University Faculty Forum
Initial Report of the Task Force
on Computing and Information Science

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“We believe that Cornell should create a central home for computing and information research and education, spanning the entire campus”
(Task Force Report)

• present remarks focused on computational science and engineering
What is “computing”?

Computing and Information Science (CIS)
Computational Science
Computer Science
Computational Engineering
Faculty of Computing and Information

- Computers (hardware and software) are powerful tools with broad application

- Computational activities
  - development of concepts and theories
  - development of general tools
  - development of tools for particular applications
  - use of tools in particular applications
  - ...

- Broad definition of “computing” essential for FCI to fulfill its campus-spanning mission
Breadth of Computational Science and Engineering

Theory Center Directors (all ranks)

Ken Wilson  Physics
Ravi Sudan  Electrical Engineering
David Caughey  Mechanical & Aerospace Engineering
Mal Kalos  Physics
John Guckenheimer  Mathematics
Tom Coleman  Computer Science
Tony Ingraffea  Civil and Environmental Engineering
Strength in Computational Engineering

FTE Faculty in Computational Engineering (est.)

Engineering  48
Computer Science  5
Who “owns” computing?

• Too broad to be “owned” by any one department

• Owned by all FCI faculty

  “Such a home [FCI] would bring together experts in computing with researchers and scholars in ... Computational Science.”

  (Task Force Report)
Implementation

“If we do this right, we’ll have a chance to move Cornell higher, into the top five universities”
Dean Constable, CS Colloquium 9/2/99.

• resources—to encourage and facilitate collaborations and course development
• FCI structure—gives ownership to all FCI faculty
• broad support before creation of FCI
Are we “doing it right”?

- Events to date
  - CS separated administratively from Engineering
  - Task Force:
    - 3 CS faculty (including chair)
    - no (other) Engineering faculty
  - Former CS chair appointed Dean for CIS

- Process now needs to
  - reflect breadth of computing across the campus
  - develop structure and climate conducive to collaborations
  - engender a sense of ownership in potential FCI faculty

- If we do not do it right . . .
Suggestion for FCI Governance

- Executive Committee
- Chaired by Vice Provost
- Committee members elected by members of FCI
- Some committee members appointed by Vice Provost