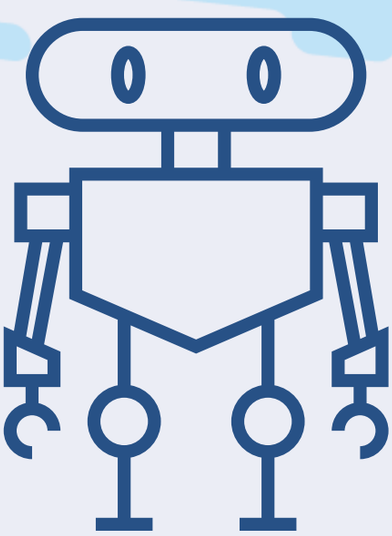
Socialization of key vocabulary: "Introduction to Reinforcement Learning – A Robotics Perspective"

Reinforcement Learning (RL)

A branch of Machine Learning where an intelligent agent makes decisions in an environment to maximize a cumulative reward. It involves an interactive process of exploration and exploitation.

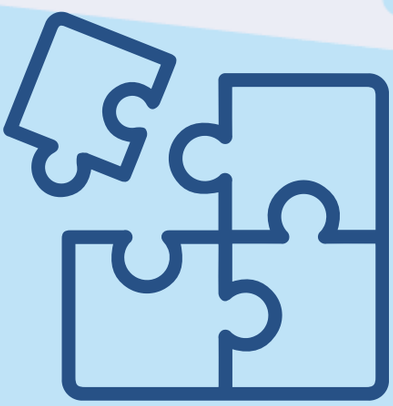


Robotic Workflow

The iterative learning process in RL applied to robotics, involving sensorimotor activity, and reward signals in the interaction between an agent and its environment.

Sim-to-Real Gap

The disparity between simulated environments and the real-world conditions in robotics. It encompasses differences in physical behavior, perception, and other factors affecting the transferability of learned policies.



Model-Free RL Algorithms

Algorithms used in robotic control within RL that do not require a ground-truth model of the environment. They are particularly suitable for scenarios where a true model of the environment is challenging to obtain.

Sparse Rewards

In the context of RL, rewards that are infrequent or given only at specific instances during the learning process. Sparse rewards can pose challenges for the convergence of RL algorithms.