School of Computer Science Council Meeting Minutes Tuesday, April 4, 2017 1:00 – 2:30 p.m., MCKN 307

In Attendance – Faculty: Luiza Antonie, David Calvert, David Chiu, Rozita Dara, William Gardner, Dan Gillis, Gary Grewal, Andrew Hamilton-Wright, Fatima Hussain, Stefan Kremer, Xining Li, Pascal Matsakis (Interim Director), Judi McCuaig, Charlie Obimbo, Joe Sawada, Fei Song, Deborah Stacey, Fangju Wang, Mark Wineberg, Michael Wirth, Yang Xiang; Staff: Deb Byart and Janice Illic (Recording Secretaries), Kyle Johnston, Greg Klotz, Dana Rea, Lauren Zweep; Student Representatives: Jason Teitelbaum

Regrets - Faculty: Blair Nonnecke, Stacey Scott; Staff: Monaliza Gill, Phyllis Reynen

1. Approval of Agenda

Motion to approve the agenda moved by J. McCuaig, seconded by A. Hamilton-Wright. P. Matsakis mentioned that the minutes from the last Council meetings are not ready yet and will have to be approved in 2 weeks.

All in Favour. MOTION PASSED

2. Interim Director's Remarks - Pascal

Space for Students

There is limited space available for students (URAs, USRAs, GRAs, SOCIS) due to the on-going renovations in Reynolds. Currently, we have only four offices in VMI, plus Thornbrough 2420. We may need to pursue other options. Faculty are invited to send an email to M. Wirth if some of their students need space. Note that there will be a room available for SOCIS in the renovated building (300 SF space in the basement).

Faculty Positions

CL teaching focused positions: P. Matsakis extended an invitation for faculty, staff and students to attend the lectures of the five shortlisted candidates. Only two of the five will be selected. Comments are welcome and are to be submitted to P. Matsakis.

Tenure track assistant professor position: The posting for this position has been up since March 23rd and will close on April 23rd. Beginning on April 24th, the applications will be reviewed. It is anticipated that the interviews will be conducted in June or July.

Associate professor position (cybersecurity): P. Matsakis reported that the Faculty Search Committee has been formed. The membership consists of A. Hamilton-Wright, P. Matsakis, C. Obimbo, D. Stacey, Dave Whittle (CCS) and James Fraser. The posting was drafted and approved by the Dean and is now awaiting approval in the Provost Office. Review of applications should begin May 15th with interviews being conducted in June or July.

Other positions requested: P. Matsakis met with the Dean on March 22nd. With the possibility of D. Stacey beginning administrative leave in F17, there is a need for a third CL position. Moreover, since B. Nonnecke will begin his phased retirement in F17, a second tenure track position is required as well. The existing Faculty Search Committees would be responsible for hiring for these positions.

MSc in Cybersecurity

PHASE I - Now

We have to hire one regular faculty with expertise in cybersecurity, and we have to split CIS*4110 into two security courses (first offerings in F18-W19). These two courses will later be cross-listed with graduate courses and become core courses for the new MSc in cybersecurity. We also have to set aside space in the Reynolds building for a Security Operations Centre (a 25-seat lab); there has been discussion with Dave Whittle (CCS), Physical Resources and the contractor to determine the specifications for this lab. Note that if the new Masters is not launched, we will have a new faculty with expertise in cybersecurity (and we need more expertise in that domain anyway), 2 security courses instead of 1 (which we can offer alternatively every year if necessary), and we will use the SOC space as a regular lab or for grad pods. In other words, the current effort will not be wasted.

PHASE II - Once Regular Faculty has joined SOCS

At this stage, an advisory board must be formed and a CL faculty with expertise in cybersecurity must be hired. It will be necessary to secure more resources (a third faculty and a lab manager) in order to sustain the new program when it is launched. Paperwork for the new graduate program will then be submitted for approval.

PHASE III - Once New Program has been approved

Once approved the new program will be marketed and promoted. The CL position will be converted into a regular position. The third faculty and the lab manager secured in Phase II will have to be hired. The Security Operations Centre will be set up, with hardware and software provided by our strategic partners. S. Kremer asked how many courses the new faculty member / program leader will teach per year; P. Matsakis replied none in the first year, so the faculty can focus on the development of the new program, and three after that, like everybody else. In

response to an inquiry from M. Wineberg, P. Matsakis explained that a few months ago there was no commitment from the Provost and we could not, therefore, draft an attractive posting; although we cannot guarantee the proposal will be approved, now we can say we have a proposal supported by the University and by various strategic partners, and we should be able to attract strong candidates.

3. Undergraduate Curriculum Committee – Dave Calvert

D. Calvert discussed how the calendar changes approved by the Council on Mar 28 would affect SOE. Unfortunately, SOCS was late in submitting the changes and there was not sufficient time to consult with SOE. D. Calvert said that SOE rejected the change which was to move CIS*1910 to semester 1 for all majors and CIS*2910 to semester 2 for CS majors, since it would affect their curriculum. The change will therefore be postponed for a year. In the case of CIS*3750/3760, SOE has supported the change so it can now go forward.

The Undergraduate Curriculum Committee met in the morning and approved the two new security courses CIS*4510 *Computer Security Foundations* and CIS*4520 *Introduction to Cryptography* (as per Phase I of the development of the new Masters in cybersecurity). D. Calvert mentioned there was discussion regarding the scheduling of these two courses; the decision was to offer CIS*4510 in the Fall and CIS*4520 in the Winter semester (rather than offering both courses in the same semester). The MSc and Co-op students will be able to take these courses. Moreover, CIS*3110 *Operating Systems* was removed as a prerequisite for CIS*4510, as CIS*3210 *Computer Networks* is also a prerequisite for CIS*4510 and CIS*3110 is a prerequisite for CIS*3210.

M. Wirth commented on the 2-hour labs. C. Obimbo stated that the motive in this is they are preparing for protection against cybercrime. He explained that 1 hour is not adequate; labs are very involved and require at least 2 hours. After further discussion, D. Calvert called for a motion:

Motion to approve CIS*4510 and CIS*4520 — with the understanding that editorial changes would be made to the Course Addition forms — was moved by M. Wineberg and seconded by C. Obimbo. All in favour. **MOTION PASSED**

The next proposed change involved prerequisites for CIS*3120 *Digital Systems*. The intent is to change the proposed prerequisites from CIS*1910 and CIS*1500 to CIS*1910 and CIS*2500. The Board of Undergraduate Studies would not accept two 1st year courses as prerequisites for a 3rd year course.

Motion to approve CIS*1910 and CIS*2500 as prerequisites for CIS*3120 was moved by D. Chiu and seconded by J. McCuaig. All in favour. MOTION PASSED

4. Data Science Certificate - Pascal

P. Matsakis discussed a new data science certificate that OpenEd is creating along with some help from Math & Stats and SOCS (R. Dara). It is composed of 3 online non-credit courses — 8 weeks per course and 1 course per semester. The certificate is geared to professionals working with data from various sectors. An undergraduate degree or college diploma is required for admission. We now have to decide whether we are interested in a formal partnership, based on a cost recovery, shared funding model. SOCS' responsibilities would be minimal; they would require, for example, assistance with marketing and promoting of the program, advice and guidance regarding recruitment of course developers and instructors, and providing expertise with course content.

There was concern that we should be focusing on our own programs instead of a non-degree certificate. Although there is potential to make money from it, there are too many uncertainties associated. It was the decision of the Council that there was not enough interest in the certificate to warrant the School's involvement.

5. Graduate Curriculum Committee - Yang

Y. Xiang reported on the creation of the PhD Learning Modules, especially the module on Introductory Programming. Three options for alternative module structures were proposed and discussed. There were various comments and suggestions mostly focusing on including assignments that would be recommended by the student's Advisory Committee to demonstrate the practical use of Python (which is the programming language recommended by the Committee for the module on Introductory Programming). P. Matsakis suggested the Graduate Committee revise the draft Learning Module on Introductory Programming and send it to faculty for review and comments.

Due to time constraints, Agenda Item #6 (Associate Director's Remarks) was deferred to the next Council meeting.

Meeting adjourned at 2:35 p.m.