Overview
This note is an update on Blackboard status written for the Blackboard Advisory Committee meeting of 20 May 2009. Note that due to JQ Johnson’s sabbatical the committee did not meet during winter term.

Organizational change
It is becoming traditional for the Library to reorganize internal departmental structure each year in ways that affect Blackboard. This year our change was to consolidate support for faculty use of educational technology within the Center for Media and Educational Technologies. Specifically, the former SCIS Consulting changed reporting structure from SCIS to CMET. We don’t anticipate that this will radically change the services offered by CMET Consulting. However, budget and staffing constraints in CMET Consulting have forced a scale back in the number of hours that service will be open. My information is that starting in July and running through 2009-10, CMET Consulting will be open 11am-5pm plus by appointment, rather than 9am-6pm. This change will have some impact on the Blackboard system, since it means that consultants will be less available to answer Blackboard questions, either in person, by phone, or through the RT trouble ticketing system. We anticipate that Tim Boshart and JQ Johnson will pick up some of the slack, but there may be more delay in responses to non-critical blackboard questions.

Blackboard usage this term
Blackboard usage saw its usual pattern of usage, with year-to-year growth but a slight decrease in usage compared with the previous fall and winter terms.

<table>
<thead>
<tr>
<th></th>
<th>Spring 08</th>
<th>Spring 09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coursesites</td>
<td>1545</td>
<td>1848</td>
</tr>
<tr>
<td>Course users</td>
<td>17184</td>
<td>18680</td>
</tr>
<tr>
<td>Total enrollments</td>
<td>~60500</td>
<td>65840</td>
</tr>
</tbody>
</table>

Year to year increase in Blackboard usage measured in number of CRN coursesites was 20%, almost identical to the 19% increase this fall. Total coursesite enrollments, however, increased by only 9%. As previously noted, it appears that although usage continues to grow the increase is mostly in smaller courses or driven by the overall increase in the size of the student population.

Some events of note in the past few months
Several events since our fall committee meeting are of particular note:
Downtime

Blackboard was down for scheduled Saturday maintenance on Dec 18 (Blackboard 8 service pack 4), during spring break (Thursday, Mar 26), and briefly (less than 30 min.) on Saturday, May 9. In addition, we experienced two significant unscheduled downtime periods:

- 12/31/08 blackboard down for about 5 minutes due to DNS outage; both app servers and bbtest were unable to connect to database servers
- 4/6/09 all courses temporarily inaccessible for about 15 minutes; accidentally disabled courses in current term instead of previous term. Reset available flags to restore courses sites.

Despite these system failures, total blackboard downtime has been quite good. So far this year we have clocked 99.97% scheduled uptime, i.e. .03% unscheduled downtime:

<table>
<thead>
<tr>
<th>Year</th>
<th>Minutes totally down</th>
<th>Minutes partially down</th>
<th>Percent uptime</th>
<th>Percent partially down</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-06</td>
<td>70</td>
<td>0</td>
<td>99.987%</td>
<td>0.000%</td>
</tr>
<tr>
<td>2006-07</td>
<td>10</td>
<td>95</td>
<td>99.998%</td>
<td>0.018%</td>
</tr>
<tr>
<td>2007-08</td>
<td>560</td>
<td>0</td>
<td>99.894%</td>
<td>0.000%</td>
</tr>
<tr>
<td>2008-09</td>
<td>136</td>
<td>9</td>
<td>99.970%</td>
<td>0.002%</td>
</tr>
<tr>
<td>Total 05-09</td>
<td>816</td>
<td>104</td>
<td>99.959%</td>
<td>0.005%</td>
</tr>
</tbody>
</table>

[data for 08-09 is for a partial year, assumed 10.5 months; “partially down” reflects periods when at least 1/3 of blackboard users were affected by an outage of some sort.]

Although we are not quite achieving the seldom-achieved “4 nines” uptime, we are doing substantially better than 99%.

In addition, there have been several occasions when systems on which some blackboard users depend were unavailable. For example, the SafeAssign servers (managed by Blackboard Inc.) experienced several periods of unavailability.

For the current projected downtime schedule through 2009, plus criteria we use to schedule downtime, see [http://libweb.uoregon.edu/scis/blackboard/schedule.html](http://libweb.uoregon.edu/scis/blackboard/schedule.html)

Blackboard budget

Faced, as reported last fall, with an expected annual shortfall in the recurring blackboard budget, we approached the provost for additional support, and received a $30,000/year increase in the recurring blackboard budget. This budget increase puts us in the black for 2008-09, and based on current projections we will also be in the black for 2009-10. Depending on increases in the license fees charged by Blackboard, Inc., we may once again find ourselves in the red in 2011-12.

We successfully negotiated a new Blackboard annual contract in March, with a comparatively modest 4% price increase to $79,600 for the next year.

Other usage notes for the UO system

As previously noted, fall term events of note included

- very high usage. As expected, many faculty members found the new grade center a big improvement, while others found it a difficult change. Among the other noteworthy changes that affected many users were:
- rapid growth in the use of SafeAssign to detect and deter plagiarism. There were some rough edges in Bb's Safeassign support, but most seem to have been resolved.
- use of Blackboard as the access control system for the library's eReserves.
- rapid growth in use of classroom clickers and of the Blackboard grade center interface to our iClicker systems.

**CMS Industry Consolidation**

The Course Management System industry was radically shaken in May when Blackboard Inc. announced that it was buying its largest existing competitor, Angel Learning. This purchase follows a previous purchase of WebCT several years ago, and more recently lawsuits by Blackboard against another competitor, Desire2Learn. It seems clear that Blackboard’s strategy is to secure a monopoly position in the CMS industry. With the acquisition of Angel, its only currently serious competitor, the field has been substantially narrowed to Blackboard products plus two open source CMS systems, Sakai and Moodle.

**Issues on the horizon**

Looking forward to the next year, several issues are important for committee consideration.

**Blackboard BbWorld**

The annual Blackboard users conference will be held July 14-16 in Washington DC. Tim Boshart will attend. Tim is expecting quite a few announcements of new products and versions. He’ll report to the committee by email.

**New blackboard versions**

The biggest upcoming event is our scheduled upgrade to Blackboard 9. We will be down all day Saturday, August 22. As previously reported, Blackboard 9 represents the most significant upgrade to the “learning system” (now renamed “Blackboard Learn”) software suite at least since 2003. Blackboard, Inc. has also announced a roadmap that also includes Blackboard 10.0, another major user interface and feature release, that we will likely install during summer of 2010 or over winter break 2010.

We are currently running a very limited development server with Blackboard 9 installed, and plan to upgrade our test and staging server during June, followed by the production server upgrade in the very narrow window between the end of the 8 week summer term and the beginning of law fall semester.

Among the major new features in Blackboard 9 are a drag and drop web 2.0 style interface for course development, a restructured instructor Control Panel, new social learning tools including student blogs and journals, a newly designed course home page that replaces the old “announcements” as the standard front page for courses, an improved synchronization facility connecting Blackboard with Facebook and iPhones, better support for current web browsers including Safari and MSIE 8, and much more. One “feature” of the existing system that is finally being eliminated is the old and very buggy digital drop box.

Of particular interest to some members of the community is the ability to integrate non-Blackboard courses management systems within the blackboard framework. We plan to evaluate offering Moodle coursesites within our blackboard system, probably through a small experimental pilot project during fall term.

**Blackboard training and documentation**

Given the massive changes expected in Blackboard 9, one major issue for discussion by the advisory committee is what software training and support is absolutely needed to make the transition to the new system easier for UO faculty and students.
Tim reports that “Blackboard doesn't have much available in the way of training materials yet. So far they haven't even released any quick tutorials for Bb 9. There are only a few places that have gone live on Bb 9 so there isn't very much available from other Universities yet.” We will make training materials available when we find them.

Meanwhile, CMET Consulting will offer one on one assistance with the new Blackboard, though with somewhat reduced hours from years past. Also due to staffing constraints it is not yet clear how comfortable the consulting staff will be with the new system at the time of upgrade in August, but we do expect them to be trained by mid-September.

TEP is also planning several instructor-training events for the weeks of Sept 14-25, including:

- Blackboard: Introduction for New Users
- Blackboard 9.0: New Version Training
- Blackboard: Grade Center
- Blackboard: Assignments and Assessment
- Blackboard: Discussion Board
- Blackboard: Blogs and Journaling

In addition, JQ will be providing additional customized technical lecture-style introductions to Blackboard on request by departments. Last year, such introductions included 2 presentations for OEMBA faculty, a grade center workshop originally for Human Physiology, GTF training sessions for CRWR, Romance Languages, and Political Science, plus an overview of Blackboard for CoE students.

Given very limited resources, what additional training is most urgently needed?

**Downtime schedule**

In addition to the major downtime scheduled for Aug 22, it is possible (though presently unlikely) that we will need to take system downtime during our scheduled downtime period on June 13. Such downtime would only be used if Blackboard were to release a major software upgrade or security patch in the next week or so. Do members of the committee see any major issues associated with the current planned downtime schedule?

**Hardware upgrades**

We have moved forward with analyzing our upgrade options for the file server component of the Blackboard system. As previously noted, the proximate issue is that we are running quite low on file space. The current redundant NAS (networked attached storage) file servers each have 1.2TB of disk space, used for software and for attached files in coursesites. I reported in October that 2/3 of this (720GB) was in use. As of 19 May, 942GB is in use, and we expect to run out of space either at the end of the summer or at best at the end of fall term. We have conducted a detailed performance analysis to determine how much disk throughput we need, and have explored options for hardware upgrades, but have not yet identified a solution that we are completely satisfied with. We are currently considering redundant Dell replicated file servers running Windows Storage Server software. For about 5TB of disk space, a pair of such servers would cost between $14,000 and $18,000, and would likely provide sufficient capacity for another 3 years. If we can verify that the NFS performance of such servers is adequate for our purposes, we will likely move ahead with obtaining approval and ordering the servers in the next month. Alternatively, we may conclude that such a low-end solution does not meet our needs, in which case we are likely to wait and implement some alternative strategy this summer, with a switchover to the new servers occurring during Christmas break 2009.

If we defer hardware upgrades to the point where we cannot put our new system into production for fall term we will need to take other steps to reduce usage, including firmer limits on the maximum size of a coursesite and probably including a shortening of the present 3 year coursesite retention schedule.
are considering retaining old coursesites for 2 years plus one term, and selectively deleting the very largest 2 or 3 old coursesites after discussing this with the affected instructors and assisting the instructors in generating their own backup copies. One question for the committee is whether such a change would be acceptable to most faculty.

**Server location**

We have continued to explore the possibility of relocating Blackboard servers presently housed in the library to Information Services. This change could have very profound implications for the management of the system, but we needed to explore it to see if it might result in cost savings or other efficiencies. As of early May 2009, it does not appear that the change would result in cost savings, and it appears that there are significant management issues that would likely make this relocation difficult or impossible without a dramatic decrease in the overall level of service provided to the campus. At some point this year we anticipate that IS will produce a draft memo of understanding or service level agreement that will be useful in analyzing the costs and benefits of such a move.

**Preferred names?**

For faculty, the Banner system records first, middle, last name, and a “preferred name” or nickname. It has been proposed that the Blackboard system adopt preferred names when available. Since the database schema for names does not have such a field, this would require using preferred name instead of first name. For students, the registrar does not currently record preferred names, so the only students who have preferred names are individuals who are also staff members. Should we consider using preferred names for those members of the community who have them, even though this would introduce inconsistencies between students and staff and could potentially lead to confusion since blackboard names might not match course rosters?

**Changing coursesite default to “available”?**

We create blackboard sites for each UO CRN even though not all are used. When blackboard was first implemented, the vast majority of coursesites were unused, but today a large percentage are made available by the instructor at the beginning of the term. Students sometimes express confusion because they log in to blackboard and don’t see all the courses they believe they are registered for. Usually this is because the instructor is in fact not using Blackboard, but occasionally it is due to instructor error, neglecting to make the site available. Is it time to consider changing the default for coursesites to “available” so that instructors don’t need to activate their sites? Perhaps we might do this for all “main” coursesites, and not for +Dis, +Tutorial, or +Lab sections, requiring that such sections continue to be manually activated if the discussion leader plans to use blackboard independently of the main coursesite. Such a change would also require that we reconsider and probably reimplement how we handle merged coursesites, including graduate/undergraduate crosslisted courses and courses where the instructor has specifically requested a merged coursesite.

As of 20 May 2009, there are 1583 available spring term coursesites for the main CRN of a course out of a total of 4409 (36%). Among discussion-type secondary CRNs, there are 265 available coursesites out of 869, or 30%. Combining, there are 1848 available out of 5278 total sites. That 5278 includes the individual sites for 4xx/5xx courses that also have a merged coursesite; discounting such individual sites reduces the number of possible sites for a term to about 3980, so it is reasonable to claim that about 45% of all UO courses have active blackboard sites.

**Is it feasible to include face books (student photos) in Blackboard?**

Several times of the past few years, faculty members have proposed that we add student photos to the rosters on Blackboard, perhaps by loading student photo IDs. Faculty argue that this is fairly common at other institutions, particularly in some disciplines like law, and one that makes it much easier for an instructor to identify individual students in a large class. Making photos available raises various privacy concerns if such photos are viewable by other students, and would not be technically easy since
Blackboard does not have a global facebook system (rosters, which do include photos if students choose to load them, are course-specific and viewable by all students in a class). It has also been suggested that such facebooks be made available to faculty through DuckWeb instead.

What some faculty do is use the discussion board for their coursesites, and require that all students post a brief self-introduction that could include an image.

The new Blackboard 9 system implements the concept of avatars, which are small user-selected and -loaded images that represent the person, and that are global to the Blackboard system. An alternative to ID photos might be to encourage students to create avatar images for themselves.

What are the issues and technical constraints that factor into deciding whether to implement a system of student images?