

Committee on IT Infrastructure (CITI) Meeting
Tuesday January 9, 2007
2:00-4:00PM
Murphy Hall 2121

AGENDA

1. **Overview of CITI planning objectives and progress for FY 2006-2007** (Steve Olsen and Jim Davis)
2. **Reprise of the November 2006 meeting topic: Integrated student experience/student portal** (Jim Davis).
3. **UCOP and UCLA Planning for Human Resource Information System** (Sam Morabito and Don Worth 30 min)

Objective:

Appraise CITI about UCOP HRIS planning and priority and its relationship with B & AS planning.

Background Materials:

COVCA Oct 06d.pdf (UCOP planning for UC HRIS system)

UCLA HRIS 1-23-06 .pdf (white paper from a work group formed with representatives from Administrative Information Systems (AIS), Campus Human Resources (CHR), Corporate Financial Services (CFS), and Payroll Services to review campus needs for human resource data and to identify options that could be used to meet those needs.

1. Integrated Student Experience/Student Portal - Provide an institutional web strategy to create uniform user experience in accessing information, resources, and transactions. Bring student services web content and self-service (URSA and My.UCLA) into a consolidated content management system and portal based strategy.
 - August 8 Project management strategy, approach and resource implications
 - November Detailed discussion of plan and next steps
2. Institutional Data Management - Continue to view data an institutional resource, making data fully accessible by separating transaction processing from data analysis and reporting, and through central data warehousing and local data mart strategies that consider increasing demands for data integrity and privacy.
 - August 8 The UTIPPI Campus Data Warehouse project is wrapping up; a governance structure is needed for the data warehouse.
 - September Proposed governance structure.
3. Disaster Recovery and Business Continuity - Move towards an institutional disaster recovery and business continuity strategy that more fully explores the interdependencies between numerous central systems and central and local systems.
 - August 8 Continuation of an existing consulting assessment.
 - September Detailed discussion of assessment and next steps.
4. Application Integration - Continue the current strategy to optimize existing systems to support specific lines of business rather than procuring Enterprise Resource Planning (ERP) software. This strategy continues making incremental improvements to existing legacy systems to extend their useful life and to provide access through web interfaces to administrative data and transactions. Although this remains a key strategy, with end of life projections estimated at year 2015, given the changes in technology and the need to begin a concerted planning phase for end of life, a business analysis is underway to give us a greater degree of confidence in this estimate.
 - August 8 Engagement of consultant to assess ERP and financial system strategy.
 - December Detailed discussion of assessment.
5. Repositioning IT - Continue with the Repositioning IT Initiative that seeks to achieve significant consolidation of network, data, email, and security centers through the application of next generation infrastructure technology design within a federated service deployment model.
 - August 8 One-year status report
 - January Status and endorsement of strategy that includes the distribution model for repositioning funds for next generation networks.
6. Consistent Student IT Experience - Provide a consistent IT experience for students with a campus-wide IT environment (Common Collaboration and Learning Environments - CCLE) that facilitates collaboration of internal and external scholars with students. The environment aspects of this application are potentially tightly coupled with institution-wide infrastructure, for example, with web and portal strategy and data management initiatives.

August 8 Consultant engaged to assist in the development of a “Plan to Execute a CCLE” and to support the CCLE Assessment Taskforce.

December Status report on CCLE recommendation and review of impact on institutional infrastructure and strategic initiatives.

7. Institutional Services Model - create institutional leverage by taking a service-oriented view of systems and an institution-wide view of impacts. This allows for systems to be built with “reusable” services rather than as large, closed-ended systems.

January

Background Statements:

1. Integrated Student Experience/Student Portal - The current information technology portfolio is largely organized by unit/task. That is, there are systems that support the activities of a particular unit, but few that provide support for an end-to-end process as seen by a user/stakeholder outside the unit. As self-service applications are becoming more common, the need increases to present a coherent and predictable workflow to the user. For example, students interact with various administrative systems (financial aid, enrollment, billing, etc.) as well as a dozen different course management systems, depending on the department that offers the course. To the student this appears as a disjointed collection of systems that give unpredictable responses to apparently identical inputs. A "Student Portal" would integrate and expand upon the current functionality offered by my.UCLA, URSA and other systems. Other stakeholder groups (researchers, staff) have similar needs.

2. Institutional Data Management - In conforming to best practices for data warehousing, the mission of the Campus Data Warehouse (CDW) is to provide integrated data that has broad, campus-wide appeal in a central location to enable analysis and reporting. The CDW will organize the integrated data in a way that allows for easier access and enhanced performance. The data will be designed using a star schema and a Managed Reporting Tool will be implemented campus-wide to access the data.

The Campus Data Warehouse will leverage the infrastructure of the current data warehouse (QDB) so that the QDB becomes the operational data store (ODS), a consolidation point, and the base data to feed the Dimensional Data Warehouse (DDW). The CDW, comprising the ODS and DDW, will then become the base for campus integrated reporting and analysis. It will also become the "book of record" for accumulated historical data. The ODS will provide some near-real-time data to certain applications but it will only store data long enough to integrate and feed the DDW and will not attempt to amass historical data. The historical needs will be met solely by the DDW. The ODS is organized around standalone data provided from a number of sources, whereas the DDW is organized by Subject Area. The data in the DDW is fully integrated and business rules are written into the data fields so that users don't have to guess the meaning of the data or perform their own calculations.

The CDW project calls for the redesign of the current QDB data into the DDW. Once the QDB data has been redesigned, the MRE tool will be available for use against that data. The star schema design is more complex and the MRE tool can shield the user from the complexity.

3. Disaster Recovery and Business Continuity - If a major disaster were to befall the LA area, the UCLA campus or any portion of it, would UCLA be prepared? Would all of our IT systems be recoverable? Would the ones we desperately need and cannot afford to lose even briefly remain operational during the event? For example, if a major disaster struck, would all 50 of our email systems at UCLA be immediately available for emergency communications with students and staff? If the campus mainframe were recovered within 48 hours, would all of the systems, run by others, that feed data to it also be available? Given the highly distributed nature of the campus's IT environment, not only is it unlikely that all necessary systems would be recoverable in acceptable intervals, we don't even have the institutional visibility to be able to assess our collective readiness. In addition, cost versus risk tradeoffs made at a local level doesn't always reflect the needs of other, dependent IT providers or the campus as a whole. Given our distributed applications environment, how should we approach our Disaster Recovery and Business Continuity challenges as an institution? Should we plan together? Can we agree upon minimum standards for critical applications? Are there shared services that can be developed that would be helpful to independent IT providers on campus in implementing their DR plans?

4. Application Integration - As UCLA's legacy administrative applications age, more questions are raised about their eventual replacement. Over the past decade there has been a trend in many institutions to replace their legacy applications with an Enterprise Resource Planning system (ERP), where all of the components are provided by a single vendor, already integrated, and incorporating "best practice"

business processes. These systems are expensive to implement and can be disruptive to established business functions. Recently, many universities, including UCLA, have sought alternatives, such as investing in their legacy systems to prolong their useful life, or replacing them one-by-one with Commercial Off the Shelf (COTS) or Open Source products that are optimized for a specific line of business (Payroll, Purchasing/AP, Financial Aid, Budget, etc.) While this approach has many advantages in an environment like UCLA's, it comes with increased costs of integration, including data warehousing and front-end web development, which must be borne entirely by the campus. UCLA has been following this latter strategy since 1999 when ISTIP was first conceived. Should we continue down this path and for how long?

5. Repositioning IT - Next generation infrastructure services - email, network, security and data centers - are motivated and are being defined by (1) UCLA's desire to position for competitiveness on large interdisciplinary grants, (2) UCLA's strategic focus on interdisciplinary research and education, (3) UCLA's commitment to a more strongly fused research and instructional environment, (4) the need to re-align resources for more highly valued and cross-unit front-line activities, (5) the need to re-align resources for efficiencies and reduction of unnecessary replication, (6) the need to address security, disaster recovery and business continuity.

Repositioning IT is a long-term initiative that requires continuous commitment of campus resources to build the next generation infrastructure services within an integrated campus architecture that preserves and enhances high quality IT services and extends the same to the entire campus. Through appropriate campus design and shared management and where rationale exists to reduce replication, the initiative will consolidate network, email and data centers and improve overall security. Staff and financial resources gained through specific consolidations can be re-deployed for other IT needs or emphasized within units to support the direct IT needs of researchers, educators, students and the administrative staff who support them.

In its second year Repositioning IT it is clear that its success is as much dependent upon cultural changes as technological changes and requires clear commitment of leadership and resources.

6. Consistent Student IT Experience - a "Common Collaboration and Learning Environment (CCLE)" would present a consistent interface to the instructional technology portfolio, giving students a consistent "student experience" in most situations. While the nature of the interaction may be different for different areas of study [e.g., theatre arts and sociology] the fundamentals of getting access and navigation should be familiar and consistent and provide a full set of features to support individual and group productivity and collaboration in teaching and research. The CCLE technology bridges infrastructure and application. In so far as the CCLE environment will be available to any UCLA member, academic unit, or project group, it will both impact the UCLA IT infrastructure and be impacted by it. of the UCLA community (The Student Portal could, in principle, include access to the CCLE tools and information.)
7. Institutional Services Model - Deployment of information technology requires an array of "infrastructure" services that are required for nearly every application: authentication, authorization, report writing and analysis tools, access to campus data. These functions and capabilities are required independent of the nature of the specific task to be performed and it makes little sense to replicate them for every new system. Providing these functions as a campus infrastructure service allows individual units to concentrate their development efforts on the value-added components of the system. (Some specialized, services such as secure credit card payments, may simply be too expensive to replicate affordably.) Taking a service-oriented view of the operations of the University extends the principle of institutional leverage. Rather than building monolithic systems to perform all functions required within a (closed) environment, systems can be built so they result in a set of "reusable" services. By endorsing this "Service-Oriented Architecture" approach CITI executives commit to consider the institution-wide impact and potential for the systems under their purview in their decision-making in addition to unit-specific needs.