How do we learn ?

What we aim to accomplish in this subject

- Explore a computational approcah to learing from interactions
- Explore learning situations and evaluate the effectivness of various learing methods
- Explore the design of machines that are effective in solving learing problems of scientific or economic interest

> We are going to explore goal-directed learing from interactions called reinforcement learning, it is different from other ML algirithms (both supervised and unsupervised)

What is Reinforcement Learining

- Reinforcement Learining (RL) is learining what to do
- How to map situations to actions
- So as to mazimize a numerical reward signal

The learner is not told which actions to take, but instead must discover which cations yields the most rewards by trying them.

> In the most interesting and challenging cases, actions my affect not only the immediate rewards but alos the next situation and, through that, all subsequent rewards.

The two distinguishable feature of RL are: 1. Trail-and-error 2. Delayed reward

---