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Discovering a New Way of Working: Implementing a Collaborative Online System at UCLA

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Middle of rolling out Moodle; presentation is not about Moodle rollout, but lessons learned from the process for UCLA. UCLA is very decentralized and we faced and continue to face many challenges but have been fairly successful and want to share our experiences.
Agenda

- Project History and Timeline
- Defining Collaboration Principles
- Implementing Collaboration Principles
- Summary of Lessons and Challenges

Conference presentation summary: “Bringing together disparate academic, administrative, and support units, UCLA is implementing a campus-wide online learning and collaboration system. This talk will discuss our challenges and lessons as we build an opt-in, shared system in a decentralized computing environment.”
Project History and Timeline

Toward the UCLA Common Collaboration and Learning Environment (CCLE)
According to a December, 2002 campus Workgroup Report, there were a variety of different installations of various course management systems ...
And the campus looked something like this. You may well ask, how did it get like this?

The first thing to note is that UCLA has a very de-centralized technology footprint. In addition, UCLA has a mandatory requirement that all undergraduate courses have a publicly-accessible website, and because of this historical funding model, the manner in which each division met that requirement varied. Thus, this picture of fragmentation evolved. The blue boxes are custom websites or systems, while the orange represent commercial products.

While local control certainly benefits discipline-specific customization, it can also be difficult and confusing for faculty and students. If a person was working in multiple departments or divisions, because of the different course management systems, they might have different logins and passwords to remember, different processes for uploading or retrieving content, different support personnel and procedures, and different system functionality and tools. Additionally, moving files between different systems was troublesome, if not impossible.

An editorial in the campus newspaper, the Daily Bruin, questioned the need for such a complicated environment.

We need to mention that this fragmentation is prevalent throughout the campus I.T. infrastructure and not limited to course management systems. The same distributed resource allocation has resulted in multiple networks, email systems, storage systems, authentication methods, etc.
In April 2004, the Sakai Pilot was launched as the first in a series of projects to study the viability of campus-wide collaboration.

While there are certainly benefits to be gained from this type of distributed, locally-support environment, which Kumar will speak to in a moment. So with a desire to evolve, in April 2004, the Sakai Pilot was launched as the first in a series of projects to study the viability of campus-wide collaboration. A group was formed from a variety of departments to see if we could not run and manage Sakai, balancing the needs of our local departments, while sharing a central hardware system and collaborating on services.

The most noteworthy take-away from the Sakai Pilot project was proof that for the first time, people and departments who previously rarely collaborated could come together and make the system work. We’ve taken much of the working model from the Sakai Pilot and brought it forward in the CCLE.
Here’s a brief timeline of the major CCLE milestones. First, defining the CCLE.

In May 2005, the Faculty Committee on Educational Technology recommended focusing on a single, open-source solution for the campus.

Through Jan - Jun 2006, a pair of Functional and Technical Sponsors Groups convened to define guiding principles, summarize system needs, and develop use cases.

In July-Oct 2006, an Assessment Task Force was charged with reviewing potential open source solutions, developing the requirements, compiling a short list of systems, and undertaking an in-depth assessment of the primary candidates.

Our final assessment was a detailed comparison of Moodle and Sakai, but we also looked at dotLRN, ATutor, Claroline, Dokeos, Ganesha, ILIAS, LON-CAPA, and OLAT.

We reported our findings in November, 2006, and the FCET made two decisions:

1) Remain engaged with the higher education community around open source systems (and hence we remain a Sakai Educational Partner).
2) Converge on Moodle as the standard solution for the campus CCLE.
Among the reasons we settled on Moodle are:

- An international open source community
- Mature tool set
- Library of extensible plugins
- A rich set of administrative features
- Grassroots use on campus
- Leverages existing UCLA developer expertise
Next, milestones toward implementing the CCLE.

The Project Oversight Group was formed in Oct 2006 to initiate and implement the alpha system, which lead to our first courses and collaboration sites the following March.

Also in March of 2007, a Planning Team was tasked with developing projections for a five-year implementation plan.

The Planning Team’s report, developed with input from campus IT leadership, interviews with the Deans, and input from the POG, was published in August 2007. The report became the basis for the formal funding request, which was awarded last December.
As mentioned, the Planning Team was tasked to assemble a five-year implementation plan. Their report solicited input from various campus committees and groups, conversations with the Deans, campus CIOs, and input from the POG.

Recommendations from the report included:

- Funding and staffing allocations
- Creating a “CCLE Home”
- Reiterating project collaboration principles
- Developing a grant program for innovation and enhancements
- Defining a Shared Governance Model
Here is an overview of the three-tiered Shared Governance Model.

**Oversight**
- Faculty Committee on Educational Technology (FCET)
- Information Technology Planning Board (ITPB)
- Deans of Schools/Divisions Which Opt In

**Governance**
- Standards and Practices Group
- Faculty Group
- Student Group

**Operations**
- CCLE Home
- Regional System
- Shared Campus Operations
- Regional System
- Autonomous Department System
- Autonomous Department System
- Autonomous Department System
Defining Collaboration Principles
Create efficiencies around I.T. resources and capabilities
UCLA CIO Jim Davis

- Improve IT deliverables
- Maintain local support
- Obtain value from efficiencies
- Free-up resources to enable innovation

CIO Jim Davis’ approach: UCLA was looking to improve IT deliverables; keep local innovation and add efficiencies, as appropriate; savings go back to the units to apply to research and instructional IT needs – not looking to save money, but more value from it.
Findings of External IT Review
April 2005

- Maintain creativity at local level
- Create and foster an atmosphere of trust
- Requires strong leadership
- Develop open governance model

External audit by high-level IT staff from other universities: agreed that UCLA needed to maintain creativity at local level and balance that with efficiencies; will need to create and foster an atmosphere of trust; needs strong leadership and open governance
Defining Collaboration Principles

CCLE Project Principles that surfaced through the process

- Require local support
- Academic priorities are paramount
- Encourage broad adoption
- Minimal CCLE Home to coordinate campus activities

CCLE packages above principles ... local support is essential, so make it required; academic priorities are paramount; planning and governance to encourage broad adoption – allow local systems, as needed; small home office “CCLE Home” to help coordinate activities across the campus.
To summarize, the Principles from CIO, external review and our adaptation of them are built into the CCLE project/process.
Implementing Collaboration Principles
What is the Common Collaboration and Learning Environment (CCLE)?

Now that we’ve heard about the principles that will guide the project and help us gauge its success, let’s look at what we’re actually doing, at what is this “new way of working.”

Timeline slide: we’re talking about the period between Nov. 2006 and today.

What is the CCLE? The name is carefully chosen, and its words tell you exactly what it is, from two sides (a) as an online system, and (b) as a way of working:

- **COLLABORATION and LEARNING**: Tempting to look at it as an LMS, but it is meant to be much more. (a) a platform to facilitate collaboration of any kind, in an institution of learning (i.e. research and instruction), (b) a way of working that requires both collaboration and learning from all who join in
- **COMMON**: (a) a common set of tools, look & feel; (b) made possible by shared services and combined contributions
- **ENVIRONMENT**: (a) a computing environment, and (b) a work environment based around consensus and collaboration
Implementing Collaboration Principles

Launch and Manage Alpha Production System

Project Oversight Group (POG)

Who is making this happen?

- “It takes a village”, in this case the child has 9 parents
- 9 of us, including Jim and Kumar, have contributed our time on the Project Oversight Group (POG) since Nov. 2006 to provide leadership and to get an alpha system running

Meet weekly, in charge of:

- System operations (e.g. recent operational issues: whether to disable student access to past terms, what new features to enable prior to start of Spring quarter)
- Overseeing the working subgroups
- Prioritizing tasks

By summer we plan to hand over the alpha system and a body of documented work to a standing committee for running the production system beginning fall “New way of working”: 9 people from disparate units making decisions for a shared system.
Implementing Collaboration Principles

Operational Subgroups

- Developers
- Functionality
- System Operations
- User Support

- The POG has had a lot of help! (We’re talking about “the village” now)
- Over 40 volunteers contribute to the work of four subgroups who meet weekly in “working sessions”
- Groups communicate with each other and document their work online
- “New way of working”: Leveraging expertise across a pool of contributors from all over campus to surface needs and solve problems.
Implementing Collaboration Principles

Examples of Project Collaboration

- Sharing with Moodle Community
- Shared System
- Student Privacy Preferences
- Buy-out of Developer Time

What are some of the best examples of this “new collaborative way of working”?

- It really does take a village, i.e. Sharing with and drawing upon the Moodle Community
- Shared system: Hardware hosted in one unit (ATS) but managed by people from 3 units (ATS, OID, OIT), plus an enrollment system hosted by another unit entirely (SSC)
- Student privacy protections: We’ve tackled the issues involved in making Moodle comply with FERPA and UCLA policies on privacy; not yet solved but the discussion has involved the Registrar, Campus IT Security, the POG and the Developer subgroup, not to mention members of the Moodle Community (through Moodle Forums)
  - Interesting note: This new way of working has forced the campus to address the issue of student privacy protections in LMS’s that was never before raised!
- Buy-out of developer time: We’ve sourced developer talent from campus units and are paying for it with shared project funds = a new economic model for staffing, “just in time”
Examples of Shared Development Projects

- Shibboleth
- Code repository
- UCLA skin
- Integration with MyUCLA student portal and Library eReserves

... And with the volunteer efforts and staff buyouts we’ve worked on a couple of dozen shared development projects in the last 18 months:

- First and best use of UCLA’s Shibboleth authentication
- Established a shared code repository for any participating unit
- Developed UCLA themes for common “look and feel”
- Integrations with the student portal (MyUCLA) and the Library’s eReserves system
- Near completion: Public/private setting for each course content item
- Near completion: integration with the UCLA Gradebook
Implementing Collaboration Principles

Distributed Support

Our “new way of working” has also spawned a very unusual distributed support structure:

- Any unit wanting a CCLE site must designate a local support member as part of “ccle-support”; this is the first line of support.
- General tech support requests come through a single email address; local support pick up requests from their users, with backup from the rest of the group (backup = coverage for when you’re not there, backup = providing the answers you don’t know). SHARED OWNERSHIP OF ISSUES.
- Supplemented by CCLE Help Site (an evolving site of contributions from many) = UCLA Knowledgebase.
- This has been the source of many challenges and frustrations, but after over a year in the making, the concept of shared ownership is taking root!
Implementing Collaboration Principles

Current Project Status

- Hire CCLE Home staff
- Hire Intellectual Property Advisor
- Convene Standards and Practices Group
- Shared systems hardware

Where are we now?

- We have the production hardware and are setting up virtual servers
- POG is preparing to transition to Standards & Practices Group
- We’re about to open a search for the first of 3 CCLE Home staff (CCLE Coordinator), followed by the Lead Developer and a Testing/Support Lead
- The Library will soon be hiring an Intellectual Property advisor
- ANSWER: We’re in the thick of “a new way of working”, with much accomplished and much yet to be done.
Implementing Collaboration Principles

Chart illustrating the increase in number of sites and number of accounts, with a projection for the forthcoming academic quarter.
Summary of Lessons and Challenges
Summary of Lessons and Challenges

- Building trust across campus
- Negotiating commitments from units
- Negotiating contributions from staff
- Reducing fragmentation of efforts
- Improving project reporting and communication
- Balancing individual needs or desires in a shared environment
- Overcoming different departmental policies
- Negotiating future funding

Sakai showed that collaborative effort can be made to work and build trust; campus wanted to keep that process moving and improve with the next attempt; we have talked about many successes including all the collaborative efforts – 40 volunteers, successful rollout to 15000 students leading to the funding for the production version; problems remain: participation and attitude to project varies across units, need to improve communications and coordination (CCLE Home should help), technical & policy issues remain (FERPA, public vs. private content definitions vary); finally funding.
Subject: “Friday is for pom-poms”

Example of successful collaboration – “Friday is for Pom-Poms” – celebrating the multiple successful collaboration efforts all within the course of one week. These included… requests from 2 dif. departments for improvements to one piece of the product; figuring out a bug by another department on campus, organizing an all-hands meeting; the systems people working with a humanities programmer using a lab in a department that is not part of the CCLE (but using Moodle themselves) to perform load testing; getting database performance assistance from U of Minnesota; etc. There were 7 or 8 things all in the course of one week a few weeks
This revisits the campus map we displayed earlier in the presentation to give you a contrast between the fragmented manner we found ourselves in circa 2002 and ....
... how we are attempting to form a new environment combining centrally-offered services and local resources
http://www.oit.ucla.edu/ccle/
Learn More

- **UCLA CCLE**
  
  http://www.ccle.ucla.edu/

- **“Viewpoint: Coordinated Autonomy”**
  
  

- **UCLA External Review Team Final Report**
  
  http://www.oit.ucla.edu/RepositioningIT/docs/External_Review_Report_and_Cover_7-April-2005_FINAL.pdf

- **UCLA Knowledge Base**
  
  http://kb.ucla.edu/

- **UCLA CCLE Help Site**
  
  http://ccle.ucla.edu/course/view/cclehelp