Committee on Academic Programs and Policies

Initial Report on
Computing and Information Sciences Initiatives
for the
Cornell University Faculty Senate
8 September 1999

Setting:

There is an information revolution. We quote from the Task Force June Report, *Cornell in the Information Age*.

“Nearly every discipline is changing, not just because of new tools but because of new computational ideas and paradigms.”

“We can be the first university to broadly integrate Computing and Information Science into education for all students and into research and scholarship across the campus.”

“...we hope that these ideas will serve as the basis for productive discussions across the campus,...”

Issues:

- Procedures and processes followed to date.
- Vision, goals, and principles as articulated in the June report and in subsequent discussions.
- Organizational structures needed to reach the goals.
- How can the Senate and CAPP respond?
Process and Documentary History

See the web site for many of the items cited below
http://www.cornell.edu/UniversityFaculty/forums

(1) Report Research Futures Task Force I: Physical Sciences and Engineering and their Relationship with Biological Sciences, dated 16 October 1997, chaired by Dean John Hopcroft, Engineering, and Vice President for Research Norman Scott.

IV. Strategic Enabling Areas: Cornell’s Focus
IV.2 Information Sciences:

(2) Computing and Information Sciences Task Force, dated 17 March 1999, provides membership and the charge

A first report by June 1, 1999, “recommend those actions to be taken by the University most immediately and should serve as the framework for a broader discussion by the University community. A second report should follow by November 1, 1999, reflecting this broader discussion and incorporating recommendations for organizational change and strategic investment.”

(3) Cornell Chronicle article by Bill Steele on 13 May 1999 entitled
“CU’s Position in Computing/Information Revolution is Task Force Focus”

“The creation of an autonomous academic unit...would have significant adverse impact on the College of Engineering’s reputation and, ultimately, upon the reputation of the University.”

“...we are particularly concerned that Engineering faculty other than members of Computer Science have not been consulted in the Committee’s deliberations.”

“We are concerned that models for achieving these goals, other than through an autonomous academic unit, have not been thoroughly considered. Moreover, it is not clear to us that the model of an autonomous academic unit can achieve these goals.”

(6) Department of Computer Science detached with respect to budget and with respect to supervising Dean and administration of tenure by letter of 28 June from Provost to Dean of Engineering.

(7) Provost’s Memorandum of 19 August 1999 concerning summer activities:

Appointment of Robert Constable as Dean for Computing and Information Sciences;
Dean Constable to work with Vice President Ainslie and Vice Provost Garza
“The charge to him and the task force is to identify how computing and information sciences can best be advanced throughout the University; it is not to invent, on whatever pretext, the way to do nothing.”

“to develop pilot management procedures for the new Office of the Dean for CIS. I have asked that these pilot procedures encompass administrative responsibilities for the present Department of Computer Science, reflect the anticipated University-wide roles for the new dean’s office, ...”

“...the limited administrative responsibilities outlined above have been transferred tentatively from the Colleges of Engineering and Arts and Sciences to the new Dean’s office....In the meantime, the Department of Computer Science remains a department of the College of Engineering and the College of Arts and Sciences...”
(8) Dean of Faculty Cooke circulates a response to the Task Force report on 11 August. This response is revised and circulated on 25 August, ‘Organizational Arrangements Implementing the June 1999 ‘Initial Report of the Task Force on Computing and Information Science: Cornell in the Information Age’


“I will explain the new actions that Cornell has taken to respond to these forces, such as repositioning the CS Department as a university-level administrative unit, and proposing a new academic structure, tentatively called a “faculty” of computing and information.”

(10) Response to Dean of the Faculty Robert Cooke’s Memo on the FCI by Dean Robert Constable and Charles Van Loan, Chair Department of Computer Science, dated 7 September 1999.

“1. An FCI should encourage active faculty involvement in computing and information in every existing and future academic department. It should not drain talent from those units but help them attract the best possible faculty and students.

2. The university community would be best served if the faculty involved in computing and information could collaborate actively across departmental lines, both in teaching and research. An FCI should facilitate this collaboration and help coordinate funding opportunities as well.”
Vision, Goals, and Principles

Chair Huttenlocher, in a meeting on 9/1 with Fine and Associate Dean Rasmussen, anticipated that the final Task Force report would focus on vision, goals, and principles and leave organizational questions to be resolved by Dean Constable.

CAPP has asked the Task Force to embed their eventual statements in a broader setting of the thoughts of others on this issue, both those who agree with and those who disagree with the perspectives of the Task Force members.

The foundational vision needs to represent more than the personal beliefs and interests of Task Force members, although it currently clearly represents these.

While many have a positive reaction to the vision portion of the June report, it deserves closer scrutiny. There are assumptions of the centrality of Computer Science that are over-reaching and have been challenged by others.

“While the information revolution rests on fundamental advances in many fields, the core enabling disciplines are in the Computing and Information Sciences (CIS).”

“It is the embodiment of knowledge and techniques in computer software and protocols that is driving the change.”

There are issues of what is being included and what perforce excluded.

What is the role of information technology, systems architecture, and hardware? These are arguably more responsible for what we have today than the claims made above.
Organizing to Reach the Goals

Thus far, the most controversial aspect of the initiative and one that is evolving.

CAPP has met twice and was prepared to discuss organization, but postponed in order to hear first from Dean Constable.

Inter-related units leading the current process:
Task Force largely led by its CS members and the channel to the Provost/President,
Computer Science Department,
CIS currently containing a Dean and CS,
proposed entity of a Faculty of Computing and Information (FCI) to be led by CIS

Conflation of solving perceived problems with Computer Science in Engineering and implementing the Task Force vision.

Alternative models of graduate fields and centers to promote teaching and research across unit boundaries.

Need for additional financial resources
“Leading faculty is like herding cats... if you put out some food, they will come.” (Dean Cooke)

Convergence between Cooke Memo of 8/25 and Constable-Van Loan memo of 9/7?
Role of the Faculty

We are engaged with a moving target.

University Faculty Forum on 15 September at 4:30pm in Call Aud.

Response from the Senate on 13 October and from other groups at Cornell.

Final Task Force report expected on 1 November.

Response period following 1 November.

Remarks of Provost on 7 September.

“Nov. 1 is not in my view a drop dead date. But I do believe that we should have the report and everyone’s comments by the end of classes for the fall term.”

“Hunter and I will of course be glad to hear directly from the Senate about this. But it will be much better for the Senate to contribute to the outcome rather than wait for the final report and then object.”

“We must, I believe, implement something. But what that will be remains entirely to be determined.”

There is a sense of urgency that may be encouraging recklessness.
Faculty Senate Discussion on Biological Sciences of 12/9/98

Professor Howard Howland:
“Well, those decisions are behind us now. They’re past us, and they raise questions about your future decisions. My question is, do you agree with Pericles that the discussion is an indispensable preliminary to all wise decisions, or are you following some other ancient classical tradition—Odyssean perhaps—since we are in Ithaca, where a tradition that requires secrecy and surprise, and above all, the helpful intervention of the Gods?”

President Rawlings:
“...I do agree strongly that discussion is a strong preliminary to decision making. ...we tried to listen very carefully over a long period of time and then to make a decision.”