Collaboration Policy and References

This assignment is to be done individually. You may discuss this assignment with other students, but you may not describe the same application as people you discuss with. [It is okay for a group of, say, 3 people to discuss 3 applications together and to each submit one, as long as for the write up the each student submits is their own.] You must list all of the people you discussed the assignment with and all references you use. If you use a web page, paper, or book, you must reference it. All of the phrasing must be your own. If you want to copy a phrase or a sentence, put it in quotations and give a reference (including page numbers) where we can find it. Not doing this is a form of plagiarism and academic misconduct.

Submission

The aim of this assignment is to learn about what AI applications exist, and to think about what intelligence could mean. We will discuss the applications during the class of January 9. Please be prepared to play your part in the discussion and talk about the applications you found. The hard copy of this assignment should be submitted at the end of the class.

The Assignment

Find out about one application of AI, not a class of applications but a specific system. Write at most one typed page that describes the application you found. Use proper sentences. You should cover each of the questions below. Please include the number of the question/sub-question that you are answering as the header for each of your answers (e.g. 2a if you are answering the sub-question about goals). We will not mark your assignment if you do not follow these instructions and the questions that you are answering are not clearly labelled.
1. What does the application do? (e.g., control a spacecraft, perform medical diagnoses, provide intelligent help for computer users, shop on eBay, play Warcraft). Tell us something interesting about the system.

2. Explain at least:
   (a) one goal / preference that the application has
   (b) two types of prior knowledge that it needs to perform intelligently
   (c) two types of past experiences that it does (or could) learn from the environment in order to improve its performance over time
   (d) two types of observations that it needs about the environment
   (e) two types of actions that it performs

3. What AI technologies does the application use (e.g., belief networks, Markov models, knowledge graphs, heuristic search, constraint satisfaction, planning, neural networks)

4. Why is it intelligent? Which aspects make it an intelligent system?

5. Is it an experimental system or a fielded system (i.e., used in a real world setting)? If it is a fielded system, in what context is it used and how many users does it have? If it is an experimental system, do the authors mention how much more work would be required to turn it into a fielded application? What impact on the world could such a system potentially have?

6. Is evidence provided on how well the application performs? If yes, describe this evidence; is it convincing? If not, describe how convincing evidence could be collected.

7. References: where did you get the information about the application? What books, articles, or web pages would be useful references for others wanting to learn more about this application?

You’ll receive bonus marks if you contribute to the discussion in class.