Rochester Institute of Technology,
Department of Computer Science
ARTIFICIAL INTELLIGENCE
INTRODUCTION TO ARTIFICIAL INTELLIGENCE
Assignment 1
Loebner Prize
Due: September 14, 2005

Your name: DO NOT FORGET TO INCLUDE YOUR NAME

Introduction

The Loebner Prize is the first formal instantiation of a Turing Test. The test is named after Alan Turing, the brilliant British mathematician. Among his many accomplishments was basic research in computer science. In 1950, in the article “Computing Machinery and Intelligence”, which appeared in the philosophical journal Mind, Alan Turing asked the question "Can a Machine Think?" He answered in the affirmative, but a central question was: "If a computer could think, how could we tell?" Turing's suggestion was, that if the responses from the computer were indistinguishable from that of a human, the computer could be said to be thinking.

In 1990 Dr. Hugh Loebner agreed with The Cambridge Center for Behavioral Studies to underwrite a contest designed to implement the Turing Test. Dr. Loebner pledged a Grand Prize of $100,000 and a Gold Medal for the first computer whose responses were indistinguishable from a human's. Each year an annual prize of $2000 and a bronze medal is awarded to the most human computer. The winner of the annual contest is the best entry relative to other entries that year, irrespective of how good it is in an absolute sense.

Part 1.

Research and report on the latest (over a few last years) winners of the Loebner prize. What techniques did they apply? How did it advance, in your opinion, the state of the art in AI? Compare them. Write down your analysis (should be not longer than one page). A table form would be fine.

Part 2.

In honor of 15 years of competition, the cash award for 2005 will be $3000. In 2005 the $25,000 and the Silver Medal will be at risk. The fifteenth annual Loebner Prize contest will take place:
10:00 - 16:00, Sunday, 18 Sept 2005, at 220 W. 98th St #2B, New York, NY.
The rules are given at http://loebner.net/Prizef/2005_Contest/2005_Rules.txt .

Offer an idea of your computer program to take part in this competition. You have to address the following questions:
What is the main principle of operation?
What techniques does it use?
Why do you think it will pass the Turing’s test?
How would you implement it?
What programming language/technology would you apply to design it? Why?
This part should be not longer than one page either.

Your report (doc or pdf format file) should be submitted before 11.59 pm, September 14, 2005 through mycourses.rit.edu. At last but not at least, I want to remind you that this is an individual assignment, you may not discuss it with your peers before submission.
Thanks a lot for your work.

GOOD LUCK!