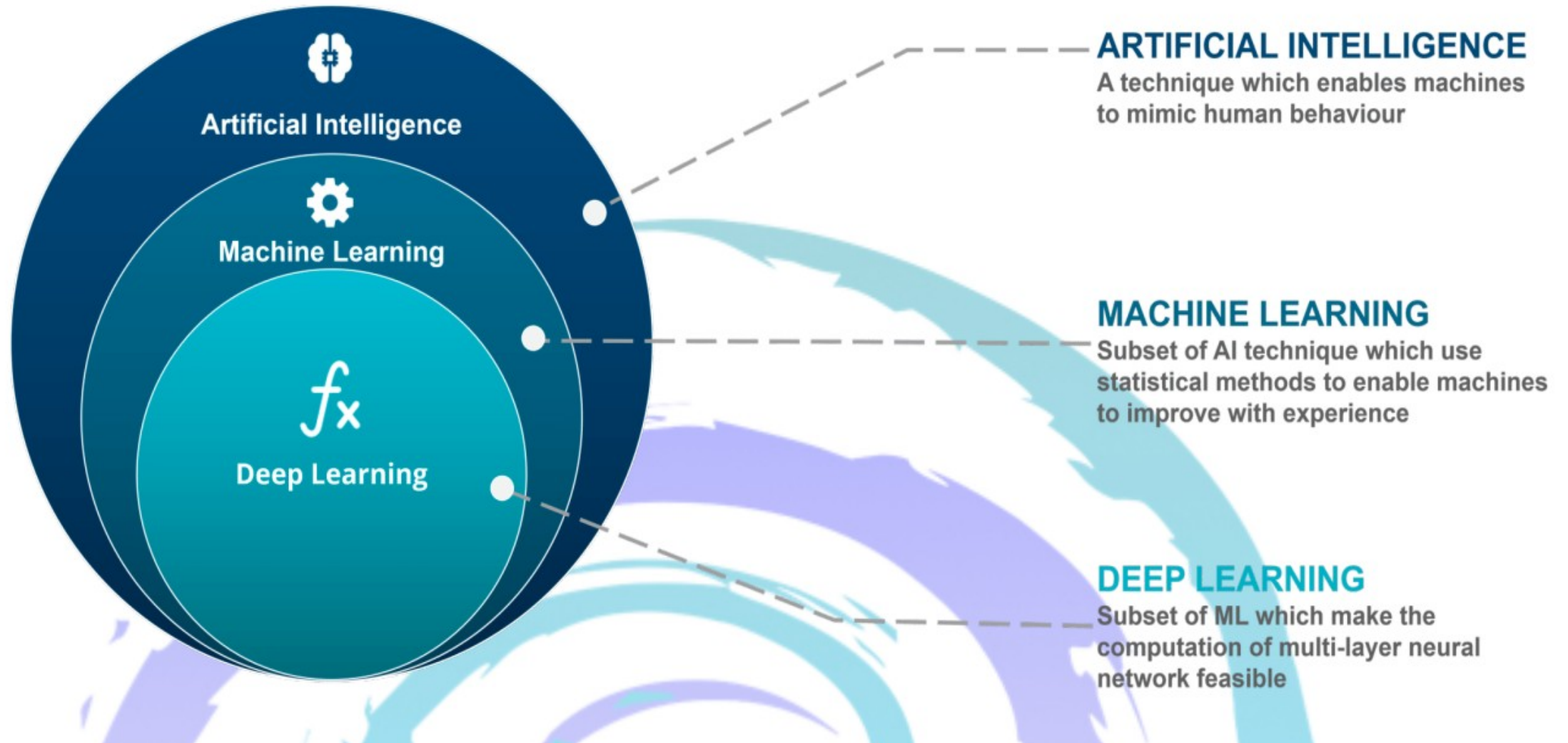# Machine Learning

Machine learning is an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed.
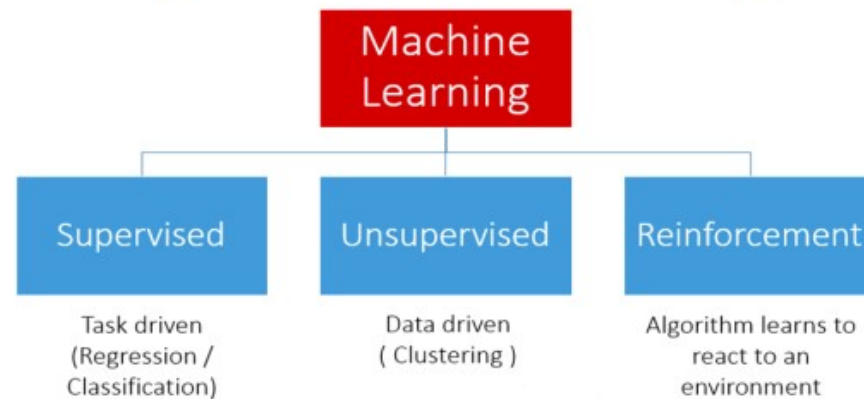
Machine learning focuses on the development of computer programs that can access data and use it learn for themselves.

ARTIFICIAL INTELLIGENCE
A technique which enables machines to mimic human behaviour

MACHINE LEARNING
Subset of AI technique which use statistical methods to enable machines to improve with experience

DEEP LEARNING
Subset of ML which make the computation of multi-layer neural network feasible

Some machine learning methods

Machine learning algorithms are often categorised as supervised or unsupervised.

Types of Machine Learning

Supervised machine learning :

Supervised machine learning algorithms can apply what has been learned in the past to new data using labeled examples to predict future events.

Starting from the analysis of a known training dataset, the learning algorithm produces an inferred function to make predictions about the output values.

Unsupervised machine learning :

In contrast, unsupervised machine learning algorithms are used when the information used to train is neither classified nor labeled.

Unsupervised learning studies how systems can infer a function to describe a hidden structure from unlabeled data.

Reinforcement machine learning :

Reinforcement machine learning algorithms is a learning method that interacts with its environment by producing actions and discovers errors or rewards.

Trial and error search and delayed reward are the most relevant characteristics of reinforcement learning.