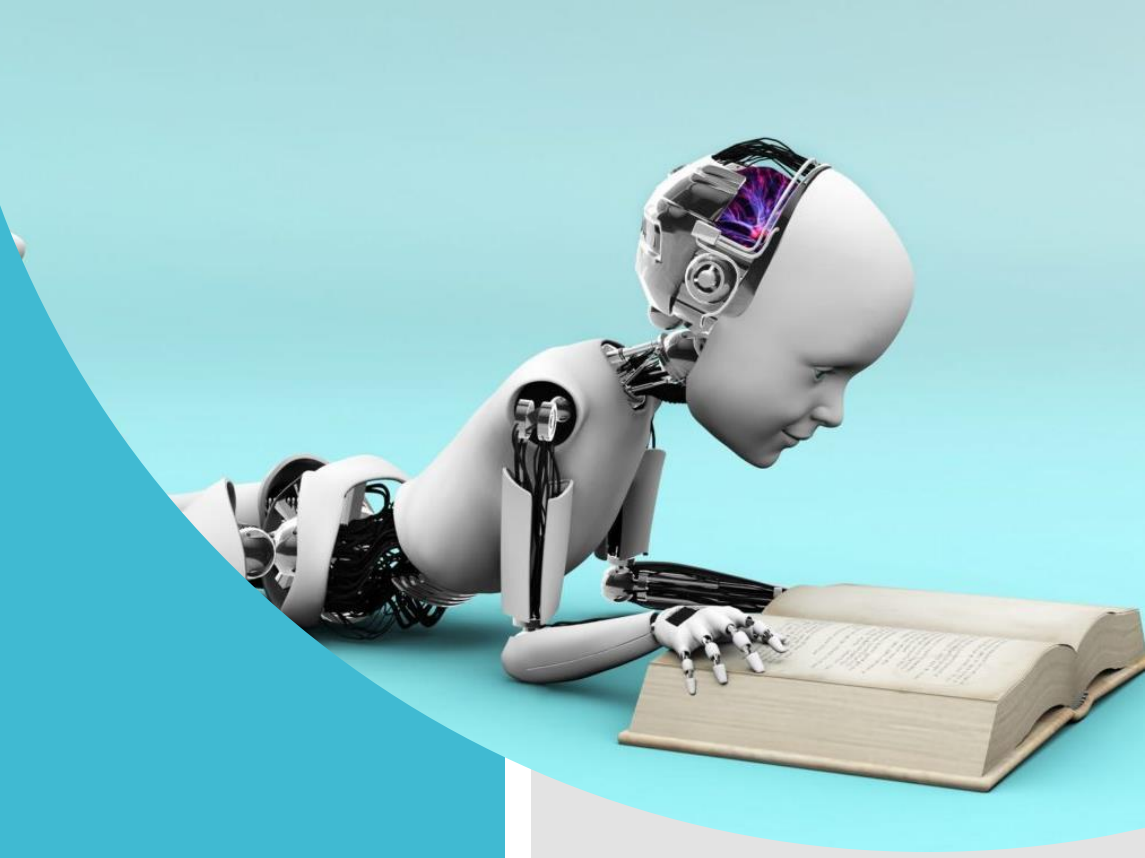
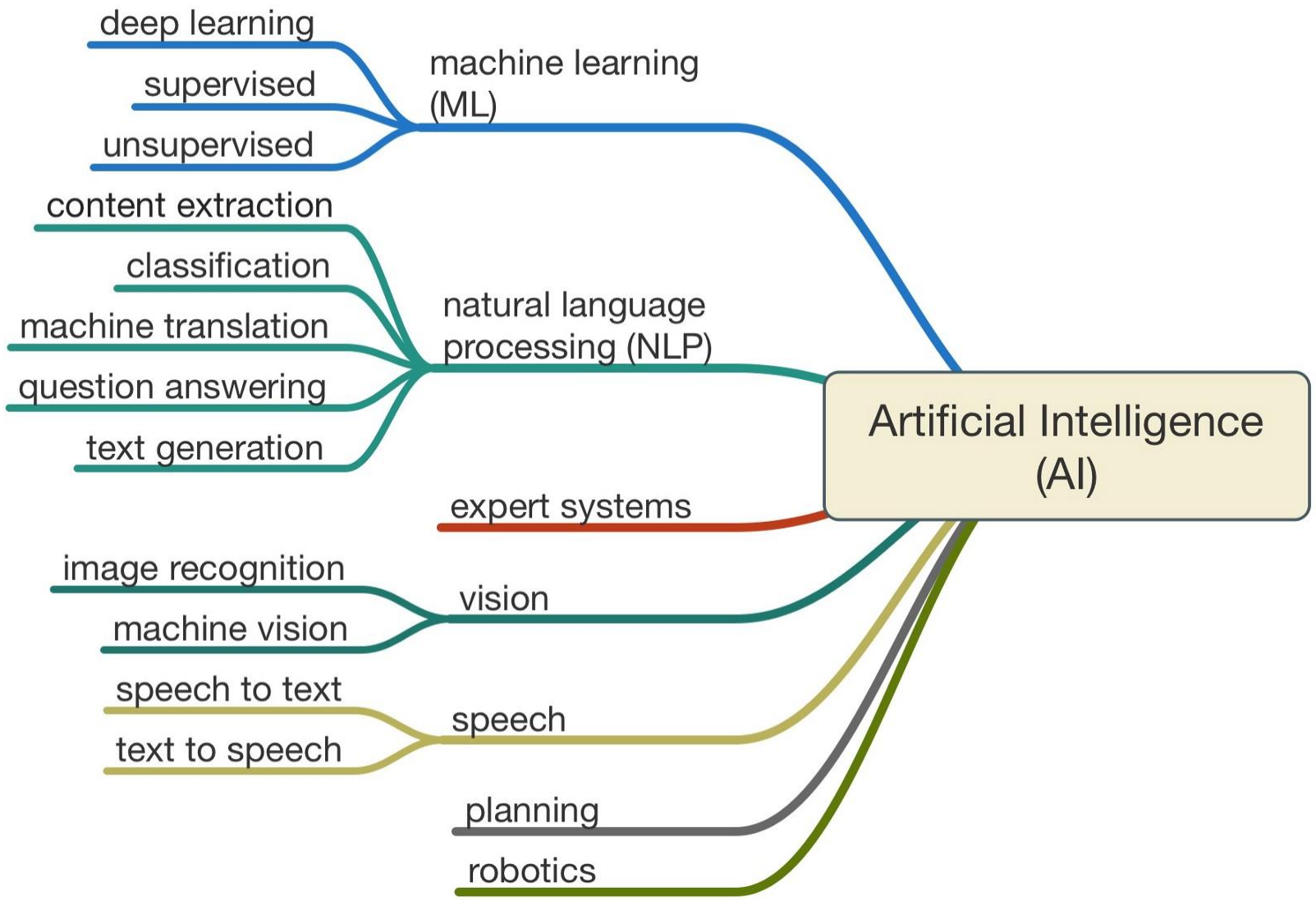
MACHINE LEARNING



Supervises &
Unsupervised
learning


Artificial Intelligence (AI)
machine learning (ML)
deep learning
supervised
unsupervised
natural language processing (NLP)
content extraction
classification
machine translation
question answering
text generation
expert systems
vision
image recognition
machine vision
speech
speech to text
text to speech
planning
robotics

Artificial Intelligence

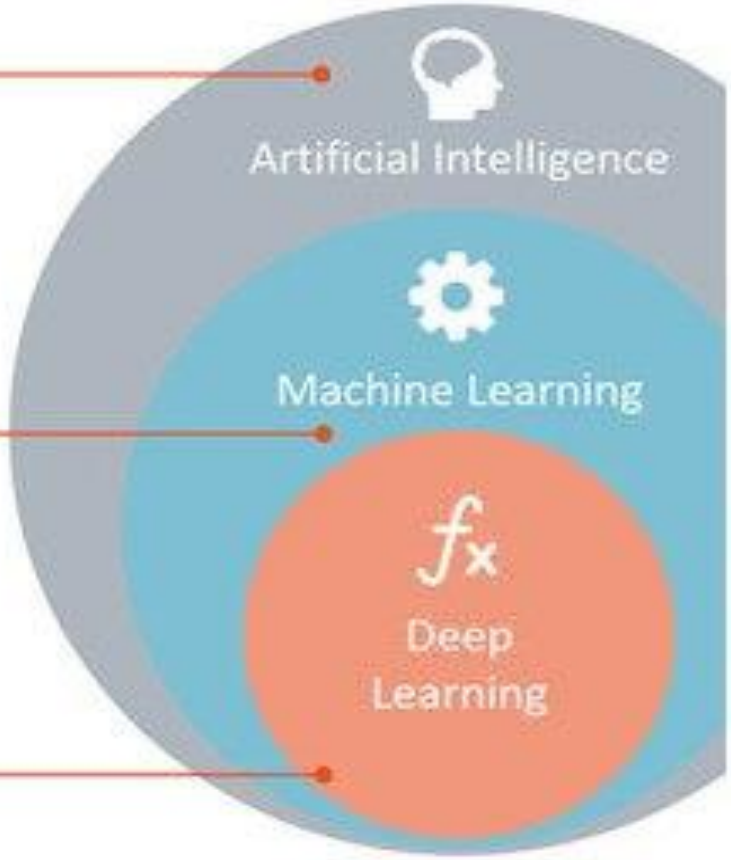
Any technique which enables computers to mimic human behavior.

Machine Learning

Subset of AI techniques which use statistical methods to enable machines to improve with experiences.

Deep Learning

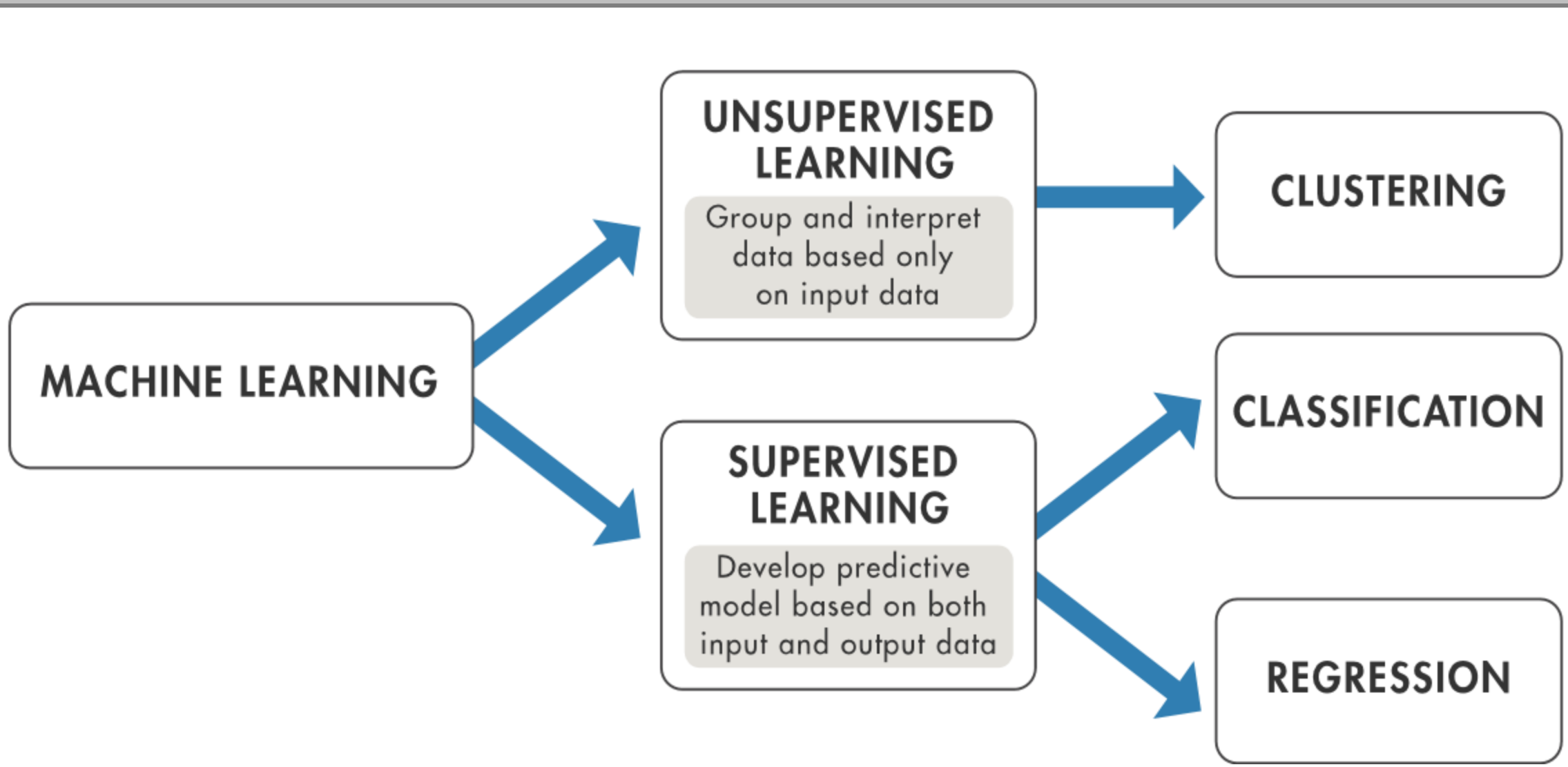
Subset of ML which make the computation of multi-layer neural networks feasible.



Machine Learning

Machine learning is an application of AI that provides systems the ability to ***automatically learn*** and improve from experience ***without being explicitly programmed***.

ML algorithms are often categorized as supervised learning and unsupervised learning.

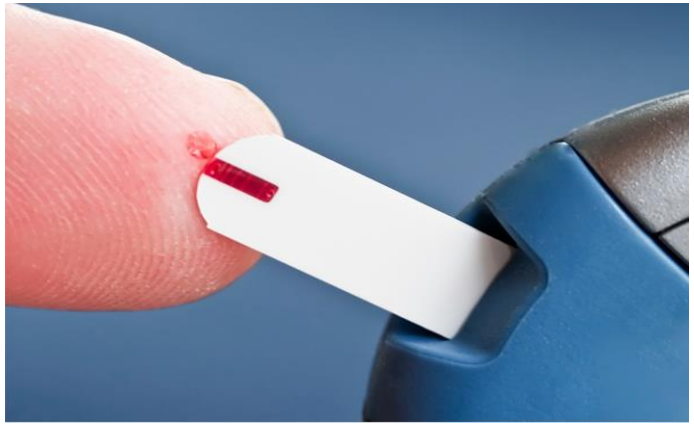

MACHINE LEARNING
UNSUPERVISED LEARNING
Group and interpret data based only on input data
SUPERVISED LEARNING
Develop predictive model based on both input and output data
CLUSTERING
CLASSIFICATION
REGRESSION

Supervised learning

In Supervised Learning, algorithms learn from labeled data, which means ***both input and desired output data are provided***.

After training, the algorithm should be able to classify a new unlabeled data based on its features.

Some applications of supervised learning: Diabetes prediction, House Price Prediction, etc.



Classification

Classification predicts the a category the data belongs to.

Algorithms:

. Decision tree.

. Naïve Bayes.

. Logistic regression.

Logistic regression

BINARY CLASSIFICATIO