October 20, 1999 - Comments to Faculty Senate
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Here are the remarks that I made to the University Senate on October 20. I was trying to argue for the defeat of "Motion 6" which basically asks the President and Provost to rethink the proposed new structure for CS. I am very much against the rationale that was offered by those who favor the motion. Below I address the four major points of their argument.

1. The change of the CS reporting line from Engineering to CIS distorted the debate over the FCI.

The timing of the July 1 budget switch (and the composition of the Task Force for that matter) very definitely created a buzz about "the process". However, these Day Hall decisions did not block the serious discussion of the issues. Although I have heard the words "fait accompli" a hundred times since the spring I have also heard more constructive criticism than I could ever have imagined. To me, the Initial Task Force Report is just a set of possible blueprints that have been greatly clarified as a result of campus wide faculty discussion (especially with colleagues in Engineering). Proceeding from any of these now-refined blueprints requires resources that can only flow directly from the Provost’s office. I see the July 1 budget transfer move as a move that anticipated the future and set the stage for great things as defined by the full faculty.

2. The CS Dept is only one of many participants in the FCI and the others should be equal partners.

If you assume that the CS department is a unit inside the FCI then venom will flow despite our best intentions because the structure envisioned looks like a set up for CS domination. But if you assume that CS faculty participate in FCI "seeding operations" voluntarily and side-by-side faculty from other departments, then you have good will and the opportunity to uplift CIS across campus. The close proximity of CS research with the undergraduate classroom is very much the issue here. And finally, if you have a Dean who is responsible for both the FCI and the CS Department, then you have an unprecedented opportunity for new resources and a fighting chance to deliver the promise of the FCI while preserving all the other things that make Cornell great.

3. It is important to preserve the integrity of the CS dept.

Attracting great faculty to a department that supports basic research and innovative teaching is my highest priority. An FCI that creates a colorful CIS landscape across campus is a means to that end. We cannot compete with industrial salaries. But we can compete by offering a CIS environment that is unique among the national universities, one that offers a strong department with unprecedented opportunities for on-campus collaborations in biology, cognitive studies, computational engineering, digital arts, etc, etc.
4. *Engineering tells us via CAPP that relocating CS will have a serious negative impact on Engineering and that because of its intellectual reach, CS really belongs in Engineering.*

The fact is, plain and simple, that fields "grow up" and leave home. That is why in the 1880’s Electrical Engineering was born from Physics. First a few courses, then a 4-year major, then a department all pushed by Robert Henry Thurston who was at the time Director of the Sibley College of Mechanical Engineering and Mechanical Arts. Incidentally, when the Trustees balked at the proposal for the 4-year major, Andrew D. White offered to pay for the additional expenses out of his own pocket!

Or consider the origins of the Department of Chemical Engineering. Arts professors complained early in this century that too much work in chemistry was technological and not scientific. President Schurman actually tried to resolve the tension by proposing a College of Chemistry, but the idea came to nothing for lack of endowment. But he did create a B. Chem degree that seemed to resolve the science/technology tensions. In 1933 the College of Engineering (then about 12 years old) offered a Masters Program in ChemE to follow the 4-year B. Chem. In 1938, ChemE became a department.

Where would EE and ChemE be today were it not for the adventurous spirit of a few thoughtful administrators? Who would have dreamed when the united College of Engineering was formed in 1921 that there would be a Department of Engineering Physics, or Materials Science, or Operations Research or Computer Science? Who would have dreamed in the last century that that the Sibley School would drop "Mechanical Arts" from their name and that EE would add "Computer Engineering" to theirs?

The point here is not to dream with accuracy but to establish the necessary structures so that the University can gracefully track new and exciting trends with appropriate courses and degree programs. CS "grew up" in Engineering and for 20 or so years that was fine. But now the field has grown to such an extent that our teaching and research ambitions transcend that College and our development will be stifled if our budget remains inside it. This is not the response of an ungrateful child but of an academic unit that is trying to live up to the mission of the university. The ties that should bind us are research ties and classroom ties-not-administrative reporting lines. That is why the "new structure" for "EE" worked in the 1880s and the new structure for ChemE worked in the 1930s. And that is why it will work for us at the start of the 21st century.

Footnote. I do not pretend to be a historian. I’m just a guy with a good book (Morris Bishop’s “A History of Cornell”) who is able to use an index. (I looked up Electrical and Chemical Engineering). The point is not to establish a one-to-one map between the current situation and earlier events in our history, but simply to point out that change is part of University life and that initial fears are often unjustified. To those who think that the formation of EE from physics and mechanical engineering was a much less profound event, I would suggest that the creation of a first-in-the-nation department in the 1880s certainly rivals the creation of the new structure for computer science that is being proposed.