Updates on curriculum review

Sharon Goldwater, 20 Oct 2017

UG curriculum overall

Over the summer, the committee discussed over-arching principles and challenges, and approved the document attached here. (A longer version is available on request, which includes some more specific goals.) I also met with some staff individually to discuss their views on the pre-honours curriculum. I expect to resume these meetings toward the end of this semester.

UG: pre-honours

The committee has discussed some preliminary ideas about pre-honours, but these are not yet concrete. At a high level, we aim to move toward a set of more unified 20-credit courses. Where possible, we hope to reuse content from existing courses, rather than completely re-working everything. Some content from ug1-2 may need to be moved into ug3 (either as optional courses or as additional compulsory courses) in order to make space for other material or practical skills that are not currently covered.

Following discussion with myself and Phil Wadler, Don is preparing a preliminary proposal for a 20-point ug1 sem1 course (to include some content from FP and CL but also replace some content with different material). This will be discussed at the committee meeting on 25 Oct and with relevant parties (e.g. Wadler, Fourman) and we hope to bring a more detailed proposal to BoS in the spring. We have been considering issues of engagement and diversity as part of this discussion.

Any other changes to ug1-2 would not take effect until 2019-20.

UG4/5/MSc

We are currently facing a record number of ug4/5/msc students and **an increasing imbalance in the interests of the MSc cohort. (See plots below and on p3, data from early Oct.)** This is causing (a) severe resourcing problems in some courses, and (b) amongst some staff, considerable stress and resentment of the uneven and sometimes unreasonable workloads. Although by no means a complete solution, reducing the number of course offerings and redeploying staff to help with other courses (or in other ways) could help.

Bjoern is currently working on an assessment of the available resource in different areas, and we plan to put together a proposal for dealing with the level 10/11 course offerings and possibly other aspects of the ug4/5 and MSc years (e.g., delivery of ug4 projects and/or IRR). There is nothing concrete to report yet.

However, my personal view is that **there is a much bigger problem here that curriculum cannot solve.** We simply have no way to appropriately cope with 143 MSc students wanting to focus on machine learning (and another 43 in NLP), regardless of how we try to spread them around for projects. **I urge Strategy Committee and the School administration to lower our MSc admissions quotas until such time as we determine a feasible way to ensure a more uniform distribution over student interests.**

# of students choosing each IRR area (2017)
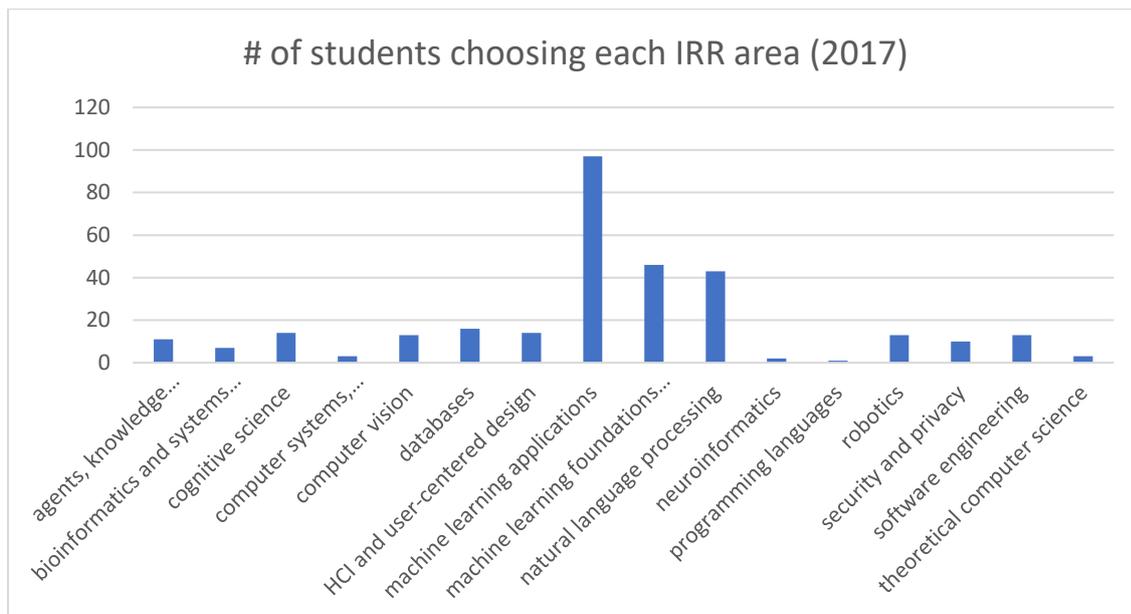
Additional minor updates

1. BoS has now approved the closure of 5 degrees for 2019 entry, as initially discussed here last spring. These are the 3 "with management" degrees, plus AI&SE and AI&Maths. CS&Maths is being made more flexible to compensate. This rationalization will allow us to focus more attention on the remaining degrees.

2. Rik and I have updated the wording of the UG Prospectus for 2019 entry to remove any mention of specific courses and reword in terms of more general topics. This will allow us the flexibility to make changes to courses as needed without violating advertising promises.

3. Results of staff survey: as part of Teaching Day, I asked staff for input on the curriculum review. Not many staff responded (only 17) but there were two clear patterns that emerged:

- When asked what is good about our current curriculum that we should try to maintain, respondents overwhelmingly mentioned the breadth of options and/or ability to take advanced specialized courses. Also frequently mentioned were the large practicals and/or group work (which notably we have less of than many of our competitors).
- When asked which skills we should be developing more than we do, respondents overwhelmingly mentioned programming. Also frequently mentioned were communication skills of all sorts, critical thinking, and organization/time management.

These comments align well with the principles already approved by the committee. However, it is worth noting that the breadth of options that we all seem to value is also a major source of administrative and resourcing difficulty. See #5 below.

Course enrollment by cohort (excludes IRR/IPP/DISS)