Overview and Background
Welcome to the 2009-10 Blackboard Advisory Committee. The committee meets approximately quarterly and provides policy guidance to the Libraries. It ensures that Blackboard remains responsive to the needs of the faculty and the university community. Members of the committee for 2008-09 include (new members starred*):

Deborah Bauer  Finance
Louise Bishop  Honors College / Literature
Sue Eveland  Registrar
John Fenn  Arts & Administration
Pedro Garcia-Caro  Romance Languages
Michael Hennessy  Computer & Info Science
Mary Ann Hyatt  Law
JQ Johnson  Library (chair)
Skipper McFarlane  Continuation Center
Deborah Olson  Special Education
Ken Prehoda  Chemistry
Sean Sharp  Information Services
Anne van den Nouweland  Economics
Susan Verscheure  Human Physiology
Robert Voelker-Morris  Teaching Effectiveness Program
Frances White  Anthropology
Eric Wiltshire  Music
Tim Boshart  Library (ex officio)
Tim Ketchum  Information Services (ex officio)
Nargas Oskui  Library (ex officio)

Some background for new members:

The UO Blackboard course management system is managed by Scholarly Communications and Instructional Support (SCIS) in the Libraries, in collaboration with UO Information Services (IS). It provides a central location for online course materials and a tool for implementing online components in UO courses. The system is managed on a day to day basis by Tim Boshart, the SCIS Blackboard Coordinator. Overall project leader is JQ Johnson. Additional major support includes database management (IS, especially Stephany Freeman), faculty training (Nargas Oskui, SCIS), pedagogical support (TEP, Robert Voelker-Morris) and a variety of other support organizations around campus.

The UO initially adopted the Blackboard system in 1999. A major upgrade of the system occurred in 2003. Further upgrades have occurred several times since then. The production system hardware currently includes database servers, database file storage on the IS SAN, application servers, and NAS file servers for file attachments. All of these components are dual redundant for reliability and rapid recovery from failures. Database servers and database storage are located in the Computing Center and Oregon Hall. Application servers and file servers are located in Knight Library. In addition, the configuration includes a staging/test system and a development system. The UO licenses Blackboard Learn (up to 50,000 users) from Blackboard Inc.
**Blackboard usage, 2008-09**

During the 2008-09 academic year we supported a total of approximately 6190 CRN coursesites (versus 5292 the previous year), plus several dozen sites used for communications with majors, communications among department faculty and staff, or for special student and faculty groups.

Year to year increase in Blackboard usage has consistently been significant. For example, measured in number of CRN coursesites we experienced an 8% increase this fall, from 1910 to 2061. As of 10 Nov 2009, the total number of students using Blackboard in at least one active (“available”) course was 21598 -- almost all students currently use Blackboard in at least one course. Over the same period, the total number of coursesite student enrollments in fall courses grew from approximately 71,550 to 79,386, an 11% increase.

We also track trouble tickets, both from students and instructors. From Sep 1, 2008 to Aug 31, 2009 Tim and JQ received and responded to 1109 trouble tickets. Of particular note, from Sep 1, 2009 through Nov 28, 2009 we have already responded to 782 tickets, a 3-fold increase in rate. Most were resolved, but some are in progress waiting for Blackboard Inc. to investigate or for more information from the submitter. It should be noted that many of these trouble tickets were in fact “frequently asked questions” that could easily be answered and that perhaps should not have been submitted as trouble tickets.

In addition to collecting data on users and courses, we also collect web server performance data. Committee members are encouraged to look at https://blackboard.uoregon.edu/local/awstats/awstats.pl (available on-campus only).

During October 2008 the Bb web server delivered 19 million page views for 581,000 visits. During October 2009 the count was 40 million page views and 608,000 visits. The 5% increase in number of visits is real; the doubling in page views is an artifact of the new Blackboard 9 architecture.

Interestingly, about 2/3 of our visits (64% during October 2009) come from off-campus.

Among other things, our web server data allows us to track browser and OS usage, with consistent annual increases in Mac usage. This fall for the first time Safari was more popular than Internet Explorer, and Mac usage is now almost as great as windows usage. For October 2009:

<table>
<thead>
<tr>
<th>Browsers</th>
<th>Hits</th>
<th>Percent</th>
</tr>
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<tbody>
<tr>
<td>Firefox</td>
<td>54239938</td>
<td>39 %</td>
</tr>
<tr>
<td>Safari</td>
<td>48629889</td>
<td>35 %</td>
</tr>
<tr>
<td>MS IE</td>
<td>30059388</td>
<td>22 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OS</th>
<th>Hits</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows</td>
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<td>53 %</td>
</tr>
<tr>
<td>Macintosh</td>
<td>64305620</td>
<td>47 %</td>
</tr>
</tbody>
</table>

This pattern is quite different from that for other UO resources. For example, the library home page during the same period had a similar total number of visits, but the vast majority of traffic was from on-campus, and traffic was 77% windows and only 12% Safari, presumably reflecting the fact that library public workstations don’t match the typical configuration of undergraduate student-owned machines.
Some events of note in the past quarter

This section focuses mostly on events since our last Advisory Committee meeting, Sep 3.

The most significant event this fall occurred just prior to our summer meeting, the upgrade to Blackboard 9.0 on August 22. Although the upgrade went smoothly, it has been a mixed success in terms of user satisfaction. See below for more discussion.

Another major upgrade, this time replacement of our file servers, occurred on Sep 12. The upgrade was completed without incident, resulting in current-generation file server hardware and approximately doubling our Blackboard disk space, to 4 TB. At current usage growth rates, we expect this space to be adequate through 2011. We also took downtime on Nov 14 to install Bb 9 Service Pack 2, a software maintenance release, and a few minutes of downtime on Nov 27 to install a SafeAssign hotfix.

The system has recently experienced unusually high miscellaneous downtime:
- Sept 22, database connectivity problems crashed one server, about 10 min downtime
- Oct 1, power shutdown for scheduled electrical work on campus, about 2 hours
- Oct 11, crash due to software errors, about 20 min.
- Oct 27, crash due to unscheduled campus power outage, about 30 min.

For the current projected downtime schedule through spring 2010, plus criteria we use to schedule downtime, see http://libweb.uoregon.edu/scis/blackboard/schedule.html.

Another highly significant change this term has been awareness – and prevalence – of H1N1 “swine flu.” We’ve all seen high absenteeism in courses and staff illness. One effect of H1N1 awareness has been much greater use of Blackboard for homework submission and as a way to support students who have had to miss class. In particular, we have seen radical increases in the numbers of courses using Blackboard tests (usually as “homework”), and the Blackboard Assignment and SafeAssignment features for submission of essay-style homework. As in the past, Blackboard usage continues to be highly heterogeneous – different instructors and different disciplines use it differently.

We did a very substantial amount of workshop-style training for blackboard instructors (faculty and GTFs) this fall. Nargas Oskui, Robert Voelker-Morris, and JQ Johnson provided a total of 15 Blackboard 9 workshops, with more than 440 attendees.

Blackboard 9

Returning members of the committee will recall our discussions of Blackboard 9 upgrade schedules in spring and summer. As you know, the new version was first made available for general release in January of 2009, and was widely installed at other major universities either in January, at the beginning of the summer, or at the end of the summer. We concluded that an end of summer installation at UO best met our needs, and that the upgrade was needed in part to address security issues with the old version, in part to take advantage of new features such as blogs and journals, and in part because Blackboard had announced a new end-of-life schedule for old versions of their software that encouraged customers to upgrade no more than a year after a new version was released. One vital new feature was support (officially at “compatible” level as of August, and “certified” level as of November) for Safari; as noted above more than a third of our users are accessing Blackboard with Safari. We did not believe we cold afford to wait until summer 2010, but given the magnitude of the change in Bb 9 also could not afford the disruption of an upgrade during winter or spring break 2009-10.

Blackboard 9 was successfully installed on Aug 22. The upgrade went smoothly. Overall, the new version has been successful, and in fact offers many new features. Reactions of faculty, however, have
been mixed, with many expressing very high levels of frustration. In early November it seemed necessary to address these frustrations, and I sent an email status report (attached below) to about 200 faculty members who had filed trouble tickets about the Blackboard system so far this fall.

Frustrations seem to have had 3 or 4 separate roots:

1. The new Blackboard system provides a very different user interface from the old, and is quite hard for many users familiar with the old system to adapt to. For example, we have received frequent trouble tickets from faculty who had accidentally minimized the left column of their sites and didn’t know how to restore the crucial navigational links. The issue was compounded by documentation problems; for example, our local documentation was not updated in timely fashion to describe the new process for making coursesites available.

2. Instructors this year are making much heavier use of “advanced” blackboard features, notably Assignments and online quizzes, presumably as a response to H1N1. In the process they are tickling many bugs that have existed in the system for several years and are putting new demands on students to figure out portions of the system that they haven’t used before.

3. The new 9.0 system had numerous small but annoying new bugs. Some of these, for example the inability of Firefox 3.5 instructors to upload grades from excel, were rapidly fixed in vendor hotfixes this fall, but others remain. For example, if an instructor gives an online assignment that a student in the class fails to turn in, and then enters a grade (perhaps 0) in the grade center spreadsheet view, the student is unable to view his grades on the View Grades page.

4. The nagging possibility that we may have more serious undiagnosed bugs. Many users have reported unexplained strange behavior with the new system, usually behavior that we have been unable to recreate and hence are unlikely to be able to fix or have Blackboard address.

Blackboard took a major step towards alleviating problems in November, releasing their “Service Pack 2” for the system with a very large number of fixes. Our impression is that the service pack significantly reduces the number of those “small but annoying bugs,” but it may be that some faculty have now lost confidence in the system and are now inclined to see bugs even where none actually exist. We expect Blackboard to release a series of hotfixes over the next few months, plus a Service Pack 3 which we hope to be able to install during spring break.

It is likely that the next major version of Blackboard, 9.1, will be released at about the same time as the service pack, but our expectation is that we would likely install 9.1 during winter break 2010. There is a possibility that architectural changes in 9.1 will be small and that the number of bug fixes will be so large that we will want to consider upgrading to 9.1 during summer 2010, but given the 9.0 experience we think waiting will be the better part of valor.

It appears that many of the bugs that UO faculty have reported or are reporting have to do with journals, assignments, and quizzes. As noted above, that may be simply because quizzes and assignments are more complex than other sections of blackboard, or might be because these were areas that were substantially changed in Blackboard 9 (for example, with the introduction of multiple attempts for assignments, which in turn implied a greater distinction between attempt grades and override grades).

Ongoing issues include:

- Do we still have a faculty confidence problem, and if so how should it be addressed?
- How, given very limited people resources, can we improve our level of support, particularly for students? Are there low-cost ways to improve availability of documentation, and/or to shift some of the current first-level support burden from Tim to other staff with less specialized expertise, thereby freeing time needed to address serious but obscure problems?
• Should the increased use of Blackboard quizzes imply reexamination of our 2007 cancellation of our Respondus (quiz building software) site license? Are there other Blackboard expenses that we could eliminate to free budget for such a license?

**Moodle and other non-Blackboard CMS systems**

As we have previously discussed, there is significant interest on campus in Moodle as an alternative to Blackboard coursesites. However, it seems very unlikely that in the short run the UO would on balance benefit from completely converting from Blackboard to Moodle, and we are also very conscious of the risks and costs associated with having competing enterprise systems. As a way to move forward, we want to experiment with running a Moodle server as part of the Blackboard system, with a single login but the option of having some courses implemented as Moodle rather than native Blackboard Learn coursesites. We had hoped to offer an experimental system this fall, but the Bb 9 experience and need to devote much more time than originally expected to Blackboard support has required a change in schedule.

As of Nov 29, we still hope to be able to offer a small Moodle experiment for 2 or 3 courses winter term. We do not expect the initial version to have any grade center or other Blackboard integration except shared login credentials.

There are also a few other non-Blackboard CMS solutions in use at the UO. The library offers a separate E-Reserves service, though we attempt to provide some integration between it and Blackboard. Several departments in the sciences make use of WebAssign, a hosted solution integrated with Blackboard and designed primarily to support online submission and grading of scientific and numeric homework sets offered by a company in North Carolina. Mathematics, which formerly used WebAssign, has now mostly switched to an open source homework submission system called WebWork; the UO WebWork server is managed for Math by SSIL. The E-Portfolio project is presently exploring the use of WordPress MultiUser. Continuing Education continues to run a now-ancient FirstClass bulletin board system. Some departments use Drupal and other specialized communications tools to provide CMS-like functionality. An ongoing general question is how to avoid the user confusion and duplication of effort that multiple systems can entail, while taking advantage of the differing features of such systems.

**Issues for consideration this year**

Looking forward to the current year, several issues are important for committee consideration. As Deborah Carver’s invitation letter indicated, some issues she would like our committee to address this year include:

• assessing lessons from fall 2009, including Blackboard 9 upgrade and H1N1 responses
• evaluating Moodle coursesites as a potential supplement to traditional blackboard sites
• providing advice on how best to use limited staffing and budget resources
• evaluating potential for integrating other learning tools with the blackboard system, e.g.:
  o open educational resources
  o classroom clickers
  o smart cell phones
  o web-based social networking
  o lecture capture systems

Finally, and perhaps most importantly, what are the (other) issues that the Committee members feel are most important for consideration this year?
Appendix: email status report of 11 Nov 09

From: JQ Johnson <jqj@uoregon.edu>
Date: November 11, 2009 9:09:02 AM PST
Subject: Bb 9 status update

I'm writing to faculty who have submitted recent trouble tickets with an update on the UO blackboard system. As you know, we upgraded to Blackboard 9 in August. In planning the upgrade, the UO Blackboard Committee last spring analyzed the benefits, ranging from running a version of the software that would be supported by the vendor for several years to security fixes and important new features such as blogs or support for the Safari browser. Although many faculty are pleased with the new version and its new features, I know that a lot of us have had frustrations. I was at an academic computing conference last week, and observe that we're not alone -- other sites that upgraded to Bb 9 over the past year also have had a range of problems.

Most of the problems have been related to documentation or to user interface, which changed a great deal and has disoriented many users familiar with the old system. However, the new system also had quite a few bugs, most of them minor but adding up to a great deal of potential frustration. Many of these actually existed in previous releases of blackboard, but are more of a problem in the current version, in large part because so many more UO courses this term are now using "advanced" features such as assignments and online quizzes. I spoke last week to the president of Blackboard Learn, who says they are very aware of the problems; he is committed to fixing as many of the reported problems as they can in timely fashion.

Blackboard released a "service pack 2" last week that addresses multiple high priority bugs, including several that have plagued numerous people here at UO. For example, some problems fixed include:

- Searches in the Users page now allow you to search for all users with a "Not Blank" option instead of a wildcard.
- Announcements were not visible if course unavailable and "Edit Mode" was off.
- Menu items were sometimes out of order after a course copy.
- Rapidly double-clicking OK to start a quiz resulted in 2 simultaneous attempts and probably additional problems.
- A space in an assignment name prevented downloading of all assignments by instructor.
- Tab copying bugs break course and group module pages.
- Some students were unable to upload files to an assignment using the File Picker.
- Instructors in large courses were unable to download all assignment responses as a set.
- In addition there are a variety of compatibility fixes for Firefox 3.5, Safari 4, and IE 8. These browsers are now listed as "Certified" for most platforms.

Tim Boshart has tested the service pack and will install it in production this Saturday. I'm pleased too that Tim has joined their "bug squad," which is a selective group of system admins who are helping blackboard prioritize problems for attention.

I have a file containing the full list of fixes and known issues that I can send to anyone interested. All in all, a lot of fixes. Blackboard still has lots of other known bugs, some of which are unlikely to be fixed at least until Bb 9.1 (summer 2010?). And in addition we have a few cases of rather serious reported problems that we can't recreate and so can't really expect them to fix. But at least they are trying, and we expect further service packs over the next few months.

I'm very sorry about the frustrations some of you have had with Bb 9.0. Thank you for being so patient with us. Tim and I are very eager to see the situation improve and we will be working hard on this. In the meantime please continue to file trouble tickets as you encounter issues and feel free to contact me with your questions or concerns.

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