Week 1 Part 2

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1 Artificial Intelligence

Goals of AI:

- Create expert systems (learn, demonstrate, explain and advice users)

- Implement human intelligence (understand, think, learn and behave like humans)

System Categorization:

- Hypothesis / experimentation

- - Thinks like humans

    - Acts like humans

- Mathematics / Engineering

- - Thinks rationally

    - Behaves rationally

Rational Systems:

- Uses logic to achieve goals

- Hard to represent informal knowledge

- Act to achieve some goal (not always correct, but will accomplish task)

Agents:

- We create the agent(something that senses the environment and acts on it)

- Agents apply actions to the environment via actuators

- Agents get information from the environment via sensors

- A rational agent will act in a way to to maximize performance (expected performance) based on history and built-in knowledge

Adaption:

- Adjust and improve behavior

- Learn via instructor, example, discovery

- Generalization

Cooperation:

- Direct

- Indirect

- Independent