

Machine Learning

Learning:

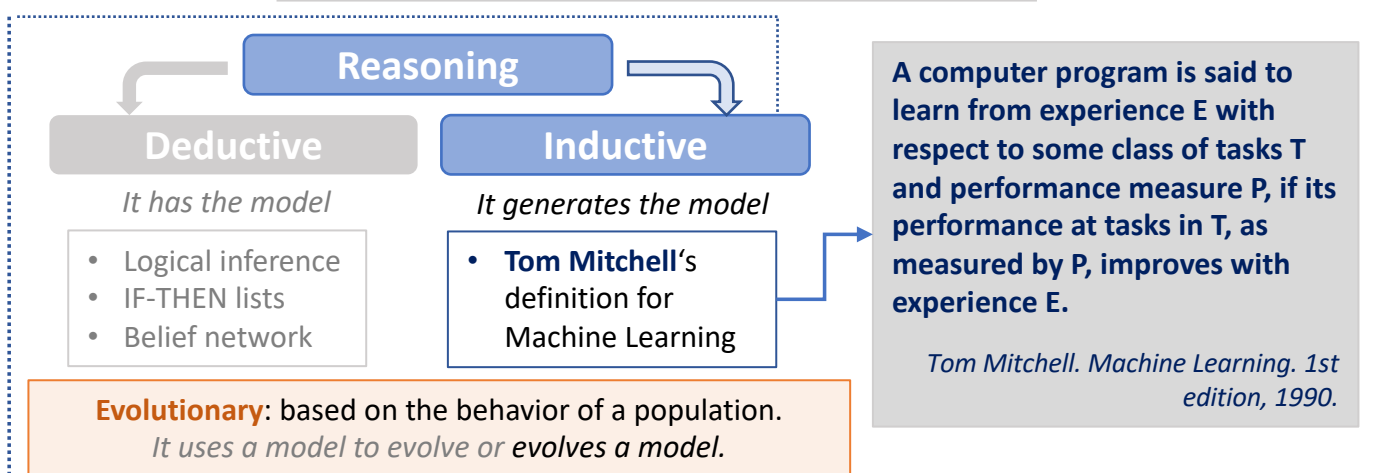
- Approach for extracting information from data or experiences and transforming that information into knowledge.

Knowledge:

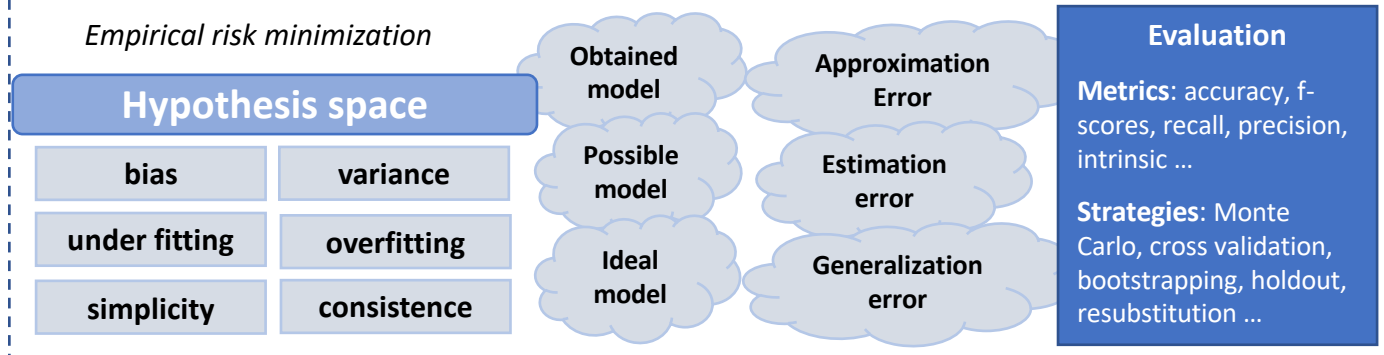
- Ability to use the information obtained in solving problems, generating behaviors or appropriate solutions to these problems.

Paradigm:

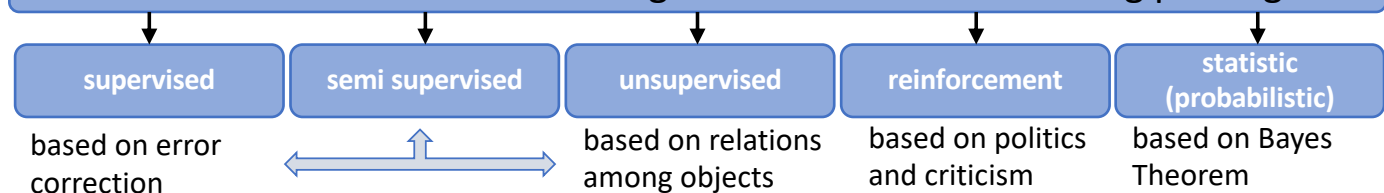
- Model or pattern to follow. A model derived from studies or experiences that have shown its efficiency in one or more situations.



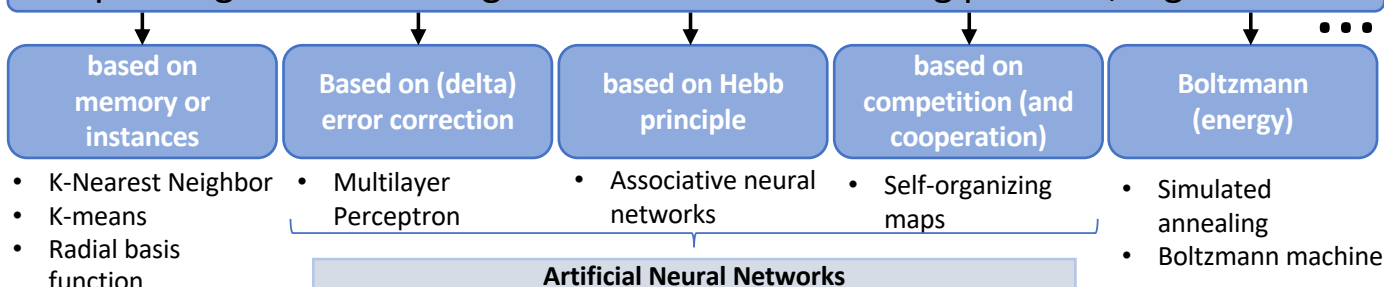
Computational learning theory: approximate learning / hypothesis of stationarity.



The environment in which learning occurs defines the learning paradigm:



Depending on how the algorithm solves the learning problem, it generates:



Group based learning (committee)

It expands the hypothesis space

Component generation

- bagging
- boosting

Component selection

- vote
- stacking

Output combination

- ensemble (static)
- mixture (dynamic)

Continuous (online) learning

It is used in non-stationary problems/environments

Pseudo-stationary environments → time window without changes