

**School of Computing Science
Simon Fraser University**

CMPT 310 - Introduction to Artificial Intelligence

Term: Fall 98-3
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Assignment #1: Reasoning vs. Perception

Reading Assignment

1. Read chapters 1 - 3 and chapter 26.
2. Read Rodney Brooks paper "*Artificial Intelligence without Reason*" (from the class webpage).
3. Read David Waltz' paper "*Artificial Intelligence: Realizing the Ultimate Promises of Computing*" (also from the class webpage)

Homework

Is intelligence a complex inference process which involves sophisticated knowledge representation schemes and powerful inference mechanisms (see Waltz)? Or is intelligence really a massively parallel combination of low level perception and motor capabilities (see Brooks). Traditionally, AI has taken the former view but recent research suggests that this orthodoxy may not be true (or at least not as accepted dogma). What do you think? Certainly a huge fraction of our brains are concerned with perception and motor control. Is reasoning an emergent property built on top of these underlying capabilities? Or is intelligence a separate rational aspect of human thinking.

4. Write a short paper in good English addressing question 1.8 on page 30 of AIMA (the textbook). The paper should be about 10 pages, typed, double spaced with any references that you find useful. Your paper should take a position either for formal reasoning or for emergent perception. You should make an argument that AI is best concerned with one perspective or the other. Use other sources to bolster your argument but make sure the argument is your own. Give credit to your sources using proper references.

Due Date: Monday, September 28 (note change of due date)