Informatics Board of Studies – Course Amendment
Machine Learning Practical (MLP) – change to 20 credits
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Case for Support

The proposed Machine Learning Practical (MLP) is focused on the implementation and evaluation of machine learning systems. MLP is currently coursework-based, with 8 hours of lectures to support the additional material required to carry out the practical. Students who do the course obtain experience in the design, implementation, training, and evaluation of machine learning systems.

The MLP course ran for the first time in Semester 1 of 2015–16, with over 140 students registered. The students strongly engaged with the course, and most of them did really excellent work.

As it stands MLP has two practical courseworks: the first (worth 30%) with a deadline of late October (week 6, semester 1), and the second (worth 70%) with a deadline of mid-January (week 1, semester 2).

I would like to propose that MLP is extended to become a 20 credit course, with a "long thin structure", so that it extends over semesters 1 and 2. The expected coursework deadlines would be:

1. Week 6, semester 1 (worth 10%)

2. Week 10, semester 1 (worth 25%)

3. Week 3, semester 2 (worth 25%)

4. Week 9, semester 2 (worth 40%)

The number of lectures would be extended from 8 to 10–12. The students on MLP did a lot of work for the coursework this year; I would envisage the total amount of work involved for the courseworks in the 20 credit version increasing by about 60% (and not doubling).

The reasons for the proposed change are as follows:

- Extending to 20 credits enables the students to get more deeply involved and approach the state-of-the-art in the coursework topic – all of us involved in the course this year agreed that if the students on the course had worked on it for two semesters, then many of them would probably produce very interesting worr. Thus extending to 20 credits will significantly deepen and enhance the learning experience

- The fourth (and largest) coursework will be able to be more open-ended than is currently possible

- Extending over 2 semesters, means that students do not necessarily have to work on it over the christmas vacation (when school machines are not supported). This is particularly important if we are expecting students to run on GPUs (likely next year)

- The new school guidelines for coursework deadlines does allow 2nd semester deadlines for first semester coursework-only courses.

Overall I believe that extending to 20 credits will both significantly enhance the learning experience, as well removing the logistical problems that will arise should MLP stay a 1-semester course.

I have discussed this proposal with the Head of Teaching (who is supportive), and with the most of the machine learning teaching staff.