Massachusetts Institute of Technology

6.038 Artificial Intelligence in Practice

Handout 1: Tuesday, February 4, 1997

TR 11:00-12:30, 36-155

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`http://www.ai.mit.edu/courses/6.038/6.038-home.html`

Caveat Emptor

This is the first time this course is offered; expect rough edges.

Pre-Requisites

6.034 is the key pre-requisite but we will expect more experience in programming than is expected in 6.034. That is, you should feel comfortable reading and writing substantial programs in Lisp and C. The "tools" that will be made available are written in Common Lisp, Scheme and C.

The Course

The goal of the course is to give you experience in doing a "real" AI system. This experience has four parts:

1. Functionality: Given a general objective, pick the functionality that the system should provide.
2. Design: Design the system, trying whenever possible to reduce problems to the application of existing methods.
3. Prototype Implementation: Evaluate the design by building prototypes of some of the main components.
4. Design revision and Final implementation: Produce the complete version of the system.

In this course, we are all going to start with the same objective and we will attempt to work our way through to the prototype implementation stage. The course will go through the following stages:

1. Each student individually will propose an approach to achieve the objective.

2. We will review some of the AI tools available to us.
3. Each student individually will propose a design for the whole system.
4. We will form groups of three that will propose a design for the whole system.
5. We will select/synthetize one global design for the system.
6. The groups will implement prototypes of the major modules of the system.

The Objective

Our objective will be a very general one – construct a human/computer interface for the houses and offices of the future. One model could be the computer in Star Trek (or HAL in 2001). A key part of the problem will be deciding precisely what is and is not doable in the given time frame based on the tools we have available.