

Cognitive Computing Final Project Proposal

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Overview

Reinforcement Learning has played a major role in the Artificial Intelligence domain. The applications include self-driving car, playing games (as bots), teaching a humanoid to walk etc.

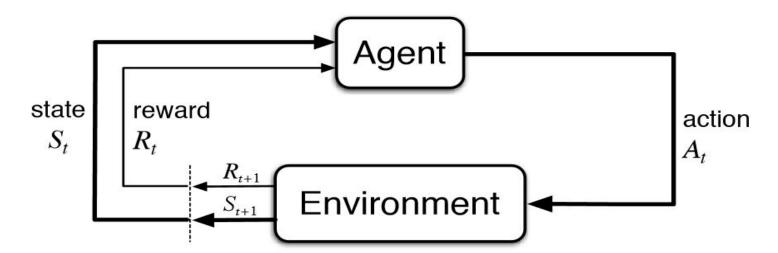


While there are various services offered online (https://bons.ai/, https://github.com/openai/gym) which abstract particular layers, to facilitate the development of various models .

We have chosen to go ahead with OpenSim environment (https://github.com/stanfordnmbl/osim-rl)

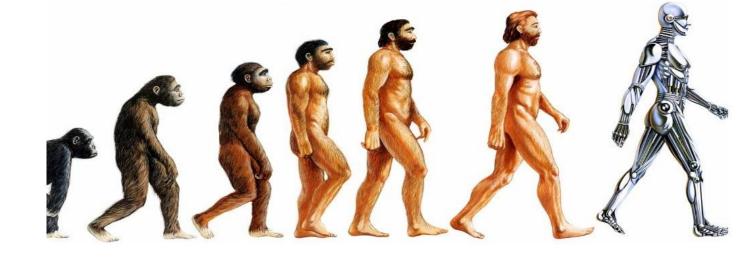
Scope of the project

We are using OpenSim environment (Model free), in this type of reinforcement learning an agent interacts with the environment in the form of an action to find out possible ways to go, based on the reward function.



source:http://web.stanford.edu/class/cs234/index.html

Goals



 We will implement various algorithms to try and make the humanoid walk. Drawing similarities and distinctions between different algorithms while mentioning the most effective ones.

Algorithms

Following are the algorithms we intend to implement:

- Deep Q Learning
- Double Deep Q Learning