I. Chair’s Announcements and Updates
   - Alfonso Cardenas, ITTP Chair

ITTP Chair Alfonso Cardenas welcomed the committee and reviewed the order of the agenda for the meeting. The committee was informed of Chair Cardenas’s recent attendance at a joint meeting of the University Committee on Library (UCOL) and the University Librarians. More details about this meeting and the ITTP-related issues that were discussed will be reported at the next ITTP teleconference.

ACTION: An ITTP teleconference meeting will be scheduled for early June.

II. Universitywide IT Guidance Committee
   - Kristine Hafner, Associate Vice President, IR&C
   - Alfonso Cardenas, ITTP Chair

REPORT: Asc. VP Hafner reported on the status of the proposal to form an IT Guidance Committee that will have the authority to make decisions and implement systemwide IT-related actions. Provost M.R.C. Greenwood has endorsed the creation of this IT guidance committee and the Vice Chancellors and Academic Planning Council are currently vetting the proposal. A potential list of members for the committee (both administrative and faculty representatives) has been submitted to the Provost and President for consideration, and efforts are moving forward to secure a commitment for the support and resource needs for the committee. Although the IT committee has been proposed as a standing committee of the Presidential Long-Range Guidance Team, this is being reconsidered because of the short-term nature (less than one year) of the Presidential Team.

DISCUSSION: The committee discussed the proposed membership of the IT Guidance Committee. It was suggested that a student representative be appointed to the committee rather than relying on a Student Affairs official to adequately voice the student population’s viewpoint. Securing some incentive for the faculty representatives (e.g., release time) was also recommended due to the likely demands and significant commitment required for serving on the IT guidance committee.

III. Anti-Cheating Software Support
   - Andrew Kahng, ITTP Vice Chair
   - Kristine Hafner, Associate Vice President, IR&C
   - Ethan Miller, ITTP Member

REPORT: The committee received a draft letter outlining background information on the magnitude of student cheating, the availability of anti-cheating technology, and ITTP’s recommendations for the University to develop a proactive approach to combat cheating. ITTP’s
recommended approach for combating cheating includes three critical elements: (1) educate students about cheating; (2) develop a policy for the appropriate and effective use of anti-cheating tools; and (3) identify appropriate technological solutions and make them readily available to faculty.

**DISCUSSION:** Members sought clarification of various elements of the recommendation and suggested revisions to the draft and next steps for the committee to pursue:

- One member questioned whether students really need further education about cheating. What don’t they know? Members provided examples of students caught cheating/plagiarizing who claimed they did not realize what they had done was in fact cheating/plagiarism (e.g., copying 1-2 sentences without citing the reference). One member indicated that his campus rules in favor of the student if the course policy is not clear or explicit enough about what constitutes cheating. Members stressed that there needs to be a greater educational emphasis on ethical behavior and that campuses should take a more proactive approach to educating students about ethics and cheating/plagiarism (e.g., go beyond simply having students sign a statement that they understand what constitutes cheating).

- Several members indicated that the role of TAs should be included in the recommendations since they are often the frontline for detecting cheating. Policies should be clarified as to how TAs should deal with cheating, what authority they have, and how they can appropriately use anti-cheating technology.

- ITTP’s recommendations should include a process for how anti-cheating software is chosen. Software that is licensed for systemwide use should be chosen after adequate consultation with the primary users (i.e., faculty and TAs). Even after software is chosen for licensing, there will need to be ongoing customer involvement in procurement decisions as new anti-cheating software and technology enters the market.

- Questions arose regarding restrictions on how long a student’s work could be stored in a possible database for cheating detection and whether there would be restrictions on keeping a shared database of student work from all UC campuses. One member indicated that UC would be within its legal bounds as long as the database of student work was not used for purposes that would financially profit the University.

- One member noted that the two types of cheating (external and internal) might actually require two different solutions. Members recommended that if multiple solutions are required, that they be integrated so that could easily be used within a single interface.

- It was suggested that a useful next step would be for ITTP to survey each campus to determine the amount of funds being used on cheating/plagiarism detection.

- It was recommended that ITTP develop a website that raises faculty awareness about cheating and provides information on the resources they can use to combat this problem.

**ACTION:** Members Kevin Almeroth, Ethan Miller and Vice Chair Andrew Kahng will begin developing content for a website to inform faculty of resources to help them combat cheating.

**ACTION:** Analyst Kimberly Peterson will assist ITTP in coordinating its anti-cheating efforts with the UCEP Academic Integrity Subcommittee.

**ACTION:** The draft ITTP letter will be expanded and revised in accordance with the committee’s suggestions.
IV. Consultation with the Office of the President – Information Resources and Communications (IR&C)

- Kristine Hafner, Associate Vice President
- David Walker, Director, Advanced Technologies
- Patrick Collins, Director, Information and Communication Services

Policy Reviews
Asc. VP Kristine Hafner thanked ITTP for its input on the Electronic Information Security (IS-3) policy and Electronic Communications Policy (ECP) updates. Director Jacqueline Craig will be meeting with the ECP Coordinators to review the various inputs and make further revisions to the ECP update in response to concerns that have been raised. The revised ECP update will then go through an additional final review process (including ITTP and other interested Senate groups). The expectation is that the proposed changes to the ECP will be issued in the summer.

**ACTION:** Director Jacqueline Craig will be invited to discuss the revisions to the ECP update at the next ITTP teleconference meeting.

Information Security
Sr. VP Mullinix, at the request of President Dynes, is convening an ad hoc committee on information security that will recommend Universitywide strategies to ensure proper stewardship of information assets. Membership of this Information Security Committee includes ITTP Vice Chair Andrew Kahng.

**ACTION:** Asc. VP Hafner will provide ITTP with the charge and membership of the Information Security Committee.

Strategic Sourcing
Director Patrick Collins provided ITTP with a presentation on the University’s IT Strategic Sourcing Program. Highlights of the program include:
- The IT Leadership Council (ITLC) oversees the program and sets priorities
- The program generated an estimated $30M in UC savings in FY03-04
- UC’s contract spend volume has increased during the past 3 years: $130M in FY01-02, $148M in FY02-03, and $177M in FY03-04

Director Collins explained the unique challenges of software licensing as compared to other types of licensing agreements. Negotiating software licensing agreements requires sophisticated strategies and is most successful when managed by IT (rather than a business office) because of these unique challenges:
- Software is not a commodity – switching costs are high (vendor lock-in); need agreements with all major vendors
- Licensing models are complex
- Monopolies exist
- Tremendous variation in pricing and bidding does not always lead to lower prices
- Software industry is extremely volatile
Strategic timing has contributed greatly to UC’s success in securing software license agreements. The University believes it can achieve even more savings if there are dedicated FTEs, at both the systemwide and campus levels, to direct these efforts and help facilitate license usage.

**DISCUSSION:** Committee members asked Director Collins questions about the IT Strategic Sourcing Program:

Q: How does spending through systemwide license agreements compare to total systemwide IT spending?
A: Approximately $350-400M of systemwide annual spending goes towards IT, with nearly $180M of that spending through systemwide license agreements.

Q: What efforts have been made to establish strategic agreements for academic software?
A: Both Mathematica and SAS have systemwide agreements in place. UC has tried to establish other systemwide academic software license agreements, but getting a volume commitment is a challenge, especially since this type of software is often purchased as individual copies. Some campuses have experimented, with mixed results, by investing in a license with the expectation of a certain level return. Even though these campuses have built in a markup to cover unsold copies, many have been left holding a large inventory at a significant financial loss.

Q: What can be done to make it easier for faculty to use these agreements? Could a central download site or a distribution center be created that would allow faculty to purchase and obtain this software in a timely manner without having to go through the process of obtaining a purchase order?
A: Some campuses do already have websites in place for this purpose. No systemwide software download website has been created yet, in part because of issues with vendor authentication requirements. Efforts on the individual campuses are currently occurring on an ad hoc basis, so a next step towards making the licensing agreements more effective would be to establish a dedicated staff at each campus.

Q: Does UC have systemwide purchase agreements for hardware?
A: UC does have a few hardware agreements, but this is an area where we should explore the possibilities further (e.g., creating a set of standard desktop configuration strategies). Our strategic sourcing efforts have been focused primarily on software because this area was identified as capable of generating the greatest savings.

**UC Trust Project**
Director David Walker provided the committee with the latest draft of service description and policies for UCTrust, the University of California’s new Identity Management Federation. The plan is for UCTrust to be officially established at the ITLC meeting next month. Campuses will become members of UCTrust as soon as they have fulfilled the minimum set of requirements necessary to join.

**DISCUSSION:** ITTP Members asked for information on how many campuses are close to meeting the requirements for joining UCTrust. It was indicated that there are three campuses (UCI, UCLA, UCSD) that are already part of the project, and at least one other campus is close to fulfilling the requirements. Members suggested that UC should also move toward making
multifactor authentication available, especially for critical applications that involve personal or other sensitive data.

Filesharing
Asc. VP Hafner reported that the entertainment industry has recently begun issuing subpoenas for possible illegal filesharing occurring over Internet2; notices listing IP addresses involved in filesharing violations are being sent directly to the campus Chancellors.

Asc. VP Hafner also reported on the status of the Legal2Share joint UC/CSU project. Four vendors have been selected for this project, and contract negotiations are currently underway. An official announcement will go out to the campuses explaining how they may utilize the Legal2Share service if they choose to do so. The project is being structured so that the University remains revenue neutral and does not pay direct costs for the services provided.

V. NCES Proposal to Collect Student Unit Record Data

- Alfonso Cardenas, ITTP Chair

REPORT: As part of the reauthorization of the federal Higher Education Act, the National Center for Education Statistics (NCES) is proposing an expanded effort to collect information on students nationally in order to provide accountability information on colleges and universities. The Academic Senate, as part of its new legislative function, was asked for its input on whether UC should support, oppose, or take a neutral stance on this proposed legislation. ITTP Chair Alfonso Cardenas informed the committee members of the comments he provided for the Senate’s response to this proposal. Of primary concern was that this proposal includes collection of personal information, but there is no indication in the proposal that assures the security and privacy of this personal information. Furthermore, Congress ruled against allowing this type of data collection for K-12 students, but now this is being proposed to allow it for college students.

DISCUSSION: Members found the proposal to be concerning, especially because it is unclear why NCES requires such a high degree of student personal information (e.g., home address) and how this data will be used. Questions also arose as to whether or not students would be allowed to check the data for accuracy and correct any mistakes in their personal information.

ACTION: The NCES proposal will be discussed further at the ITTP teleconference meeting. Members will be asked to report campus committee feedback at that time.

VI. Senate E-business, Sakai and Open Source Process

- David Messerschmitt, ITTP Member
- Alfonso Cardenas, ITTP Chair

Member David Messerschmitt outlined for the committee a recommendation that UCOP could create an open source infrastructure to facilitate multicampus collaborative efforts to develop common yet customizable applications (e.g., an Senate e-business system, academic promotion application, course approval system). Using an open source process to develop such applications would help maximize commonality and the sharing of resources while also allowing for campuses to customize applications to meet their unique needs. A systemwide open source development infrastructure could include a repository of best practices, a standard project...
management or governance process, an online discussion board, etc. The establishment of such an open source infrastructure would lower the barrier of entry for multicampus collaborations to develop IT applications.

**ACTION:** ITTP will discuss this suggestion further at the committee’s teleconference meeting.

**VII. UC Instructional Technology Efforts – Guest Consultation and Discussion**

- Julius Zelmanowitz, Vice Provost, Academic Programs (UCOP)
- Julie Gordon, Director, Intercampus Program Coordination (UCOP)
- Victor Edmonds, Director, Educational Technology Services (UCB) and Chair, UC Media Directors Group
- Jackson Beatty, Professor and Chair, Faculty Committee on Educational Technology (UCLA)

**REPORT:** ITTP invited a panel of guests to provide information about Universitywide and campus efforts in instructional technology, the Sakai Project, and other related plans and initiatives.

**Jackson Beatty, Professor and Chair, Faculty Committee on Educational Technology (UCLA)**

Professor Beatty reported to ITTP on UCLA’s efforts to develop an institutional position on educational technology. The Faculty Committee on Educational Technology (FCET) was formed in the fall of 2001 by the Provost of the College of Letters and Science to advise the College leadership on the use of technology in undergraduate instruction, and to develop plans and implement strategic projects in support of UCLA’s educational mission (http://www.college.ucla.edu/edtech/fcet.htm). The FCET consists of faculty representatives from each of the four divisions of the College, one Assistant Dean, one computing Director, and the Assistant Vice Provost for Educational Technology.

There are many pressing institutional problems that might be solved with educational technology, including:

- Expanding physical lab space with virtual labs to help manage the constraints on physical lab resources.
- Enriching the undergraduate learning experience by providing small class experiences in large lecture courses.
- Creating digital repositories for reusing complex educational material.
- Establishing a standard course management system for all students and faculty (91% of 4-yr colleges employ a single system).

To help build an institutional framework and culture for educational technology, FCET has focused its efforts on:

- Defining an educational technology architecture and creating a new educational technology infrastructure: moving core services into the infrastructure; establishing UCLA conventions and adopting national standards for educational technology; creating shareable tools around standards-compliant course management system (UCLA will be piloting the Sakai course management system next fall).
• Building a community of instructional innovators among faculty: Copenhaver Award for Innovation in Teaching with Technology (http://www.college.ucla.edu/edtech/bpcaward.htm).

• Promoting experience with new forms of teaching and learning: Blended Instruction Case Studies (http://www.college.ucla.edu/bics).

Victor Edmonds, Director, Educational Technology Services (UCB) and Chair, UC Media Directors Group
Director Edmonds reported to ITTP on Berkeley’s involvement in the Sakai Project and the work of the UC Media Directors Group.

Berkeley Sakai Implementation
Over the next two years, Educational Technology Services (ETS) at Berkeley will transition from supporting multiple course website systems to a single, integrated system based on the Sakai framework. ETS currently supports approximately 2,000 courses. The Berkeley campus has been a member of the Sakai Educational Partners Program (SEPP) since December 2003 and has held a position on the Board since June 2004. The Berkeley campus has 18 FTEs dedicated to the Sakai Project and the development of Sakai’s online grade book, a tool that will allow instructors to display grades to students throughout the semester, as well as calculate and submit final course grades to the Registrar. This Berkeley-developed grade book tool will be available with future versions of Sakai.

Beginning in the Fall 2005 semester, ETS will allow a limited number of instructors and students to preview “bSpace,” the Berkeley implementation of Sakai. The existing course content for those preview courses will be migrated from Blackboard and WebCT to the new system. In addition, preview participants will enjoy the benefits of an automatic roster feed and user-initiated course website creation. In Spring 2005, ETS will roll out a production version of bSpace. At this point, the system will be available campus-wide and users will be encouraged to switch to the Sakai implementation. For further information on Berkeley’s Sakai implementation, see http://ets.berkeley.edu/LearningSystems/CourseWeb/bSpace.html.

UC Media Directors Group
A group of Media Directors from the UC campuses meet several times a year to share campus practices, expertise and ideas, and to facilitate collaborative efforts. The group also meets annually with the Directors of Educational Technology/California Higher Education (http://www.detchec.org/index.htm). In recent years the Media Directors group has shifted its focus to educational technology issues. As the group’s focus has evolved, there has been a realization that lines of communication and collaborations need to be established with other groups within the University (e.g., offices of teaching and learning, faculty development). Director Julie Gordon reported that the Academic Initiatives Office is currently trying to use the UC Teaching and Learning technology Center (TLtC) as an umbrella to facilitate communication and interaction between these different groups.

Julius Zelmanowitz, Senior Vice Provost, Academic Programs (UCOP)
Julie Gordon, Director, Intercampus Program Coordination (UCOP)
The UC Department of Academic Initiatives develops innovative academic programs across the University and collaborates with K-12 and the other California college and university systems in higher education programs across the state (http://www.ucop.edu/acadinit/). Academic Initiatives

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promotes the academic uses of instructional and informational technologies to provide increased access to learning opportunities and to enable faculty development of new applications for teaching and research. The activities of the Department of Academic Initiatives include:

- Developing innovative academic initiatives
- Facilitating academic planning and program review ([http://www.ucop.edu/acadinit/appr/](http://www.ucop.edu/acadinit/appr/))
- Promoting the academic uses of instructional and informational technologies, including:
  - Teaching, Learning & technology Center (TLtC) ([http://www.ucop.edu/acadinit/tltc](http://www.ucop.edu/acadinit/tltc))
  - UCTV ([http://www.ucop.edu/acadinit/uctv.htm](http://www.ucop.edu/acadinit/uctv.htm))
- Promoting the interests of UC Extension and continuing education at the system level
- Overseeing systemwide library programs and services, including the California Digital Library ([http://www.cdlib.org/](http://www.cdlib.org/))

**DISCUSSION:** ITTP members and the guest consultants discussed the challenges to developing systemwide instructional technology initiatives:

- Determining what areas and programs would function best at a systemwide level and benefit from having a systemwide platform and multicampus collaborations. Some initiatives and services work best at the individual campus level.
- Significant resources are needed to startup and develop systemwide initiatives; however funding is often not readily available until after an initiative has progressed well past the development stage (the “chicken and egg” problem).
- Developing a systemwide initiative and a strong support base for that initiative often takes much longer than anticipated.
- The strongest groups are self-assembled; you can’t force people into collaborative communities. Strong intercampus connections happen more often amongst faculty from small departments that desire communities of discourse, but that do not have a critical mass on their own campuses.

The ITTP committee asked the guest consultants for recommendations of how the committee could fulfill its instructional technology role, as stated in Senate Bylaw 181:

> The Committee shall represent the Senate in all matters of instruction and research policy involving the use of information technology and telecommunications and shall advise the President, consistent with Bylaw 40, concerning the acquisition and use of information and telecommunications technology at the University either at its own initiative or at the President's request.

The following ideas were recommended for ITTP’s consideration for both the advancement of the committee’s role and for the development of intercampus instructional technology initiatives:

- Become involved in an advisory capacity with the California Digital Library (CDL)
- Construct a set of principles to promote the use of instructional technology tools
- Create a set of recommendations that would help overcome the barriers that often confound intercampus instructional technology collaborations (e.g., need for resources, teaching and workload credit issues)
• As Sakai becomes more prevalent in the UC system, develop an instruction manual for faculty
• Explore which instructional areas/structures might be best suited for intercampus collaborations (e.g., small graduate seminars) or designing digital modules (e.g., courses typically taught by rotating or temporary faculty)

**ACTION:** Members Curt Burgess and Lisa Naugle will explore the idea of creating intercampus graduate seminars for courses with small enrollments.

**VIII. UCEP’s Proposal for Universitywide Minors**
- Alfonso Cardenas, ITTP Chair
- David Messerschmitt, ITTP Member

**REPORT:** ITTP Chair Alfonso Cardenas reported on recent actions related to the development of ITTP’s “IT Fluency and Impact” minor proposal. The University Committee on Educational Policy (UCEP) endorsed the general concept of a University minor and proposed a plan for the development, approval, and governance of University minors:
1. The proposal including curriculum for the minor will be developed by faculty at one or more divisions using standard campus course approval procedures.
2. The proposal will be sent to UCEP to evaluate its suitability as a University minor.
3. If the UCEP review is favorable, the proposal will be sent to the Divisions with a UCEP endorsement and recommendation that the Divisions review it as a possible minor for their students.
4. If more than one Division accepts the minor, a faculty group will be constituted with responsibility for ongoing management of the curriculum.
5. If this model becomes successful and a large number of proposals begin to be generated, it may be necessary to create an Academic Senate committee responsible for University minor curriculum management.

Yesterday the Academic Council approved in concept UCEP’s proposed plan for University minors. The next step is for ITTP to develop its IT Fluency and Impact Minor proposal for UCEP’s review and endorsement as a University minor.

**IX. Universitywide IT Fluency and Impact Minor Proposal**
- David Messerschmitt, ITTP Member

**REPORT:** ITTP Chair Alfonso Cardenas and Member David Messerschmitt reported to the committee on campus feedback (UCLA and UCB) they had received about the draft “UC Systemwide Undergraduate Minor: Information Technology Fluency and Impact” proposal:
- There were mixed reactions in terms of support for the establishment of a Universitywide minor in IT Fluency and Impact, ranging from expressions of enthusiasm for the proposal to intentions to resist such an initiative if it was done in a zero sum budgeting situation (i.e., taking funds from other programs to finance it).
- Some felt the name of the minor should be changed – “technology” sounds too vocational.
- Concerns were raised about turf battles related to “empire building” that might impede development of systemwide programs. Incentives may need to be created to help redirect the “empire building” energy in a way that helps the system and not just individual campuses.
• Concerns were raised about waning student interest in IT; however, it is likely that this waning interest is primarily in the area of programming, which is not the focus of the “IT Fluency and Impact” minor.

• The need to provide incentives for faculty who invest in the new Universitywide minor was stressed. Even with suitable incentives in place, it may be difficult to find a core of interested faculty that are willing to exert the time and effort needed to develop and participate in this new minor.

• There appears to be some support for the notion that technology driven Universitywide courses/minors could improve educational outcomes and save resources. Ruth Sabean, Associate Vice Provost and Director of Educational Technology (UCLA), pointed out positive research on colleges rethinking the design of large courses in ways that saved money and improved educational outcomes (see Carol A. Twigg, “Improving Learning and Reducing Costs: New Models for Online Learning,” Educause Review, Sept/Oct 2003, pp. 28-39 http://www.educause.edu/ir/library/pdf/erm0352.pdf).

• This proposal is trying to accomplish two new things at the same time: (1) creating a new curriculum and (2) developing a new mode of teaching. Why not first experiment with taking an existing campus minor program to the systemwide level?

• A Request for Proposal (RFP) model for developing the program was suggested. The campus that wins the RFP would become the primary originator of the minor and would obtain the largest amount of funding. The downside to this model is that a source of funding would need to be obtained prior to the RFP; however a benefit of this model is that it gives an incentive for individual campuses to establish teams interested in participating in the minor.

DISCUSSION: Members observed that there would need to be incentives not only for the faculty involved in the Universitywide minor, but also financial incentives for the campuses as well. Since “IT Fluency and Impact” would be a new minor program that doesn’t already exist on campuses, it will not necessarily translate into an immediate cost savings for campuses. Members noted that another potential issue of a Universitywide minor is that course content might need to be standardized to a level that arguably diminishes academic freedom. The courses must be structured in a way that allows for localization and customization, but at the same time has a standardized basic core.

The committee discussed the possible next steps outlined in the Universitywide IT Fluency and Impact minor proposal draft (p. 6). Members agreed that at this point the committee should gauge faculty and campus interest in the proposal. Members could also work to identify faculty that might be interested in the minor and courses that already exist on campuses that might be incorporated into the minor. Once a better sense of the level of interest in the minor has been determined, ITTP might consider seeking funding from UCOP to convene a workgroup of faculty for further discussion about the development of the proposal.

ACTION: Member David Messerschmitt will update the draft proposal. Members will distribute the revised proposal to their campus committees and colleagues for feedback.