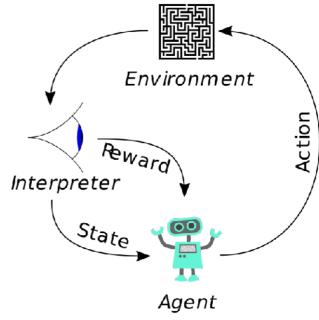




## Reinforcement Learning

## Reinforcement learning (RL) ...

 is a sub-field of machine learning which aims at building intelligent agents that are able to determine optimal actions in an unknown environment.



wikipedia.org/wiki/Reinforcement learning

### RL has been successfully applied to ...

- Playing Atari games:
  "Human-level control through deep reinforcement learning"
  <a href="https://www.nature.com/articles/nature14236">https://www.nature.com/articles/nature14236</a>
- Flying an autonomous helicopter
  "An Application of Reinforcement Learning to Aerobatic Helicopter Flight"
   <a href="http://heli.stanford.edu">http://heli.stanford.edu</a>
- and many many more ...





# Seminar Reinforcement Learning

During the seminar in Summer term 2021 we will study the book on

Reinforcement Learning:

- Reinforcement Learning An Introduction
  Richard S. Sutton and Andrew G. Barto
  <a href="http://www.incompleteideas.net/book/the-book.html">http://www.incompleteideas.net/book/the-book.html</a>
- We will meet on a regular basis, and discuss individual chapter of the book
- If necessary, additional papers will be provided

#### Organisation

- If interested, enrol via <u>StudIP (course 23797)</u> until April 6!
- First meeting Tue 6. April, 11:00-12:00 via Zoom (check StudIP announcement)
- Limited number of participants: 20

#### Please note:

There will also be a KSWS / Project on this topic in which we apply RL

