CSC421 Assignment 5. Spring 2006 (10pts)

"Once upon a time two daughter sciences were born to the new science of cybernetics. One sister was natural, with features inherited from the study of the brain, from the way nature does things. The other was artificial, related from the beginning to the use of computers. Each of the sister sciences tried to build models of intelligence, but from very different materials. The natural sister built models (called neural networks) out of mathematically purified neurones. The artificial sister built her models out of computer programs. In their first bloom of youth the two were equally successful and equally pursued by suitors from other fields of knowledge. They got on very well together. Their relationship changed in the early sixties when a new monarch appeared, one with the largest coffers ever seen in the kingdom of the sciences: Lord DARPA, the Defense Department's Advanced Research Projects Agency. The artificial sister grew jealous and was determined to keep for herself the access to Lord DARPA's research funds. The natural sister would have to be slain. The bloody work was done by two staunch followers of the artificial sister, Marvin Minksy and Seymour Papert, cast in the role of the huntsmen sent to slay Snow White and bring back her heart as proof of the deed. Their weapon was not the dagger but the mightier pen, from which came a book - Perceptrons - purporting to prove that neural nets could never fill their promise of building models of mind: only computer programs could do this. Victory seemed assured for the artificial sister. And indeed, for the next decade all the rewards of the kingdom came to her progeny, of which the family of expert systems did best in fame and fortune. But Snow White was not dead. What Minsky and Papert had shown the world as proof was not the heart of the princess; it was the heart of a pig."

-Seymour Papert, 1988

Student Name: Student Number:
Instructor George Tzanetakis

Question	Value	Mark
1	5	
2	5	
Total	10	

1 Overview

The goal of this assignment is to relax and enjoy writing about AI topics and how they relate to what you have learned in this course. You can answer any 2 of the 3 questions provided or all of them but the maximum grade will still be 10. **The answers must be typed not handwritten.** Your answers should be in full text (not bullet form) and not trivial. The answer to each question should be a minimum of 2 pages, single column with a 12pt font. There is no upper bound. Your deliverable should be report with your answers to two or more of the questions. Electronic submissions are only accepted as a single pdf file by email. Originality and creativity will be rewarded.

2 Books or Movies (5pts)

Choose a fiction book or movie that is somehow related to AI. Describe what concepts that we have learned during this term could be used by the AI described in the book or movie. Your description should be as specific as reasonable and not just trivial enumerations of names. For every concept you mention provide specific examples from the book or movie that illustrate how it would work. The webpage has some possible books/movies.

3 Short Story (5pts)

Write a short fictional story that involves AI. Try to weave into the story concepts and ideas we have learned in this class.

4 Startup business plan (5pts)

Based on how well you did in CSC421, you receive enough money to create a startup company with approximately 10 employees that will work on some AI-related project. Describe the idea, business plan, and how the concepts you have learned in CSC421 will give you a competitive edge.