

Blog explaining your granny about ML.

First, I will tell my grandma that Machine Learning is one of the application of Artificial Intelligence.

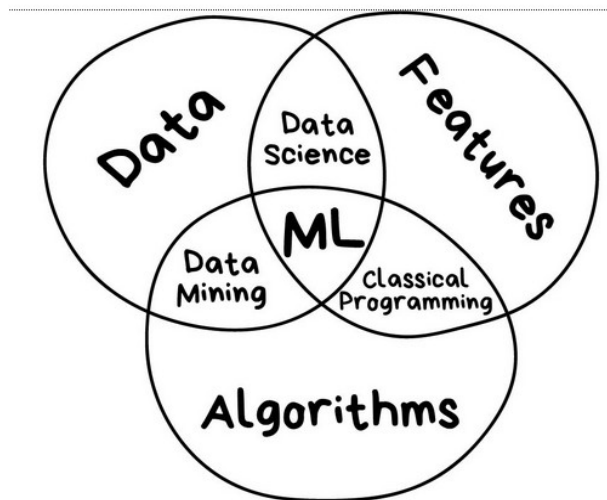
Me explaining further to granny about ML.

ARTIFICIAL INTELLIGENCE:

Software that can solve problems by itself.

MACHINE LEARNING:

Algorithms that learn from data.



Three components of Machine Learning:

DATA

FEATURES

ALGORITHMS

Machine learning can be divided into three different categories —

Supervised Learning

Unsupervised Learning

Reinforcement Learning

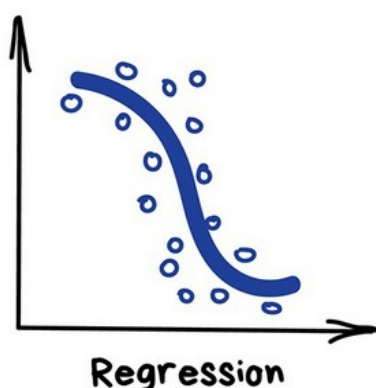
Supervised Learning:

Supervised learning is a type of machine learning where the data you put into the model is “labeled.” Labeled simply means that the outcome of the observation (a.k.a. the row of data) is known. For example, if your model is trying to predict whether your friends will go golfing or not, you might have variables like the temperature, the day of the week, etc. If your data is labeled, you would also have a variable that has a value of 1 if your friends actually went golfing or 0 if they did not.

Supervised learning can be divided into two subgroups:

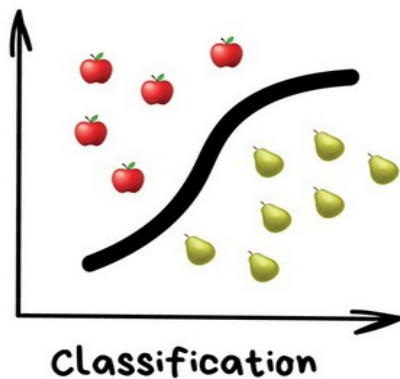
Regression and Classification.

Regression:



Regression actually derives from statistics — it's the technique of predicting values of a desired target quantity when the target quantity is continuous. Essentially, a regression model can find the value of something based on the values of similar things.

Classification:



Splits objects based at one of the attributes known beforehand. Separate socks by based on color, documents based on language, music by genre. When the line is straight — it's a linear regression, when it's curved — polynomial. These are two major types of regression. The other ones are more exotic. Logistic regression is a black sheep in the flock. Don't let it trick you, as it's a classification method, not regression.

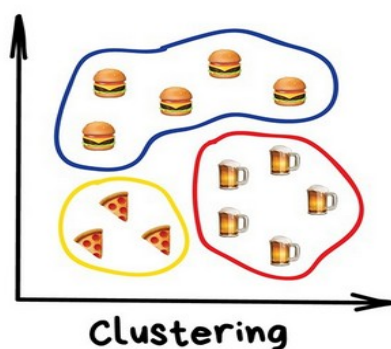
Unsupervised Learning:

As you may have guessed, unsupervised learning is the opposite of supervised learning when it comes to labeled data. With unsupervised learning, you do not know whether your friends went golfing or not it is up to the computer to find patterns via a model to guess what happened or predict what will happen.

Clustering and Association are two types of Unsupervised learning.

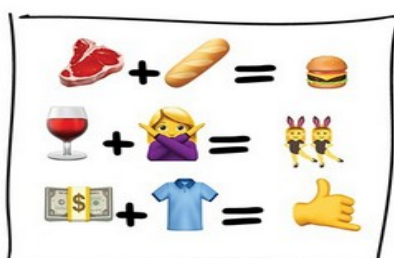
Clustering:

Divides objects based on unknown features. Machine chooses the best way.



Association:

Look for patterns in the orders' stream



Association Rule Learning

Reinforcement Learning:

Throw a robot into a maze and let it find an exit.

Nowadays used for:

- Self-driving cars
- Robot vacuums
- Games



So at the end, Above provided information is much more enough for granny to understand what exactly is Machine Learning and same regards for five years old ones.