CS886 - AI and Philosophy Fall 2017

Prof. Robin Cohen

Time and location: (Monday mornings 9am-11am; DC2568)

This seminar-style course is ideally suited for graduate students who are either writing theses in Artificial Intelligence or who have a good background in artificial intelligence. Other interested students are still welcome: simply ask the instructor. The course will be limited to 14 students. Any student is welcome to Audit the course and can request official Audit status.

The course will be discussion-oriented. The aim is to enable students to explore theories in philosophy at length, to then imagine applying these theories to the design of a particular artificial intelligence model. Each student will be required to present their selected philosophy theory with the class, and to later present their proposed application of that theory to artificial intelligence, ultimately leading to a completed final project which is handed in just after our last class. An additional exercise will involve working in small groups on the specific topic of ethics for AI. Initial classes will serve to introduce the students to the topic area, presenting examples of AI concepts which may benefit from the application of philosophy theories.

Workload

Presentation of philosophy theory	10 (15 minutes)
Handout on philosophy theory	10 (1 page, 2-sided, bullet form)
Presentation of proposed solution (final project)	10 (15 minutes)
Group project on ethics in AI	10 (8 pages)
Group project presentation	5 (15 minutes)
Class participation	5
Final individual project	50 (10 pages)

Schedule

Sep 11 Introduction to course
Sep 18 Exemplar cases of utility functions and norms
Sep 25 Ethics in AI: discussion; time for groups to meet
Oct 2 Presentations of Ethics in AI solutions (projects due Oct 6)
Oct 16 Presentations of philosophy theories (4) (10 mins discussion on each)
Oct 23 Presentations of philosophy theories (4) (10 mins discussion on each)
Oct 30 Presentations of philosophy theories (4) (10 mins discussion on each)
Nov 6 Philosophy theory presentations (2) (10 mins discussion on each); Guest speaker (Paul Thagard)
Nov 13 Presentations of projects (5) (5 mins discussion on each)
Nov 20 Presentations of projects (5) (5 mins discussion on each)
Nov 27 Presentations of projects (4) (5 mins discuss); Course Wrap-up
Dec 4 Final course reflections; Final Projects due (30 minute class)

Contact: rcohen@uwaterloo.ca

Hardcopy to be handed in and softcopy sent as well