

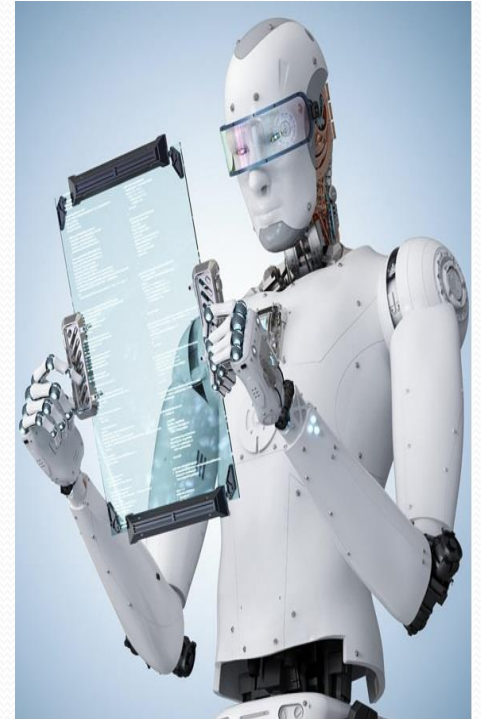
The background is a vibrant blue gradient. On the left, a wireframe head is composed of glowing blue lines and points. In the center and right, there are several gears of varying sizes, some with circuit-like patterns. To the right of the gears, there is a network of blue lines and nodes, with a white arrow pointing right. The overall aesthetic is high-tech and digital.

# ARTIFICIAL INTELLIGENCE

**PRESENTED BY:**  
**Mazhar K**

# What's in it for U?

- What is Artificial Intelligence?
- Types of Artificial Intelligence
- Ways of achieving Artificial Intelligence
- Applications of Artificial Intelligence
- Benefits of Artificial Intelligence
- Sample Job Specifications



# Artificial Intelligence?

*John McCarthy - Father of AI*

Examples:

- ★ Speech
- ★ Prob-Solving
- ★ Learning
- ★ Planning



*“It’s a branch of Comp Sci dedicated to creating intelligent machines that work and react like Humans”*

# Types of AI

## Self-Awareness

1. Future of AI
2. Machines will be Super Intelligent, Sentient & Conscious

## Reactive Machines

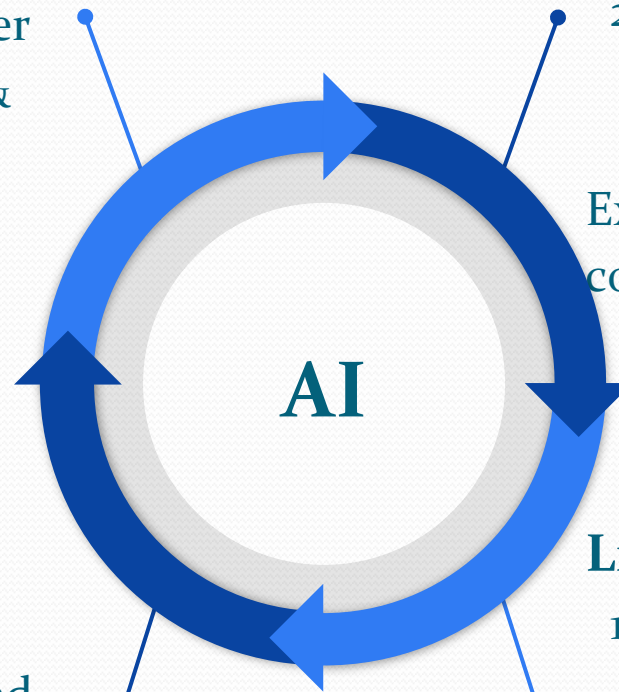
1. Designed for a specific job
  2. DO NOT hold ability to form memories/ past exp's to make decisions
- Ex: Deep Blue - a chess playing computer developed by IBM

## Theory of Mind

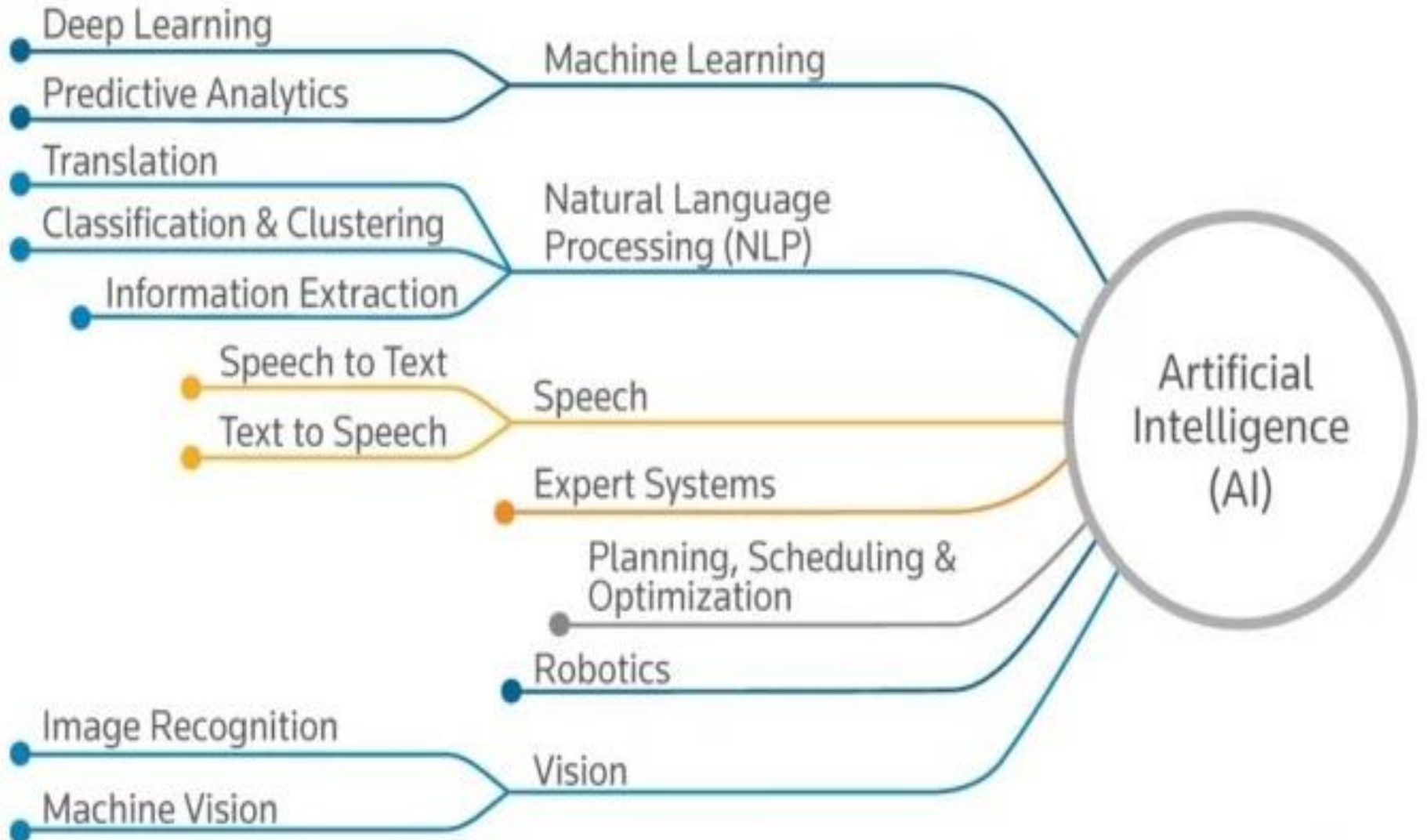
1. AI machines can socialize & understand human emotions
2. Such machines are yet to be built

## Limited Memory

1. Uses past experience & present data to make decisions
- Ex: Self-driving cars are the perfect limited memory AI



# Types of AI... (contd)



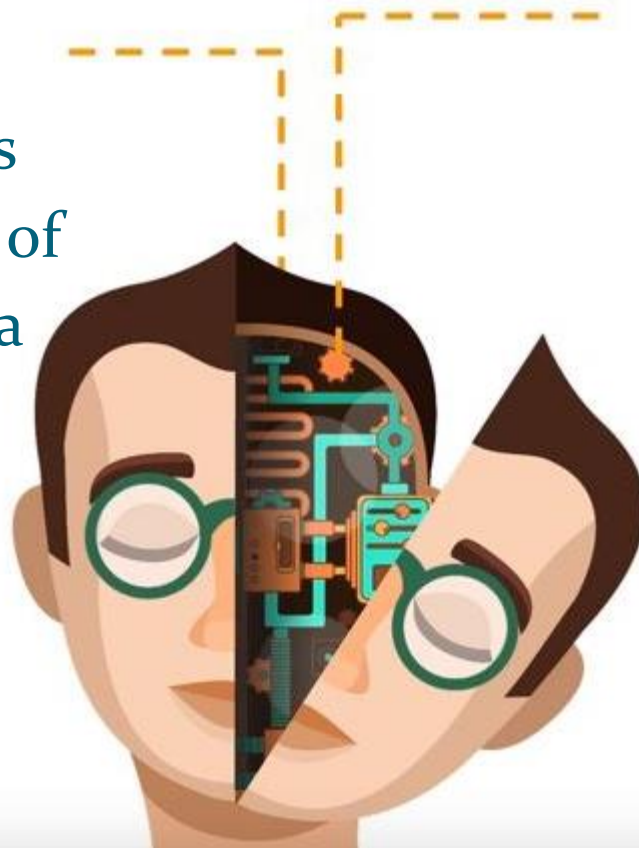
# Ways of Achieving AI

## Deep Learning

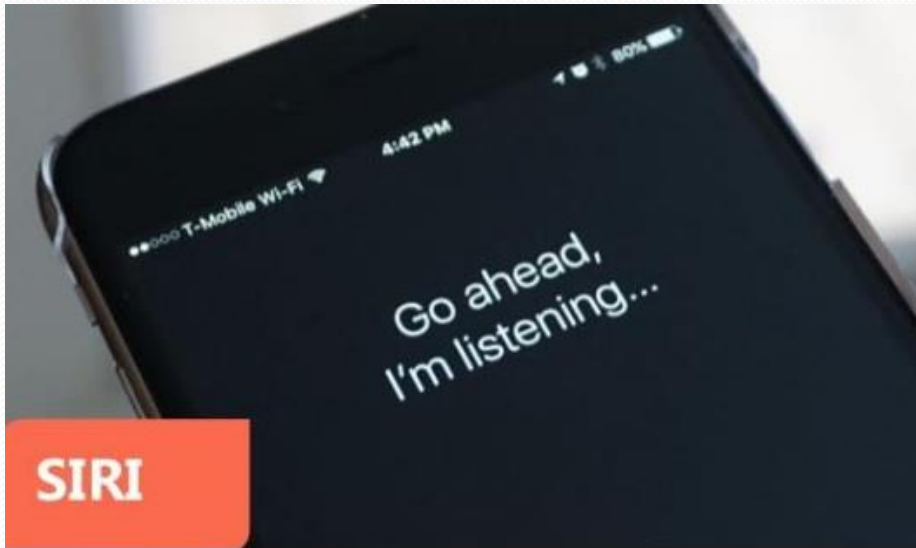
1. Ability to 'mimic' Human brain's neural network
2. Sense of Patterns
3. Noise & Sources of confusion in data

## Machine Learning

1. Ability to 'learn'
2. Using Algorithms
3. Discover Patterns
4. Generate Insights
5. Data they are exposed to



# Applications of AI



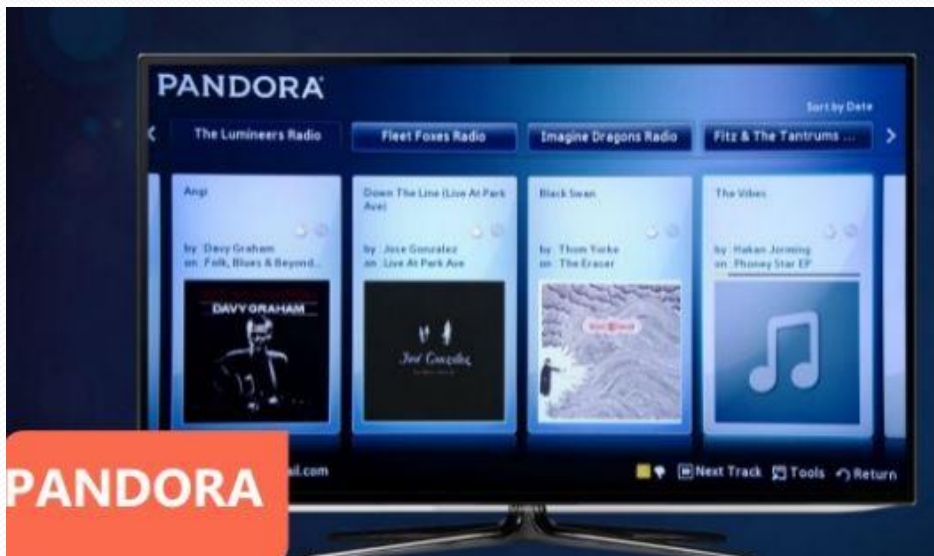
# Applications of AI... (contd)



NETFLIX



NEST



PANDORA



DRONES



# Sample Video how AI is used

Please click the link below:

[https://drive.google.com/open?id=1o\\_9lpfjvMCWZwLmLYf7gTuP-rEkZwU64](https://drive.google.com/open?id=1o_9lpfjvMCWZwLmLYf7gTuP-rEkZwU64)

Screenshot →



# Benefits of AI in Business

- Improving Personalized Shopping experiences
- Automating Customer experiences
- Real-time Assistance
- Data Mining
- Operational Automation
- Predicting Outcomes
- Improve the Recruitment Process

# Sample AI Job

## Key Responsibilities

- Design, implement and validate **algorithms** at scale to solve challenging **real world problems**
- Collaborate with technologists and business partners to drive innovation from **conception to production**

## Qualifications and Experience:

- PhD in Information Retrieval, Knowledge **Representation and Reasoning**, **Artificial Intelligence**, Computer Science, or related field, with 2+ years of relevant industry experience;
- Lead position will be considered commensurate with additional experience
- Proficient programming skills in a high-level language (e.g. **Java, Scala, Python, C/C++, Perl, Matlab, R**)
- Experience with **statistical data** analysis, **experimental design**, and **hypotheses validation**
- Familiarity with **probabilistic models** and an understanding of the **mathematical concepts** underlying **machine learning** methods

# Sample AI Job... (contd)

## Project-based experience with some of the following tools:

- **Applied machine learning** (e.g. libSVM, Shogun, Scikit-learn or similar)
- **Natural Language Processing** (e.g., ClearTK, ScalaNLP/Breeze, ClearNLP, OpenNLP, NLTK, or similar)
- Statistical data analysis and experimental design (e.g., using R, Matlab, iPython, etc.)
- Information retrieval and search engines, e.g. Solr/Lucene
- Distributed computing platforms, such as Hadoop (Hive, HBase, Pig), Spark, GraphLab
- Databases (traditional and noSQL)