

University of California
Information Technology Guidance Committee

April 14, 2006, 10:00 – 3:00
University of California Office of the President
1111 Franklin Street, Room 5320, Oakland, CA

Meeting Notes

Members present: Ashley, Davis, Greenstein, Hafner, Hume (chair), Merkley, Munoff, Oakley, Relyea, Saxenian, Showstack, Witherell, Yellowlees

Members absent: Kaplan, Sandoval

Staff: Lawrence

Administrative Support: Scott-Noennig

Consultant: Mitchell

The meeting convened at 10:00 a.m. with Chairman Hume presiding.

10:00 Welcome and Introductions

Kris Hafner reviewed the agenda and announced that as Rory Hume and John Oakley would need to leave by 1:30 p.m., the discussion should be shaped accordingly.

Each member, as well as the staff and consultant, introduced himself and outlined his interest in IT from his campus perspective; at this time, John Oakley expressed the urgency of improving UC administrative information systems in light of the Regents' and legislature's call for transparency and accountability, particularly in the area of executive compensation.

In his opening remarks to the committee, Provost Hume stressed that the ITGC needs to balance its work between long-term, strategic, systemwide planning and more tactical efforts to address the University's administrative information systems' needs. He cited the California Digital Library as a great example in practice of the sort of planning he wants the ITGC to do: the CDL uses smart investment to create a high-functioning, low-cost service that is used systemwide. Hume cited the 1963 master plan for the University put forward by Clark Kerr as the "roadmap" for the University's growth to meet the needs of what was then the future of the state and perhaps the only successful example of systemwide planning for UC. Notwithstanding subsequent efforts (e.g., in the Presidential transition in 1991), the University, fueled by ample financial resources, has continued to allow the campuses to act fairly autonomously. He then made reference to the Long Range Guidance Team's observation that the State of California no longer invests heavily in UC. UC must demonstrate its worthiness of state investment; raise student fees as well as financial aid; and become more entrepreneurial with its planning and investment in order to maximize its impact in state, national and international arenas.

In sum, it has become imperative for UC to plan as a system; Hume cited a recent letter from two emeritus professors of economics who made the point that, in light of the ways the external

world has changed, UC now needs to incorporate the needs of the campuses in systemwide planning and to utilize IT to accomplish this. The traditional autonomy of the campuses, their academic units, and the faculty has been an enormously successful engine for innovation and creativity; the campuses are therefore key partners in systemwide planning, and the ITGC is charged to “coordinate the autonomy” of the campuses. The University must adopt and embrace standards and common practices where it makes sense to reduce cost and complexity. It can ill afford any longer the luxury of redundant expensive information systems and centers.

In discussion, it was noted that:

- Effective systemwide planning will require changes in the allocation of resources among and within campuses (Hume noted, however, that resource use is informed by effective planning; if we know what we want to achieve, we can find the resources to do it).
- The “right kind of autonomy” needs to be encouraged at the campuses and UCOP.
- The most effective planning approach should emphasize standards and interoperability in preference to centralized systems.

With regard to the specific issue of urgently needed improvements to HR systems, it was noted that:

- A short term effort to develop a senior management information system for total compensation data could serve as a model for long-term HR-related IT policy and planning.
- ITGC should not let urgent short-term needs override strategic planning. Over the long term, UC needs standards and interoperable systems, not a particular software and hardware solution. UC’s future HR information systems plans should be consistent with ITGC’s strategic thinking and should not be implemented in isolation, ignoring the critical need for system inter-operability and capability to share common data.
- “Adopting standards” is a code phrase for the long-term process of changing behaviors. The HR information system problem cannot be addressed effectively without standardization or normalization of UC business practices.

Steve Relyea, who is participating with other UC leaders in an HRIS advisory group to address the HR system improvement requirements, noted that the *Chronicle of Higher Education* has run articles that demonstrate that many HR information system projects fail to deliver as promised and break the bank in the process. First, personnel policies need to be clear, concise, and not conflicting. Second, any new system implementation needs to be done in phases, to increase the odds of success and to avoid disruption. Recent audit reports addressing UC compensation practices will provide ample rationale for UC to focus on its HR systems.

10:15 Assumptions and Approach of IT Guidance Committee

Hafner asked the group to review the proposed “deliverables” and “assumptions” slides (below).

ITGC Deliverables

- Working group reports / white papers
- IT strategic directions document
 - Cross cutting issues
 - High priorities linked to UC mission
 - New delivery models
 - Funding strategies
- Presentation to President, COC, Regents

ITGC Planning Assumptions

- UC and campuses will:
 - expand and enhance their global presence and partnerships
 - invest in / facilitate academic growth in interdisciplinary areas
 - foster campus diversity to achieve greater institutional flexibility and responsiveness to global changes and market factors
 - leverage campus / lab research strengths to gain leadership position in computationally-enabled research and innovative uses of computation for discovery and insight

ITGC Planning Assumptions

- Research, instruction and scholarly interaction /communication will:
 - become increasingly dependent upon a common and highly integrated academic information environment and IT infrastructure
 - be integrated globally but fostered locally in highly collaborative environments where scholarly information is readily accessible and easily exchanged
 - result in a wide variety of materials that will be made available to multiple stakeholders
 - take place in highly adaptive learning and research environments, including traditional ones (classrooms, labs, and libraries)

ITGC Planning Assumptions

- UC will invest in information technology:
 - as essential shared “infrastructure” which is critical to the pursuit of the University’s academic mission
 - in a planned and coordinated fashion, and in a manner that minimizes redundant expenditure on services that are commonly required but not effectively supplied by campuses acting independently
 - with access to new organizational and funding models that will need to be developed to sustain, govern, and manage coordinated IT services

Ashley suggested that “Deliverables” needs to include “what do we do when?” Yellowlees suggested that we also need cost estimates for major initiatives.

The group endorsed the proposed assumptions as reasonable proxy goals to inform the committee’s work.

10:45 Context: Planning strategically, breaking new ground

Hafner and Greenstein led a PowerPoint-supported discussion of the context for the ITGC’s work. Noting Slide 10 (reproduced at right) that sets the context for UC spending on IT, Hafner remarked that, excluding staff, IT spending is 12% of lab expenditures, 3% of campus expenditures.

UC System IT & Telecommunications Expenditures (Est.FY 04-05)
(Hardware, software, services; FTE not included)

UC Office of the President		\$30,306,628	
IT spend = 2.83% of operating budget	Campuses		Total UCOP & Campus: \$316,623,415
	UC San Diego	64,081,276	
	UC Los Angeles	55,059,576	
	UC Berkeley	38,976,464	
	UC Davis	33,850,225	
	UC San Francisco	33,186,385	
	UC Irvine	23,327,477	
	UC Santa Barbara	12,536,216	
	UC Riverside	12,537,400	
	UC Santa Cruz	9,959,624	
UC Merced	3,053,054		
IT spend = 11.9% of operating budget	Medical Centers		Total Medical Centers: \$90,757,750
	UC Davis Medical Center	\$30,808,852	
	UC San Francisco Medical Center	25,165,372	
	UC Los Angeles Medical Center	13,812,873	
	UC San Diego Medical Center	13,301,849	
UC Irvine Medical Center	7,668,804		
IT spend = 11.9% of operating budget	National Laboratories		Total Labs: \$488,379,785
	Los Alamos National Lab	\$329,383,293	
	Lawrence Livermore National Lab	110,825,476	
	Lawrence Berkeley National Lab	48,071,016	
TOTAL		\$896,060,948	

11:00 Group Discussion: Strategic IT Directions and Opportunities for UC

A four-round facilitated brainstorming exercise resulted in the following list of recommended focus areas for the ITGC - topics that will inform the workgroups. Discussions also addressed obstacles to success (detailed further below) and specific opportunities for systemwide initiatives. Innovation and replicability/scalability of solutions were also themes – building solutions once on behalf of the system, and achieving together what a single campus cannot.

Advanced Networking Services:

- Next generation intra- and inter-campus network capabilities
- Network bandwidth and reliability requirements for faculty research
- Technologies to balance security and access

Common IT Systems and Infrastructure:

- IT in support of academic and administrative collaboration
- Data center consolidation for reduced cost and greater economies of scale
- Next generation HR, financial and research administrative system capabilities
- Participation in community / open source development initiatives (Sakai, Quali)
- Integration of application and information delivery via user-facing portal and content management technologies
- Disaster recovery and business continuity investments
- New “converged” technologies for voice, email and other personal productivity services
- Medical center systems and data collaboration

High Performance Research Computing:

- Shared, managed clusters
- UC grid

IT in Student Life:

- Shared student admissions system
- Integrated student services, personalized information resources, and student-facing portals available to students before, during, and after their university careers

Instructional Technology:

- Virtual and distance instruction
- Course sharing strategies, course content, “open courseware”

Scholarly Collaboration

- Shared information, research, publications
- Collaboration tools
- Personal portals for teaching, research, etc.
- UC open content gateway for sharing of IP

Stewardship of Digital Assets

- Tools, technologies and processes to surf (capture, manage, and make effective use of) the “tsunami of research data”
- Repurposing of information in teaching, research, administration
- Inverting IP: moving to a position of greater openness and sharing of content and information systems
- Addressing the legal, policy, and regulatory issues that affect creation, access to and use of information for academic purposes.

Other

- UC IT strategy and systemwide implementations as research topic

- Strategies for continuous adaptation and flexibility in IT systems
- Role of IT in revitalizing the graduate school population

Specific issues and needs of individual campuses were mentioned by a number of the Committee members in the course of these brainstorming exercises.

Merkley described the challenges to collaboration unique to Santa Cruz, given the geographic separation of the different colleges within the University, as well as the difficulties the campus faces in securing state of the art, advanced networking services via the CalREN network.

Ashley discussed the challenges facing the new Merced campus where all systems and procedures need to be designed and instituted in an environment where UC practices and norms are not always clearly articulated. Opportunities exist for UCM solutions to be “outsourced” to other campuses, but normalization of business processes among campuses remains a significant challenge due to decentralization and lack of standards.

Showstack, observed that UCSF, by virtue of its relatively small enrollments, does not have the scale to develop and deploy state-of-the-art student-facing systems. Relatedly, Yellowlees and Relyea cited inconsistencies among campuses in interpretation and application of accounting and other policies, leading to greater reliance on campus-developed solutions resulting in higher systemwide overhead costs and loss of ability to leverage investments.

Showstack and Yellowlees expressed frustration with medical and research record-keeping systems that record and/or track the same information in different and incompatible ways.

Yellowlees offered that the Davis campus is the only campus not directly threatened by seismic disaster and, therefore, is well positioned to provide back up and recovery, disaster recovery and business continuity services. Relyea also mentioned the need for these services.

There was general agreement with Davis’ observation that compliance with a host of regulatory requirements is an obstacle to strategic development for the campuses.

Both Yellowlees and Witherell observed the proliferation of data centers and research computing clusters on their campuses and the increasing demands for central campus support of these facilities and services.

Yellowlees commented on the significant investments and efforts required to develop and support wireless, mobile, and RFID-based services.

IT funding is problematic owing to the distribution of funding sources to schools and colleges and medical centers (Yellowlees) and the obstacles to using contract and grant funds as a source for supporting basic infrastructure (Showstack).

2:00 Going Forward: Working Groups

General observations:

- Davis observed that with respect to research intellectual property generally and patents specifically, UC is protective/conservative. If UC were to invert its position (for example, as MIT did with Open Courseware), it could create more collaboration and goodwill.
- Yellowlees suggested developing an open source electronic health record system, a SAKAI for healthcare.
- Showstack recommended that UC's goals should be 1) intellectual leadership; 2) mission-critical problem solving 3) managing high-risk issues (e.g., disaster recovery, maintaining confidential patient or research information), and that the products of the Working Groups should specifically address these three categories.
- Hafner suggested that Community Source solutions might be a common thread that all working groups could address.

- **Working Group Process**

Several ITGC members indicated that the currently-proposed constellation of working groups was too granular and oriented to “status quo” issues, while others felt that the proposed working group structure was a reasonable starting point, given that ITGC could launch additional groups or adopt other research strategies for areas not covered by the proposed structure. There was general consensus on these points:

- ITGC members plan to play an active role in reviewing, coordinating and integrating the work of the WGs, and wish to be informed about WG progress early and often, to ensure that all relevant issues are appropriately addressed.
- The WGs should be encouraged to set out options with accompanying information for ITGC's consideration, in lieu of final work products.
- Each WG should be asked to address leadership, problem-solving, and risk mitigation goals set out above by Showstack, and where relevant, to explicitly consider Community Source solutions.
- Within this framework, WGs should be encouraged to develop “big ideas,” proposals that take UC in new and innovative directions and demonstrate leadership.
- Each WG should be directed to look at peer institutions for examples of (a) common problems, (b) possible solutions, and/or (c) examples of innovation and leadership.
- The composition of WGs should focus first on required expertise, and secondarily (and where necessary) on all-campus representation.

- **Other Participants**

- **Faculty Advisory Group**
- **Outside Advisors**
- **Corporate Partners**

Several agreed that industry and higher education leaders could inform us with their views about risks, opportunities, and vision. Specific sources mentioned included Kaiser Permanente; futurists (e.g., Clifford Lynch, CNI; Sun Micro); leaders from other institutions (e.g., James Hilton; once Michigan, now Virginia; Michael McRobbie, Indiana).

To add a student perspective, ITGC could consider adding relevant questions to the UC Undergraduate Experience survey program based at Berkeley, and consult with Vice Chancellors for Student Affairs on means to engage campus student affairs groups.

While there is no compelling justifications to add the National Labs to the ITGC process at this time, Witherell suggested that LBL would be a great source of “outside eyes” to look at where ITGC is in the fall of 2006.

As work progresses, formal representation from or consultation with the Academic Senate is critically important. The deans are another key constituency. ITGC members need to reach out to them at members’ campuses. This observation led to a discussion of the role of ITGC members to conduct and sponsor consultations with stakeholders on their campuses. To assist ITGC members in this role, the committee requested that staff put together a brief PowerPoint presentation for use on the campuses.

Ashley will ensure consultation with the EVCs.

- **Planning Process**
 - **Timeline**

Members found the proposed timeline reasonable, but requested that it be supplemented with key dates related to the annual operating budget cycle.

- **Meeting Schedule**

Members recommended that staff proceed to schedule a June meeting to focus on working group plans, input gathered from the faculty advisory group meeting and campus visits conducted in May/June.

- **Research Needs (environmental scans, data collection)**
- **Sequencing Priorities, Resourcing Needs**
- **Inform Faculty Survey (to be conducted in Fall, 2006)**

3:00 Meeting Adjourns

Summary of Key Outcomes

- ITGC will be informed by and inform the urgent HR information systems developments currently underway, both to learn from that process and to ensure that to the extent possible the HR development path is consistent with ITGC’s strategic thinking.
- ITGC endorsed the proposed assumptions, as set out in the *ITGC Overview* presentation (<http://www.universityofcalifornia.edu/itgc/supdocs/overview.ppt>) as reasonable proxy goals to inform the committee’s work.
- Topics generated in the discussion of strategic directions and opportunities will be shared with the Working Groups to inform their work
- ITGC members plan to play an active role in reviewing, coordinating and integrating the work of the Working Groups, and wish to be informed about WG progress early and often, to ensure that all relevant issues are appropriately addressed. The principles for WG process

agreed to by the ITGC (on page 6 above) will be incorporated into WG guidance documents and communicated to WG chairs and consultants.

- ITGC agreed that the views of industry and higher education leaders should be sought that the student perspective should be addressed; and that the Academic Senate be consulted regularly.
- ITGC members acknowledged their role as leaders and facilitators of the ITGC process on their respective campuses, and will request support from the ITGC leadership and staff to support this role.
- ITGC recommended scheduling of a face-to-face meeting in late June or early July, 2006, to focus on working group plans, input gathered from the faculty advisory group meeting and campus visits conducted in May/June.

Summary of upcoming ITGC events

- April 21, 2006: ITGC Instructional Technology Working Group: face-to-face meeting and idea generation session.
- May-June 2006: Greenstein and Hafner visit UC campuses (schedule available on request from Nancy Scott-Noennig)
- May 19, 2006: Meeting of the Research Cyberinfrastructure Advisory Group
- June-July 2006: Second meeting of ITGC