School of Computer Science
Council Meeting Minutes
Tuesday, February 6, 2018
1:00 – 2:30PM, MCKN 310

Present – *Faculty***:** L. Antonie, R. Chaturvedi, D. Chiu, D. Flatla, D. Gillis, G. Grewal, A. Hamilton-Wright, S. Kremer, P. Matsakis (Interim Director), D. Nikitenko, C. Obimbo, J. Sawada, F. Song, F. Wang, M. Wirth, Y. Xiang; *Staff:* C. Hosker, J. Ilic, K. Johnston, G. Klotz, S. Mousseau (Recording Secretary), L. Zweep; *Student Representatives:* J. Fraser, P. Houlding

Regrets – *Faculty***:** D. Calvert, R. Dara, X. Li, J. McCuaig, B. Nonnecke, S. Scott, D. Stacey, M. Wineberg; *Staff:* D. Byart, D. Rea

1. **Approval of Agenda**

   Motion: That the agenda be approved (C. Obimbo / M. Wirth)
   In favour: All. Abstentions: None. **MOTION PASSED**

2. **Interim Director's Remarks – Pascal**

Student Clubs

P. Matsakis shared that there are now two student clubs associated with the school: SOCIS and a new club, GWiCS (Guelph Women in Computer Science). GWiCS was established by two SoCS students: Madeline Gabriel and Dema Abu Adas.

P. Houlding confirmed that while there are now two clubs, SOCIS will remain the intermediary between the students and the Council. In particular, all funding requests will continue to come through SOCIS.

Space

A Naming Opportunity Plan has been approved for Reynolds. There are 6,000 square feet for naming split into nine named spaces. The cost ranges from $50K to $250K for the largest 48-seat seminar room. The goal is to raise $850K, which will go toward SoCS highest priority fund.

Faculty

P. Matsakis clarified that the School did not trade two retirements for one specialty position and one CL position: there was no replacement for W. Gardner's position because of past budget cuts; X. Li's position is being replaced with A. Dehghantanha's; B. Nonnecke's is being replaced with R. Dara's. In addition, we have hired two CLs (R. Chaturvedi and N. Nikitenko), we are in the process of hiring another CL for the MSc in cybersecurity, and we should have an additional position soon (tenured Associate Professor or Professor if the new Director is hired externally, tenure-track Assistant Professor if the new Director is an internal candidate).

This being said, it is true that we did not get what we requested last year. In addition to the 2 CL teaching-focused positions that had already been approved by the Provost, we requested 2 new permanent positions, with an enrolment capped at 200 in F17. What we got was 1 new position only (D. Flatla's), and the enrolment in F17 was 226 (even though we were promised it would be capped at 200). Note that at the time of the discussion with the Provost, P. Matsakis' understanding was that we would be given 2 new positions (not just 1); the Provost cleared up the misunderstanding after the meeting.

We also requested 3 other permanent positions for the new MSc in cybersecurity. What we actually got was 1 CL position — since A. Dehghantanha's position is replacing X. Li's. The Provost did not want to commit other positions before we would find a program leader (which was uncertain at the time) and write a successful proposal.

Major in Mobile Computing

P. Matsakis clarified that the School is not mandated to create a new major in mobile computing, even though a major in mobile computing is mentioned in the new Strategic Mandate Agreement.

In 2013/2014 we had to propose new majors, as this was a condition for growth, and the IQAP external reviewers' report recommended the development of a new major in mobile computing. The landscape has changed, however, and in March 2017, the SoCS follow-up report requested by the SCQA stated that "The School has opted to put the development of new majors on hold until such time as the University can guarantee adequate resourcing (instructors, support staff, lab space, classroom space) for a new program." This follow-up report was accepted by the SCQA and the next IQAP will be in 2022.

The fact that a new major in mobile computing is mentioned in the new Strategic Mandate Agreement simply means that the School can develop this new major if given the resources to do so.

MSc in Cybersecurity

Is the School now committed to implement the MSc in cybersecurity? P. Matsakis responded that the answer is yes and no. We have hired A. Dehghantanha and we are in the process of hiring a CL faculty because we're planning on developing the program; however, we cannot support this program if we do not have at least three specialists in the field. Once we have secured the CL faculty, we will go back to the Provost and request the resources we need.

UoG Finances

P. Matsakis shared the news that according to the analysis of University finances by the UGFA Financial Advisory Committee the University of Guelph "Corporation" is in strong financial health. The average yearly net surplus in the past four years was $75M, and there was a record net surplus of $90M in 2017. Like many other departments across campus we have not seen any of that money translated into faculty positions.

A discussion followed:

D. Gillis asked if we will be capping the enrolment at 200 for F18. P. Matsakis confirmed that 200 is the target.

G. Grewal asked about the Waterloo Cybersecurity and Privacy Institute. Members of the Cybersecurity Program Discussion Group responded that the Institute is specializing in research and training, and is not competing with our proposed MSc in cybersecurity. G. Grewal expressed concern that having only 3 faculty members to support the MSc is a bit fragile should one leave the School. P. Matsakis responded that then the position would have to be filled. He said that we need 3 faculty to support the program at any given time, and 3 faculty is fine for now, but later on we will need 4 faculty in the School with expertise in cybersecurity since faculty go on leave. We are also counting on C. Obimbo to teach some of the courses, e.g., cryptography. The MSc students will have to take 7 courses: 4 core courses, 2 electives, and 1 project course. If we really want the electives to be considered electives, we will need more than 2, but 2 is what we have planned for the first years.

S. Kremer contributed that he is worried. He went on to say that it reminds him of the Guelph-Humber program. Upper management thinks the idea is great but there's less enthusiasm amongst the faculty. Hiring 3 people who are focusing on one area will separate them from the rest of the faculty. In addition, they will get to teach 2 grad courses whereas the rest of the faculty only get to teach 1. We're rushing to hire, J. Sawada is spending a lot of time working on the development, and we're also relying on C. Obimbo. S. Kremer expressed that he wants to make sure we still have the option to say no. He added that we have less faculty than we did before and that there are a lot of issues to resolve.

P. Matsakis followed up by saying that the program will be held here, in Reynolds, rather than on another campus like Guelph-Humber, and that's an important difference. The faculty will be like us and they will be doing research that we will all benefit from. Also, our students will benefit from the courses. P. Matsakis went on to say he thinks this is a good move and a strong bargaining tool: the Provost is excited about the new MSc and we have to use that excitement to get what we want.

C. Obimbo explained that there is a lot of funding available for cybersecurity that the School can tap into. It's a hot area and we're missing out. P. Matsakis added that we do have strategic partners who will contribute in kind. S. Kremer asked about the amount of their contribution. C. Obimbo said that the numbers could be shared next week. S. Kremer asked if we have to match "in kind". C. Obimbo explained that we do not. The term "in kind" is being used to indicate that the partners do not donate in money but, e.g., in software and hardware.

M. Wirth asked after the cost-benefit. J. Sawada said that we'll get about $6,000 per student which we can use for our research program. M. Wirth countered that the new MSc should not be confused with an MBA and will cost a lot to run. C. Obimbo responded that it can be a very affordable program, and that once we have the program running we can streamline the costs. J. Sawada asked after the support staff being hired for the program. P. Matsakis confirmed that we have requested two staff members: one lab assistant and one administrative assistant.

M. Wirth noted that the program will need a lab. J. Sawada reminded him that we do have the cybersecurity lab in the new Reynolds building. M. Wirth responded that we will need more space, and these are things we need to discuss. He expressed concern that this is the first real discussion on the new cybersecurity program. P. Matsakis responded that this was not true; the discussion started over two years ago, and the School unanimously approved the development of a course-based MSc in cybersecurity in June 2016. M. Wirth said he's concerned about the level of excitement; what happens if this doesn't work out? P. Matsakis replied that it's okay to be excited. Sometimes it works out and sometimes it doesn't. If it doesn't, we will still have the new faculty members.

S. Kremer agreed that the program is a good lever to use with the Provost. He asked if we should start to use it now, i.e., approach the Provost, mention that the School is nervous and needs more resources. He questioned whether P. Matsakis is nervous about saying no to the Provost. P. Matsakis said he is not. Once we have secured the CL position — hopefully by the end of the month — we will talk to the Provost; if we do not get a commitment for the resources we need then we'll kill the program. He also contributed that we do have some additional leverage in that the number of applicants to the School has gone up by 20%.

D. Gillis said that he is concerned given the new SMA and corridor system. L. Zweep added that she is worried about the enrolment; it was supposed to be capped at 200 in F17 but was higher in the end. M. Wirth followed up that the enrolment in F18 will most likely be above target again.

3. Associate Director's Remarks, Graduate Studies - Joe

Grad Numbers Trends

J. Sawada summed up the current graduate student numbers. We had 6 new MSc students start in W18 and 1 new PhD. This brings our total number of graduate students to 54. He added that we currently have an issue with graduate students not attending their grad courses.

Progress Reports & Program Form

J. Sawada reminded faculty members to submit the Program Form for new students by the second week of the second semester. He added that there are still a few outstanding forms for last semester. He also let the Council know that starting next semester, faculty will be requested to submit the Progress Reports by the third week of the semester.

International Student Funding

J. Sawada shared that effective immediately, MSc international applicants that are being recruited must show proof of funding to cover the costs of tuition as well as the cost of living for the full duration of the program. D. Gillis asked if this was legal. P. Matsakis responded that he wasn't sure and would check, but unofficially, this has always been the practice; only the amount has changed. Y. Xiang explained the need for confirming that a student has enough funding, as in the past we've had students come up empty handed partway through the program. M. Wirth responded that it is something that is checked by the government anyway when someone enters the country to live; they need to prove they can financially sustain themselves.

MSc in Cybersecurity, Forensics, and Threat Intelligence

J. Sawada met with Ben Bradshaw to discuss the MSc in cybersecurity. B. Bradshaw suggested that the program should focus on quality, not quantity for the first few years. The current enrollment goal is 24 students per year. The admission process will be kept in line with the other SoCS grad programs. J. Sawada indicated that A. Dehghantanha is very much engaged in the proposal (even though he doesn't officially start until August), and he is the one who suggested the name "MSc in Cybersecurity, Forensics, and Threat Intelligence."

Proposed Curriculum

The plan is to develop 4 core courses, 2 elective courses, and 1 credit project. One of the elective courses is a cross-listed cryptography course. Later on, 4 elective courses will be offered (and the students will have to select 2). The credit project could be a co-op or summer internship — this way, it would not be too much work for one faculty member.

G. Grewal asked if the plan was for a software approach. He suggested that there are a lot of vulnerabilities in hardware like drones, cars, military jets, etc., and a hardware approach should be considered. He also suggested that we should consider bringing in an engineer. J. Sawada responded that this is really a question for A. Dehghantanha, and P. Matsakis added that D. Whittle should be aware. D. Chiu noted that software isn't a bad place to start as it is our department. J. Sawada mentioned that the Advisory Board would meet in April for the first time.

Next Steps

J. Sawada explained the first five steps of the process for developing the MSc (see slide). S. Kremer asked where in the process the Council will be voting. P. Matsakis replied that the Council has already voted and approved the development of the MSc, but the approval was in principle and subject to funding. He said that he would bring the issue to the Provost; if we do not get the requested 3 faculty positions for the program then the program cannot move forward without another vote from the Council.

D. Chiu asked if the name for the program was final, as he felt it was a little long. He suggested something like CSI (Cyber Security Intelligence). J. Sawada responded that the name can be discussed.

J. Sawada also reminded P. Houlding that he is waiting on undergraduate input, and P. Houlding confirmed that he will check and get back to J. Sawada. J. Sawada confirmed that D. Whittle is approaching companies and has secured one bank. M. Wirth noted that working for a bank is different from working with a security company, as the bank will have its own methods and programs; this is a beneficial environment for training.

Meeting adjourned at 2:15PM