



LMS Report to Lane's Executive Team

March 2006

INTRODUCTION

This report describes the evaluation process for selecting a Learning Management System (LMS) to support the development and delivery of online, hybrid, and web-enhanced courses at Lane. After discussing the definition of an LMS, its history at LCC and the rationale for choosing a single system to support now, we will explain the selection process, present our findings (including input from the various stakeholders), and conclude with our final recommendations.

WHAT IS AN LMS?

A Learning Management System (LMS) refers to an integrated set of networked, computerized tools that support online learning; Virtual Learning Environment (VLE) or Course Management System (CMS) are other terms that are sometimes used. Typically, these systems include tools such as discussion forums and chat rooms for online communication, automated quizzes and other assessment tools, tools that make it easier to prepare content for online presentation and some tools to monitor and manage student activities.

HISTORY

In 1997, the Strategic Learning Initiative (SLI) began the Instructional Technology Infrastructure (ITI) project, today known as Lane's faculty webmasters. ITI funded two science instructors, Stan Swank and Joe Russin, to evaluate a number of LMS systems available at that time. They chose WebCT and that became Lane's default system for online courses. These two instructors should be commended for choosing a system which did not become obsolete over the ensuing eight years.

THE LMS STATE OF LANE AT PRESENT (Winter Term 2006)

	Total Web Enhanced and Online classes offered in	
	WebCT	Moodle
Spring 05	32	43
Summer 05	22	*
Fall 05	42	43
Winter 06	48	46
Total # of Courses Offered S05-W06	144	132
	WebCT	Moodle
Number of Instructors	44	61
# who seem to be inactive	6	9
Active Users	38	52
Factoid	11 WebCT users have accounts on the Moodle servers	17 more instructors have accounts on the "practice" server
Total Number of Active Users	38	69
* numbers within S05 and F05 counts		

WHY CHOOSE ONE LMS TO SUPPORT NOW?

Faculty Webmasters help bring innovation to Lane

WebCT training has received continuous support at Lane, from the early years when SLI ITI Faculty Webmasters were responsible, until the last 4 or 5 years when the ITC Coordinator has assumed those duties. After 8 years as the default system for online instruction, 44 instructors have WebCT accounts. Last Spring Term 2005, instructors in just over half of Lane's 29 online classes used WebCT as the LMS.

Faculty webmasters are responsible for exploring technological innovations in instruction and learning. Just prior to Fall Term 2004, Moodle was installed on a server run by the faculty webmasters. In just over a year, 69 instructors have requested accounts, have attended inservice and Faculty Webmaster training workshops, and are actively using this LMS. This number illustrates an obvious increase faculty interest level and reveals a shift in instructor choice.

Innovation becomes mainstreamed

After eight years of technical support, by three different half-time faculty webmasters, Stephen Pruch, Lane's AVP of IT announced to the faculty webmasters in Winter Term 2005, that he was willing to have his IT staff officially support this mission critical technical piece for the college. He asked

only that Lane's faculty choose a single system. The move to a single LMS will allow IT to offer a greater level of support for faculty as well as technical help for students via the new Student Help Desk (SHeD).

Lane needs to grow its online offerings to better meet student demand:

Lane's current online offerings are few, when compared to similar community colleges in the state. In March 2005, the faculty webmasters reported to Lane's Executive Team (ET) that while Chemeketa and Portland Community Colleges were offering 205 and 265 online classes respectively for the Spring term, Lane's offerings were only 29 classes. Clearly, there is a student demand for online courses in Oregon.

LMS use is expected to increase through Hybrid scheduling.

A hybrid is a course which combines distance learning with traditional classroom activities. Hybrid courses have some in-class sessions, while other classroom hours are replaced with online interaction, assignments and projects. Studies show that students prefer this blend of online and classroom instruction to purely online classes. LCC's Executive Team is considering giving "the green light" for faculty to begin offering such classes in Fall Term 2006, which will allow enrollment growth without increasing classroom allocation problems.

The scope of LMS use at Lane is changing:

What was not possible years ago is possible today. In the near future, we expect Banner CRN and Student data to be used to create a "course shell" for every LCC instructor, for every CRN in the class schedule, and to populate those LMS courses with student data. All three LMS systems that we considered can accomplish this task. Currently, there is no institutional expectation that Lane faculty will use any specific software tool to enhance their courses for their students. By moving deliberately in this direction, the training of faculty in technology use for their classes will be streamlined and have a greater purpose.

Blackboard has recently purchased WebCT and major changes are on the way:

In the Fall of 2005, LMS vendor Blackboard purchased WebCT. Lane's WebCT instructors are currently using version 4.1 of the software, although the current version is 6.0. WebCT and Blackboard claim they will continue to sell and support each of their own products until a new product, combining the two systems, is developed in the next 2 or 3 years. Since WebCT version 4.1 will not be available for use after 2007, an upgrade and/or switch of some sort must occur now. Now is the best time to evaluate whether or not to continue with WebCT.

Rising Licensing Costs:

Licensing of software from commercial vendors WebCT and Blackboard will cost, at minimum (based on current, January 2006 quotes) \$33,000 and \$66,000 a year. As an open-source product, Moodle has no licensing costs. In the light of recent budget difficulties, it is important to consider whether Lane will be locked into paying increasing fees from WebCT or Blackboard. It is likely that the WebCT acquisition by Blackboard will significantly reduce previous competitive pressure to keep licensing fees low. Chemeketa and Portland Community Colleges have not yet committed to upgrading to WebCT version 6. Due to their program sizes, they may feel "locked in" to the upgrade and price increase.

What are Lane's counterparts doing?

At a conference on February 24, 2006, it was discovered that Portland Community College would upgrade to WebCT 6.0, but would not be able to do so before Winter Term 2007. Since PCC is already using WebCT 4.1, we asked why it was taking so long to upgrade from one version to the next with the same vendor. After speaking with the WebCT system administrator, we learned that the upgrade was not a simple or smooth process. It was also learned that PCC will be piloting an instance of Moodle on its campus this coming year. Chemeketa upgrade plans to WebCT 6.0 are not known at this time. The WebCT representatives told us that Chemeketa was evaluating the upgrade at this time. Offering over 200 online courses a term, both Chemeketa and PCC may be experiencing "lock in", the inertia to simply continue with what it already has in place.

Lane's offerings are few and the current cost of converting to another system is minimal, in comparison to PCC or Chemeketa:

If Lane is going to officially begin supporting a different LMS, now is the time to do it, when our program is small, not when we have five or ten times the course offerings we currently have. Conversion of a program that size a few years down the road would be much more arduous and expensive. In just over a year, the use of Moodle has effectively doubled the number of Lane's online and web enhanced courses. (see chart above)

VERY IMPORTANT POINT: Even though Lane has fewer current course offerings that use LMS software (compared to our counterpart institutions), retraining of faculty is an issue of concern. In hallway conversations, the largest faculty concern with the LMS decision is the issue of conversion and support. Both technical support and monetary support are factors.

On the first point, Lane's faculty webmasters have made it their priority to help faculty convert their own classes and provide any re-training needs that they may have during Spring and Summer terms. Because Lane currently uses two

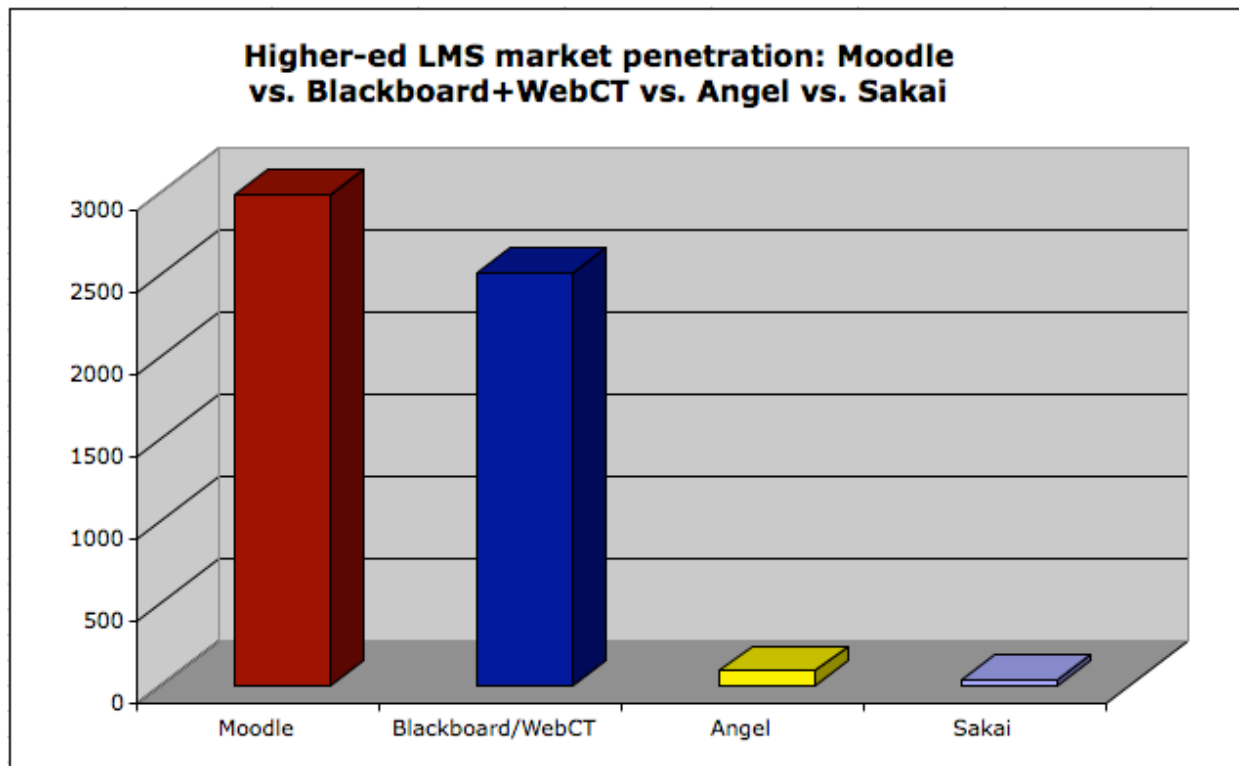
LMS systems, conversion and re-training must be part of the implementation of a single LMS.

Many faculty expect to be paid for any time they are required to spend converting their courses. Issues of faculty pay, either through curriculum development or another source of funds is beyond the scope of this report. The LMS decision committee does not have any budget authority to comply with faculty requests in this regard. The amount of time needed to adapt to a new system and convert existing materials will differ for each individual instructor. Questions include:

- Some LMS courses can be converted to other LMS formats easier than others, thus reducing conversion time.
- Are instructors who teach fully online courses to be paid more than instructors who simply use the LMS to enhance their traditional classes?
- Are instructors who teach 2 preparations to be paid twice more than an instructor who has 1 preparation?
- Is there a difference in paying instructors to learn a new system as opposed to converting actual course materials?
- Don't instructors who attend technology trainings usually do so "on their own time" or as part of their work week hours?
- Can instructors be given a stipend?
- Considering Lane's budget situation, will any instructors be paid for re-training and/or converting?
- As a cost neutral consideration, can faculty who must convert be able to use their 15% "college/committee work" hours for this purpose?

HOW THE SYSTEMS TO BE EVALUATED WERE SELECTED

In coordination with the IT Department, we chose to evaluate three LMS packages: Our oldest current system, WebCT, our newest current system, Moodle, and Blackboard, mainly because the system is in use at the University of Oregon. In addition, both WebCT and Blackboard are the largest commercial vendors of LMS software. Most community colleges in the state of Oregon are using one of these two systems. These two products are based on Java programming language technology. Moodle was chosen as the largest open-source LMS system which most closely matches WebCT and Blackboard, feature for feature. Moodle is based on "LAMP" technology (Linux, Apache, Mysql, and PHP – open source technologies that drive over 70% of the world's websites). As can be seen from the following chart, BlackBoard, WebCT and Moodle represent the vast majority of the higher education market.



We ruled out two systems: Angel and Sakai

Angel (<http://www.angellearning.com>) is a newer, up-and-coming LMS system which has received favorable reviews. It is a commercial system with a yearly licensing cost, but it is based on Microsoft's Advanced Server Page (.asp) technology (a declining technology, in our opinion), a Windows-only server platform and Windows-only SQL database server.

Sakai (<http://www.sakaiproject.org>) is another open-community project that has received some press in education circles. It is based on Java and the collaborative effort of a number of prestigious 4-year universities with the help of a large donation from the Mellon Foundation. It began in January, 2004, but as of October, 2005, (faculty webmasters attended CIT conference in Dallas, Texas and spoke to Sakai partners) it was considered "not ready" for adoption or production by schools other than the official Sakai partner schools. There is an annual charge to be a contributing Sakai partner school, and no charge to simply use the software. Sakai is known to require Java expertise and a substantial time commitment of staff resources.

THE PROCESS

In Fall Term 2004, Joe Escobar assumed WebCT server administration duties when former administrator Mark Williams became interim department chair of the CIT/BT division. He also began the Moodle server administration duties at this time as Moodle was introduced to faculty for the first time. This workload was possible only because a temporary .5 FTE release became available as OISS VP Sonya Christian increased the FTE available to Lane's faculty webmasters (after seven years at 1.0 FTE).

Over the Fall and Winter Terms 2004–5, Lane's faculty webmasters began conversations with the IT department on the topic of technical support. What had been a faculty webmaster supported innovation in 1997 was clearly a mission critical function of the college in 2004.

In Spring 2005, faculty webmasters announced to all members of Faculty Council in attendance at their monthly meeting, that the IT department would support any LMS that Lane's faculty chose, with the only stipulation being that it would have to work with the data in Lane's Banner system. The process would begin in Fall Term 2005, with a decision and announcement by the end of Winter Term 2006. Spring and Summer terms would be spent training faculty, installing, upgrading, and converting classes in time for a full rollout at the start of Fall Term 2006.

In Fall 2005, Lane staff, including faculty webmasters, IT division members, and Distance Learning department members met to plan the process. All members attended an audio conference hosted by St. Petersburg College on how to adopt an LMS system.

At the start of Winter Term 2006, WebCT, Blackboard and Moodle representatives were each invited to do a two-hour presentation for faculty and IT staff in the LCC Boardroom. The presentations were advertised in the Daily, via several campus and specific group-wide emails, and by word-of-mouth encouragement from faculty webmasters. Dean Middleton, Multimedia and Video Specialist from the Distance Learning Department, was recruited to tape each demonstration so it could be seen by faculty who were unable to attend. Announcements were made in The Daily about the availability of the tapes, and faculty who either attended the sessions or viewed the tapes were encouraged to provide feedback via an online survey form. Finally, a general call for feedback from faculty was given, regardless of whether they had seen any of the presentations. This month-long process took place between January 18 and February 21.

The process concludes with this report, issued to Lane's Executive Team for approval during the 2nd week in March, 2006. We hope to make the announcement by the end of Winter Term 2006 in order to provide the most lead time for faculty training and conversion of existing courses.

FEEDBACK FROM FACULTY

Below is a summary of faculty feedback on the three vendor presentations.

Faculty thought the least of Blackboard. Comments included that it was "not intuitive for someone who for someone who did not have a technical background", "slow and clunky", "cumbersome, hard to understand" and "awkward complex and difficult". One instructor summed up Blackboard's problems as having "too many buttons to push and no clear pathways from one function to the next."

There were also comments about the poor quality of the Blackboard presentation and that it may not bode well for quality of support we might expect, as the presentation was from the regional sales director for our area. Licensing cost and not being able to customize the look and feel of individual courses were also cited as concerns. One faculty member commented that if we were going to go with a corporate "cookie-cutter" solution that we would be better off staying with WebCT, since instructors at Lane are familiar with it.

Comments about WebCT were much more favorable. A repeated comment was that WebCT had improved over the past few years and that the new version seems even more user-friendly, that WebCT sites were easy to navigate with its icon-view, and that publisher-provided courses (coursepacks) were available for it. Several comments were made about WebCT's grade book being especially good. Concerns included apprehension about it being bought out by Blackboard and likely increases in licensing fees with increasing budget problems at the college. There were also a few instructors who said they found WebCT difficult. Some reported hearing about problems with WebCT from other instructors in their department and as a consequence starting with Moodle. Others had switched from WebCT to Moodle and reported finding Moodle easier to use.

Moodle garnered the most written comments, which were overwhelmingly positive:

"I prefer Moodle because I think it is easier to use for both instructors and students."

"Moodle is beautifully flexible."

"WebCT and Blackboard both make course monitoring so difficult that I gave up doing it. Moodle makes it simple..."

"It seemed easy to use and dirt cheap."

One instructor who is using WebCT to teach a class at Linfield and is using Moodle at LCC commented, "The organization from the home page is clean and understandable. Once I turn editing on, everything is in front of me, easy to understand, providing a palette of options...I am a Moodle Convert!"

Another current Moodle user writes, "My students have had no difficulties in accessing the course, in downloading/uploading assignments, in completing the exams, in receiving feedback and so forth...To date everything is working well."

Yet another faculty member summed it up this way, "I have compared and contrasted all three systems head to head...in the online classroom, and Moodle is far superior to any other for sheer ease of use, richness of features and flexibility."

Faculty liked the option of a Weekly, Topical or Social (blog-style) layout, the variety of options in the Forums, including graded forums, the weighted grade feature in the grade book, the Calendar and wikis (collaborative web documents which track version changes). The large online support community and the fact that it is open source software were also cited as pluses. Aside from the obvious cost-savings, it was suggested that implementation of new features would be done more quickly with an open source PHP-based product than with the proprietary product of a large corporation. It was further suggested that money otherwise spent on licensing fees could be used to fund in-house technical support.

From the technical standpoint, one IT staff member wrote the following: "I feel that Moodle compares well with WebCT and Blackboard. As I'm not an instructor, I don't feel that I can speak to the pedagogical aspects of these systems. However, from a technical perspective, Moodle seems like a sound platform that LCC could grow into a fairly full featured LMS system for the entire campus."

The only substantial criticism of Moodle as far as its feature set goes was its lack of a whiteboard to go with its web-based chat room and its inability to "freeze panes" in its grade book (relying instead on repeating columns). Recurring positive themes were ease of use for both faculty and students (which faculty rated as the single most important factor in selecting an LMS), richness of the feature set, customizability and cost savings. It should be noted that most users who had used both Moodle and the other systems preferred Moodle for reasons having little or nothing to do with cost savings, which was often regarded as a fringe benefit.

It should be noted, however, that some current WebCT users expressed apprehension over the time required to convert over to Moodle. Some described the long hours they spent getting their classes to work just right in

WebCT and worried about taking time out of their already busy schedules to make the conversion to Moodle.

Below is a summary of the "final call" for faculty feedback on the LMS selection. All submitted comments are included as an addendum to this report.

Of those who responded to the this survey, approximately half attended one or more of the presentations and only 15% checked out a presentation tape available in the library.

When surveyed on cost, a majority of faculty thought that cost should be a factor in choosing an LMS but differed on how much weight it should be given. Some cited the current budget crisis while others said that if there was an open source product which was just as good as a corporate product that we should go with open source. All faculty agreed that we needed to pick something which was easy to use and the best for students and faculty and that these considerations should trump cost issues.

When asked what features were most important to them, ease of use was most often mentioned. Other frequently mentioned features included a good discussion forum system and the grading and testing system. Only one instructor thought transferability to other institutions was important enough to mention.

Thirteen faculty responded to the question "Which LMS system do you support, and why?" Three supported Blackboard, one because that's what the University of Oregon and Oregon State University use, one based on having used it for three years, and a third another citing no reason.

Two respondents supported WebCT, one saying that he found it very easy to use for people who didn't know anything about computers and another saying that she had heard students complaining about Moodle being difficult. One of the respondents who preferred WebCT to Moodle was primarily put off by a server/firewall problem having nothing to do with Moodle itself.

The remaining eight respondents supported Moodle, citing general user-friendliness, ease of setting up a course, navigation, and giving feedback to students, flexibility, a rich feature set and its being an open-source product which will both save money and demonstrate Lane's commitment to educational innovation.

The full text of all instructor feedback is included as an addendum to this report.

TECHNICAL CONSIDERATIONS FROM INFORMATION TECHNOLOGY

As part of the process, Information Technology was asked to assess the technical viability of the three LMS alternatives. We identified three primary technical criteria for the LMS. First, it should be flexible: we should be able to add or redeploy servers in a modular fashion (to handle increases in server load, for example) without extensive modifications, and without taking the system down. Second, it should integrate with ExpressLane in a way that allows us both to authenticate students using L-numbers and PINs and to automatically create courses and populate them with registered students. Third, it should allow us to back up and manipulate the application's data from the command line (a constant frustration with our current version of WebCT). A fourth consideration is implied for each of these criteria: we should not have to pay exorbitant fees either for additional hardware or for software licensing, and we should seek to minimize the amount of training needed for IT staff to support the LMS.

WebCT, Blackboard and Moodle all meet these technical criteria at a basic level. The second and third criteria are effectively a wash: all three systems can be scripted using the command line, and all three can be integrated with Banner (although Blackboard may require additional some in-house programming in Java or .NET to implement the solution, and is therefore more resource-intensive). The main difference between the systems is the flexibility they offer, and here Moodle seems to us to be the better choice. Because both the application itself and the database it uses are free, Moodle is the only one of the three products that would allow us to implement a Learning Management System which is redundant (will still operate if one hardware component fails), which can balance the load across multiple servers without concern over additional licensing, and is easy to expand if the future load on the system requires additional hardware. WebCT and Blackboard are both limited to either Oracle or Microsoft database servers, which would require additional licenses to set up truly redundant production databases; since Moodle can use MySQL and Postgres (both free), it would not limit us in any way. Our implementation of the new LMS is obviously in the hypothetical stage, but it is likely that licensing restrictions for WebCT and Blackboard would likely force us to use a strategy which from our perspective is less than ideal, or to pay substantially more for licensing.

We must emphasize that in these considerations, we are taking the long view—we might need only a basic two-server configuration to handle the LMS for the next two years. But even if we don't expect an immediate increase in the number of online, hybrid, or web-enhanced courses, designing a system which can be easily expanded to handle that extra capacity is important, and designing a system that is redundant and fault-tolerant, we believe, is critical. Moodle provides the assurance that no matter how our needs change in the future, we can re-configure the system to address our concerns without fear of additional licensing costs.

Implementation of the LMS

As we said above, an implementation plan for the LMS at this early stage is completely hypothetical. But there are some basic principles involved in the design of any system that we would hope to follow, which include the following:

- **Redundancy.** A successful LMS should be able to overcome the failure of a particular piece of hardware (a server, for example) or software. We believe that the system should be designed so both the database can failover to a backup server in case the primary server fails. If one server houses both the database and the application server, then everything fails when that server goes down.
- **Load balancing.** With multiple servers (a minimum of two), not only do we safeguard against complete failure when one server goes down; we can also distribute the load across more than one machine, speeding up the entire system, and allowing us to fine-tune the servers for better performance.
- **Modularity.** The ideal system would allow us to move the application or database to a different physical server with minimal disruption. In addition, it should also allow us to add servers in the future if the server load should increase beyond our present capacity.

These principles come into play both in selecting the hardware and in configuring the software for the LMS.

Hardware

In March of 2005, the IT department purchased a new server to house the WebCT application. Although the server has been perfectly satisfactory for the current version of WebCT, it does not meet the recommended minimums for either of the new versions of WebCT or Blackboard, and we consider it to be underpowered for handling the load for Moodle; thus, for any of the three choices, we believe an additional server will be not only desirable but necessary.

It is too early to make recommendations about specific hardware purchases, particularly when so many factors have to be considered: apart from the obvious question of which LMS will be used, other factors include the anticipated load--in terms of the number of courses and their content as well as the load placed on the server by administrative tasks, the length of time that courses from prior terms remain active on the server, and so forth. We believe that the College might consider deploying the new LMS on a set of blade servers, which could provide several benefits:

- **Easy expandability.** Adding a server to the LMS would be as easy as purchasing a new blade, and would require minimal planning for rack

space and power consumption, both of which are problematic in the machine room.

- Failover and clustering. The addition of identically configured blades would allow us to easily configure our systems for failover or clustering.
- Integration with existing systems. With care, we may be able to purchase a blade chassis that piggybacks on an existing chassis for power and remote management. We might even partition off part of an existing RAID array for redundant access to disk-based resources, should that become necessary. With the present configuration of our racks, that would be impossible.
- Integration with future systems. With the shift of the main campus web server to Apache 2.0 running on Linux, we will need to move that service from its present hardware and software (Mac OS X Server) to a new server running Red Hat or SUSE Linux. We might be able to save money by consolidating the LMS and the web server onto separate blade servers in one blade chassis; the benefits of a blade server configuration would then apply to both the LMS and the web server.

At present, the College's LMS--running WebCT 4.1--is an isolated system, with no automatic failover to another server in the event of hardware failure. As we emphasized above, we believe the system should be designed with redundancy and failover in mind; the question is how best to do this. We would need to think very carefully the purchase of new blade server hardware, but the robustness and flexibility may very well justify the initial expense--and further changes down the line may actually make a blade server cheaper. The success of the new LMS is critical to a number of College initiatives, including expanding online and hybrid course offerings. It is worthwhile to make sure that the system is set up correctly from the very start.

Software and system design

Leaving aside the differences between the LMS products, we would hope that any LMS design would include the following:

- Separate servers for the application and the database. This serves to distribute the processing load and make the system more efficient.
- Regular backups of the application and the database to live servers that can be pressed into service if one of the servers fails. We might mirror the database to the application server and the application to the database server every twenty-four hours, so that either server could take over for the other on a temporary basis, with snapshots of the system that are relatively current.
- Export of the database tables in a form where they can be easily imported into a new database should one need to be constructed from scratch in the event of a disaster.
- Separating previous terms into separate instances of the LMS application. One ongoing frustration with WebCT has been the inability to isolate courses from previous terms. We would hope to accomplish this with the new LMS by

running multiple instances of the application in parallel, with course and registration data preserved separately for separate terms.

Any of the products being evaluated would allow us to design a system with most of these principles in mind, but the final one on our list would, if we read the literature aright, present a problem for both WebCT and Blackboard, as running separate production instances of the application is not allowed under either Blackboard's or WebCT's licenses.

TECHNICAL QUESTIONS PROVIDED BY LANE'S IT DEPARTMENT

The following technical questions were given to LMS vendors. Written responses were received by each and analyzed by Lane's IT staff.

1. What platforms can the server run on (Windows, Novell, Mac OS X, what varieties of Linux)? What platform is most commonly used for the server, and which do you recommend?
2. What back-end databases does your solution work with (e.g., Oracle, Microsoft SQL Server, BDB, PostGRES, MySQL)? What versions are allowable or required (e.g., Oracle 9 or 10)? Can the database backend run on the application server, or does it require a separate machine?
3. What are the minimum and recommended hardware configurations for running your solution? How well does your product work in a clustered environment (for example, two- or three-node blade configurations with physically attached SAN storage)? What are the minimum disk requirements?
4. How well does your product integrate with standard Student Information Systems (e.g., SCT Banner)? What products are required for such integration? Is it possible to set up live links (with two-way integration), or is the integration a snap-shot system?
5. How well does your product integrate with portal products—either open-source solutions like uPortal and Plone, or commercial solutions like SCT Luminis? Are any third-party products required to set up such integration? In your experience, what resources (staff time, training, expertise) are required for such a project?
6. How well does your product work with open standards like LDAP and Kerberos for authentication? Is it possible for an LDAP server to provide both authentication and course and registration data? If so, what schema modifications are typically required to do this?

7. Does your product allow for an independent database of users for test purposes? For example, if LDAP authentication is used to authenticate students and instructors against an external server, is it possible to enable additional, "local" accounts that are not in that server, for test purposes?
8. Does your solution allow for live backup of student and class data, or does the application have to be taken down for a complete backup?
9. What command-line interfaces are available for manipulating objects in this product's database (e.g., are there ways to script mass import of user and creation and deletion of classes, etc)? Can these tools be used while the application is live, or must it be taken off-line?
10. What provisions are there for moving user and course databases from one server to another, in case the primary server fails? Can we transparently back up the database on the primary server and restore it to a backup server?
11. If your product requires licensing or product activation codes, must we purchase a separate license if we wish to keep a near-line backup on a second machine that is running your application?

Technology Support from the Vendor

While basic support for WebCT and Blackboard is included in their licensing, and basic Moodle support is supplied on the Moodle.org website free of charge, advanced technical support can be purchased for all three systems, ranging from an hourly to a yearly support contract that ranges in cost from \$2000 to \$15,000 a year. Lane has never needed to purchase extended technical support for either WebCT or Moodle over the last eight years that Lane has used an LMS system.

ON OPEN SOURCE

"Proprietary software is no longer the only available option for quality online course management. A healthy OSS/FS movement has emerged, providing no-cost products that are evidently as good as or even better than proprietary, commercial products. The open availability of OSS/FS products' source code makes it more flexible and customizable than typical proprietary software. Based on the current evaluation, the author is recommending the use of Moodle within his College campus. Its appealing visual design, the ease and intuitive manner with which online activities can be added, the online help, and the support provided by the documentation and users groups make this a superior and user-friendly LMS. It is hoped that this recommendation will assist in the development of a structured, supportive, and relatively cost-free environment at the College, in which instructors can experiment with learning technology, and can enhance their teaching activities for the students' benefit."

Athabasca University – Centre for Distance Education

Written by Jim Depow in October of 2003 < ----- note the year

<http://cde.athabascau.ca/softeval/reports/R250310.pdf>

FINAL RECOMMENDATIONS

We ask the LCC Executive Team for your approval of this list of recommendations:

- That Lane officially adopt Moodle as the LMS of choice, to begin Fall Term 2006.
- That LCC cease it's use of WebCT by the start of Fall Term 2006.
- That Moodle be supported by Lane's IT department on both the technical end and student support end (both of these which are already in place), and eventually, after a transition year, the staff training portion.
- If possible, utilize some of the \$9000 in WebCT software license savings to aide in the transition, whether for hardware purchases, if applicable, for institution-wide training development, or as an incentive for faculty to utilize this technology.

At the end of this year, both Moodle and WebCT will have been used concurrently for 2 years. We see no advantages to continuing the transition for another year. In fact, we see only liabilities. Continuing to support both would:

- Cost the college \$9000 for the WebCT license for 2006–7.
- Double the work of the IT department technical support person to support both systems.
- Require that the IT department incur double the hardware costs by having to purchase an additional server.
- Hinder the faculty webmasters' ability to develop and implement a Moodle training program for the 2006–7 year.
- Not result in a quicker conversion of courses and instructors from WebCT to Moodle.

This announcement of this process began in Spring Term 2005. It can successfully be implemented in Fall Term 2006.

We ask that this decision and official announcement happen as soon as possible to allow the faculty webmasters to begin training and supporting faculty who must make the transition from WebCT to Moodle. This can occur over the Spring and Summer Terms, 2006, in time for a Fall Term 2006 start.

ADDENDUMS

- Presentation Attendance
- WebCT Feedback
- Blackboard Feedback
- Moodle Feedback
- Final Feedback