



Artificial Intelligence

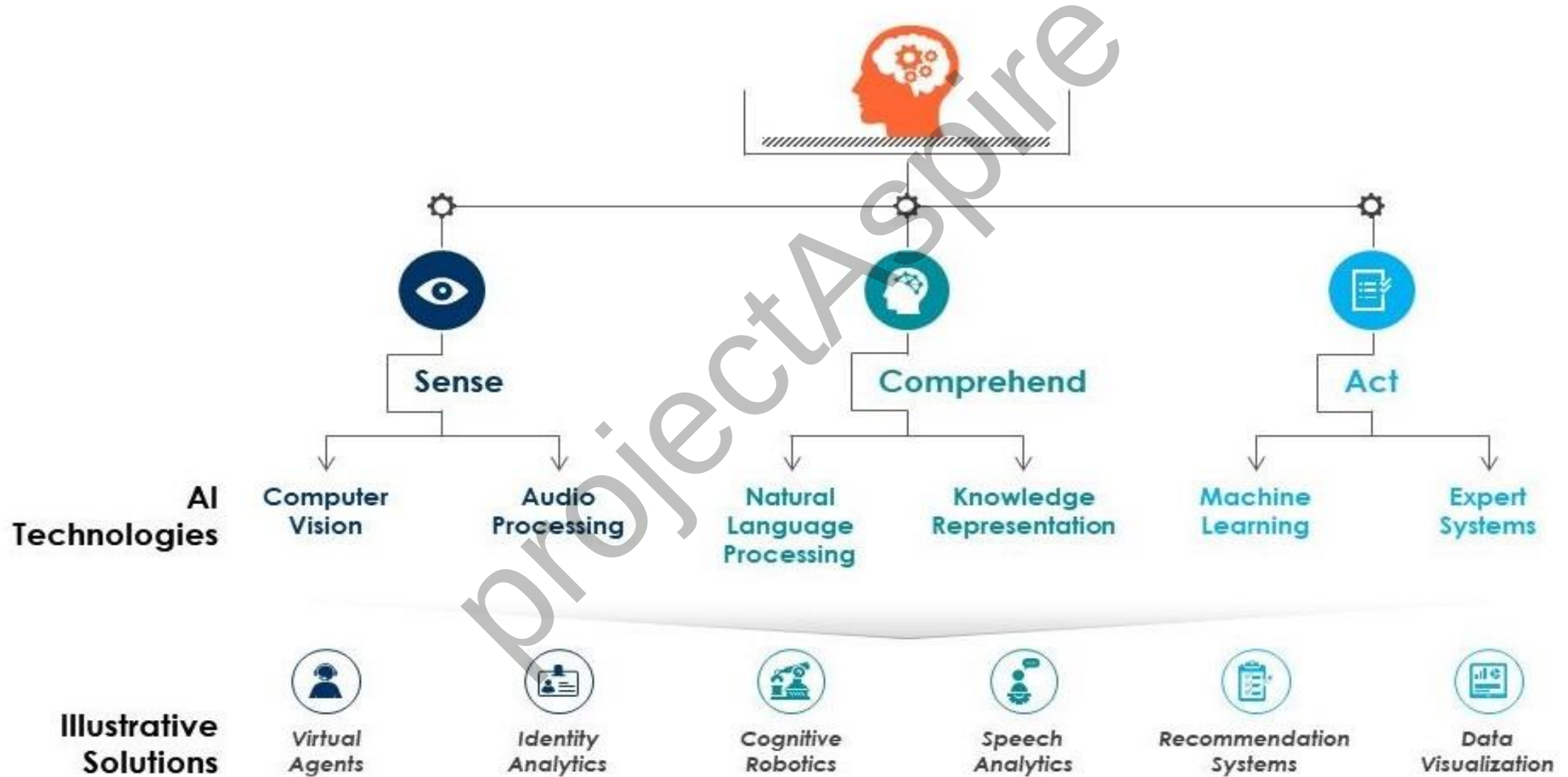
What is intelligence ?

- the ability to understand, learn, think and solve problems
 - **Reasoning**
 - Process of forming conclusion, judgment, inferences from facts
 - **Comprehension**
 - Act of grasping with intellect, capacity of understanding fully
 - **Understanding**
 - Ability to get the meaning of judge, to know and comprehend

Artificial intelligence ?

- Artificial intelligence is the simulation of human intelligence processes by machines, especially computer systems.
 - **To solve problems**
 - **Act like a human**
- **Artificial intelligence** is the technology which works like a human as well as the same quality of thinking and understanding.

Artificial Intelligence Introduction



History of Artificial intelligence ?

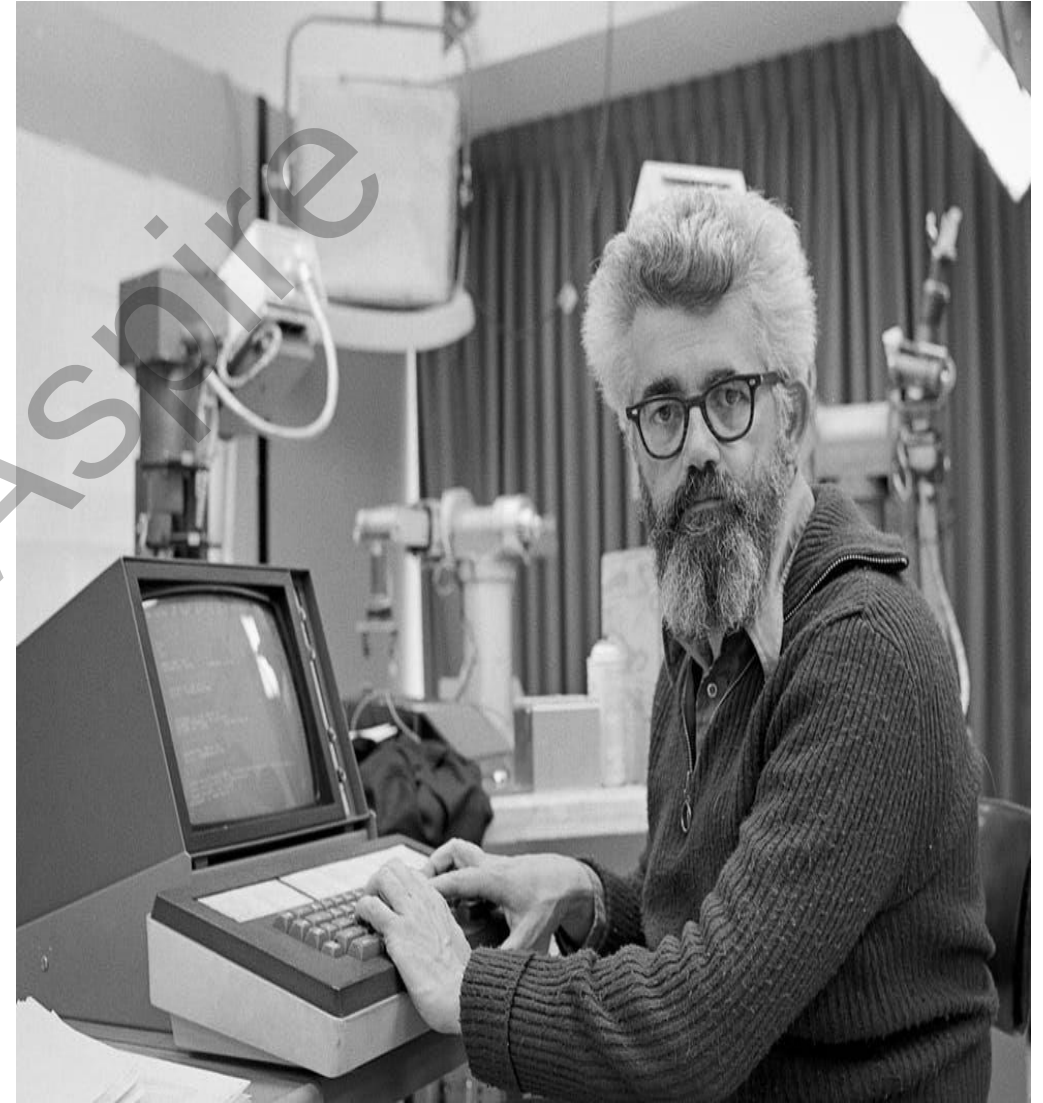
- **1642** First calculating machine built by French Mathematician and Inventor “**Blaise Pascal**”
- **1837** First design for a programmable machine by **Charles Babbage (Father of Computer)** and **Ava Lovelace**

History of Artificial intelligence ?

- 1943 Foundation of neural networks established by **Warren McCulloch** and **Walter Pitts**, Drawing parallels between the brain and computing machine
- **1950 Alan Turing(Father of Computer Science)** Introduces a test-**The Turing Test**, as a way of machine's intelligence

Father of AI?

- **John McCarthy**
(Dartmouth College) created the term "**artificial intelligence**"
- was called the "**Father of Artificial Intelligence.**"
- in 1956, is generally considered as the official birthdate of the **Artificial Intelligence..**



History of Artificial intelligence ?

- **John McCarthy**, then a young Assistant Professor of Mathematics at Dartmouth College, decided to organize a group to clarify and develop ideas about thinking machines. He picked the name 'Artificial Intelligence' for the new field.
- **1958** John McCarthy develops programming language Lisp which becomes the most popular programming language used in artificial intelligence research at the **Massachusetts Institute of Technology (MIT)**.

Project Proposal : 1956

A PROPOSAL FOR THE
DARTMOUTH SUMMER RESEARCH PROJECT
ON ARTIFICIAL INTELLIGENCE

J. McCarthy, Dartmouth College
M. L. Minsky, Harvard University
N. Rochester, I. B. M. Corporation
C. E. Shannon, Bell Telephone Laboratories

Artificial intelligence in Gaming ?

- In earlier days gaming was not broadened
- Physicist **William (Willy) Alfred Higinbotham** created the first game in **October 18, 1958**
- It was called "**Tennis For Two**"



William A.
Higinbotham

History of Artificial intelligence ?

- In 1981-82, The Fifth Generation Computer Systems (FGCS) was an initiative by **Japan's Ministry of International Trade and Industry (MITI)** **was first Country.**
- In 1983, American company on started work with **AI** Based **VLSI** Technology (Very Large Scale Integration)



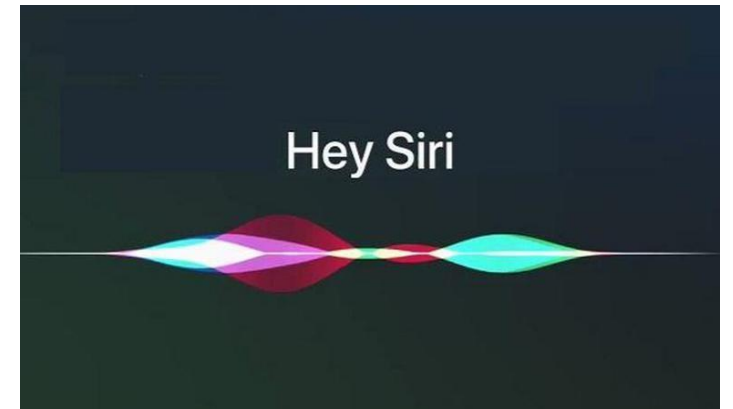
History of Artificial intelligence ?

- **Deep Blue** was a chess-playing supercomputer developed by IBM,
- Deep Blue began in 1985 with the **ChipTest project** at **Carnegie Mellon University**
- In 1997, AI beat the world chess champion **Garry Kimovich Kasparov**



History of Artificial intelligence ?

- In 2010, **DeepMind** is a **British** artificial intelligence,
- later DeepMind was acquired by **Google** in 2014 and change the name DeepMind to **Google DeepMind**
- In 4th Oct 2011, Siri was officially announced by **Apple** which is a virtual assistant that is part of Apple.



History of Artificial intelligence ?

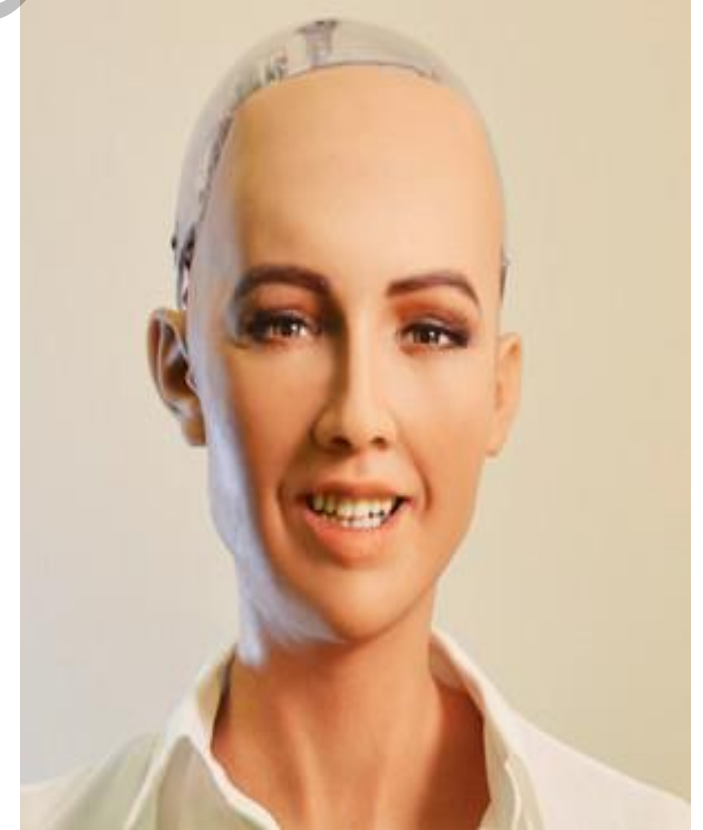
- November 6, **2014**, **Amazon Alexa**, also known simply as **Alexa**, is a **virtual assistant technology**
- In 2014, Cortana is a virtual assistant developed by **Microsoft** which uses the Bing search engine to perform tasks
- May 18 **2016**, **Google Assistant** is an artificial intelligence



Google Assistant

History of Artificial intelligence ?

- Sophia is a social **humanoid** robot developed by the Hong Kong-based company **Hanson Robotics**.
- Father of Humanoid “**David Hanson**”
- Sophia was activated on February 14, 2016, and made its first public appearance in mid-March 2016



History of Artificial intelligence ?

- In 2017, Robocop : is now a legit police officer in Dubai.
- The world's **first operational robot police officer** was officially inducted into the Dubai police force
- At the 4th Gulf Information Security Expo and Conference (GISEC)



History of Artificial intelligence ?

- **Initial release** 21 April 2017, Bixby is a virtual assistant developed by Samsung Electronics.
- Bixby is a **digital assistant that ships inside Samsung phones, TVs, and wearables.**



History of Artificial intelligence ?

- In 2018, Project Brainwave is developed by the **Microsoft**.
- Project Brainwave is a new way of doing inference with Deep Learning from Microsoft.



Artificial Intelligence Technology in India

- **Lakshmi:** India's 1st banking robot launched in Kumbakonam based City by Union Bank in 2016
- The artificial intelligence powered robot, which will be the first on-site bank helper,
- can speak English, gesture, and engage in a life-like manner in conversations in 125 Subjects.



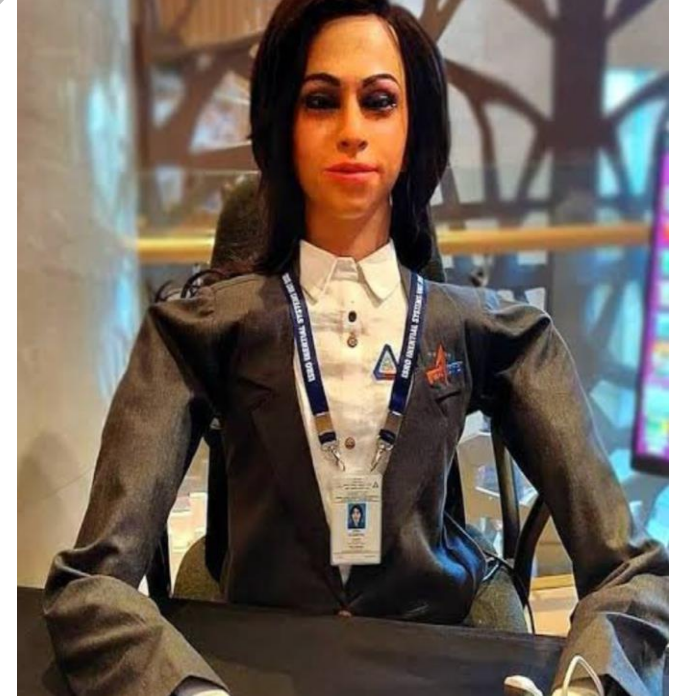
Artificial Intelligence Technology in India

- **Ask Disha:** IRCTC's AI-based initiative 'ASK DISHA' to **help govt bodies answer queries.**
- The Chabot powered by artificial intelligence will enable those organizations to answer general queries of the customers



Artificial Intelligence Technology in India

- **Vyommitra** Space friend is a female-looking spacefaring **humanoid** robot being developed by the Indian Space Research Organization (**ISRO**)
- Vyommitra was first unveiled on 22 January 2020 at the Human Spaceflight and Exploration symposium in **Bengaluru**.



Robotics and Artificial Intelligence ?

- A robot is a mechanical or virtually artificial agent, usually an electro mechanical machine that is guided by a computer program or electronic circuitry
- Robot can be autonomous or semi-autonomous.
- A robot may convey a sense of intelligence or through of its own.

Application of Artificial Intelligence ?

- AI in Robotics
- AI in banking
- AI in Gaming
- Some other :
 - Employee performance evaluation
 - Warehouse optimization
 - Network control
 - Satellite Control

Artificial Intelligence?

- Advantage

- More powerful and more useful computers.
- New and improved interface.
- Solving new problems.
- Better handling of information.
- Release information overload.
- Conversion of information into the knowledge.

- Disadvantage

- Increased cost.
- Difficulty with software development – slow and expensive
- Few experienced programmers
- Few practical products have reached the market as yet.