Overview

The UO Blackboard course management system is managed by the Library Center for Educational Technologies, in collaboration with UO Information Services. It provides a central location for online course materials and a tool for implementing online components in UO courses. The UO licenses the Blackboard Learning System Enterprise Edition from Blackboard, Inc. This note is a status update written for the Blackboard Advisory Committee meeting of 24 July 2007.

Blackboard usage to date

Blackboard overall usage for summer term is consistent with previous patterns. Spring usage showed significant growth in number of courses compared to a year previously, but minimal growth in number of users, suggesting that Blackboard growth is mostly in smaller (e.g. upper division) courses. Data for summer term is still preliminary and does not include 2nd-4week session. So far, it appears that summer Bb use will be very similar to a year ago. It is reasonable to predict that growth in Blackboard usage will level off during 2007, though this might change depending on new features and/or more aggressive marketing.

<table>
<thead>
<tr>
<th>As of 18 July</th>
<th>200604</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active summer-term coursesites</td>
<td>359</td>
</tr>
<tr>
<td>Students in at least one active coursesite</td>
<td>5617</td>
</tr>
<tr>
<td>Total student coursesite enrollments</td>
<td>11832</td>
</tr>
</tbody>
</table>

Downtime

As scheduled, we took downtime on May 12 for database server maintenance. We did not take downtime on Apr. 14, Jun 9, or July 14.

We experienced several unscheduled periods of downtime on July 16 when network problems resulted in a loss of connectivity from users to Blackboard and between application and database servers for about 45 minutes total. Also since our last meeting the Banner system was down for two days (June 25-27), and as a result we did not have registration updates.
Ebony upgrade approved

During winter and spring terms, Information Services did a substantial amount of work on a proposal for upgrading the database component of the Blackboard system, and provided proposals to the Ed Tech Committee in April and May. At the May 31 meeting the Ed Tech committee agreed to recommend to Provost Brady a plan for a major upgrade and change in the database architecture, with a total cost of $151,000. A copy of the proposal is attached. It was approved, and pieces of it are scheduled for implementation this summer.

Blackboard World

Tim Boshart attended BbWorld’07 in Boston, Massachusetts on July 9-12. He served by Blackboard’s invitation as moderator of the Sys Admin Best Practices Birds of a Feather Session, which we take as evidence that indeed UO is a leader in “best practices” in Blackboard management.

The annual conference was full of information and new announcements. Among the most significant new announcements were:

**SafeAssign**

Blackboard announced that they had licensed the code for the MyDropBox anti-plagiarism system, a competitor to Turnitin, and are integrating it with Blackboard. It promised numerous advantages, including an excellent price (free).

SafeAssign is described in more detail at [http://wiki.safeassign.com/display/SAFE/Home](http://wiki.safeassign.com/display/SAFE/Home).

**Blackboard 7.3**

The newest version of the Blackboard software, “release 7 application pack 3” or 7.3, was released on the schedule we had expected. It was not quite as major a release as predicted, though, and does not include a rewritten gradebook. Perhaps its most major change is further rework to the discussion board, including a view that is similar to the old pre-7.1 behavior. For more details, see the attached “Faculty Release Notes: Release 7, Application Pack 3.”

**Other significant software changes**

We’ve made a number of other changes to the Blackboard system since the last Advisory Committee meeting. Some of the most significant changes have been included:

- **Removal of TurnItIn** following the conclusion of the Psychology Department’s trial of anti-plagiarism software. Mike Wehr wrote up the results of the experiment (attached), and the Psychology Department has formally requested that the Library license anti-plagiarism software for the campus for the coming year. Given the SafeAssignment announcement (see above), we currently think that adopting SafeAssignment will meet Psych’s identified needs.

- **Implementation of Blackboard Scholar**, a new Blackboard feature that provides social bookmarking through use of an external Blackboard-maintained web site. This is an example of their Blackboard Beyond initiative which is a likely path of evolution for Bb over the next few years. See our Blog entry at [http://libweb.uoregon.edu/tools/blogs/cet/?p=90](http://libweb.uoregon.edu/tools/blogs/cet/?p=90) or the attached “Using Blackboard Scholar as an Instructor.”

- **Quota Tool**, an easy way for instructors to check their disk space usage within a coursesite. This tool is particularly important since an increasing number of courses are exceeding our nominal 2GB/coursesite disk limit. We believe that we can continue to provision the Blackboard system to meet the needs of almost all courses. However, faculty with very high disk space needs must contact us to get a quota increase, and it is possible that we will be unable to satisfy one or two of the most ambitious courses per term; an example of such a very
ambitious use of Blackboard was Kartz Ucci’s ARTD 251, which used 10GB winter term and could easily have taken advantage of 100GB.

- Sign-up tool. This tool allows an instructor to create an area in her blackboard coursesite that students can use to enroll themselves in groups or activities (e.g., a tutorial group or a special review session, demonstration, or essay topic). It is the electronic version of a “sign-up sheet” pinned to the departmental notice board. See [https://duo.dur.ac.uk/bbcswebdav/institution/duo/Guides/Staff%20Guide%20to%20Sign-up%20Tool.pdf](https://duo.dur.ac.uk/bbcswebdav/institution/duo/Guides/Staff%20Guide%20to%20Sign-up%20Tool.pdf).

- AEI Integration. We have for several years treated AEI students and AEI non-credit courses as similar to regular UO courses and students, since such students pay the Ed Tech fee. We’ve taken a further step by implementing an automated system to pre-create Blackboard sites for AEI courses each term just as we do for CRN courses. If AEI can provide us with reliable and timely instructor and enrollment information, we will also pre-enroll the AEI students and instructors in their corresponding Blackboard coursesites.

We did not convert to LDAP authentication in May as previously planned. Conversion to the new Information Services Identity Management System (IdM) was deferred again and is currently scheduled for July 28.

**Upcoming Changes and Events**

**LDAP Authentication**

We expect that Information Services will convert email, shell logins, and Radius authentication to the new IdM on July 28. Since Blackboard currently uses Radius authentication, we will automatically be authenticating against the new username/password database rather than the old. This should not have much user-visible effect, though the set of users who can log in may change very slightly, and the website and process for changing passwords will change. Shortly thereafter, either Aug 3 or 10 as part of weekly downtime, or more likely Aug 18, we will convert to authenticating Blackboard directly against the LDAP database. At that point we will see some significant user-visible changes, since students will need to authenticate using their e-mail addresses or DuckIDs (“jqj@darkwing.uoregon.edu” will no longer work, but “jqj” and “jqj@uoregon.edu” will be allowed).

An additional change that the IdM will introduce will be a different schedule for when IDs are created. Currently, student uoregon.edu accounts are created periodically (weekly?) by a batch job, and new faculty accounts are created only when the department explicitly requests them. In the new system, students and faculty will be able to claim their DuckIDs via the account.uoregon.edu web site as soon as the affiliation data is available in Banner (for students, as soon as the student is admitted or registers). When the DuckID is claimed it should become available right away for access to email, Blackboard, etc.

Longer term, we expect the IdM to be the focus for further discussion about who gets an account and when.

**Turning Point Clicker integration software**

Once LDAP authentication is in place we will be able to enable the building block that allows data transfer between TurningPoint clicker software and Blackboard. Since several faculty plan to use the TurningPoint clickers this fall and have no practical way to manage student-to-clicker assignments (needed for summative assessments), working Blackboard integration is a very high priority.
Anti-plagiarism software
Given the request from Psych and the Blackboard announcements, we want to move forward with implementing anti-plagiarism software this summer. We are tentatively leaning towards encouraging use of SafeAssign rather than licensing Turnitin.

Northwest Blackboard Users Group, Oct 19
Planning is well under way for the users group meeting, Friday, Oct 19, 8:30am-4pm in the EMU. Events will include presentations for faculty and system administrators on all aspects of the blackboard system, plus a commercial vendor presence with several companies who sell Blackboard-related products. We expect a large UO turnout and as many as 100 guests from throughout the northwest. Tim Boshart is the conference chair and coordinator.

Registration fee has been set at $30, which includes breakfast and lunch. CET is planning to cover the registration fee for any CET staff member or UO regular instructor who wishes to attend.

Ebony upgrade
Tim Boshart and Stephany Freeman have started to work on detailed plans for actually implementing the upgrade approved by the Ed Tech committee. The detailed planning needs to take into account the parallel upgrade of the Banner servers that is also occurring this summer, and is limited by the fact that Information Services still has only a single DBA (they are attempting to fill a second position). Our tentative understanding is that the next step in the process will occur after the Banner upgrades (scheduled for Sept 8), and will consist of moving the storage for Blackboard Oracle database off Ebony and onto the new Banner filer; the database code will continue to run on Ebony until new servers are purchased. We do not have a timeline for this move, but it may occur during an extended weekly downtime window late Sept 14 and Sept 15.

Longer term, we’re looking forward to very significant changes behind the scenes during fall term, including replacement of the Ebony server with new hardware and establishment of a hot spare server and copy of the database in Oregon Hall. The expectation is that the amount of downtime needed will be minimal.

If everything is implemented as planned, Information Services has noted that one benefit is that we will be able to eliminate weekly downtime for database backup. A reasonable guess is that this downtime reduction might be implemented Christmas break 2007.

The other benefits from the Ebony upgrade are mostly behind the scenes, measurable as lower probability of a catastrophic failure, quicker time to recover in the event of such a failure, and reduced DBA staff time both for regular maintenance and for dealing with catastrophic problems. In addition, though, we do expect to see a slight increase in performance particularly at peak load periods during Dead Week.

As part of the Ebony upgrade we expect to convert from Oracle 9i to the current version of Oracle, 10g.

Load-balanced front ends
We are still using the round robin DNS scheme for load balancing that we implemented in 2003, though we now have 2 servers installed and ready to be put in service as load balancing front ends. Having them operational would result in somewhat easier management and greater ability to distribute the load across multiple servers. We don’t think this is urgent, but will do it as soon as we conveniently can, probably either Sept 8 or Christmas break 2007.
Blackboard 7.3
Several major bugs have been identified in Blackboard 7.2. One show-stopper with 7.2, a race condition that can result in corruption of discussion board postings, is particularly troubling and does not yet have a fix. Given that and the fact that 7.3 has now been released, we now plan to skip the upgrade to 7.2 and instead go directly from 7.1 to 7.3. We have not yet decided on a schedule for the 7.3 upgrade, but possible dates include Aug 18, Christmas break, and spring break 2008.

Campus trouble ticketing system
Information Services is working on a centralized trouble ticketing and tracking system based on the “RT” system currently used by Network Services. Goal is to have it ready by the start of fall term. We hope to make Blackboard one of the early users of the system, preferably so that any changes to our instructions for how to report problems can occur before the start of fall term.

Planned downtime schedule
Given the uncertainties connected with the Ebony upgrade, we will need to be somewhat more flexible with advanced downtime scheduling than I would like. The schedule will be updated at http://libweb.uoregon.edu/cet/blackboard/schedule.html. Our current tentative plans for downtime and upgrades are:

<table>
<thead>
<tr>
<th>Date(s)</th>
<th>Notes</th>
</tr>
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<tbody>
<tr>
<td>July 28, 2007</td>
<td>no downtime</td>
</tr>
<tr>
<td>Aug 3, 2007</td>
<td>extend Fri. downtime IS IdM goes live; no Bb downtime expected</td>
</tr>
<tr>
<td>Sat, Aug 18, 2007</td>
<td>all day Sat. previously scheduled</td>
</tr>
<tr>
<td>Sat, Sept 8</td>
<td>all day Sat. previously scheduled</td>
</tr>
<tr>
<td>Sun, Sept 9</td>
<td>sporadic downtime new</td>
</tr>
<tr>
<td>Sat, Sept 15</td>
<td>??? new</td>
</tr>
<tr>
<td>Oct 8, Nov 10</td>
<td>previously scheduled</td>
</tr>
<tr>
<td>Dec 20-22 2007</td>
<td>1 to 2 days total previously scheduled</td>
</tr>
<tr>
<td>Spring Break 2008</td>
<td>full day previously scheduled</td>
</tr>
</tbody>
</table>

Issues for Committee Consideration
Based on advice of the committee at our last meeting:
• We have retained the existing Bb system for handling DROPs and WITHDRAWs.
• We have committed to a system of archiving old courses and removing them from the system after 3 years. We plan to do this year’s archival in September after individually notifying affected instructors from 2003-04.
• The campus moved forward aggressively this year with Ebony upgrades.
• We have not made much progress on refining the definitions of “users” or on opening up access to larger groups of users including guest lecturers; this process is largely waiting for implementation of the IdM.

How quickly should we move to Blackboard 7.3?
The committee’s advice in the past was to install new software releases on an early schedule – to make new features and bug fixes available to the user community as soon as possible rather than waiting to make sure that other sites had found the new bugs in the system. Based on this advice, the guiding principle we have advertised is that we “maintain the core blackboard system at near-
current version. When major versions are released, we generally try to wait until the first patch release, but attempt to stay no more than 9 months behind current major version.”

Blackboard has already released the first “hotfix” (addressing critical bugs) for 7.3, but likely will not release the first service pack (bugfix version) until fall.

What criteria should we use to decide whether to install Bb 7.3 in August? If we don’t do so, we will likely install it spring break 2008. If we do so, we will probably be one of the first major Blackboard customers in the country (except for those who participated in Beta testing) to upgrade to 7.3.

**SafeAssign?**

The committee’s opinions on SafeAssign would also be very useful in shaping our strategy for anti-plagiarism software. Although it provides anti-plagiarism functionality, it is not the software package that Psych and others evaluated this year, and has slightly different characteristics. Should we adopt it? What issues do you see? If we do adopt it, how should we advertise it to faculty?

Some SafeAssign advantages:

- Detection software and database that reside on a server at Blackboard, Inc. This implies one fewer external company on which we would be dependent.
- Much better integration with the Blackboard user interface.
- Much lower price. We had expected Turnitin to cost us up to $20K/year. SafeAssign is free to Blackboard Enterprise licensees such as UO.
- Ability of the instructor to decide whether student assignments are deposited in the SafeAssign database for future checking of other papers, with the default being to deposit student work in a database that will be used only by the submitting institution. Ability of the students to decide whether deposited papers will be in the global database (hence checked by other sites), or just in an institution-specific database. This reduces the intellectual property concerns that student may have about their work being copied and used without their permission.

Some apparent issues or concerns:

- It takes quite a while to produce a report after a paper is submitted.
- Not yet clear that Bb can provide servers that can meet the demand for CPU and web searching that high volume use at the end of a term would imply.
- It seems to be possible to submit and check attached files in various formats, but not text pasted into a VTBE. Also, Office 2007 docx files are not currently accepted.
- Since Turnitin retains every paper any student has ever submitted, it is likely that it will do a better job of detecting plagiarism when a student is copying from other students' papers. On the other hand, if the ancestor/original paper was published then that is probably part of the SafeAssign check (which includes Proquest ABI/Inform), or if it’s on the web then it will be found by the SafeAssign windows live search check.

**Other Policy Issues**

Committee members may have additional policy or process issues they would like to have us discuss.

Attachments (to email sent to committee members):
- Blackboard Database Server & Storage Recommendation
- Faculty Release Notes: Release 7, Application Pack 3
- Evaluation of Turnitin anti-plagiarism software
- Using Blackboard Scholar as an Instructor