All sources:

Basic terms

regression	predicting a value based on known historical data

Giving the machine some data, it will find hidden patterns and predict results.

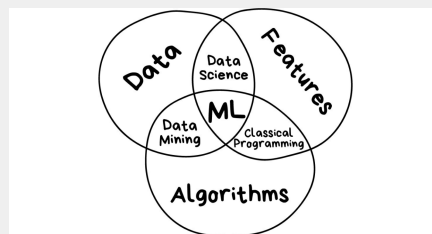How to collect data: manually and automatically.

Features: parameters or variables, the factors for a machine to look at.

Algorithms: Any problem can be solved differently. The method you choose affects the precision, performance, and size of the final model.

Three components of machine learning
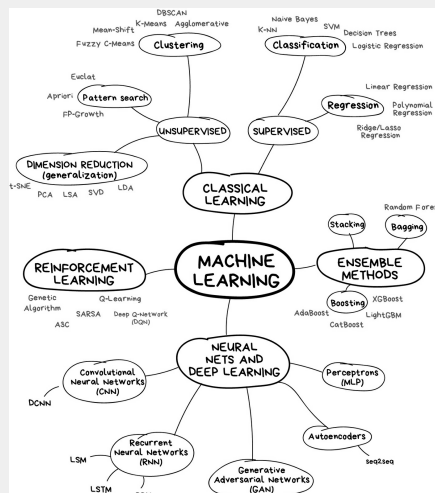

Learning vs Intelligence

Artificial intelligence is the name of a whole knowledge field, similar to biology or chemistry.

Machine Learning is a part of artificial intelligence. An important part, but not the only one.
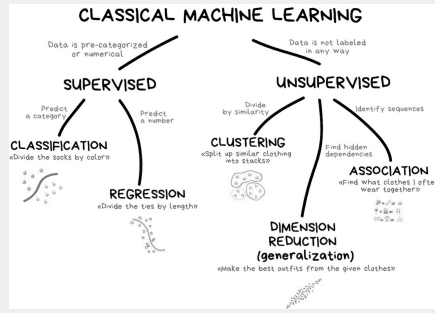
Neural Networks are one of machine learning types. A popular one, but there are other good guys in the class.

Deep Learning is a modern method of building, training, and using neural networks. Basically, it's a new architecture. Nowadays in practice, no one separates deep learning from the "ordinary networks". We even use the same libraries for them.

Map

Classical Machine Learning

CLASSICAL MACHINE LEARNING

Data is pre-categorized or numerical

Data is not labeled in any way

SUPERVISED

UNSUPERVISED

Predict a category

Predict a number

Divide by similarity

Identify sequences

CLASSIFICATION
«Divide the socks by color»

CLUSTERING
«Split up similar clothing into stacks»

Find hidden dependencies

ASSOCIATION
«Find what clothes I often wear together»

REGRESSION
«Divide the ties by length»

DIMENSION REDUCTION
(generalization)
«Make the best outfits from the given clothes»

By **Sara** (lasago)

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