

July 6, 2011

LINDA KATEHI

Chancellor

Re: Davis Division Review: “UC Davis: A culture of Innovation and Excellence Powered by Knowledge and Technology” Report

The Davis Division learned in late May 2011, that the Blue Ribbon Committee on Information Technology Excellence’s report was available. The report was forwarded to all of the Academic Senate standing committees and the Chairs of the Faculty Executive Committee in each college and school. Responses were received from the Committees on Academic Personnel-Oversight, Information Technology, Planning and Budget, Undergraduate Council, and College of Letters and Science Executive Committee. The Davis Division appreciates the time and effort associated with crafting the report.

There is general agreement, as stated by the College of Letters and Science Faculty Executive Committee, that in order to be a top-tier university, UC Davis needs faster, better and more robust data networks and equipment. The focus on the interrelationship between the research, academic and educational missions highlights the necessity for these improvements, outlining for the administration the directions in which UC Davis should be headed. The grand challenge will be realization of the infrastructure needed to support the proposed changes.

The Committee on Planning and Budget is concerned not about the vision of the Blue Ribbon Committee on Information Technology Excellence, but about how a transformation of information technology (IT) on campus will be carried out. There is significant history, especially in the area of IT, of the campus making decisions to centralize activities in ways that have ended badly for faculty. As is true with all such plans, the details control the impact and the lack of consultation on details leads to poor results.

Although a campus-wide IT system is required, its control by central IT should generally stop at the level of the NAM or wireless hot spot. Of course issues such as computer security and specialized facilities must be taken into consideration. The faculty would obviously not favor a form of centralization that resulted in computation and data storage becoming more, rather than less, difficult and obstructive. (CPB)

The Committee on Information Technology states that the report lists many concrete ideas which would clearly help all members of the UC Davis community. It also lists many ideas which seem more conceptual in nature (e.g. transforming the Library into an “academic hub”). The vague ideas are more of a problem. There are many examples of ideas and suggestions that really need to have more detail provided before they can be meaningfully assessed. Even when the report moves on to the details of how these ideas can be implemented, it leaves us with vague descriptions such as “Create the financial basis for these changes and remove the barriers”. How do we create the financial basis? What specific barriers are we in need of removing? At one point the report speaks to “cultural barriers” that have impeded the use of IT. Again, there is no description of the cultural barriers impeding progress.

The Undergraduate Council supports the suggestions of the IT Blue Ribbon Committee report and appreciates the importance of advance IT capacities in undergraduate education.

Grand Challenges

- 1) "Create a top-tier cyberinfrastructure, an essential basis for research excellence and growth, as a fundamental campus priority."

The Committee on Planning and Budget fully endorses this goal. Such a system needs to be designed with excess and redundant capacity, because the requirements of students, faculty and staff will be increasing over time, and frequent outages of heavily used servers will be unacceptable.

- 2) " Transform the Library...."

There must be significant input by faculty into such a transformation. The diversity of the needs of the faculty to excel in their teaching and research missions requires significant input into what an "academic hub" would be. If decisions are made based on a central body's perception of needs, significant errors are ensured. (CPB)

- 3) "Develop a compelling student experience...."

The Committee on Planning and Budget agrees that there needs to be 'ubiquitous' network connectivity, assuming this means fast, efficient and universal network access. In addition, web conferencing would aid in the research and teaching missions. On-line courses would, of course, need Academic Senate input and oversight.

- 4) "Integrate technology...."

Decisions should be made at the local level as to how such integration is accomplished. (CPB)

Building Blocks

- 1) CPB endorses this numbered point fully.
- 2) and 3) Central high-performance computing centers at the campus level were phased out nationwide a number of years ago. Most faculty need a level of control of their computing facilities that cannot be accomplished by a central facility. In addition, there exist national computing facilities that are accessible to faculty if needed. Forcing this type of centralization will require an additional drain on faculty grant resources to support the central structure. In some cases, as for example when locating clusters, which require specialized cooling and power systems, it may be necessary for at least somewhat centralized locations be made available. It is important, however, that faculty who need access to their clusters or require non-standard computer systems, to carry out their research, not be forced into configurations that hamper their research activities. (CPB)
- 4) In every discipline, there exist large-scale data bases that are already available. (For example, NIH now requires that data collected with its grants be made publically available other researchers.) There is no need to recreate everything at UC Davis. In addition, faculty must be involved in the development of any new database. The diversity of academic research results in widely different requirements across disciplines for computational and data storage systems. In addition, it is noted that access to and sharing of databases that include "electronic health records" are controlled by federal law. Some faculty will welcome help with making such data bases publically available, as required, and at the same time anonymous, as also required. (CPB)

- 5) We note that the Academic Senate is responsible for curriculum. Development of courses, including on-line courses (mentioned in the report), must be carried out in compliance with standard/existing processes and in consultation with the Academic Senate. (CPB)
- 6) Any partnership must have strong Academic Senate input. Most successful collaborations start from the bottom up with the research interests of faculty driving the process. (CPB)
- 7) Local control of computational/IET resources is better than the centralized system proposed. Ubiquitous access, large capacity, and high speed are all very desirable, but barriers to creative use of the campus-wide system are unwelcome. To avoid unforeseen consequences, however, ongoing, broad-based consultation with the faculty will be required at every step to establish appropriate funding models. (CPB)
- 8) The proposed leadership and governance structure seems to have completely left out the concepts of Academic Senate consultation and shared governance. This is not only unacceptable; it is also bad policy. The administration should provide leadership and resources for the campus's IT needs, but this must be done in consultation with the Academic Senate. (CPB)

Given today's fiscal realities, a practical roadmap should be developed to prioritize the recommendations. Though visionary, not all goals will be equally possible in a reasonable time scale. (L&S FEC)

More detail should be provided regarding which IT services are best organized and offered centrally and which are better suited as local implementations. While we realize that certain centralized functions and databases would be useful if adequately funded, others will continue to be best managed by individual departments and other units. Planning and consultation with departments will be necessary to keep duplication of effort to a minimum. (L&S FEC)

The report presents a strong case for the need for improvements to the campus IT infrastructure—the operational and application “building blocks” underpinning our IT capabilities—and some are supportive of such efforts. However, we were far more dubious about the value and appropriateness of administrative involvement in initiatives relating to academic and educational functions. Those would seem best dealt with under at least the guidance of units associated with the academic enterprise. (L&S FEC)

While it is understood that this report tries to outline a long-range vision, there are notable omissions regarding details and any real-world examples on which claims are based. The report lists many different things that the University could do. (CIT) There should be a realistic estimate of the budget needed to implement the proposed improvements, detailing exactly how each would be funded (including ongoing staffing and other maintenance costs). Highlighting the need for a realistic funding model and clear oversight responsibilities could make a real difference in successful implementation. (L&S FEC) Given the current financial climate, funding should be a key aspect of any UC proposals that seek to build and expand our infrastructure. There are scant details in this report; though a vague suggestion is made that 'substantial cost savings can be made through consolidating and coordinating resources and services'. This may be true, but this seems to be the argument that is always made in these reports. (CIT)

The general suggestions seem reasonable. Would have liked to see a greater emphasis on making sure the infrastructure provided is easy to use. Good infrastructure with a poor user

interface (e.g. SmartSite) will greatly limit its use and value. The report does discuss user support which is good, but probably should emphasize this even more. (CAPOC)

Some noted that the report focuses on expansive plans, but at the same time the current infrastructure must be made to work. For example, the moobilenet should cover the entire campus, members including facilities west of Highway 113. The report also ends saying that details will appear on a website that is “to be announced.” Such information is needed to fully evaluate this report. (CIT)

Given that the recent track record for centrally-sponsored academic and educational IT “improvements” has been just short of disastrous in many cases—for example, investing considerable money in software that eventually turns out not to meet our needs—some real outside experts, including campus individuals with substantial hands-on knowledge, should be involved in the implementation and planning, both for much higher capacity and in enabling educational support functionality. (L&S FEC)

There was a recommendation almost two years ago that Information and Educational Technology (IET) receive an Administrative Unit Review. In light of these tight budget times, an evaluation of IET is needed. (CPB)

It often feels that top-level reports like this that suggest bold, large-scale changes to infrastructure are all written without any knowledge of the previous top-level report that suggested bold, large-scale changes to infrastructure. There seems to be a lot of overlap between these reports but very little interaction between the writers of each one. It appears that the overall meaning of this report can be boiled down to ‘building better IT services will help build a better university’. Clearly, having a robust IT infrastructure is important to the future of UC Davis. A more detailed implementation plan (possibly identifying funding sources) would be welcome and would likely lead to a more informed discussion on some of the specific projects described in the report. (CIT)

The campus must not embark on any new activity that will affect our research and teaching missions without engaging and supporting the appropriate governance and organizational structures. The “academic hub” concept begs the question of changing the alignment on which UC Davis infrastructure is organized, especially the library and educational technology. The discussion concerning the future of the library and rethinking the role of the University Librarian opens the possibility of creating a leadership position that aligns the libraries and educational technology; as well as the expansive vision for creating an appropriate infrastructure for the campus. This second task may even be shared with the Sacramento campus, which might create some significant opportunities and economies.

Sincerely,



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