IAI – Exercise Sheet 1

This first set of exercise questions lead you into some well known philosophical questions underlying the study of AI. An internet search (e.g. using http://www.google.com/) will throw up lots of useful (and not so useful) information. I'll provide one web link for each question to get you started. I'm sure you'll be able to find even better web sites for yourself...

Question 1

What is *intelligence*? How do we measure it? Are these measurements useful?

http://www.iqtest.com/

Question 2

How good are machines at playing chess? If a machine can consistently beat all the best human chess players, does this prove that the machine is *intelligent*?

http://www.aaai.org/AITopics/html/chess.html

Question 3

What would convince you that a given machine is *truly intelligent*?

http://www.loebner.net/Prizef/loebner-prize.html

Question 4

When *a computer* adds up numbers, is it thinking? When *you* add up numbers, are you thinking? Is there any fundamental difference? Are these useful questions?

http://www.ime.usp.br/~vwsetzer/antidote.html

Question 5

When the temperature falls and the thermostat turns the heater on, does it act because it *believes* the room to be too cold? Does it *feel* cold? What sorts of things can have beliefs, or feelings? Is this related to the idea of consciousness?

http://www.cds.caltech.edu/conferences/related/ECC97/proceeds/501_750/ECC710.PDF

Question 6

Some people believe that the relationship between your mind (a non-physical thing) and your brain (the physical thing inside your skull) is exactly like the relationship between a computational process (a non-physical thing) and a physical computer. Do you agree?

http://www.kheper.net/topics/worldviews/dualism.htm