been fully developed but rigorous research is happening in this area.

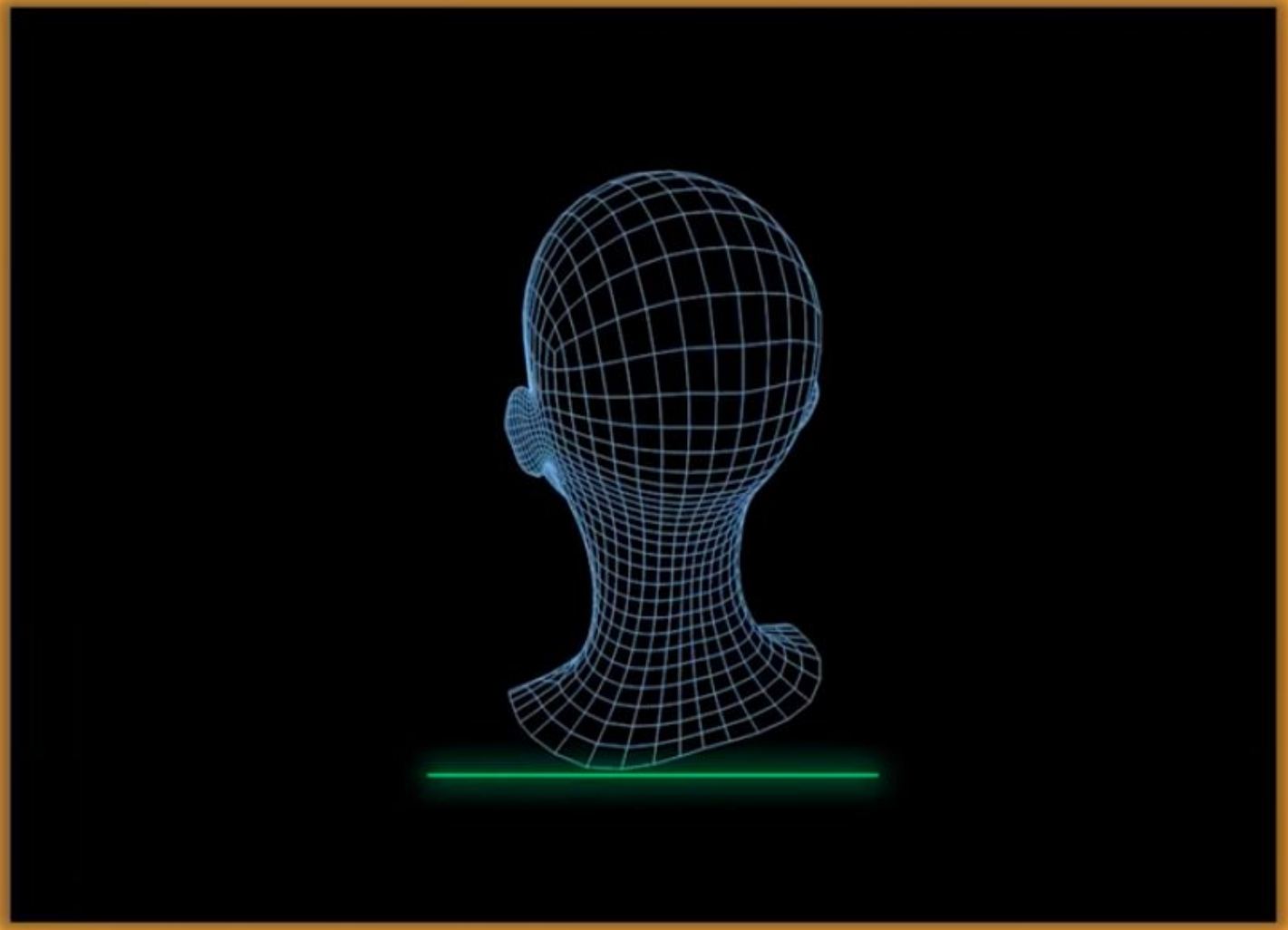
"AI is a fundamental risk to the existence of human civilization."
- Elon Musk

Self-Aware AI

The Self-Aware AI includes machines that have their own consciousness and become self-aware. This type of AI does not exist yet.


Examples of artificial intelligence

Facebook uses Machine Learning & Deep Learning to detect facial features and tag your friends



facebook

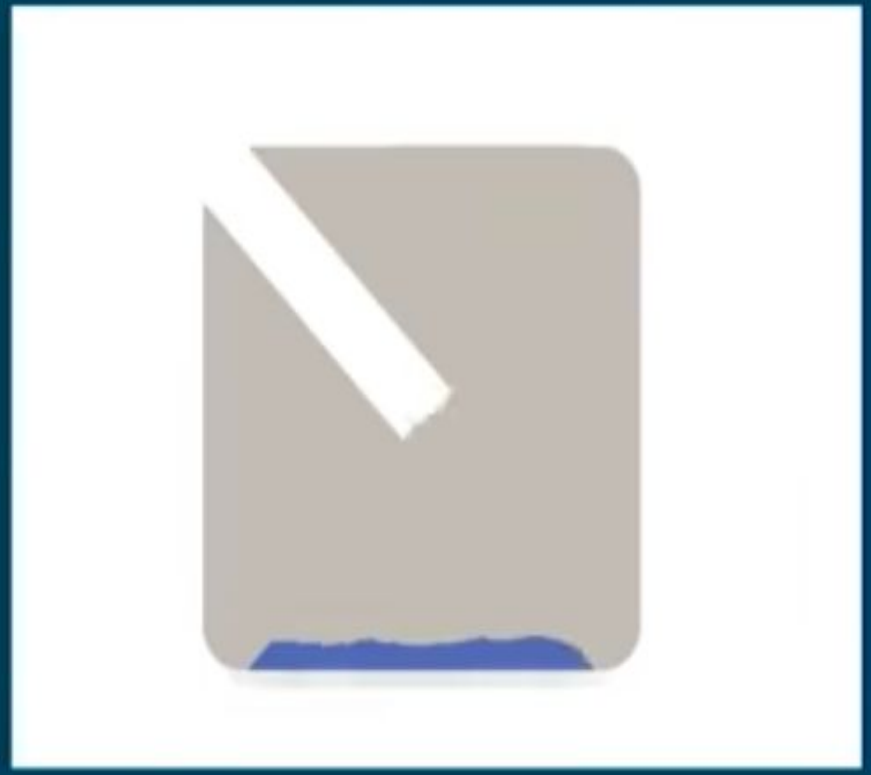
TESLA

*“**Tesla will have fully s**elf-driving cars ready by the end of the year and a "robo taxi" version – one that can ferry passengers without anyone behind the wheel – ready for the streets next year”.*

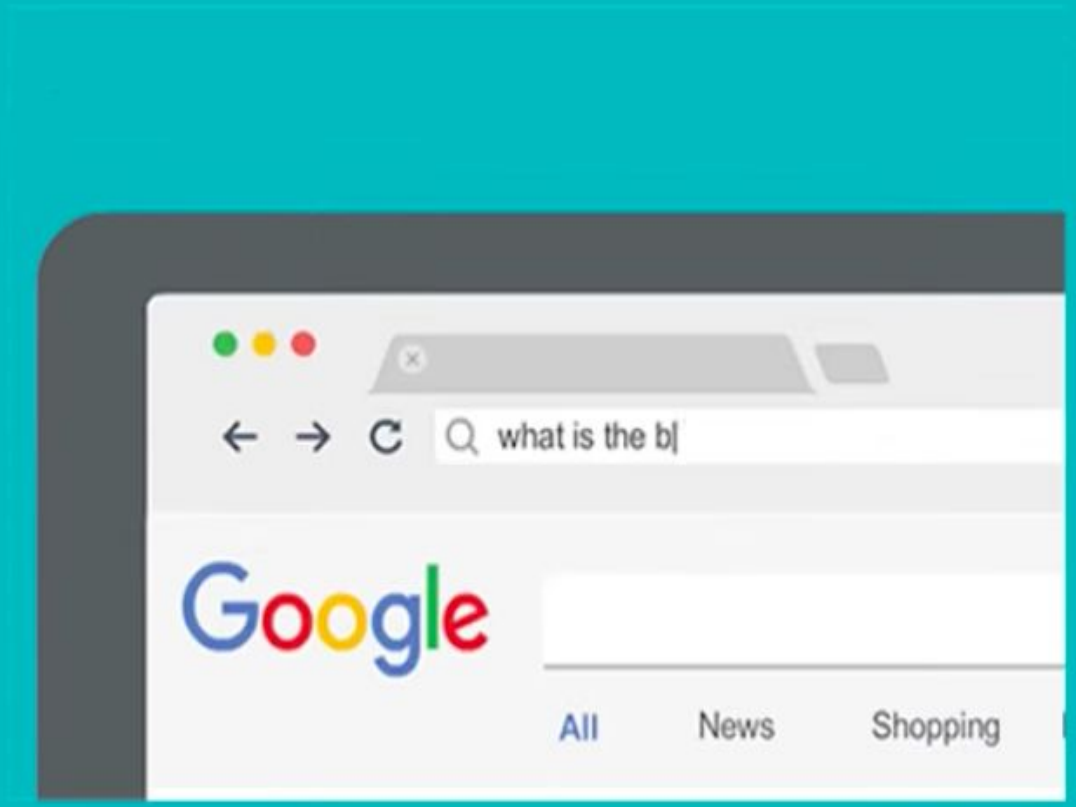
HANSON ROBOTICS

The social humanoid, Sophia, built at Hanson Robotics

Google Maps



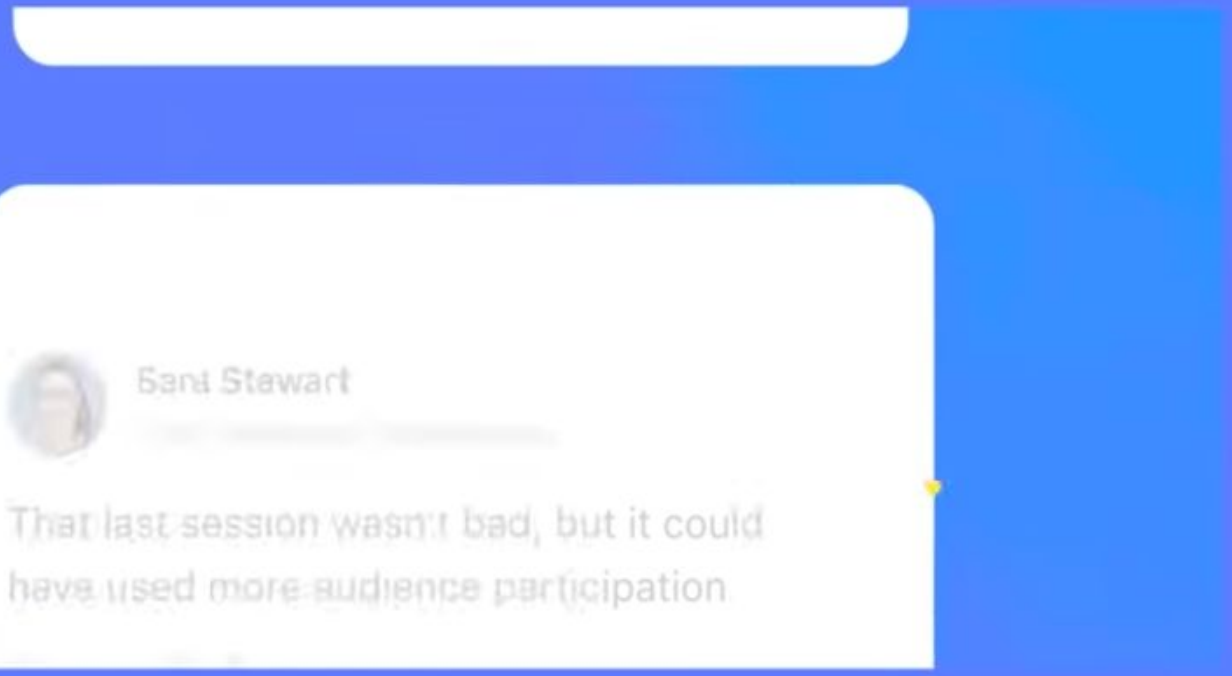
Finding the optimal path through Google Maps



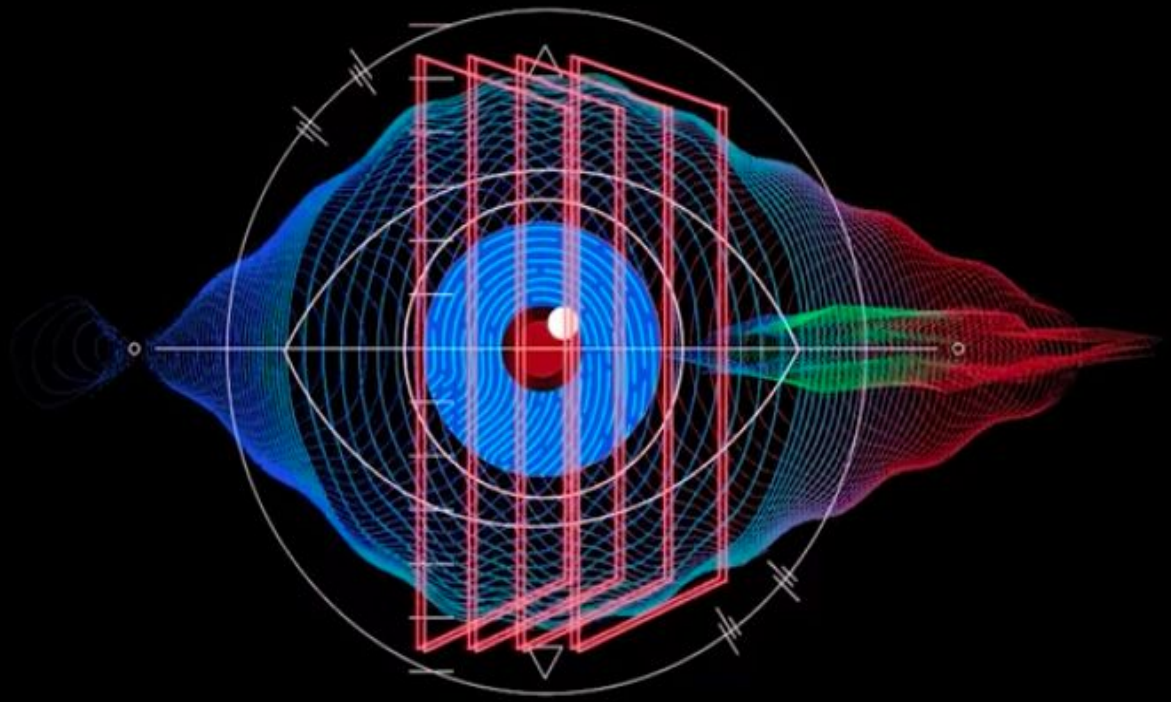
Predictive searches are based on data that Google collects about you, such as your location, age, and other personal details.

Twitter's is using AI to identify hate speech and terroristic language in tweets.

twitter



Google's AI Eye Doctor can examine retina scans and identify a condition called diabetic retinopathy.



Google

J.P.Morgan

JPMorgan Chase's Contract Intelligence (COiN) platform uses AI, machine learning and image recognition software to analyze legal documents.

Manually reviewing 12,000 agreements takes over 36,000 hours

Millions of Healthcare organizations use IBM AI (Watson) technology for medical diagnosis.

IBM Watson™