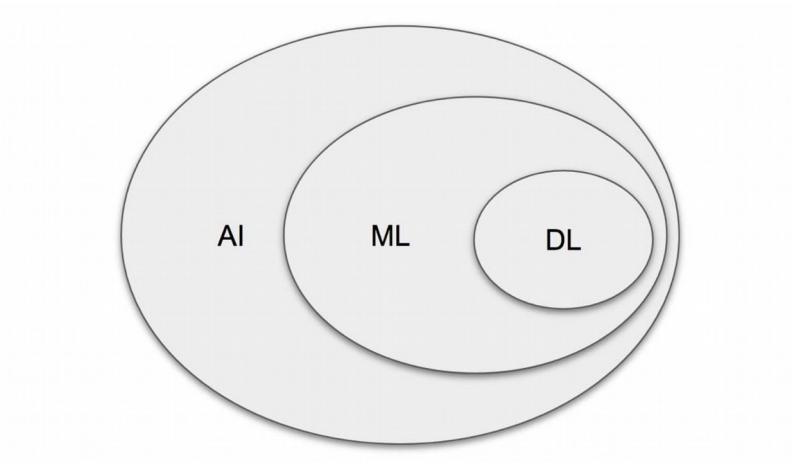
Machine Learning

"Machine Learning is defined as the study of computer programs that leverage algorithms and statistical models to learn through inference and patterns without being explicitly programed. "

Machine learning is one of the most exciting technologies that one would have ever come across. As it is evident from the name, it gives the computer that which makes it more similar to humans: The ability to learn. Machine learning is actively being used today, perhaps in many more places than one would expect.

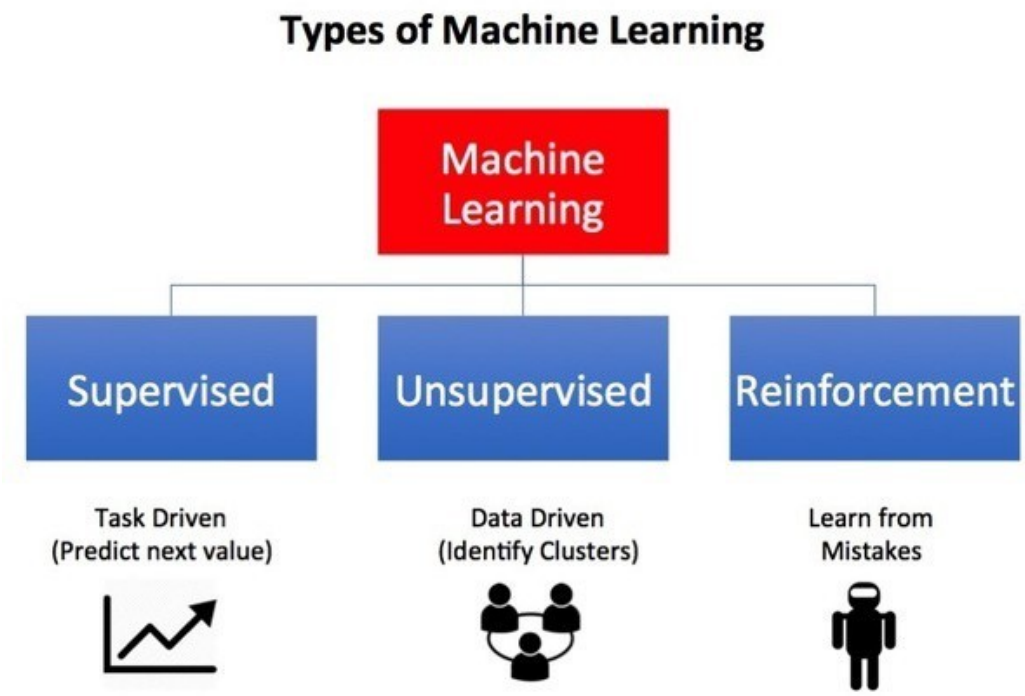
Machine Learning (ML) has proven to be one of the most game-changing technological advancements of the past decade. In the increasingly competitive corporate world, ML is enabling companies to fast-track digital transformation and move into an age of automation. Some might even argue that AI/ML is required to stay relevant in some verticals, such as digital payments and fraud detection in banking or product recommendations .

Machine Learning is a sub-domain of artificial intelligence that helps businesses examine the data ,learn and adapt then make decisions accordingly.It assists in system processing automates repetitive admin tasks,and more.Furthermore,Deep Learning is subsidiary of machine learning .It offers efficiency and accuracy that exceed past the profound conginitive abilities of the human brain.



AI:Engineering of making intelligent Machine and Programs
ML:Ability to learn without being explicitly programmed
DL:Learning based on Deep Neural Networks using huge datasets

Machine Learning algorithm is trained using a training data set to create a model.When new input data is introduced to the ML algorithm,it makes prediction on the basis of the model.The prediction is evaluated for accuracy and if accuracy is acceptable ,the Machine Learning model is deployed



Types Of Machine Learning:-

Supervised Learning

Supervised learning is one of the most basic types of machine learning. In this type, the machine learning algorithm is trained on labeled data. Even though the data needs to be labeled accurately for this method to work, supervised learning is extremely powerful when used in the right circumstances.

Unsupervised Learning

Unsupervised machine learning holds the advantage of being able to work with unlabeled data. This means that human labor is not required to make the dataset machine-readable, allowing much larger datasets to be worked on by the program.

Reinforcement Learning

Reinforcement Learning directly takes inspiration from how human beings learn from data in their lives. It features an algorithm that improves upon itself and learns from new situations using a trial-and-error method. Favorable outputs are encouraged or ‘reinforced’, and non-favorable outputs are discouraged or ‘punished’.