

UC Information Technology Guidance Committee
 Instructional Technology Work Group Report
 Prepared for the ITGC meeting on September 19, 2006

A. BACKGROUND/PROCESS DETAILS:

Charge:

The Instructional Technology Work Group (ITWG) is exploring how the University of California’s teaching and learning mission can be advanced by the use of information technology, and how strategic planning at the system level can help the campuses realize economies, efficiencies, and innovation in their use and provision of instructional technology.

Membership:

Members represent all ten of the UC campuses and a broad range of expertise in instructional technology, including pedagogy, media services, libraries, application development, online instruction, and lifelong learning.

ITGC Liaison: Daniel Greenstein, UC Associate Vice Provost for Scholarly Information and University Librarian for System-wide Library Planning;

OP Consultant: Paula Murphy, Director, UC Teaching, Learning and technology Center.

Janis L. Dickens	Director, Classroom Technology Services	Davis
Victor Edmonds	Director, Educational Technology Services	Berkeley
Faust Gorham	Chief Information Architect	Merced
Gary Matkin	Dean, Continuing Education, University Extension	Irvine
Charlie McDowell	Professor, Computer Science Department	Santa Cruz
Larry McGrath	Director, Computing Support Services	Riverside
George Michaels	Executive Director, Instructional Development	Santa Barbara
Susan E. Parker	Deputy University Librarian and Chief Financial Officer, Library	Los Angeles
Ruth Sabean (Chair)	Assistant Vice Provost and Director of Educational	Los Angeles

	Technology	
Kevin H. Souza	Director of Educational Technology, School of Medicine	San Francisco
Gabriele Wienhausen	Provost, Sixth College	San Diego

The work plan and consultation strategy:

The Work Group’s activities so far have been focused on:

- Envisioning the future of higher education and developing assumptions about how IT does and will impact higher education (see Section C);
- Identifying the strategic issues for the Work Group to explore (see focus areas in Section B);
- Identifying and interviewing institutions and university systems that have exhibited innovation and leadership in these focus areas;
- Identifying UC system-wide and campus committees with which to consult.

The Work Group’s future activities will include:

- Identifying “best practices,” trends, and strategies that emerge from our research and interviews;
- Identifying opportunities for system-wide action and/or investment;
- Drafting recommendations.

The Work Group’s consultation strategy includes:

- Interviewing external institutions, as well as UC people and groups, to identify opportunities, challenges, strategies and best practices;
- Consulting with UC people and groups (including other ITGC work groups) who can assist in shaping recommendations;
- Working with other ITGC work groups to survey faculty, staff, and students;
- Reviewing instructional technology recommendations with UC campus and system-wide committees before the ITGC report is completed.

B. ANALYSIS

Throughout the UC system, there are many examples of smart, effective, and innovative uses of IT in teaching and learning. Scores of UC instructors are rethinking how they teach because IT has afforded them with new opportunities to improve student learning. Campuses, schools and departments are experimenting with how to use technology to improve access and delivery of education – from next-generation course management systems that support student active learning and faculty collaboration, to advanced degree programs that offer students convenience and access to higher education through online delivery.

As is the case at every institution of higher learning, there are pockets of innovation, and pockets of inactivity. What has not been discussed at a system level, and we suspect, not enough at a campus level, are the institution's goals for teaching and learning in the coming decade and what changes are needed to place UC at the forefront of instructional innovation at research universities. It is the IT Work Group's over-arching assumption that IT has the potential to fundamentally and significantly improve instruction, including an emphasis on research as a key component of the UC student experience. It is clear that technology also makes it possible for the UC system to work together in new ways to maximize investment and increase capacity to achieve these academic goals.

There are clear trends on UC campuses as well as those of peer institutions to adopt standardized and common approaches to how instructional technology is developed and implemented. For example, many of the UC campuses are choosing one enterprise course management system for the entire campus, are selecting one vendor to provide audience response systems in the classrooms, and are adopting systems and applications that are standards-based so that they can integrate with other systems.

There seems to be growing acknowledgement that this approach achieves economies of scale and improves capacity for supporting users of those technologies. The Work Group will explore if these same economies and benefits can be realized at a system level, through strategic sourcing, coordinated development, shared support, etc.

At the national level, there is a growing understanding that much is to be gained by collaboratively developing instructional systems, information, tools, and strategies around common standards. Sakai (a collaboration and learning environment) and DSpace (an open archive initiative) are two examples currently in pilot or production at one or more UC campus. We will identify where and how the UC system is or could benefit from participating in these and other efforts, including how we might harness UC's contributions to these projects for internal benefit.

However, as those involved in projects like Sakai and contributing open content have already discovered, UC policies and practices are not always supportive of collaborative work. In fact, a significant challenge for technologists and innovative faculty is that to effectively and strategically use IT often requires overcoming non-IT practice and policy hurdles. For example, if UC is to be an active contributor to open source and/or community source projects, UC intellectual property and technology transfer policies need to be rewritten to enable, indeed encourage, collaborative work across and outside UC. Similarly, if UC intends to support faculty innovation in teaching, then course approval, teaching assessment, reward and tenure policies must all be revised to recognize new types of scholarly contribution, as must the infrastructure, systems and practices that currently govern the delivery of instruction.

We believe this is an historic opportunity for UC to take bold action, to build on its legacy to become an innovative leader in instruction among research universities. These decisions require leadership and engagement across the academic enterprise and can only be made with broad consultation and consensus both within and outside UC.

An overview of the emerging issues, opportunities and challenges

The Work Group has identified seven areas on which we are focusing our exploration.

Some of these have obvious overlaps with other ITGC work groups:

1. Common strategy/framework/standards for teaching, learning and collaboration
2. Physical classrooms and other learning spaces
3. Content sharing, distribution, archiving, finding, and preservation
4. Open content policies and practices
5. New tools and the new culture of learning
6. Faculty reward and the development and support for teaching and learning
7. Lifelong learning for existing and new populations of students

C. VISION and ASSUMPTIONS

The Work Group has made several assumptions about the future and the potential for IT that are driving the exploration including:

A. Access to higher education will be broader and significantly improved through the use of information technology. This will increase competition among universities for students, new programs, and the application of technology, including the development of new learning environments.

B. Classrooms, computer labs and instructional facilities at UC campuses will be expected to be models for educational technology application in their variety and capabilities. Instructors and learners will expect to have access to a rich, standard set of technological tools, information and data, as well as to ubiquitous Internet and network connectivity. Increasingly, expectations for mobile access as well as for off-campus access will match expectations for on-campus access.

C. Learners expect to have expanded choices for what, when, where, and how to learn:

- Instructors need access to, and an understanding of, an expanded palette of instructional materials, delivery formats, and pedagogical methodologies.
- The importance of good instructional design will increase.
- Instructors must be rewarded for their work developing high-quality instructional materials and learning experiences, as well as for contributing to and building upon the work of others.
- Instructional delivery will routinely need to mix and match in-person and online activities that actively engage students in new types of learning experiences.

D. The importance of life-long learning is increasing:

- Formal higher (degree) education will increasingly be linked to less formal (non-degree) continuing education.

- To be competitive, traditional institutions of higher education will need to provide educational offerings throughout a learner's life and career (K-99).
- These educational offerings will need to be provided in a variety of formats, including online.
- Students are expecting access to learning portfolios and educational mentors throughout their lifetime.

E. Distributed learning and research communities (largely enabled and supported by technology) will increase in number and size and become a more important part of academic life and the teaching/learning process:

- Institutional reputations will be judged on an international scale by their contributions to, and support of, these communities.
- Opportunities for the formation of strategic partnerships in research, teaching, and public service will expand.

F. Open access dissemination of faculty intellectual property is changing scholarly communication and will affect systems and requirements for faculty rewards like promotion and tenure. "I believe that openness and sharing of intellectual resources and teaching materials -- not closely controlled point-to-point distance education -- is the most important emerging ethos of global higher education." Charles Vest, "Openness and Globalization in Higher Education", June 2006.

Post-meeting supplement

A. Key questions presented to ITGC for discussion

During the discussion with the IT Guidance Committee at its meeting on September 19, 2006, the chair of the Instructional Technology work group, Ruth Sabeen, posed the following questions:

1. Do you share our vision that this is an historic opportunity to take bold action regarding teaching and learning? Do we want to foster a fundamental change in the undergraduate experience at UC?
2. Do we want to be leaders in teaching and learning with technology?
3. How much do we want to work together as a system on the instructional side? Do we have, or should we create, organizational capacity for shared accountability?

B. Outcomes from ITGC discussion

ITGC Recommendations for Future Action

The ITGC recommended that the work group, in its report, do the following:

- Identify innovative and best practices across the country
- Begin articulating a vision for instructional technology at UC for the next 5-10 years
- Develop a prioritized list of concrete recommendations and implementation proposals

- Identify immediate steps to capture opportunity that we have
- Link IT as a tool for enabling student success
- Develop ideas for how IT can be included in academic planning discussions.

Take Away Messages

Messages that the WG Chair and Consultant took away from the discussion:

- Be bold in articulating a vision for how UC can use IT to change teaching and learning at UC:
 - Tie vision to student success
 - Use best practices from other institutions and from within UC to make the case
 - Include concrete proposals and implementation steps for immediate action items
- Pedagogy should be the primary driver for how we deploy instructional technology:
 - Need to meet the needs of various learning styles
 - Increasingly students look for audio/visuals to motivate and improve learning
 - Instructional design is critical to creating successful learning materials and activities
- Identify strategic goals for open content. Open content is key driver for change (e.g., impact of MIT's initiative on teaching and learning on their own campus as well as globally).
- New information technologies extend learning beyond physical space and time boundaries. UC policies need to reflect that, including how to credit faculty for time spent interacting with students outside of the classroom.
- Some students see themselves as members of UC community, not only of one campus; They expect a more common experience across University services than we currently provide.
- Align efforts with the Academic Senate's ITTP committee:
 - ITTP Chair, David Messerschmitt, proposal on UC-wide IT Literacy minor; research/teaching and IT fluency; synergy with Peter Yellowlees's suggestion that UC adopt the goal of becoming world-renowned in the provision of interdisciplinary/intercampus courses within 10-15 years; identify design of an infrastructure that would support these goals
 - Academic Senate coming up with list of what faculty need today
 - ITTP Chair, also inviting questions for UC senate to engage with; will gather consensus from campus Senates
- Think about "appetites for innovation" – a sliding scale; not yes/no so that individuals, departments, campuses can join specific initiatives or collaborations when they are ready, have the need, etc.
- Explore how we can leverage the proposed UC Grid for instruction; Identify comparable projects that could be undertaken in the very near term.

- All of the areas under review by other Work Groups will have significant impact on instruction and contribute to the educational experience that UC could become known for if it aspires to be a leader among research universities.

C. Next Steps

- By mid-October the Instructional Technology Work Group will have completed its interviews of other universities and higher education institutions to identify best practices, innovations in teaching and learning, and organizational strategies.
- Throughout the fall and early winter the work group is consulting with various UC system-wide committees and groups to identify their areas of concern and solicit input on how to shape recommendations.
- The work group will hold its second in-person meeting in early November to refine its draft report, which will be submitted to the ITGC in early December.