

# **Implementing Infrastructure and Community**

## **Planning the Next Phase of the UCLA Common Collaboration and Learning Environment**

### **Report of the CCLE Planning Team**

**August 15, 2007**

#### **The CCLE Planning Team**

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## Introduction / Executive Summary

"Educational technology now plays a critical role in learning and teaching in many disciplines at UCLA. The FCET believes that our students now require a consistent, powerful, and transparent application of our educational technology applications across disciplines and across the campus."

*Faculty Committee on Educational Technology, 2005*

The UCLA Common Collaboration and Learning Environment (CCLE) is an institutional initiative to support education and research with a common digital environment for faculty and students. The CCLE is an evolution of the existing environment, not a replacement. UCLA has ten years of experience in providing course Web sites and has created a rich set of resources already offered within the schools and divisions, and from central academic services. Almost all of the schools and divisions provide support and assistance for faculty and students in the use of learning systems, development of local tools and services to meet unique local needs, and input to campus projects that represents the varied perspective of different disciplines. Central academic services such as the Office of Instructional Development, the University Library, and Academic Technology Services provide content, training, and support for research and instruction. The CCLE will offer an overlay of shared services and collaboration to maximize the impact of this existing investment on learning and research. One key challenge for the next phase of the CCLE implementation will be to build on existing capabilities to improve faculty and student experience without compromising what works well in the existing infrastructure.

The CCLE Planning Team was appointed in April 2007 and charged to engage in broad campus consultation and to recommend the appropriate scope, scale, staffing, architecture, operation, use and funding for the next phase of the CCLE initiative. The Planning Team worked closely with the Campus Computing Council (CCC) and the CCLE Alpha Project Oversight Group (POG) to define the options for the next phase of the CCLE, to analyze the implications of each option, and to articulate the significant trade offs that would inform a decision of which option to recommend. The Team also consulted both groups in designing a planning and governance infrastructure to support the CCLE, and reviewed with them the cost model and budget to be proposed. Both the Faculty Committee on Educational Technology (FCET) and the CCLE Functional Oversight Committee (FOC) appointed by the IT Planning Board (ITPB) were solicited for input on the planning assumptions which informed our work, the significant trade offs that we surfaced, and the most appropriate campus unit to host the CCLE Home. The Planning Team also met individually with Patricia Keating, Judith Smith, James Davis, Gary Strong, Patricia O'Brien, and Larry Loehner to get their thoughts on the same questions. Finally, the Planning Team hosted 5 "open sessions" to which we invited the FCET, the CCLE FOC, and the Deans, and sent an online survey to the FCET and the CCLE FOC.

The CCLE Planning Team carefully assessed the issues, concerns, and priorities of the stakeholders who helped us with our analysis and gave us feedback. We distilled seven design principles to guide our recommendations. Adherence to these principles is important if the CCLE is to be successful and we recommend that they be endorsed and supported in the implementation of the next phase.

1. **Recognize school/division staff and support as the foundation for the CCLE**
2. **Encourage broad adoption**
3. **Make planning and governance open and participatory**
4. **Ensure that academic priorities and faculty / student experience drive decisions**
5. **Support innovation, creativity, and flexibility**
6. **Allow for more than one Moodle installation in the plan**
7. **Choose a CCLE administrative home with strong academic values**

Based on these principles, the CCLE Planning Team makes the following recommendations for the next phase of the CCLE.

1. **Include staff from schools and divisions as key participants in the CCLE and leverage local creativity to enhance the common experience**
2. **Establish a CCLE Coordination / Collaboration Planning and Governance Infrastructure**
3. **Create Moodle installations that meet the needs of all schools and divisions which opt in to the CCLE**
4. **Enable central academic units to offer effective services and content to the CCLE participants**
5. **Define some quick-win coordination / collaboration goals for 2007/08**
6. **In implementing shared support and consistent look and feel goals, base decisions on further detailed analysis**
7. **Establish an administrative home for the CCLE within the Office of Instructional Development (OID) and hire core collaboration staff**
8. **Launch an internal grant program to encourage innovative CCLE enhancements at UCLA, including new Moodle tools and services that can be contributed to the Moodle community**
9. **Reach out to the Moodle community and to the entire higher education community and look for opportunities to support interoperability with peer institutions**

The total cost of the CCLE for 2007/08 is estimated to be \$4,098,534. Of that amount, \$3,477,113 or 85% is being contributed by the schools and divisions, central academic units, and IEI funds. The remaining \$621,421 is being requested from the Chancellor.

The CCLE Planning Team has identified the following 2007/08 implementation steps and timeline.

### **October – December 2007**

Confirm funding  
Recruit CCLE full-time staff  
Poll Deans for opt in decisions  
Plan Winter Quarter

### **January – March 2008**

Launch the CCLE Standards and Practices Group and the Shared System Operations Group  
Implement training and support  
Roll out Winter Quarter users  
Plan Spring and Summer Quarters

### **April – June 2008**

Solicit campus collaboration sites  
Roll out Spring Quarter users  
Plan Fall Quarter

### **July – September 2008**

Assess Winter and Spring experience  
Prepare report for FCET, CCLE FOC, Deans  
Solicit opt in decisions for 2008/09  
Upgrade hardware as needed  
Prepare budget renewal for CITI review

### **Acknowledgements**

The CCLE Planning Team efforts built on the important work of CCLE planning groups that preceded us whom we would like to thank, including the Functional Sponsors Group / Technical Sponsors Group, the Assessment Task Force, and the CCLE Alpha Project Oversight Group (POG). The POG's work in implementing a live Moodle site with a collaborative planning structure was particularly valuable in laying the foundation for our planning process. We would also like to thank the members of the POG and the CCC for the many hours they spent with us in valuable consultation and analysis.

# Recommendations

## Design Principles

“Research, teaching and learning are at the core of UCLA’s mission. Therefore, the CCLE must serve to promote innovative and effective research, teaching, and learning in every way possible.”

*Focusing Resources and Fostering Creativity, Joint FSG-TSG Report June 2006*

The CCLE Planning Team carefully assessed the issues, concerns, and priorities of the stakeholders who helped us with our analysis and gave us feedback. We distilled seven design principles to guide our recommendations. Adherence to these principles is important if the CCLE is to be successful.

### 1. Recognize school/division staff and support as the foundation for the CCLE

The CCLE represents an overlay of cooperation and collaboration on top of a rich set of resources already offered within the schools and divisions, and from central academic services. Almost all of the schools and divisions provide support and assistance for faculty and students in the use of learning systems, development of local tools and services to meet unique local needs, and input to campus projects that represents the varied perspective of different disciplines. Central academic services such as the Office of Instructional Development, the University Library, and Academic Technology Services provide content, training, and support for research and instruction. The CCLE will offer shared services and enable collaboration to maximize the impact of this existing and continuing investment.

### 2. Encourage broad adoption

Having as many schools and divisions as possible opt in to the CCLE early will strengthen the governance infrastructure, ensure greater impact on faculty and student experience, and position the CCLE for more collaboration and innovation. In making implementation choices, select options that encourage wider adoption.

### 3. Make planning and governance open and participatory

The schools and divisions which use the CCLE must have a strong voice in setting CCLE direction and priorities, and in defining the CCLE coordination / collaboration goals.

### 4. Ensure that academic priorities and faculty / student experience drive decisions

The CCLE governance structure needs good information about faculty and student experience and needs to design a system that meets a broad range of academic collaboration and learning needs. Information should come from the oversight bodies (FCET, CCLE FOC, and the Deans), from faculty and student advisory groups, and from formal assessment of faculty and student experience.

**5. Support innovation, creativity, and flexibility**

A rich set of services, tools, and solutions from which faculty can select is important so testing Moodle plug-ins and making them available to UCLA as soon as possible is an important goal, as is enabling the sharing of tools within UCLA. The CCLE Home should find other ways to actively encourage creativity and development. In addition, any CCLE guidelines and agreements on consistent practice must accommodate exceptions.

**6. Allow for more than one Moodle installation in the plan**

Schools and divisions must have implementation choices to reflect their differing needs, cultures, and local capacity. Implementation choices should include joining a campus-wide shared system and operating a separate system within the CCLE structure.

**7. Choose a CCLE administrative home with strong academic values**

The unit which serves as the administrative home of the CCLE must have an academic mission and orientation, have an open service culture which welcomes users input, be supportive of experimentation and innovation, be interested in and supportive of pedagogical issues, and be able to run a stable scalable system with multiple servers.

## ***Recommended Actions***

Based on these principles and the planning process described in Appendix A, the CCLE Planning Team makes the following recommendations for the next phase of the CCLE.

**1. Include staff from schools and divisions as key participants in the CCLE and leverage local creativity to enhance the common experience**

Schools and divisions which opt in will appoint staff to serve on the CCLE planning and governance infrastructure. Support and training will remain a local function, close to the faculty and reflecting discipline-specific needs, with the CCLE infrastructure offering assistance and resources to make that local support effective. The CCLE infrastructure will also facilitate sharing of local experience, development and knowledge.

**2. Establish a CCLE Coordination / Collaboration Planning and Governance Infrastructure**

The CCLE Standards and Practices Group, with voting members appointed by the Deans of the schools and divisions which opt in to the CCLE, is a key element of this infrastructure. This group represents a new model of coordination that allows schools and divisions which “opt-in” to the CCLE to participate in CCLE operational decisions and to coordinate shared procedures and guidelines. The infrastructure acknowledges the oversight of the FCET and the ITPB, and also gives a formal oversight role to the Deans of the schools and divisions which opt in to the CCLE. Faculty and student advisory groups allow for broad input into the decisions of the CCLE S&PG.

### **3. Create Moodle installations that meet the needs of all schools and divisions which opt in to the CCLE**

The current CCLE Alpha system will be expanded to create the campus-wide shared system capable of supporting the expected 2007/08 participants in that system. Schools and divisions may also choose to operate their own Moodle installations as equal CCLE partners, participating in the planning and governance infrastructure and supporting the agreed-upon coordination / collaboration goals. As the CCLE evolves, schools and divisions may also choose to develop regional shared systems which serve more than one school and division, to operate in parallel with the shared campus-wide system.

### **4. Enable central academic units to offer effective services and content to the CCLE participants**

All CCLE installations will support a common method of integrating with central services, so that all CCLE users can benefit from central developments and services. Central academic units such as OID, ATS, and the Library have all affirmed that having a common software (Moodle) to support and a common method of integrating with all CCLE Moodle installations would allow them to develop a richer set of content, support, and collaboration services. The Registrar, the UCLA Login, and MyUCLA are also ready and willing to integrate their services with the CCLE through a consistent interface.

### **5. Define some quick-win coordination / collaboration goals for 2007/08**

We recommend the following immediate goals for the CCLE, all of which are already in process, are non-controversial and/or have evolved from the CCLE Alpha experience:

- a. Common method of integrating with UCLA Login, Registrar, Library, and MyUCLA / Gradebook.
- b. Shared testing infrastructure including testing and /or development servers that departments could use for experimentation, shared testing of integration code with new versions of Moodle, and shared testing/validation of Moodle plug-ins.
- c. Shared training infrastructure, including training offerings that all faculty, students and staff could attend/use and training materials maintained and updated at one location that local support people could adopt if relevant.
- d. Shared development infrastructure, including shared services in which common tools and solutions can be jointly developed for use by all Moodle installations and mechanisms to facilitate the sharing of locally developed tools and solutions.
- e. Shared information among CCLE installations about Moodle, MySQL, Apache, and PHP version levels, when version upgrades are planned, and when planned downtime is scheduled.
- f. Shared support infrastructure, including a common knowledgebase of Moodle issues, a current list of support staff in CCLE opt in units for referral of Moodle problem reports to the appropriate support staff, and mechanisms for sharing information about Moodle with all support staff in CCLE opt in units.

- g. Shared Moodle themes and formats that can be used for consistent look and feel on any CCLE installations if desired.

The CCLE Standards and Practices Group should coordinate the definition of all future coordination / collaboration goals, under the oversight of the FCET, the CCLE FOC, and the Deans of schools and divisions which opt in. Future goals should be driven by assessment of faculty and student needs and behavior. Since faculty participation in the CCLE is essential if students and post-docs are to be able to benefit from it, the needs of the majority of faculty will take precedence if faculty needs and student or post doc needs are ever in conflict. Decisions on consistency of practice must accommodate exceptions.

## **6. In implementing shared support and consistent look and feel goals, base decisions on further detailed analysis**

- a. Shared support infrastructure, including a common knowledgebase of Moodle issues, a current list of support staff in CCLE opt in units for referral of Moodle problem reports to the appropriate support staff, and mechanisms for sharing information about Moodle with all support staff in CCLE opt in units.
  - o Analyze the level of common or shared support that is needed. Needs assessment should address such questions as what kind of shared help desk would have the most impact, what hours should support be provided, what user groups (undergraduates, graduates, faculty, etc) have unmet needs, how frequent/impactful are those needs, what is the most cost-effective way to meet high priority/high impact needs, etc.
- b. Shared Moodle themes and formats that can be used for consistent look and feel on any CCLE installations if desired.
  - o Determine through analysis, needs assessment, and usability studies which look and feel elements would have the greatest benefit for faculty and students if kept consistent. Possible examples: colors, logo, layout on the page, navigation options, etc.
  - o Define initial “look and feel” campus guidelines as needed.
  - o Define exception use cases and procedures.

## **7. Establish an administrative home for the CCLE within the Office of Instructional Development (OID), appoint ATS to host the CCLE servers under the direction of a new unit called the CCLE Home, and hire core collaboration staff within the CCLE Home unit**

We propose that OID become the administrative home of the CCLE Home unit, with ATS hosting the CCLE servers and providing system administration services. OID meets many of the crucial attributes that were identified for the administrative home of the CCLE: an academic mission and orientation, an open service culture which welcomes users input, supportive of experimentation and innovation, interested in and supportive of pedagogical issues. Though most of OID’s services are targeted to undergraduates, the CCLE Home will serve the whole campus. ATS adds the proven ability to run a stable scalable system with multiple servers, which was also surfaced as an important attribute.

The CCLE Home unit will include 3 FTE staff: a CCLE Coordinator, a Lead Developer / Integration Programmer, and Quality Assurance Coordinator / Support Coordinator.

**8. Launch an internal grant program to encourage innovative CCLE enhancements at UCLA, including new Moodle tools and services that can be contributed to the Moodle community**

The CCLE must be a dynamic, evolving system to meet the needs of UCLA. Funds should be allocated each year for internal grants to faculty and school/division IT staff to develop innovative enhancements to the CCLE, including new Moodle tools and services, new collaboration and support facilities, or other innovations that will improve the faculty and student experience. The CCLE Home and the CCLE Standards and Practices Group can administer the grant program, with oversight from the FCET and the CCLE FOC.

**9. Reach out to the Moodle community and to the entire higher education community and look for opportunities to support interoperability with peer institutions**

The CCLE Home and the CCLE S&PG will look beyond UCLA and track developments in the higher education community related to collaboration and learning. UCLA will be an active member of the Moodle community, contributing code to the community where appropriate. UCLA will also continue participating in the Sakai community and will track the potential for interoperability.

## ***Impact and Benefits***

The CCLE will have significant impact on the institutional mission of teaching, research and public service at UCLA, other UC campuses and the academic community. The CCLE offers a unique opportunity for UCLA to model effective collaboration in support of a campus-wide shared academic system, with potential impact for all faculty and students on campus. By channeling and sharing the current investment in course management support and adding an overlay of facilitation, collaboration, and shared services, the CCLE project will allow UCLA to focus limited resources and foster creativity. Early wins for faculty and students will include reduced time to learn new systems across disciplines and fewer usernames and passwords to remember. Researchers will also have a convenient platform of collaboration, where they can share ideas and data, jointly edit documents, and track project progress. The CCLE will also allow UCLA to share development and innovations across campus and with the international Moodle community, both benefiting from their work and contributing ours, which should allow the services and feature set to improve quickly.

In addition to supporting the common good of the campus as a whole, schools / divisions which opt in to the CCLE will also get additional benefits.

### **1. Benefits to schools / divisions of participating in the CCLE**

Participation will allow Deans to maximize the effectiveness of local resources and staff. Specific benefits to schools / divisions include:

- a. The CCLE will help maximize the University's most valuable resource: the time of our faculty, students and staff. Faculty and students will have a more consistent course experience across disciplines, including the provision of single sign-on, saving the time needed to learn many systems and manage multiple login IDs and passwords.
- b. The CCLE will offer collaboration sites in addition to course sites, allowing faculty and researchers to better manage project teams and collaborations.
- c. The Moodle platform will be continually enhanced through a vibrant international open-source community of developers and will allow UCLA innovations to be more easily shared, reducing redundant development effort at UCLA.
- d. Deans of schools / divisions that opt-in will gain the benefit of being able to redirect staff time towards more specific unit/UCLA goals while receiving support for the staff time devoted to greater collaboration and coordination.
- e. Central units with academic missions will also be able to focus more staff time on providing immediate benefits to our main constituents when the number of course management systems to support is significantly reduced. ATS, OID, and the Library have affirmed their ability to offer enhanced services to schools and divisions which opt in to the CCLE.

## **2. Benefits to schools / divisions of participating in the shared campus-wide CCLE system**

Schools and divisions have the option to implement a Moodle installation under the CCLE umbrella or to participate in a shared campus-wide CCLE system. Schools and divisions which participate in the shared campus-wide system need not fund the following services, allowing staff to focus on development and direct faculty support.

- a. Maintaining redundant servers 24/7.
- b. Testing and quality assurance for all changes and new versions of Moodle and its supporting software. Though the CCLE Home will share their testing results with other systems administrators on campus, such testing will have to be replicated on local systems because of possible variations in hardware and software versions.
- c. Monitor security and patching for all software and hardware.
- d. Performance tuning.
- e. Virtual machine environments.
- f. Backup and recovery services.
- g. Migration of data, both initial migration to the system and migration to new versions of Moodle.
- h. Archiving options for inactive courses.

# CACLE Coordination / Collaboration Planning and Governance Infrastructure

"Effective change in academia comes from a coalition of the willing, groups of those who are motivated to create a model that works."

*David Kaplan, ITPB Retreat 2007*

## *Planning and Governance Groups*

The CACLE will be designed to meet a broad range of academic collaboration and learning needs. Though suitable for other uses as well, academic priorities will inform development and practice decisions. The following planning and governance groups will ensure appropriate academic oversight, governance, and operations.

### **A. Oversight Groups**

#### **A1. Faculty Committee on Educational Technology (FCET)**

In accordance with their charge, the FCET will provide oversight on how the CACLE fits into a campus-wide vision for IT in undergraduate instruction, the learning and research needs of faculty, staff and students using the CACLE, and evaluating the effectiveness of the CACLE.

#### **A2. Information Technology Planning Board (ITPB)**

The ITPB as the primary governance and oversight body for information technology and services at UCLA provides oversight on CACLE technology plans, budgets, policy, and progress. For the initial roll-out, the ITPB has appointed a CACLE Functional Oversight Committee to monitor the deployment of the CACLE at UCLA, recommendations related to technology, business and funding models, and policy, and any strategic or major tactical conflicts and tradeoffs.

#### **A3. Deans of Schools/Divisions Which Opt In**

As primary contributors of resources, the Deans will provide oversight on expectations and staff resources requested from CACLE participants, including staff time contributed and bought out, as well as recommendations related to technology, business and funding models, and policy.

## **B. Governance Groups**

### **B1. CCLE Standards and Practices Group (CCLE S&PG)**

The CCLE requires a new model of coordination that supports an open process for agreeing upon shared practice and directions. Decisions on consistency of practice will be driven by assessment of faculty and student needs and behavior. Schools and divisions which opt-in participate in defining the guidelines and practices, and agree to follow them. Decisions on consistency of practice must accommodate exceptions.

#### **a. Roles**

- i. Set overall priorities and direction.
- ii. Agrees on coordination and collaboration guidelines and practices.
- iii. Determine how to ensure compliance to the shared procedures and guidelines.
- iv. Define the exception procedure (if any).
- v. Assess faculty needs and behavior to drive decisions.
- vi. Solicit input from faculty and students to inform decisions.
- vii. Assess effectiveness of the CCLE.
- viii. Decisions reviewed by the FCET, FOC, and the Deans and CCC members of the schools and divisions opting in.
- ix. Create subgroups as needed to address guidelines and practices for specific tasks, such as support.

#### **b. Membership**

- i. Each school and division which “opts in” to the CCLE can designate a voting representative to the CCLE S&PG, with the Dean making the appointment. Voting representatives are expected to participate in S&PG deliberations but can designate another member to speak on their behalf if they can’t attend a particular meeting.
- ii. Other units with an active interest in learning environments and which make significant contributions to the CCLE on an ongoing basis may also have voting representatives, on a case by case basis. Such other units could include academic units which have not yet opted in but are already contributing to CCLE development or support, and CCLE data/service providers such as OID, ATS, the Library, MyUCLA, and the Registrar.
- iii. The Group leader is elected by the group members and serves for one year, with possibility of renewal.

#### **c. Academic Need and Input**

- i. Decisions on consistency of practice will be driven by assessment of faculty and student needs and behavior.
- ii. Since faculty participation in the CCLE is essential if students and post-docs are to be able to benefit from it, the needs of the majority of faculty will take precedence if faculty needs and student or post-doc needs are ever in conflict.

- iii. CCLE S&PG will solicit input from faculty and student users of the CCLE to inform their decisions. Such input could come from surveys within Moodle, interviews with users, community advisory groups, wiki, blogs, and/or other methods.

**d. Assessment criteria**

- i. Progress in meeting priorities and directions that are set by the S&PG and approved by FCET, CCLE FOC, and Deans of schools and divisions which opt in.
- ii. Student and faculty success in adopting and using the system.
- iii. Student and faculty satisfaction with the system.
- iv. Impact on student learning.
- v. Impact on research group effectiveness.

**B2. CCLE S&PG Faculty and Student Advisory Groups**

- a. The CCLE Standards and Practices Group will sponsor faculty and student advisory groups.
- b. Any interested faculty or student can participate in the advisory group and offer input to the CCLE S&PG.
- c. A staff advisory group may also be created.

**C. Operations Groups**

**C1. Shared System Operations Group(s)**

Each shared Moodle installation will have a Shared Operations Group

- a. Each school and division which shares the system will have a voting representative on the Shared Operations Group.
- b. Within the guidelines established by the CCLE S&PG, the Shared Operations Group(s) can set priorities and direction for the operation of a shared installation.
- c. Shared System Operations Groups may create subgroups as needed.

**C2. CCLE Unit-Only Installations**

- a. Schools and divisions may choose to operate their own Moodle installations as equal CCLE partners, participating in the planning and governance infrastructure and supporting the agreed-upon coordination / collaboration goals.

### **C3. CCLE Home**

#### **a. Functions of the CCLE Home unit**

- i. Administrative home/host of community and full-time CCLE staff.
- ii. Provide sandbox for testing and QA, place to do potentially “destructive” testing without production consequences.
- iii. Work with OID to provide faculty and TA training.
- iv. Work with the Library to provide information literacy training and intellectual property advice.
- v. Help new “opt-ins” with start-up.
- vi. Host a shared production system accessible to everyone on campus. Such a production system might support collaboration sites, for instance, as well as sites for schools and divisions who choose not to run their own installation.
- vii. Develop procedures for sharing UCLA developed software and tools.
- viii. Ensure a shared SVN and shared task tracking system is available to all units.
- ix. Showcase interesting developments both on campus and in the wider Moodle community.
- x. Host research and development projects.
- xi. Assist with grant writing and other external funding strategies.
- xii. Maintain relationship with higher education community in areas related to collaboration and learning, particularly tracking the potential for interoperability.
- xiii. Assist in the process of contributing to the wider community. Methods of contribution could include attending conferences, making presentations, sharing code and/or documentation, sharing good practices, etc.

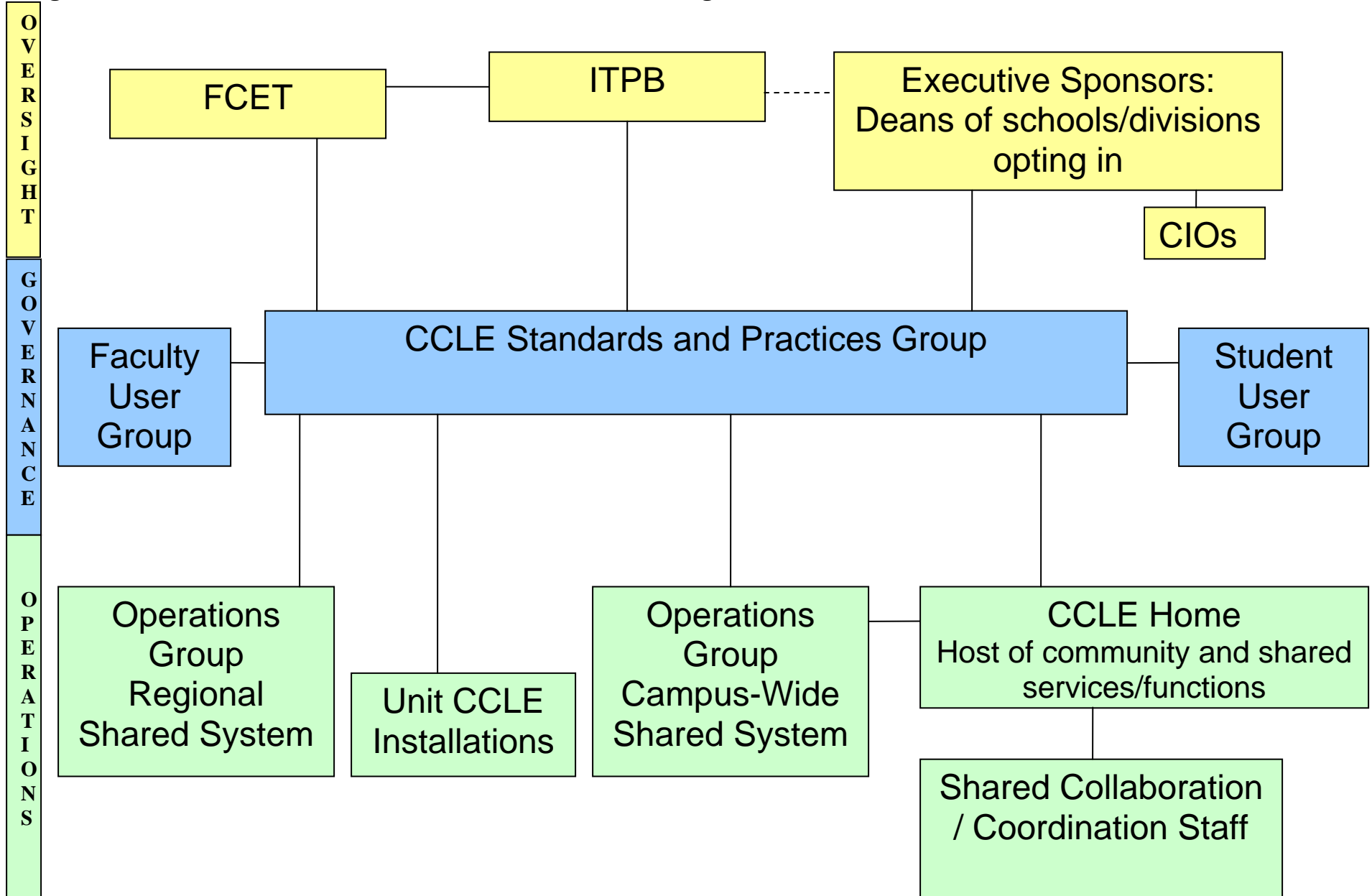
#### **b. Attributes of an administrative home for CCLE Home**

- i. Academic mission/orientation.
- ii. Interested in and supportive of pedagogical issues.
- iii. Experience serving multiple campus constituencies, preferably across disciplines.
- iv. Supportive of experimentation and innovation.
- v. Open service culture which welcomes user input.
- vi. Capable of running a stable scalable system with multiple servers.
- vii. Access to a secure data center.

#### **c. Recommendation**

- i. OID host the CCLE Home unit (meets attributes C2b i – v).
- ii. OIT/ATS host the CCLE servers and provide systems administration services (meets attributes C2b vi – vii).
- iii. The CCLE Coordinator report to the Director of OID, with dotted line relationship to the Associate Vice Chancellor for Information Technology.

**Diagram of CCLE Coordination / Collaboration Planning and Governance Infrastructure**



## Cost Components and Funding Model

"To achieve the full value of the CCLE, a significant, long term investment in training and on-going development will be critical."

*Focusing Resources and Fostering Creativity, Joint FSG-TSG Report June 2006*

See Appendix B for detailed cost analysis

Planning Assumptions for 2007/08

11 academic units will "opt in," with a total of 4165 courses / quarter.

5 Moodle instances will exist under the CCLE umbrella, one shared campus-wide.

### I. Contributed from Existing Funds

Cost Element	Estimated Cost for 2007/08
<b>A. Schools and Divisions</b>	
1. Support and Training Staff Average of .75 FTE for every 100 courses	\$1,405,688
2. Developer / Technical Faculty Support Staff Average of .5 FTE for every 100 courses	\$1,145,375
3. Student Programmers / Technical Faculty Support Average of .2 FTE per academic unit opting in	\$ 132,000
<b>B. Central Academic Units</b>	
1. Academic Technology Services Support / Training for research group collaboration sites from units which have not opted in and for faculty / TAs teaching courses who are from units which have not opted in (on a case by case basis) (\$47,250)	\$ 45,000
2. Library Integrate content and services into the CCLE; examples: reserves lists, online instructional modules / tutorials, class resource lists, links to librarians, RSS feeds, tools to allow faculty to add learning modules to the LearnStor repository, etc.	\$ 295,000

3. Office of Instructional Development Training materials and classes for faculty and students on using Moodle TA training on using Moodle	\$ 50,000
<b>C. Units Hosting Moodle Installations</b>	
1. Core server configuration Two production servers and one test / stage / development server	\$ 75,000
2. Data Center and Backup / Disaster Recovery costs	\$ 7,800
3. Systems Administration costs Average of .25 FTE per Moodle installation Assumes basic systems administration expertise in place in the hosting unit, only supplemental hours needed	\$ 81,250
<b>Total Contributed from Existing Funds 2007/08</b>	<b>\$3,237,113</b>

## II. Additional Funds Needed as Collaboration and Sharing Overlay

Cost Element	Estimated Cost for 2007/08
<b>A. Planning and Governance Staffing</b>	
1. Schools and Division staff participating in planning and governance groups 5 hours / week per academic unit opting in (Standards & Practices Group, Shared System Operations Group, Systems Administration Group, Developer Group, Support / Training Group)	\$ 138,586
<b>B. Additional Hardware for Shared Systems (supporting a minimum of 1500 classes / quarter)</b>	
1. Additional servers to separate database from application	\$ 20,000
2. Enhancements to core servers	\$ 20,000
3. Virtual machine tools	\$ 11,235
<b>C. CCLE Home Funding (Salary and Benefits for all staff)</b>	
1. CCLE Standards & Practices Group Leader (.25 FTE) Leader elected each year from S& PG membership, .25 of leader's time bought out from home unit.	\$ 49,600
2. CCLE Coordinator	\$ 136,400

4. CCLE Lead Developer / Integration Programmer	\$ 111,600
5. CCLE Quality Assurance / Support Coordinator (.5 FTE for each role)	\$ 86,800
6. Funding for grants to faculty and IT staff, to encourage innovative CCLE enhancements Could fund buy-out of existing development staff, funds to hire developers, hardware and software costs, and the like. Projects could represent faculty-generated innovations and ideas, as well as common needs for which applications are solicited by the CCLE governance.	\$ 186,000
7. S & E Support for CCLE Home Staff	\$ 12,000
<b>C. Campus Data and Services (includes Salary and Benefits for all staff)</b>	
1. AIS and Registrar data feeds Assumes 2 hours / month for each Moodle installation, to maintain and update data feeds	\$ 10,800
2. CCLE Intellectual Property Advisor / Assistant 1 FTE to provide assistance in dealing with intellectual property issues when adding copyrighted content as course resources. Will be administered by the Library.	\$ 74,400
3. S & E Support for IP Advisor	\$ 4,000
<b>Total Additional Funds Needed 2007/08</b>	<b>\$ 861,421</b>

### III. Funding Sources for Additional Funds

Funding Source	Estimated Cost for 2007/08
<b>ATS</b> Enhanced hardware for Shared Campus-Wide System	\$ 40,000
<b>IEI</b> Possible elements to partially support through IEI funds: CCLE Quality Assurance and Training / Support Coordinator CCLE Lead Developer / Integration Programmer	\$ 200,000
<b>Request to the Chancellor, via CITI</b> Remaining Collaboration / Sharing Costs for 2007/08	\$ 621,421

## 2007/08 Implementation Next Steps and Timeline

If funding is approved, the CCLE Planning Team recommends the following implementation steps for 2007/08.

### October – December 2007

1. Confirm OID as the CCLE Home unit.
2. Recruit CCLE full-time staff as soon as possible, with a goal of having them in place by Winter Quarter.
3. Formally ask the Deans to indicate an “opt in” decision for 200708. If opting in, each Dean will
  - a. Indicate whether the school/division will participate in the shared campuswide system or run a separate Moodle installation in the school or division, within the CCLE structure.
  - b. Indicate a desired “start date” when courses or collaboration sites should be live.
  - c. Confirm and identify local staff who will provide support, training, and technical assistance as needed.
  - d. Designate a voting representative to the CCLE Standards and Practices Group (S&PG).
  - e. Confirm support for CCLE guidelines and practices agreed upon by the CCLE S&PG.
4. Scale up the Alpha server infrastructure as needed to accommodate the schools and divisions which will participate in the shared campus-wide system.
5. Poll the designated S&PG voting representatives to elect a S&PG Leader.
6. Solicit school, division, and campus data/service provider representatives to the Shared Systems Operations Group (SSOG) for the campus-wide shared system (overlap with POG membership strongly encouraged).
7. Work with POG to develop detailed roll-out plans for the Winter quarter.

### January – March 2008

1. Launch the S&PG and the campus-wide SSOG.
2. Develop detailed roll-out plans for the Spring and Summer quarters.
3. Develop training and support plans.
4. Solicit school and division representatives to SSOG subgroups.

### April – June 2008

1. Announce the CCLE service to the campus and offer collaboration sites as needed.
2. Develop detailed roll-out plans for the Fall quarter.

## **July – September 2008**

1. Assess Winter and Spring experience.
2. Prepare report for FCET, CCLE FOC, Deans.
3. Formally ask the Deans who have not opted in to indicate an “opt in” decision for 2008/09.
4. Upgrade hardware as needed.
5. Prepare budget renewal for CITI review.

## Appendix A Planning Process

“Choosing a system will represent more than a software choice, it will be a statement of strategic direction.”

*Building Infrastructure and Community, Assessment Task Force Report October 2006*

The CCLE Planning Team was appointed in April 2007 and charged to engage in broad campus consultation and to recommend the appropriate scope, scale, staffing, architecture, operation, use and funding for the next phase of the CCLE initiative. The Team was charged to consult with the following groups in developing a proposed plan:

- Campus Computing Council (CCC)
- Project Oversight Group for the Alpha CCLE Implementation (POG)
- Faculty Committee on Educational Technology (FCET)
- CCLE Functional Oversight Committee (CCLE FOC)
- Deans of Schools and Divisions
- CCLE Executive Sponsors

The Planning Team worked closely with the Campus Computing Council (CCC) and the CCLE Alpha Project Oversight Group (POG) to define the options for the next phase of the CCLE, to analyze the implications of each option, and to articulate the significant trade offs that would inform a decision of which option to recommend. The Team also consulted both groups in designing a planning and governance infrastructure to support the CCLE, and reviewed with them the cost model and budget to be proposed. Both the Faculty Committee on Educational Technology (FCET) and the CCLE Functional Oversight Committee (FOC) appointed by the IT Planning Board (ITPB) were solicited for input on the planning assumptions which informed our work, the significant trade offs that we surfaced, and the most appropriate campus unit to host the CCLE Home. The Planning Team also met individually with Patricia Keating, Judith Smith, James Davis, Gary Strong, Patricia O’Brien, and Larry Loehner to get their thoughts on the same questions. Finally, the Planning Team hosted 5 “open sessions” to which we invited the FCET, the CCLE FOC, and the Deans, and sent an online survey to the FCET and the CCLE FOC.

There were three main phases of the planning, with outcomes from each phase:

- 1. Define planning assumptions**
- 2. Analyze options and identify significant discriminators**
- 3. Identify trade-offs and get feedback on the importance of each**

## 1. ***Planning Assumptions***

The following assumptions were endorsed early in the planning process, by the POG, the CCC, the CCLE FOC, and the FCET, and governed our later planning efforts.

### **The UCLA Common Collaboration and Learning Environment (CCLE) is...**

- **An environment which supports both research collaboration and instruction**  
The more that research and instruction can be integrated, the more the faculty will be engaged and the better experience students will have. Implementation decisions must reflect both collaboration and instruction needs.
- **Built on what has gone before**  
The next stage of the CCLE will build on the earlier plans, goals, and decisions that have already been endorsed.
- **Based on Moodle**  
Moodle is the software platform for all CCLE implementation options.
- **“Opt-in”**  
Faculty, researchers, and academic units decide whether to participate in the CCLE. The decision to “opt in” is made by those who contribute the necessary resources to support that decision – infrastructure, support staff, and/or intellectual effort. For most academic units, those resources are controlled by the Deans, by the department chairs, by the faculty and/or by the graduate students. Because of the need for consistent course support within an academic unit, the opt-in decision for course sites is made by the Dean, or the department chair if the Dean has delegated the authority.
- **Extensible**  
The CCLE allows faculty to incorporate external applications and sites of importance, including ones that a faculty member has developed. Linking to external applications or alternate sites can be accommodated in all options and all architectural models. The ability to incorporate tools and applications into Moodle itself varies among the options.
- **Consistent based on faculty and student needs**

Decisions on consistency of practice will be driven by assessment of faculty and student needs and behavior. Since faculty participation in the CCLE is essential if students and post-docs are to be able to benefit from it, the needs of the majority of faculty will take precedence if faculty needs and student or post doc needs are ever in conflict. Decisions on consistency of practice must accommodate exceptions.

- **Led by coordinated management (if a coordinated option is chosen)**

A CCLE planning and governance structure will be created to coordinate shared procedures and guidelines for the CCLE. The structure will include a CCLE Standards and Practices Group to define common practices and commitments, an Operations Group to oversee any shared system, and faculty and student advisory groups. The groups will represent a new model of coordination that allows schools and divisions which “opt-in” to the CCLE to participate in CCLE decisions.

## **2. CCLE Options Analyzed and Significant Differentiators Identified**

Working with the POG and the CCC, the CCLE Planning Team identified 15 different options for the next phase of the CCLE. These options represent different combinations of coordination goals and architecture configurations.

### **A. Common Software, No Coordination**

- I. One installation for each academic unit
- II. One or more systems shared among units, none campus-wide

### **A’. Common Software, Coordination Infrastructure to Define Future Coordination**

- II. Multiple shared systems
- III. Hybrid: one shared, multiple unit-only installations

### **B. Less Coordination, More Autonomy/Flexibility**

- I. One installation for each academic unit
- II. Multiple shared systems
- III. Hybrid: one shared, multiple unit-only installations

### **C. Moderate Coordination and Autonomy/Flexibility**

- I. One installation for each academic unit
- II. Multiple shared systems

- III. Hybrid: one shared, multiple unit-only installations
- IV. One shared system

**D. More Coordination, Less Autonomy/Flexibility**

- I. One installation for each academic unit
- II. Multiple shared systems
- III. Hybrid: one shared, multiple unit-only installations
- IV. One shared system

With the help of the CCC and the POG, we analyzed several dozen different attributes of these options, including concrete issues such as cost and more subjective issues such as how easily faculty and students might navigate among sites. After extensive review, we agreed on a few key attributes as significant discriminators among the options:

1. The number of schools and divisions who might "opt in" in 2007/08
2. The consistency of faculty/student experience in terms of consistent uptime, common core tools, and consistent "look and feel."
3. Potential for enhanced campus sharing of tools and solutions
4. Potential for local variation in practice to inhibit sharing of tools and solutions
5. Flexibility for faculty to define the "look-and-feel" of a Moodle site
6. Flexibility for IT staff to develop local Moodle tools and solutions, without campuswide guidelines and direction
7. Potential lagtime in responding to faculty requests for new tools and customization
8. Flexibility of Moodle implementations to make independent configuration and look-and-feel choices
9. Ability to offer in-depth common training and coordinated support for all CCLE users
10. Implementing some desirable collaboration goals early on

### **3. Promising Options and Significant Trade Offs**

Based on our analysis of these significant discriminators, we narrowed the options to a shorter list of 3 promising choices. The major variance among these options is in the number and scope of the collaboration goals that are pre-defined for 2007/08.

#### **A'. Common Software, Coordination Infrastructure to Define Future Coordination**

II/III: Hybrid - One shared campus-wide system, some unit-only installations, and the possibility of regional systems serving more than one school/division.

- Shared testing and training.
- No other pre-defined collaboration goals for 2007/08, Planning and Governance Infrastructure will evaluate and define them.

#### **B. Less Coordination, More Autonomy/Flexibility**

II/III: Hybrid - One shared campus-wide system, some unit-only installations, and the possibility of regional systems serving more than one school/division.

A few defined collaboration goals for 2007/08, such as:

- Single sign-on thru UCLA Login.
- Common methods of integrating with Registrar, Library, My.UCLA.
- Any UCLA faculty/student can be added to any CCLE site if authorized.
- Shared development projects.
- Method for sharing locally developed Moodle tools and solutions across campus.
- Some modest consistency of look-and-feel.
- Shared support tools.
- Consistent versions as needed.

#### **C. Moderate Coordination and Autonomy/Flexibility**

II/III: Hybrid - One shared campus-wide system, some unit-only installations, and the possibility of regional systems serving more than one school/division.

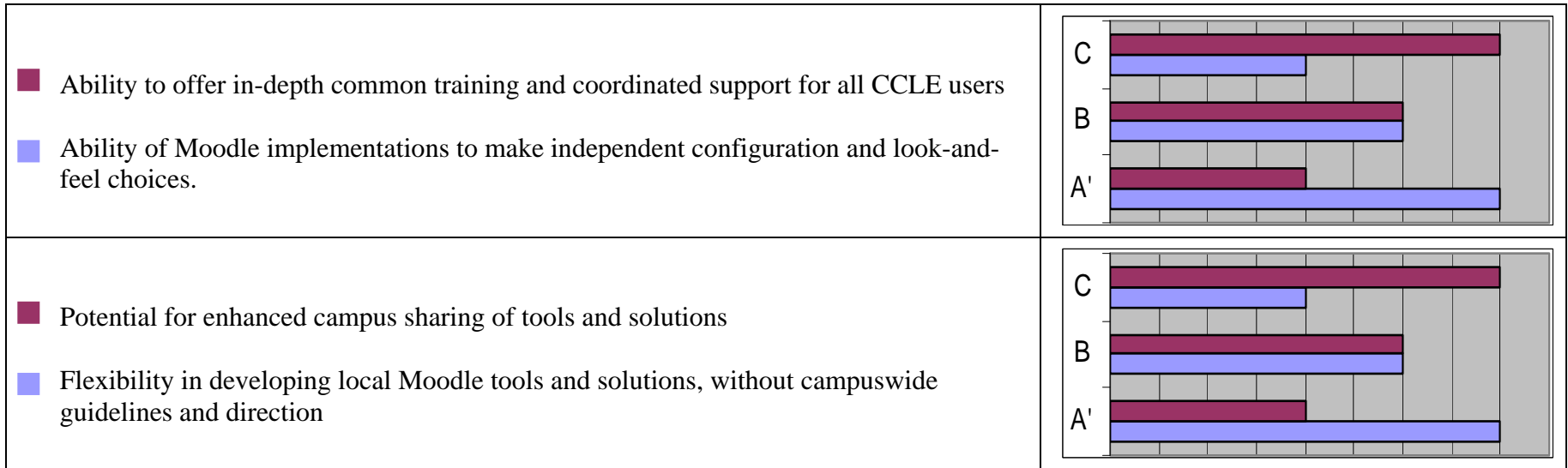
More defined collaboration goals for 2007/08, adding such things as:

- Common core tool set.
- More consistency of look-and-feel.
- Richer discovery tools.
- More seamless navigation.
- More guidelines and direction for local programmers and local system administrators.

We then identified the major trade-offs among these options, based on the significant discriminators, and sought feedback on the relative importance of each trade off.

## Major Trade Offs

<ul style="list-style-type: none"> <li>■ Consistency of faculty/student experience for the schools and divisions which “opt in”</li> <li>■ More schools and divisions “opting in”</li> </ul>	
<ul style="list-style-type: none"> <li>■ Consistency of faculty/student experience for the schools and divisions which “opt in”</li> <li>■ Reducing potential delays in responding to faculty requests for new tools and customization</li> </ul>	
<ul style="list-style-type: none"> <li>■ Implementing some desirable collaboration goals early on</li> <li>■ Waiting to appoint the Standards and Practices Group and allowing that group to select the first collaboration goals</li> </ul>	
<ul style="list-style-type: none"> <li>■ Potential for enhanced campus sharing of tools and solutions</li> <li>■ More flexibility for faculty to define “look-and-feel”</li> </ul>	



Feedback on the trade-offs confirmed the value of maximizing opt-in and maintaining flexibility while advancing the counter-goals to the extent possible. The CCLE Planning Team chose option B, with an architecture approach that combined elements of II & III, as the option most likely to meet these goals.

## Appendix B Cost Analysis

The following spreadsheet shows a five-year projection of costs for the recommended implementation option. These figures have also been submitted in a funding request to CITI.

CCLC Planning Team Cost Analysis 8 - 15 - 2007		# of Shared Systems				2
		# classes increase per year:				250
CCLC - 5 yr Cost Analysis for Option B. III		Option B = Less coordination, more autonomy/flexibility				
		Architecture III = Hybrid: shared systems & multiple unit-only installations				
Year:		2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Assumed units opting in given option & architecture		11	12	13	14	15
Assumed instances given option & architecture - with 2 shared systems		5	5	5	5	5
# of courses expected based upon opt in assumptions		4,165	4,415	4,665	4,915	5,165
System Costs		Estimated server & hosting costs for one instance				
Core Prod HW & Dev HW, purchase cost + replacement (cost/4)	\$15,000	\$75,000	\$18,750	\$18,750	\$18,750	\$18,750
Prod HW to scale + 2 Database servers, purchase + replacement (p & r)	\$20,000	\$40,000	\$10,000	\$10,000	\$10,000	\$10,000
Vmware - license and support - campus-wide system only	\$11,236	\$11,236	\$2,809	\$2,809	\$2,809	\$2,809
OS (Linux) - Redhat support costs	\$180	\$900	\$900	\$900	\$900	\$900
Task Tracking System - JIRA maintenance support costs	\$600	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Backup, disaster recovery	\$250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250
Hosting costs (Energy,cooling etc)	\$500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
Shibboleth certificate	\$30	\$150	\$150	\$150	\$150	\$150
<b>TOTAL System Costs per instance :</b>	<b>\$47,796</b>	<b>\$134,036</b>	<b>\$39,359</b>	<b>\$39,359</b>	<b>\$39,359</b>	<b>\$39,359</b>

Operational Staff Costs (Annual)		Estimated Salaries					Est. % staff for per unit or 100 courses	Estimated by using percent FTE * instances for technical staff and units for support staff									
Year:	YR 1	Yr 2	Yr 3	Yr 4	Yr 5	2007-2008		2008-2009	2009-2010	2010-2011	2011-2012						
Sys Admin Staff by instance	65,000	68,250	71,663	75,246	79,008	0.25	1	81,250	1	85,313	1	89,578	1	94,057	1	98,760	
Developer Staff by 100 courses	55,000	57,750	60,638	63,669	66,853	0.5	21	1,145,375	22	1,274,831	23	1,414,370	25	1,564,675	26	1,726,475	
Support/Training Staff /100 courses	45,000	47,250	49,613	52,093	54,698	0.75	31	1,405,688	33	1,564,566	35	1,735,817	37	1,920,283	39	2,118,855	
Student Programmers at 20% time employed by unit	12,000	12,600	13,230	13,892	14,586	1	11	132,000	12	151,200	13	171,990	14	194,481	15	218,791	
<b>TOTAL Operational Staff Costs contributed</b>								<b>\$2,764,313</b>		<b>\$3,075,909</b>		<b>\$3,411,755</b>		<b>\$3,773,496</b>		<b>\$4,162,881</b>	
<b>Coordination Staff Costs – buyout</b>		<b>hrly rate</b>	<b>Estimated cost – assuming coordination time = 1 hr per week... 1/40<sup>th</sup> of an FTE</b>				<b>Hours spent coordinating for OPTION B</b>										
<b>Coordination Staff Costs</b>		<b>52</b>	<b>YR 1</b>	<b>Yr 2</b>	<b>Yr 3</b>	<b>Yr 4</b>	<b>Yr 5</b>	<b>Estimated by # units opting in</b>									
Community coordination - S&P Membership	\$65	3,380	3,549	3,726	3,913	4,108		\$45,193		\$47,452		\$49,825		\$52,316		\$54,932	
Shared System Operations team (POG-like)	\$55	2,860	3,003	3,153	3,311	3,476		\$38,240		\$40,152		\$42,159		\$44,267		\$46,481	
Sys Admin Staff	\$31	1,625	1,706	1,792	1,881	1,975		\$21,727		\$22,814		\$23,954		\$25,152		\$26,410	
Developer Staff	\$26	1,375	1,444	1,516	1,592	1,671		\$18,385		\$19,304		\$20,269		\$21,282		\$22,347	
Support/ Training Staff	\$22	1,125	1,181	1,240	1,302	1,367		\$15,042		\$15,794		\$16,584		\$17,413		\$18,284	
<b>TOTAL Coordination Staff Costs by year requested:</b>								<b>\$138,586</b>		<b>\$145,515</b>		<b>\$152,791</b>		<b>\$160,431</b>		<b>\$168,452</b>	
<b>Campus-wide CCLE Home staff</b>		<b>salary</b>	<b>Benefit %</b>	<b>Benefit cost</b>	<b>Total FTE cost</b>												
S & P Chr buyout @ 25% (Rotating pos)	\$40,000	0.24	9,600	49,600		49,600		\$52,080		\$54,684		\$57,418		\$60,289			
CCLE Manager – CRM II	\$110,000	0.24	26,400	136,400		136,400		\$143,220		\$150,381		\$157,900		\$165,795			
CCLE Lead Dvlpr/Integration – PA IV	\$90,000	0.24	21,600	111,600		111,600		\$117,180		\$123,039		\$129,191		\$135,650			
CCLE QA/Support Coordinator – PA III	\$70,000	0.24	16,800	86,800		86,800		\$91,140		\$95,697		\$100,482		\$105,506			
Grant funded development projects	\$75,000	0.24	18,000	93,000		93,000		\$186,000		\$195,300		\$205,065		\$215,318		\$226,084	
S&E Support for CCLE Home Staff	\$4,000				3			\$12,000		\$12,000		\$12,000		\$12,000		\$12,000	
<b>TOTAL Campus-wide CCLE Home Staff / Funding requested:</b>								<b>\$582,400</b>		<b>\$610,920</b>		<b>\$640,866</b>		<b>\$672,309</b>		<b>\$705,325</b>	

Campus Data & Services Contributed		YR 1	Yr 2	Yr 3	Yr 4	Yr 5	# of FTE					
Library - 4 FTE Associate Librarians	65,000	68,250	71,663	75,246	79,008	4		\$260,000	\$273,000	\$286,650	\$300,983	\$316,032
Library - .5 FTE PA III	70,000	73,500	77,175	81,034	85,085	0.5		\$35,000	\$36,750	\$38,588	\$40,517	\$42,543
ATS - Support research collaboration sites	60,000	63,000	66,150	69,458	72,930	0.75		\$45,000	\$47,250	\$49,613	\$52,093	\$54,698
OID - Training materials, tutorials and Moodle classes	50,000	52,500	55,125	57,881	60,775	1		\$50,000	\$52,500	\$55,125	\$57,881	\$60,775
<b>Total Campus data &amp; services contributed:</b>								<b>\$390,000</b>	<b>\$409,500</b>	<b>\$429,975</b>	<b>\$451,474</b>	<b>\$474,047</b>
Campus Data & Services Need		Estimated costs										
AIS and Registrar @ 2hrs/mth @90/hr	\$2,160							\$10,800	\$11,340	\$11,907	\$12,502	\$13,127
CACLE Intellectual Property Advisor	\$60,000	0.24		14,400	74,400			\$74,400	\$78,120	\$82,026	\$86,127	\$90,434
S&E Support for IP Advisor	\$4,000				1			\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
<b>Total Campus data &amp; services requested:</b>								<b>\$89,200</b>	<b>\$93,460</b>	<b>\$97,933</b>	<b>\$102,630</b>	<b>\$107,561</b>
<b>TOTAL Costs by Year :</b>								<b>\$4,098,534</b>	<b>\$4,374,663</b>	<b>\$4,772,679</b>	<b>\$5,199,698</b>	<b>\$5,657,625</b>
<b>Contributed by Schools, Divisions, and Central Academic Units:</b>								<b>\$3,237,113</b>	<b>\$3,511,959</b>	<b>\$3,868,280</b>	<b>\$4,251,519</b>	<b>\$4,663,478</b>
<b>IEI Contribution from The College:</b>								<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>
<b>Hardware and VM ware contribution from ATS:</b>								<b>\$40,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>ASK from CITI - total costs minus the contributions :</b>								<b>\$621,421</b>	<b>\$662,704</b>	<b>\$704,399</b>	<b>\$748,178</b>	<b>\$794,147</b>
<b>5 YR Ask from CITI</b>								<b>\$3,530,850</b>				

## Appendix C Staff Roles and Tasks

### I. Shared Collaboration / Coordination Staff

#### A. CCLE Standards and Practices Group Lead (25% buyout)

- Group Lead is a member of the S&PG and elected by the other group members to serve for one year, with possibility of renewal.
- Leads S&PG meetings.
- Consults and communicates with FCET, FOC, and Deans/CCC members of schools/divisions which have opted in.
- Consults and communicates with faculty and student advisory groups.
- Works with the CCLE Manager and the chair(s) of Shared System Operations Groups to clarify direction and surface operational issues which require S&PG resolution.
- Works with CCLE Manager to identify issues for S&PG attention, to build agendas for S&PG meetings, and to disseminate S&PG decisions.
- Works with the CCLE Manager to design and evaluate assessment of faculty & student needs and of the success of the CCLE.

#### B. CCLE Coordinator (1 FTE)

- Facilitates as needed all coordination and collaboration groups and activities.
- Serves as a voting member of the CCLE S&PG.
- Works with the CCLE S&PG Lead to identify issues for S&PG attention, to build agendas for S&PG meetings, and to disseminate S&PG decisions.
- Works with the CCLE S&PG Lead to design and implement assessment strategies.
- Develops mechanisms and processes to facilitate sharing of knowledge, operations and services, including testing, training, sharing of development and tools, contributing to the Moodle community, and sandbox/R&D.
- Encourages creativity and innovation and showcases interesting Moodle developments on campus and in the wider Moodle community.
- Administers the CCLE development grant program.
- Coordinates grants and other requests for external funding.
- Maintains relationships with the higher education community in areas related to collaboration and learning, particularly tracking the potential for interoperability.
- Serves as UCLA's representative to the Sakai community.
- Administers the work of the CCLE Home group and supervises the CCLE Home staff.

**C. CCLE Lead Developer / Integration Programmer (1 FTE)**

- Works with Development Subgroup(s) of S&PG and/or Shared Systems Operations Group to define specifications for shared integration code. For 2007/08, shared integration targets are UCLA Login, Registrar, Library, and MyUCLA / Gradebook.
- Coordinates development of shared integration code for the shared campuswide system and shares that code with all other UCLA Moodle installations.
- Develops guidelines for and facilitates the use of shared development infrastructure, such as shared SVN.
- Coordinates development projects for the shared campuswide Moodle installation.
- Based on overall direction from the S&PG, develops guidelines for and facilitates the sharing of code within UCLA Moodle installations.
- Develops guidelines for and facilitates the contribution of code to the Moodle core.
- Contributes and consults as needed to CCLE grant-funded development projects.

**D. Quality Assurance Coordinator (.5 FTE) / Support Coordinator (.5 FTE)**

- Based on overall direction from the S&PG, develops guidelines for and facilitates shared support activities.
- Coordinates support for the shared campuswide Moodle installation.
- Develops guidelines for and facilitates the use of shared support infrastructure, such as a shared knowledge base and problem tracking system.
- Facilitates the sharing of knowledge, experience, and practices among all campus staff supporting faculty and students in the use of the CCLE.
- Based on overall direction from the S&PG, develops guidelines for shared testing and quality assurance activities.
- Tests Moodle plug-ins and reports on results.
- Tests integration programming with new Moodle versions and reports on results.
- Coordinates testing and QA for the shared campuswide Moodle installation.
- Facilitates the sharing of known bugs and problems with Moodle versions and patches, including mitigation strategies.

## **II. Staff in Schools / Divisions Which Opt In**

### **A. Developer staff (.5 FTE / 100 courses)**

Tasks will vary by unit but might include

- Developing tools and solutions requested by faculty.
- Helping faculty to add content to Moodle sites.
- Helping faculty to customize Moodle sites.
- Testing new releases.
- Writing specifications.
- Participating in campus shared development projects.
- Participating in S&PG and/or Shared Systems Operations Group Development Subgroup(s).

### **B. Support / Training staff (.75 FTE / 100 courses)**

Tasks will vary by unit but might include

- Training faculty and students to use Moodle sites.
- Answering questions and solving problems.
- Participating in S&PG and/or Shared Systems Operations Group Support & Training Subgroup(s).

### **C. Student Programmers (.2 FTE / 100 courses)**

Tasks will vary by unit but might include those described for developer staff, in II A above.

## **III. Additional Staff in Schools / Divisions Which Run Separate Moodle Installation**

### **A. Systems Administrator (.25 FTE)**

- Administer the Moodle installation.
- Design and implement backup and disaster recovery mechanisms.

## **IV. Staff in Campus Units Which Supply Data and Services to the CCLE**

### **A. AIS, MyUCLA, and Registrar Developers (2 hours / month / CCLE installation)**

- Define and implement standard data interfaces for all Moodle installations to use.
- Upgrade and test the standard interfaces as needed.

**B. Library Staff and Librarians**

- Define and implement standard data interfaces for all Moodle installations to use
- Integrate content and services into the CCLE; examples: reserves lists, online instructional modules / tutorials, class resource lists, links to librarians, RSS feeds, tools to allow faculty to add learning modules to the LearnStor repository, etc.
- Provide assistance in dealing with intellectual property issues when adding copyrighted content as course resources.

**C. ATS Staff**

- Administer the shared campuswide Moodle installation.
- Design and implement backup and disaster recovery mechanisms.
- Provide support / training for research group collaboration sites from units which have not opted in.
- Provide support / training for faculty / TAs teaching courses who are from units which have not opted in (on a case by case basis).

**D. OID Staff**

- Provide training materials and classes for faculty and students on using Moodle.
- TA training on using Moodle.