Town Hall meeting minutes, Thursday March 14th 2019

There were about 10 people present at the start of the town hall meeting, with some people trickling out throughout the meeting due to classes and other obligations. The meeting commenced 5-minutes past seven. Keurig K-cups of coffee and a variety of pastries were available for attendees.

In what follows questions and comments from students in the room are italicized and bulleted points are paraphrasings of what Kathleen said.

Topic: New Cummings building

- The building next door was torn down (facility shed) over the last couple days.
- They are slated still to start construction on the new building right after commencement.
- Supposed to be finished in Spring of 2021 (available for teaching of courses that Fall).
- There should be a private Cafe on the ground floor, plus open space, and 3 large classrooms (up to 95 people each).
- 3 classrooms in a row with removable (by elevating) partitions between them so that the 3 classrooms can become a large event space.
- Ground floor (zero) is same level as Halligan ground floor.
- There’s expected to be 7 teaching labs in the building.
- An auditorium is on 2nd floor (fitting well over 100 people).
- There will be pods of 8-seat (and 6-seat) for PhD students, with cubicles that lock and a door (sliding, opening, glass, ... we don’t know what yet)
- There will be lots of collaborative space.

Is there going to be space specifically for Masters students?

- There will be lockers to be shared (but no specifically assigned desks).
- You (Masters students) might get space if you’re with a professor that has lab space with desk space.

Are there considerations for whiteboard space?

- There will be whiteboards in each of the spaces.
- Many, many walls will be present with writeable surfaces.
- In the middle of 4th floor is robotics.
- Remco, Rob Jacob, and de Ruiter are expected to be on the third floor

Is Matthias moving his whole lab too?

- Yes, and his laboratory.

- All CS will be in the new building (we’ve allocated enough space, plus more to grow new faculty members).
- We have space for 35 faculty offices (120sq foot private offices), allocating those rooms among faculty and staff and the various lab groups.
- There will be space for 90ish PhD students.
- We currently have maybe 45-50 PhD students (we are doubling capacity).

What happens to Halligan?

- Halligan will be renovated (again), becoming the home to the entire ECE department (except a clean room they have, which will not be moved, wherever that is currently).

Where will Donna be? In the main office?

- The main office will be on the 4th floor (near a kitchen, also with a kitchen on the 3rd floor).
- There will be faculty offices on both the 3rd and 4th floors.
- We will be sharing the 3rd floor with the Data Intensive Study Center, and Gordon Institute.
- The 4th floor is just CS (with the robotics lab in the core of the 4th floor)

Where will the Chair sit?

- The Chair’s office will be inside the CS main office on 4th floor, much like it is now in Halligan.
- The biggest concern we have right now: no space equivalent to 209.
- There’s one like 102 on the 3rd and on 4th floors.
- So we have a net increase in conference room space, but it’s less flexible.
- There are expected to be huddle spaces around the perimeter of the 4th floor.

Will you be able to share photos or drawings?

- On the Provost’s website there is a link with 2 pictures available - a map of a footprint of where the building will be, and the other is a drawing of the side of the building.
- None of the floorplan drawings are available. All the details are in a state of flux (shifting). They don’t want you to think any particular design decision is set in stone.
- There will be a Math floor and an Econ floor (we don’t know their floor layouts).
- There are Cummings town halls once a semester approximately.
- The process can be fraught and requires controlling information.
- The Cummings building will be 7 stories tall.

Has undergrad enrollment slowed, grown, changed? Also, they’re going to knock down the extension to further constrain where people can be?
• We’re going to get squished before we move into Cummings.
• I think enrollment has leveled off (15 being rocky this year is a possible reason)
• We’re not sure what will happen steady state.
• CS enrollment might have leveled off nation-wide too.
• The pressure on 40 seems to be down a little bit from previous years.
• We don’t know why exactly. Maybe there’s less enrollment? Students shifting to the spring? Different instructors? Perhaps 15 is harder so fewer people are getting to 40? 40 is not as difficult as it was before? We have no data to substantiate any of these theories.
• We are renovating the Halligan office spaces facing upper campus because they become solar ovens during the summer.
• We’re doing all of them at the same time for the rest of this semester.
• For example, Soha has moved down to Donna Slonim’s office (who is on sabatical), among others.
• Liping is using the office next to Jivko’s lab.
• We should expect musical chairs from faculty offices for the foreseeable future.
• We’re losing 3 offices in the extension after commencement.
• There is overflow space at 196 for faculty, and we have a set of principles for how moves will take place (e.g. teaching faculty stay in Halligan, brand new pre-tenure stay in Halligan, etc).
• There is always a shared touchdown space for office hours of faculty that don’t have space in Halligan.
• We don’t know how many candidate offers will be accepted.
• There will be a massive construction zone with noise and dirt next to Halligan, so that may affect the calculus.

Richard Townsend (who finished a PhD at Columbia), worked on compiling Haskell directly to hardware. He’s co-teaching 11 and 40 with Megan Monroe who will be co-teaching those two classes with him in the Fall.
• We’re also hoping to hire tenure track faculty in two areas.
• First, broadly in AI/ML/Robotics/NLP/HRI we’ve interviewed four candidates early on, and currently have offers sent out.
• After tomorrow we will start making another offer.
• The other area is in Security/Systems (we’ve interviewed 4 security, and 3 systems candidates), for which the faculty are meeting tomorrow to decide how to make offers.
• There’s some game theory on who will say yes and when they’ll say yes. For example we can’t make 4 offers for one position.
• By May we hope to have hired 2 people.

**How many people applied for AI/ML/...?**

• Approximately 300 people applied to faculty positions. How do we narrow this down?
• First we split the candidates into categories.
• Then we read their materials and pick 20 or 30 candidates that seem strong.
• We hold a number of Skype interviews to determine their seriousness in coming here and whether or not they know anything about Tufts.
• One person didn’t know Tufts was in the Boston area or anything about who was already here.
• We also filter for communication skills (it doesn’t matter how brilliant you are research-wise if you can’t teach).
• So we compile a long list of people we might interview, and a short list of who we expect to interview and send that along to the Dean’s office.
• The Dean does e.g. diversity checks on candidates.

**Is there any consideration as to how well a new candidate would collaborate with existing faculty member?**

• We look for people who would complement our existing faculty.
• So that means people who are at arms length: they work in a different research space, but still capable of collaborating with other faculty at Tufts when possible.

**What areas are you looking to fill in the future?**

• The Department has a strategic hiring plan.
• We want an AI cluster, Data Science (which includes systems which support Data Science), Security, and we’re also interested in a Theory person.
• The department on the cusp of being small and medium (we can’t hope to cover all of CS).

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**Topic: New faculty members and continuing candidate search**

**What’s the planned faculty growth going to be?**

• We’ve hired 2 new teaching faculty. First there’s Marty Allen joining us.
• Marty will be teaching 135 and 170 (maybe) in the fall.
• Once we have an area of strength it’s easier to hire similar people, and grow into new areas.
• Part of the Systems search is that we’d like someone for Fahad to collaborate with.

Theory?
• We might hire a quantum information person (who would also do theory), depending on if the NSF gives us the money.
• I don’t think we interviewed any Theory people this year.

Is the amount of space we have in Halligan and 196 affecting the number of people we’re hiring?
• Not really. We need to grow, and we’ll figure out how to sit them later.
• We’ve posted our policy about how to decide on people to hire. Note that 3 full professors with offices elsewhere volunteered to vacate offices on the spot to make room for new faculty.
• We’re making short-term sacrifices in exchange for long-term benefits.

Topic: Graduation speaker
• There have been ads for a graduation speaker. This was a huge success last time with a student speaker. — The Student Council is going to review those applications and ask for a video or an in person audition and from that we’ll pick a graduation speaker.
• The Student council meets 4 times a year, and also works on e.g. diversity, inclusion, and alumni events.
• Shortly we will be picking “members at large” for next year’s student council.
• The committee comprises the leaders of each of the student organizations on campus, as well as head TAs for each major course (which means lots of Seniors), but we also want representation from other kinds of students (including grad students and students in lower years).

Topic: Questions from the audience

Diversity and affinity

What is the Department’s role in sustainability and environment?
• Of course, CS has a part in everything.
• We did cut down by 50% the amount of paper used in 105 each semester.
• The Department typically doesn’t have an active role in this line of inquiry.
• Data Science however as a discipline is good for exploring sustainability: determining causation and correlation.
• The Department has enough initiatives that are more closely tied to our goals. We’re all super busy and working flat-out on other issues currently.
• If there were an easy obvious thing that we can do, we would do it. Just let us know.
• There is no groundswell of doing more from faculty and staff at the moment on this issue.

Goals with diversity advisory board?
• The external advisory board met last Friday.
• The Diversity Inclusion and Belonging board helps us keep track of best practices.
• There is to be a climate survey to give to students, taking stock of where we are, and where we can do better.
• The Department has lots of infrastructure for women (e.g. WICS). There is less support presently for underrepresented minorities.
• A Doodle poll went out the other week to some people.
• We will schedule a meeting for the week after spring break in order to start an affinity group for black students in the department.
• In that regard, emulating what WICS is doing would be intimidating. We could however make a weekly meeting with a food budget and figure out what more support underrepresented students would like, e.g. from faculty and staff.
• We send a bunch of students to Grace Hopper and NSBE.
• We want to set up dialog and to create visible organization outside of the department.
• We want affinity groups for minorities listed on CS website. This can help bootstrap broader community support.
• Feeling like you don’t fully belong may be unavoidable for the foreseeable future. We can however counter that narrative with affinity groups. We want to reinforce narrative that if you’re here then you belong here.

Questions about existing courses and the major

With regards to collaborative work spaces: in Comp 15 there’s been a flood of students in the collab room (even though 20 and 160 tend to use that too). How can we distribute the load? It seems like more people than last semester. It doesn’t seem right for us to hog that room (Comp 15).

• You can use a redirection sign to separate classrooms, especially in the evening when classrooms aren’t being used.
• Have it outside when the weather warms up :-).
• Ask CSadmin about available space.

We’ve got some courses that are being co-taught. Where do you see the role of co-teaching as impacting students?
• The impact on faculty is helping get people up to speed on the course as fast as possible.
• We’re having Megan co-teach with Mark so that she can get up to speed, and then she’s co-teaching with Richard in the Fall to get him up to speed.
• Once people are trained and up-to-speed we’ll go back to not co-teaching quite so often.
• 11 and 15 can be good for co-teaching because it provides students more coverage and more perspectives in the course.
• In terms of students, the advantages are maybe one person explains things that you understand better. Also two people can help you.
• The disadvantage is that two people are not as consistent. It can also be disruptive to not have the same person explaining things at the same time.

We want a united front of teaching fellows (under co-teaching staff). Having two versions of the homework can get disjointed.

I’ve been in two co-teaching courses (11 and 40, I’m a Sophomore) - when Megan and Laney taught it, it was good. There was more to learn with regards to coding styles. You come to make your own style of coding because there’s two different expert views. Whereas in 40 it was stressful because there’s so much to do. In intro courses it’s nice to have co-teaching.

It can be harder going between each class when they have different teaching styles on Monday vs Wednesday. Coordination between the two teaching styles could make it better.

Speaking of 40, is there talk of reforming 40 or standardizing it on something less Tufts specific? Like using a curriculum that’s more widespread?
• Faculty have issues with 40 at times, but typically not with the curriculum.
• We believe 40 is a secret weapon of Tufts graduates because it prepares students well down the road.
• 40 has a really good return-on-investment (ROI) from many many different things.
• 40 teaches you how to work in teams, how to design large software on your own, and how to document code.
• 40 is really valuable. There have been problems with respect to scaling, and accommodating everyone though there has been a relief on the pressure right now due to enrollment levels.
• Megan has done a lot to make the 40 backend more TA friendly (requiring fewer TA students).
• People who have just taken 40 don’t necessarily have the skills to TA it. Also new grad students haven’t taken it.
• If everyone for Data Science had to take 40 it would overload us.
• Data Science, being separate from CS, draws in more students University-wide.
• Maybe there will be an analog of 40 for Data Science, or maybe DS students don’t need it.
• Among the faculty there is typically discussion of the curriculum for 11 and 15 year-to-year.
• We’ve focused on scaling classes in the past few years (rather than changing them pedagogically).
• We’re considering putting the Masters program online, so that we can get more teaching resources by giving people teaching releases.
• We can really reconsider pedagogy of the courses developed for online, and then we can further consider how to use that pedagogy “on the ground” at Tufts.
• We’re meeting tomorrow on this very topic.

How will Comp 5 look?
• I don’t know yet.

With regards to our secret weapons: we have a class that can create some of the best TAs. We haven’t compiled lesson plans anywhere yet. We’re still on the first iteration, and may need some more pruning. We don’t have the Holy Grail. Hopefully we’ve made it so there will be less work for next semester though.

Our hope is to get it relatively easy to teach and produce high value for new TAs (the course is already high value).

Are there any future plans with 61? I’m in it now, but I’m in Math. I’m not always sure what I should be taking. Will there be a shift to all CS students taking the CS version of 61?
• I’m not sure what’s happening long term. I have a sense that Math isn’t happy with 61, and we aren’t either.
• With CS the challenge seems to be that the skills that are expected to be learned in 61 that will be applied in 170 seem not to carry through. When students need to do proofs by induction they don’t know what you’re talking about even though they’ve seen it before. There’s a lack of stickiness (no internalization, operationalization). Faculty want to fix that.
• We don’t have data broken out comparing Math to CS student versions of the course.
• In theory what’s different is the examples, but there’s more variation than that, resulting from different professors teaching it.

What are the plans for the different degree tracks? Will there be individual degrees or specialization?
• This is relatively new (we’re doing new focuses this year for the first time).
• At the moment there is no plan to make full fledged majors. Other schools do similar things such as having notation on your transcript indicating a specialization in X, Y, and Z.
• We have no idea if that’ll get through the Tufts curriculum process.
• If students pushed for something, it could happen sooner / be more likely to happen.
• Many students have wanted guidance on how to pick electives, so that the courses are coherent with their life goals.
• For the moment we have recommended sets of courses.

Why did Data Science come out with major and not the Track approach that we see now?

• DS is a more broad degree, being jointly administered between ECE and CS (and Math is participating).
• DS has ML pieces, data systems things, as well as statistics and probability and information theory (Math & ECE).
• All departments were involved in creating the degree.
• We could do a CS degree that specializes in DS and you’d basically get the same training, but DS changes some of the requirements. It has less hardcore CS requirements, making it more flexible in that regard.
• DS is an engineering degree, requiring the engineering core requirements. This is an artifact of it being created by the Engineering School.
• Arts & Sciences is considering a bachelor in DS, but don’t yet fully know what they want to do. Engineering probably just didn’t want to wait.
• There may be resource issues with respect to teaching capacity in required courses.
• There are question of what DS means for someone in Humanities vs for an engineer.
• Engineering is less diverse across departments, so making the major is a less complicated process than for Arts & Sciences.
• This is an evolving area of study. The same things happening at Tufts are happening across the whole country. Let’s try something (make a new degree program) and fix things and iterate.
• Other approach would be to study carefully, but we (Engineering) wanted to iterate.
• Also faculty are busy all the time (becoming head space issue).

One point of confusion is the difference b/w a CS degree across A&S and Engineering. What’s the importance of having a CS degree in both schools?

• Engineering requires capstone and two more electives and more physics and more chemistry.
• Engineering fully prescribes the experience you’ll get when you come to Tufts.
• A&S major has 10 courses and the rest is determined by the more flexible A&S requirements.
• Physics and Chemistry are not necessarily necessary for someone looking to major in CS.
• Engineering wants you to have a shared experience with other engineers across the University.
• I think there is not enough CS for the A&S degree (need more than 10 courses).
• However, the “best” CS degree would be A&S but with a lot more electives.
• Both majors will continue to exist for a long time most likely.
• The School of Engineering has philosophy of taking some number of core courses and then you “graduate” into your major program.
• Most departments not entirely happy with that.
• CS is a lot different from the other disciplines. We’re further away from them than they are from each other.
• We want more flexibility to separate out from the core, coming in the future.
• We recently voted to make it so you can choose Physics or Chemistry or Biology for CS instead of just between Physics or Chemistry.
• We voted yesterday to have the ES2 requirement be fulfillable with Comp 11 instead.
• There are currently 33% of majors being women in A&S, and 18% of women majors in the school of Engineering.
• We’re “pretty good” on A&S (compared to the national average), and below average on engineering.
• In comparison, engineering as a whole is 50% women! CS can do better.
• Engineering majors have to start with their major right out of the gate, needing to know what you want to do right when you get to Tufts.
• Too few women come out of high school wanting to do CS. The ones we do get tend to be opportunistic, e.g. after they took a CS course and liked it.
• By making the requirement ES2 OR Comp 11 we’ll hopefully draw in more women. We need to significantly address underrepresentation of women.

Are there any effects on admissions? What’s the imbalance?

• The admissions department is trying to build a balanced class. One aspect as a result is that not everyone majors in CS. We want humanities people too.
• It’s unpredictable when people go into different majors after coming in as something else.

Might there be a GPA requirement on declaring CS as a major in the future?

• We’ve talked about this, but dismissed it as not a good idea.
• The Department talks every year about the influx of new students and increase of workload for faculty and staff.
• We could cap the major if we wanted, e.g. 100 majors for the year.
• Every time this comes up (once a year typically), the sense of the faculty is that it’s a terrible idea.
• Part of what you’re paying for is that you can major in whatever you want.
• It would be a bad image for the University - we do not want to cap CS majors.
• It’s also bad for diversity because women and underrepresented minorities have an extra burden picturing themselves as CS. So when you make more hurdles to joining, they’re driven away.
• Also, what GPA might we look at? If CS is taught abysmally in high school then the GPA requirement isn’t proxied well.
• Also CS is a broad discipline. None of the other subjects in high school are a good proxy for who will excel at CS.
• If you get to Tufts, the faculty only feel like we know how well you’re suited to CS until after 40. But that seems too late in the program to make a decision.
• But having GPA requirements on 11, 15, and then 40 would be stressful to students.

Would separated sections of 11 work better?
• We don’t know.
• With 11 in the fall, students were not administratively put in different sections.
• Nothing differentiated the students, so we don’t know how each section went.
• We think performance in the two sections was roughly the same.
• We need more disciplined assessments.
• We didn’t have enough capacity in one of the sections in the Fall.
• Megan and Richard want sections at different times for the Fall, so hopefully we’ll get better classrooms and better data.
• We have exactly the same content this year, but we envision different content for the advanced vs regular sections.

Is the department currently working on ways to mitigate the burden of the time a CS majors takes? This restricts e.g. part time jobs or work study jobs.
• Nothing specifically I think.
• We’re not unaware of this, but we’re not sure what we could do about it.
• We have an idea for a co-op program, where you work for a company and get credit. A proposal went to the University Curriculum Committee. So we’re in the planning and thinking stage.
• I don’t have a good answer, sorry.

Closing thoughts

What’s something you know that you think is great that happened in the last year around the department? Why should we be proud or happy with ourselves as a department?
• I’m excited that we hired Megan Monahan in her new role.

We did really really well looking for tenure track faculty.
• I’m happy about our 2 new hires. They’re a fantastic addition, and give us more capacity and flexibility in what we teach.
• There’s a good promise in the efficacy of Comp 5. We’re helping our undergrad TAs have more training and experience.
• Masters numbers for CS plus DS went up a fair bit last year. Most numbers across the country went down, so we’re happy with that.
• Things like fundraising and alumni giving money and overhead on research grants and growing revenue from the Masters programs helps supplement tuition. The economics of a University is very complicated.

Ideas for next Town Hall meeting

Most students have already left on a Thursday right before Spring break. We should not do this time in the future.
We want more interesting food. We want Anna’s, or e.g. Thai food. We do NOT want pizza. This week was a pizza fest.
If we did this at 3pm in the afternoon in an open block in place of a colloquium on a non-spring break week we would get a lot of people.
• But we have candidates coming in at that time.
How was this particular event tonight advertised?
• There were flyers around department.
• Emails were sent to the mailing list.
• Faculty members announced it in their classes.
We need a Facebook Event for this event.