Exercise Artificial Intelligence WS 10/11

Information System and Machine Learning Laboratory (ISMLL)

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Exercise 1: (3 points)

a) Define in your own words:
   • rational action,
   • rational thinking,
   • human activity and
   • human thought
   What is the difference between the four terms?

b) Turing developed in the 1950s, the famous Turing Test for artificial
   to define intelligence. Give two examples of simple extension
   /change options of the Turing test (eg: instead of written language
   Keyboard input) and explain how, in comparison to the classic Turing test
   difficult or maybe even easier

Exercise 2: (7 points)

a) Define the following concepts:
   • Possible state
   • Action
   • Goal
   • Cost function

b) Suppose that we want to build an intelligent computer to play
   "Tic-Tac-Toe" game. This program is according to which definition of
   artificial intelligence? (use exercise 1)