## Artificial Intelligence

• Predict, Classify, Learn, Plan, Reason, Perceive

## Machine Learning

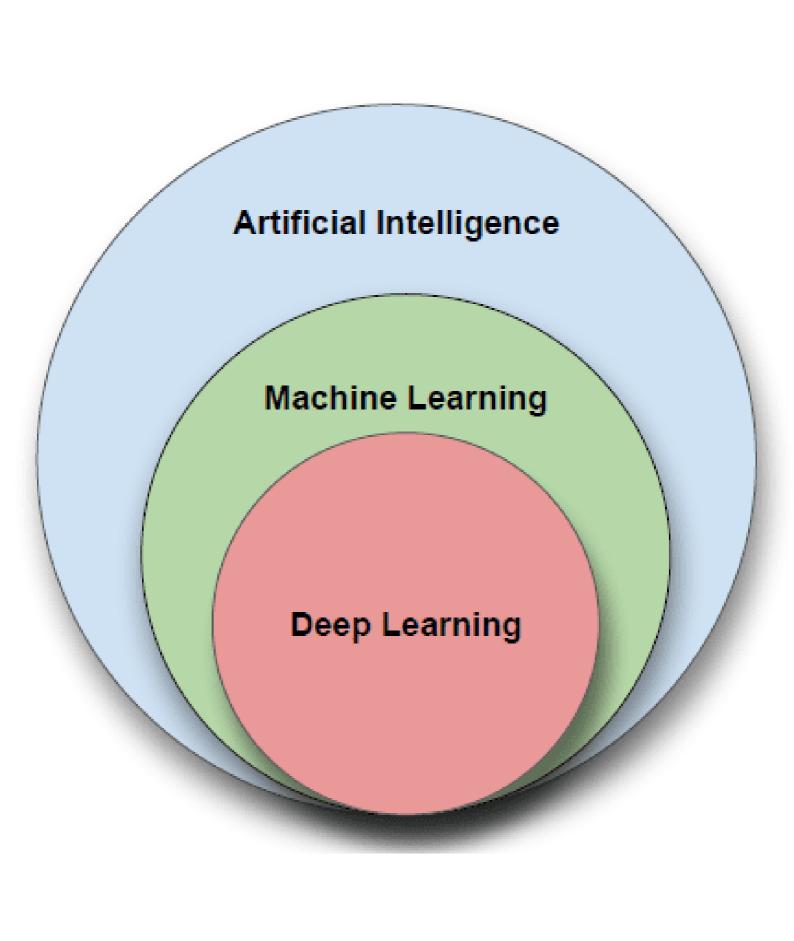
• Define, Acquire, Clean, Analyse, Feature Extraction, Train, Test, Deploy, Monitor

## Representation Learning

• Extract features, training a neural network, supervised learning task

## Deep Learning

• Rule based, data-driven modelling, neural networks



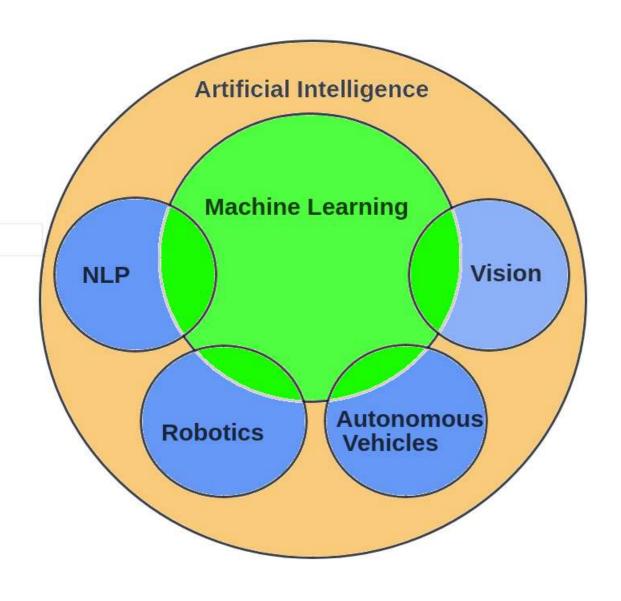


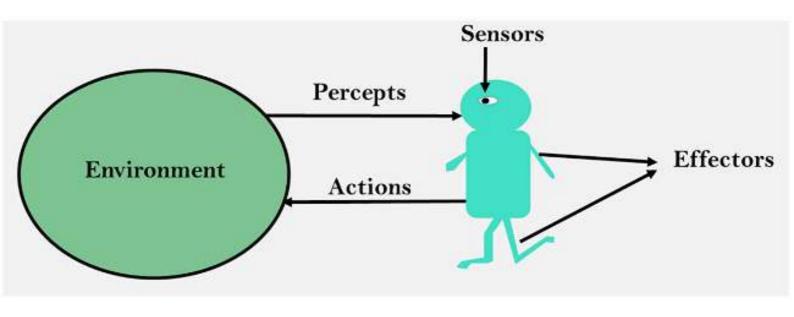
Machine Learning

> Neural Networks

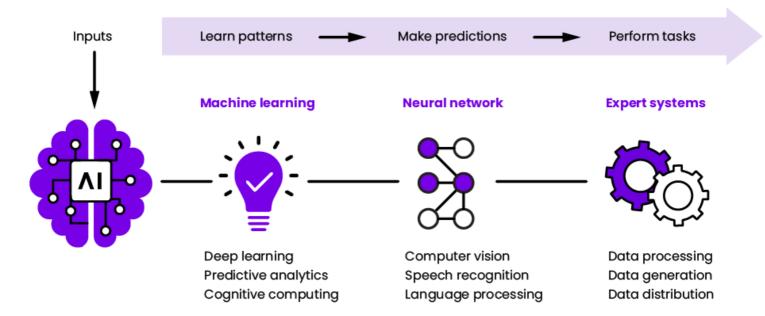
Deep Learning

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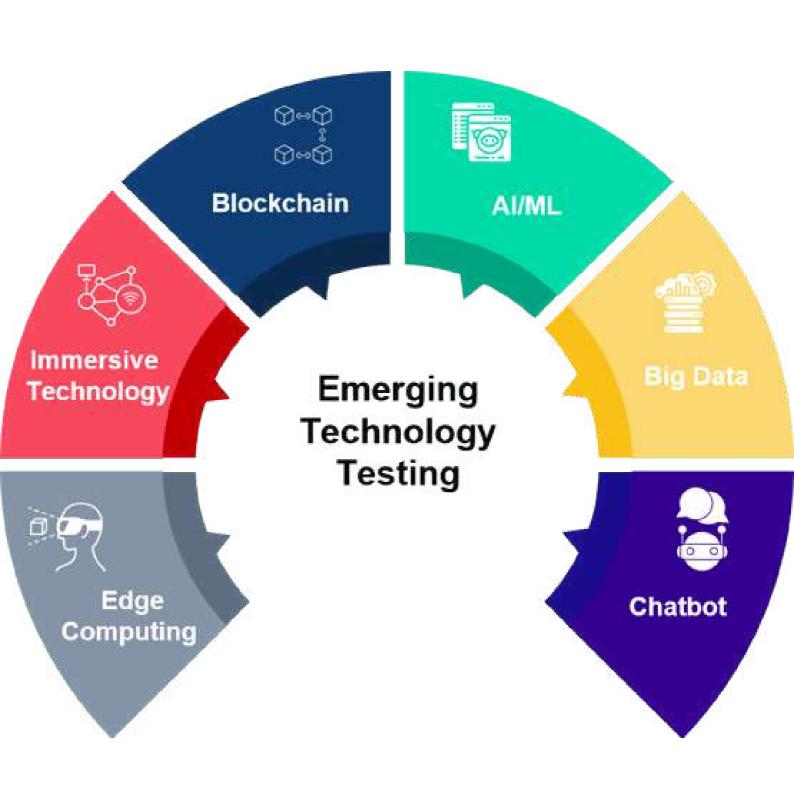


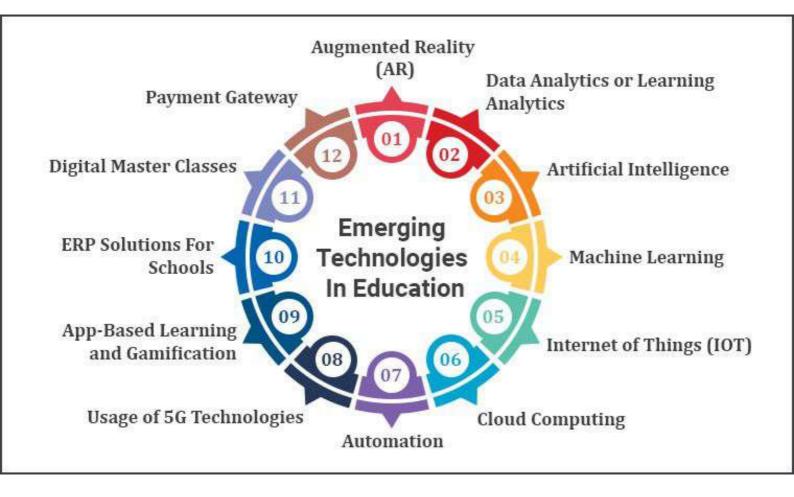


#### **HOW AI WORKS**









## Variety

- Structured
- Semi-Structured
- Unstructured
- Probabilistic

#### Volume

- ■Terabytes
- Records/Arch
- Transactions
- ■Tables, Files

# ■Batch ■Real/near-time ■Processes

The 5 V's of Big Data

## Veracity

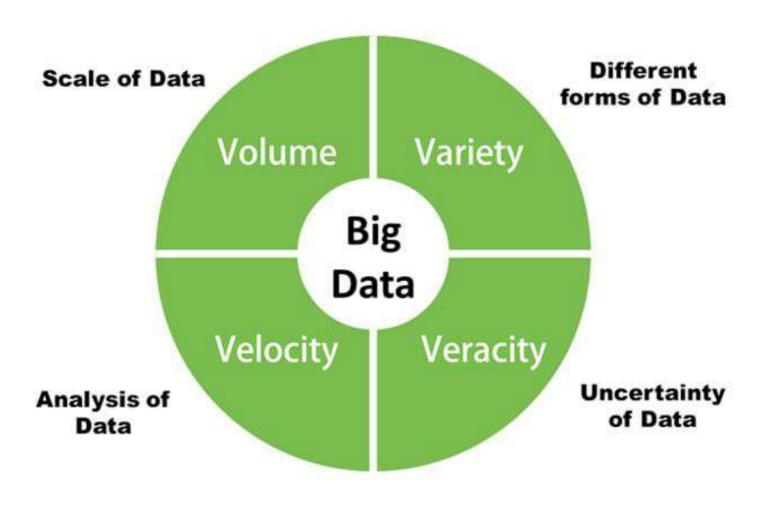
- Trustworthiness
- Authenticity
- Origin, Reputation
- Availability
- Accountability

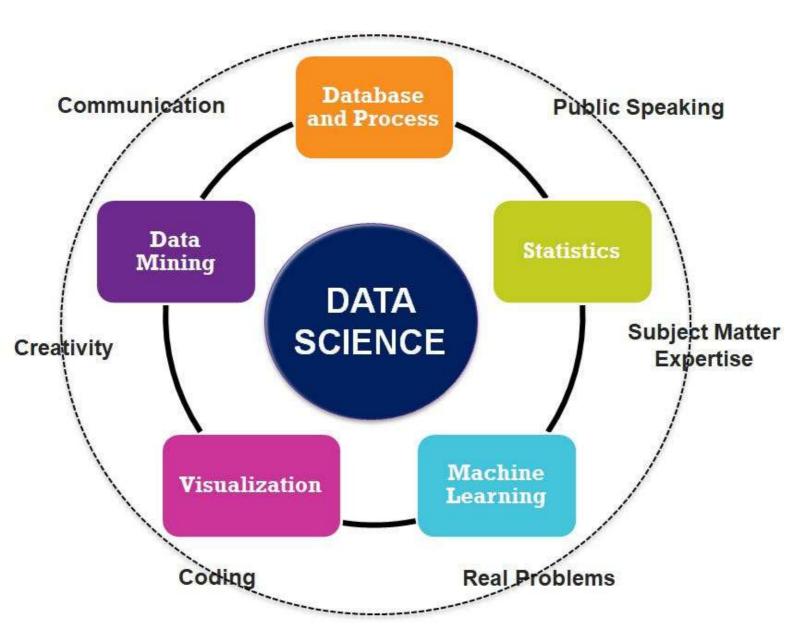
### Value

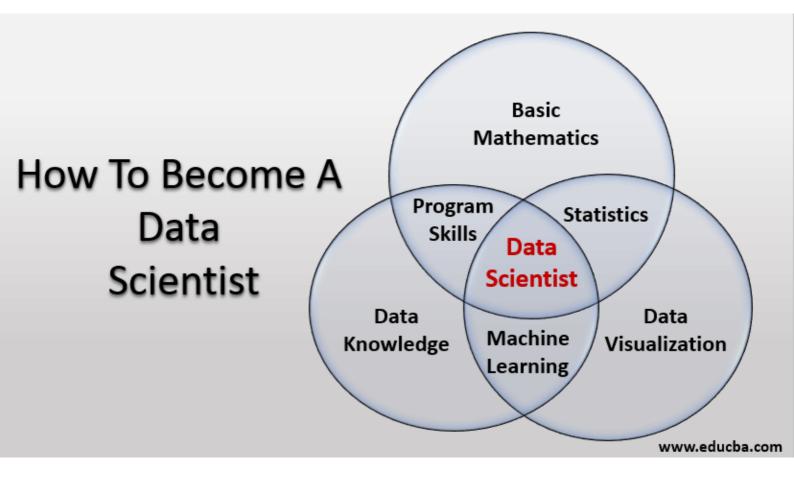
Streams

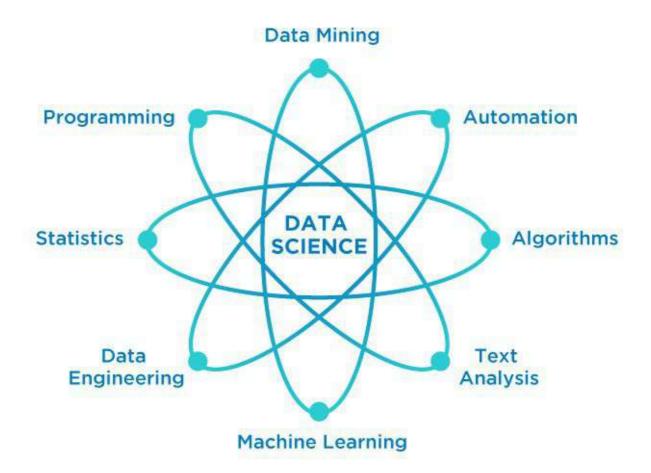
**Velocity** 

- Statistical
- Events
- Correlations
- Hypothetical





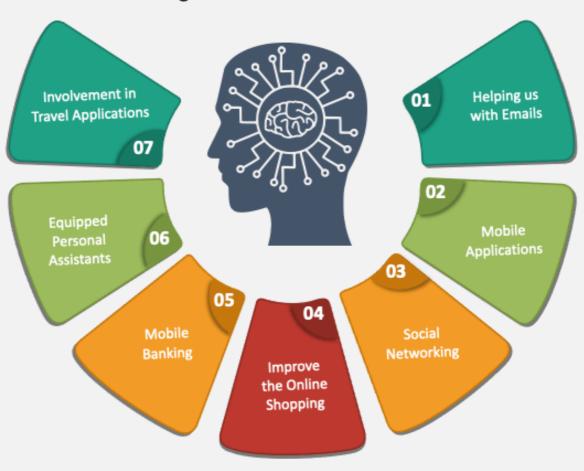






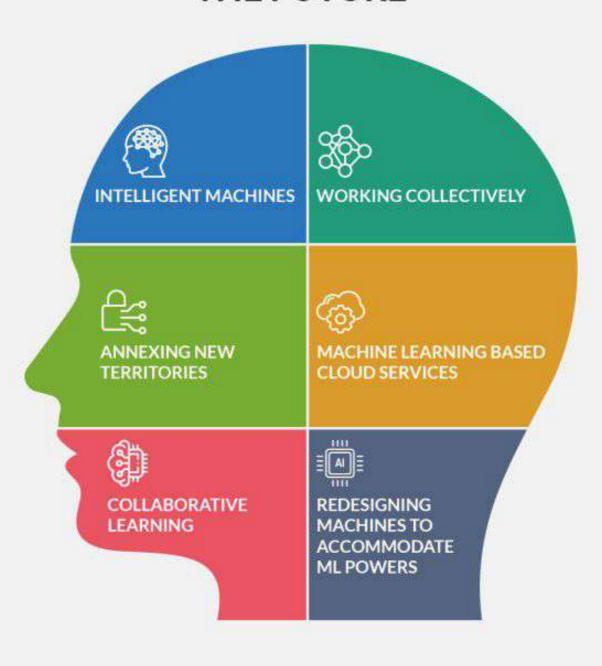
**AI IN DAILY LIFE** 

Applications of Artificial Intelligence

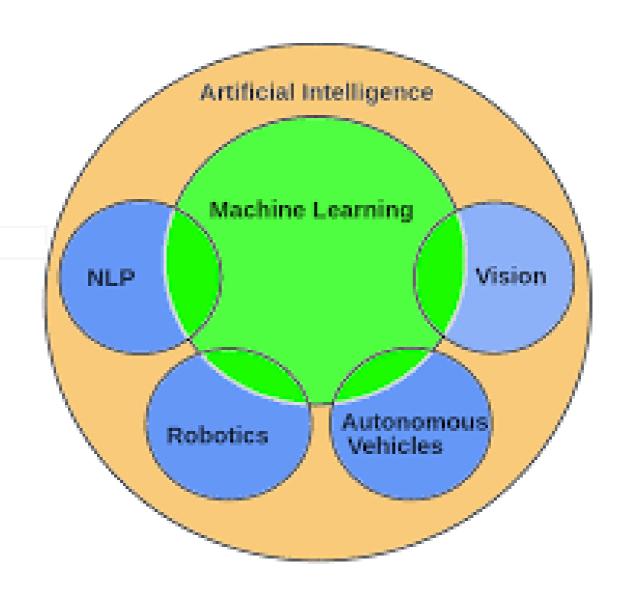




## THE FUTURE









- Artificial Neural Networks (ANN)
- •Deep Learning (DL)
- Convolutional Neural Network (CNN)

Artificial Intelligence (AI)

Natural Language Processing (NLP)

Robotics