Two-Year Progress Report for the the Cognitive Science Program (Minor) October 2015

Review Process

The Cognitive Science Program was reviewed in 2012, and a final assessment report was submitted in July 2013. This progress report describes progress in the two years since the final assessment report. It quotes the conclusions and implementation plans of the 2013 report and describes successful implementations and ongoing plans.

It will be useful to begin with some contextual information. In 2013-14, the Faculty of Arts undertook a process of finding departmental homes, for administrative purposes, for the various interdisciplinary programs in Arts---many of which, like Cognitive Science, had been moved into Arts and out of the purview of the Provost's office only five or so years earlier. This was done, at least in part, in response to feedback received during the Arts Strategic Planning consultations in 2011-12. There was a widespread perception that these programs did not have an appropriate voice in decision-making at the Faculty level, and that while in general the oversight by whatever ad hoc arrangements were put in place when a particular program was created was adequate, they were not universally well run. Furthermore, in cases where they were well-run they were often dependent on a single champion, or a small group of champions, for their continuing wellbeing. Providing such programs with departmental homes assured that there would be Chairs or Directors (in the sense of someone selected under Policy 40 as a head of a genuine academic unit, rather than someone called "director" but with no defined role under university policy) with a commitment to their well-being, because the success of the programs then is part of the success of the department. It also provides departmental committees and other resources that will continue to exist long term to provide appropriate academic oversight for the programs, and so makes them less dependent on the presence of individual champions. (Of course, the corresponding challenge was to ensure that the programs maintained a suitably interdisciplinary character after they moved into a department.)

Around the same time, as part of its effort towards "plan standardization", the Faculty of Arts decided that the vast array of "options" should disappear (or certainly be drastically reduced), with the options either disappearing or being converted into more robust minors.

As a result, there were important changes to the organization of the Cognitive Science program. As of January 1, 2015, the Cognitive Science Minor (and Graduate Diploma in Cognitive Science) are administrated by the Philosophy Department. The Cognitive Science Board has been dissolved. There is no longer a Director of the Program, but the Philosophy Department appoints a Cognitive Science Advisor, a role that involves many of the organizational and advising duties of the former Director. Paul Thagard, the Director for 20 years, is currently in the Advisor role. Also, in accord with the other Faculty of Arts decision, the old Cognitive Science option has been replaced by a minor.

Program Response

The Program response focused on the six questions raised by the review team, which relate in varying degrees to their nine recommendations.

1. Strengthening the Cognitive Science Minor

➔ Implementation: The Director will engage student groups as required, beginning in fall 2013. This will be ongoing.

➔ Response: In 2013-2014, Paul Thagard met with undergraduate student groups in interested departments, including Philosophy, Systems Design Engineering, Electrical and Computer Engineering, and Software Engineering.   The Cognitive Science Advisor will continue to meet annually with interested undergraduate groups.

➔ Result: For unidentifiable reasons, 2013 and 2014 had the largest groups of students signing up for the option or minor since it began in 1995. 2013 had 14 new students, and 2014 had 17.

Other initiatives: The newly invigorated Undergraduate Philosophy Society will be encouraged to involve interested Cognitive Science students in their activities when it makes sense, helping to develop a place where CogSci students can build a sense of community, If the project of launching a CogSci major is successful, the Department will support the development of an undergraduate Cognitive Science Society.

➔ Implementation: The Director will submit a revision of the Minor requirements to UGAG in fall 2013.

➔ Response: A substantial revision to the Minor requirements was submitted in December, 2013.

➔ Result: The revisions were approved by the University and began operation Sept. 1, 2015.

➔ Implementation: In Fall, 2013, the Director will discuss the feasibility of a new course [on human and machine intelligence] with the Cognitive Science Advisory Board and relevant department chairs.

➔ Response: A new course, COGSCI 300, Intelligence in Machines, Humans, and Other Animals, was submitted along with the Minor revisions and approved, effective Sept. 1, 2015.

➔ Result: COGSCI 300 will be taught for the first time in Winter 2016.   A trial run was done as a Philosophy topics course in Winter 2015, and drew more than 30 students. COGSCI 300 will also receive a PHIL cross-listing to increase the pool of interested students.

➔ Implementation: Director will initiate discussion with the Dean of Arts and/or Provost in fall 2013 [concerning funding for 2 cognitive science speakers per year].

➔ Response: This plan was not implemented as described because of the move into the Philosophy Department. When it was a "homeless" program, Cognitive Science had no budget for visiting speakers. The Department of Philosophy has a visiting speaker budget from the Faculty of Arts each year, so the budget for Cognitive Science talks is automatically part of the annual discussion between the Chair of Philosophy and the Dean's Office about the Philosophy budget. The Department also has some endowed

funds that it uses to bring in visiting speakers, and these have recently often been used to bring in speakers of interest to faculty and students involved in Cognitive Science.

2. Additional resources for the Cognitive Science program
➔ Implementation: The Director will initiate discussion with the Dean of Arts and/or Provost in fall 2013 (concerning a faculty position in cognitive science).

➔Response: This plan was not implemented as described because of the move of Cognitive Science into the Philosophy Department. At that point the job of advocating for new tenure lines was taken out of the hands of the erstwhile Cognitive Science Director. That job now falls on the Philosophy Department, and in particular on the Chair. The long term health of Cognitive Science obviously depends on Philosophy continuing to have relevant expertise among its faculty. To date advocacy for new positions in Cognitive Science has not been successful, at least in the sense that it has not been deemed a top priority for the Faculty of Arts where there are many important initiatives that would benefit greatly from additional positions.

3. Introduction of a course in machine intelligence accessible to non-technical students
➔Implementation: In Fall, 2013, the Director will discuss the feasibility of this new course [on intelligence in people, animals, and computers] with the Cognitive Science Advisory Board and relevant department chairs.

➔Response: A new course, COGSCI 300, Intelligence in Machines, Humans, and Other Animals, was submitted along with the Minor revisions and approved, effective Sept. 1, 2015.

➔Result: COGSCI 300 will be taught for the first time in Winter 2016. A trial run was done as a Philosophy topics course in Winter 2015 and drew more than 30 students.

4. Connection with Knowledge Integration Program
There are clear overlaps between Knowledge Integration's ambitions and the interdisciplinary field of cognitive science.

➔Implementation: The Directors of the two programs will meet in fall 2013 to discuss possible cooperation between the programs.

➔Response: Paul Thagard met with Ed Jernigan, then director of KI, in 2013.

➔Result: As part of the revision for the Cognitive Science Minor, two knowledge integration courses were added to the requirements for the Minor.

Further initiatives: There are close relations between the Philosophy Department and the Knowledge Integration Department, including cross-appointed faculty members, many students doing combined majors, and so on. This close relationship will make future co-operation between KI and all the programs now (or soon to be) housed in Philosophy, including CogSci and Women's Studies, much more likely.

5. Creation of a task force to discuss establishment of a Cognitive Science degree program

➔Implementation: The program director will spend the next two years focusing on increasing enrollment in the Minor. Once this occurs, he will strike a task force concerned with establishing a major.

➔Response: This, too, is not a recommendation that can be implemented as described. However, the spirit of the recommendation is being implemented---the design and approval of a major in Cognitive Science is a key goal for the Philosophy Undergraduate Committee for the coming year. The process is being jointly led by the Philosophy Associate Chair (Undergraduate), Mathieu Doucet and the Cognitive Science Advisor, Paul Thagard.

➔Result: A first draft of a curriculum has been produced, one expanding on the current Cognitive Science Minor but has been broadened in ways that ensure that it maps well onto the UDLES. It will go to the Philosophy Department on December 4, 2015, to seek approval in principle from the Department to make the long-term commitment of effort and resources to sustain the new program. Provided that approval is received, Doucet and Thagard will take the proposal to the Arts Associate Dean (Undergraduate Programs) for advice about process and, ideally, endorsement. At that stage, working out the more detailed program proposal will begin, a process that will involve among other things consultation with other departments---a good chance for Thagard to ensure that his substantial connections around campus are shared with others in Philosophy who will henceforth share responsibility for the health of the program.

6. Long term management of the Cognitive Science Program (Recommendation 2)

➔ Implementation: The Cognitive Science Program Advisory Board will start the selection process [for a new Director] in September, 2014.

➔Response: This recommendation has also been overtaken by events, in the sense that the decision has been taken out of the hands of the Cognitive Science Board (which no longer exists) and placed in the hands of the Philosophy Department. Currently Professor Thagard continues as the Cognitive Science Advisor. He is ensuring that the knowledge he has acquired over 20 years as director is not merely in his head, but is written down so that when the role of Cognitive Science Advisor is passed to another member of the Philosophy Department the learning curve will not be too steep. Professor Thagard has also committed to helping other members of the department Undergraduate Committee establish appropriate connections to the key contributors to the Cognitive Science program from other departments, so that the program can be kept appropriately interdisciplinary and appropriately up-to-date in all the various contributing fields even when Professor Thagard is no longer part of the program.

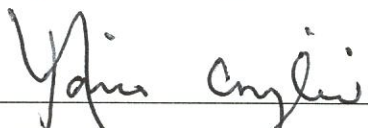**Date of next program review:** <u>July 1, 2019</u>

Signatures of Approval:

Dan DuVoli   _Jan 8, 2015_

Chair/Director   Date

                   _1/i/16_

Faculty or Administrative Dean   Date

Yasir Anglin   _Jan 12, 2016_

Associate Vice-President, Academic   Date
(For undergraduate and augmented programs)

Associate Provost, Graduate Studies   Date
(For Graduate and augment programs)