EXECUTIVE SUMMARY

- The University of Alabama learning management system (LMS) transition from eLearning (Blackboard Vista) to Blackboard Learn has been completed successfully and all project goals have been addressed.
- The University of Alabama has a stable, scalable learning management system that provides for enrollment, grading, class activities, and other necessary academic functions and that serves as a vital resource and tool to assist with academic continuity.
- Blackboard Learn is supported by the Faculty Resource Center and Office of Information Technology with hosting by Blackboard Managed Hosting.
- The migration from eLearning (used since Spring 2007) to Blackboard Learn and the move from UA self-hosting to Blackboard’s managed hosting were larger and more complex than any other LMS transition UA has made.
- The project took place from October 2011 to May 2013 and was led by:
  - The Center for Instructional Technology (CIT) - Emerging Technology and Faculty Resource Center (FRC) groups
  - The Office of Information Technology (OIT) Enterprise Development and Application Support (EDAS), Project Management, and Systems groups
  - The Technology & Learning Committee and campus-wide IT Technical Committee.
  - Collaborators included academic colleges and schools, the College of Continuing Studies – Academic Outreach, The Office of the Registrar, and others.

MAJOR PROJECT MILESTONES:

- Last active eLearning courses ended Dec 2012. All courses using an LMS were on Blackboard Learn as of Jan 2013.
- User accounts created for UA faculty, staff, and students (developed by OIT - EDAS)
- Banner integration for enrollment and grade exchange (developed by OIT - EDAS)
- Building blocks installed for all tools in use with eLearning and several more
- Single-sign on with myBama (developed by OIT - EDAS)
- Based on requests 1400+ instructors and administrators, 4000+ courses’ content migrated from eLearning to Blackboard Learn. (developed and implemented by CIT-Emerging Technology)

PROJECT OBJECTIVES (DEFINED LATE 2011/EARLY 2012) AND PROJECT OUTCOMES (AS OF MAY 2013)

1. MOVE OFF ELEARNING (NO LONGER SUPPORTED BY THE VENDOR AS OF 12/2012) WITH AS LITTLE DISRUPTION AS POSSIBLE.

OUTCOMES:

- Last active eLearning courses ended Dec 2012.
- Faculty, staff, and students received numerous announcements about and instructions on retrieving eLearning content before mid-Dec 2012 deadline.
- eLearning was available to support staff until May 2013 to accommodate incompletes and content requests.
- On May 15, 2013, the eLearning (Blackboard Vista) system was decommissioned and its hardware repurposed or surplused.
2. DURING 2012, TRANSITION STUDENTS AND FACULTY TO BLACKBOARD LEARN IN CO-
PRODUCTION WITH ELEARNING.

OUTCOMES:
eLearning and all of its affiliated tools were used throughout 2012 with Blackboard Learn usage increasing gradually. Beginning in Jan 2013, Blackboard Learn was that only available LMS.

THROUGHOUT 2012:
Communications with the UA campus community via
- Crimson White
- Dialog/Extra
- Faculty emails
- Student emails
- Announcements in myBama
- Announcements in eLearning
- Information sessions

SPRING 2012:
- Develop administrative practices, procedures, and documentation for
  - User and Enrollment management
  - Migration of course content
  - Testing/installation of system changes/updates/patches
  - Feature and tool selection
  - UA specific branding
  - Building block installation and testing
- Begin course migration, faculty development, small pilot with select live courses
- Generate user accounts for UA faculty, staff, and students (developed by OIT - EDAS)

SUMMER 2012
- Target: Pilot with 50% courses electing to use Blackboard Learn
- Achieved: 31% of active LMS courses used Blackboard Learn in Summer 2012
- Banner integration for enrollment (developed by OIT - EDAS)
- Building blocks installed for all tools in use with eLearning and with several more

FALL 2012
- Target: Larger Pilot with 75% courses electing to use Blackboard Learn
- Achieved: 56% of active LMS courses used Blackboard Learn in Fall 2012
- Single-sign on with myBama (developed by OIT - EDAS)
- Course list in myBama (developed by OIT - EDAS)
- Banner grade integration (developed by OIT - EDAS) (Blackboard Catalyst Award Winner at Blackboard World annual conference, July 2013)

SPRING 2013:
- All courses using an LMS were on Blackboard Learn as of Jan 2013.
### CO-PRODUCTION PROGRESS FROM SPRING 2012 TO SPRING 2013

<table>
<thead>
<tr>
<th></th>
<th>% in Blackboard Learn</th>
<th>Total Offered</th>
<th>Total using either LMS</th>
<th>In eLearning</th>
<th>In Blackboard Learn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2012</td>
<td>0%</td>
<td>6032</td>
<td>4337</td>
<td>4337</td>
<td>0</td>
</tr>
<tr>
<td>Summer 2012</td>
<td>31%</td>
<td>539</td>
<td>409</td>
<td>284</td>
<td>125</td>
</tr>
<tr>
<td>Fall 2012</td>
<td>56%</td>
<td>6418</td>
<td>4925</td>
<td>2184</td>
<td>2741</td>
</tr>
<tr>
<td>Spring 2013</td>
<td>100%</td>
<td>6390</td>
<td>4474</td>
<td>0</td>
<td>4474</td>
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</tbody>
</table>

3. TECHNICAL HOSTING

Original objective: Install equipment and applications for campus-wide implementation
Revised objective: Contract with Blackboard Managed Hosting to host Blackboard Learn and support its servers, databases, and other technical aspects.

OUTCOMES

The LMS transition team and other stakeholders evaluated the pros and cons of UA or Blackboard hosting and recommended that UA contract with Blackboard Managed Hosting to host Learn 9.1 based on:
- The tight timetable for the transition
- The need to use eLearning and Blackboard Learn in co-production for one year
- The need for academic continuity plans
- The infrastructure challenges that can face on-campus hosting.

Blackboard hosting costs account for UA’s 35,000+ students and are locked in through the contract duration: Fall 2011-Fall 2014.

BENEFICIAL BLACKBOARD MANAGED HOSTING FACTORS:
- Faster implementation
- Dedicated technical support from vendor for system
- 99.9% availability guarantee
- Vendor has greater responsibility for issues
- Disaster recovery (DR) site in place from beginning of project
- More mature processes and procedures for support, upgrades
- No direct cost for hardware and infrastructure depreciation
- Cost fixed over three years
- Experienced Learn 9.1 administrators
- UA resources can run other vital systems that cannot be hosted

CHALLENGING BLACKBOARD MANAGED HOSTING FACTORS:
- Must rely on Blackboard to select key support personnel: initial Blackboard representative had to be replaced several months into the project and, after change was made, no further personnel issues.
- Integration and testing between in-house, third parties, and managed systems are more difficult: Integration with Banner for grading has been difficult to develop and maintain with system updates due in part to lack of access to production real-time database or Blackboard web services codes.
4. ASIST FACULTY WITH THE MIGRATION OF EXISTING CONTENT TO THE NEW LMS.

OUTCOMES:

- UA allowed reuse of content from eLearning in Blackboard Learn. Many peer institutions decided not to migrate content and instead recreate all content in the new system.
- It was not feasible or desirable to move all eLearning courses to Blackboard Learn, so migration was based on instructor request.
- OIT-EDAS created a secure form for instructors to request migration of eLearning course content. In order to prevent issues on production eLearning and to avoid interference with ongoing courses, OIT created a separate server, ‘Migration eLearning’. CIT – Emerging Technology developed, tested, and implemented a comprehensive course migration process that included more than 30 steps and sometimes took as much as 3 hours per course.
- More than 1400 instructors and administrators requested migration of about 4000 courses’ content from eLearning to Blackboard Learn.
- Many faculty members have said that this service allowed them to better focus on learning aspects of the new system instead of having to recreate their content.
- Public access to eLearning ended Jan 2013. eLearning was available to CIT staff Jan through May 2013 to retrieve content for incompletes and late requests. During Spring 2013, fewer than 20 requests for eLearning content were received.
- After Dec 2012, more than 1,000 grade book archives were made for courses that had students earning incompletes.

5. PROVIDE FACULTY DEVELOPMENT FOR THE NEW LMS.

OUTCOMES:

- More than 2,000 practice courses were created for users to explore Blackboard Learn.
- 626 faculty, staff, and graduate students registered for CIT-hosted workshops and information sessions from Jan 2012 to May 2013.
- CIT-led information sessions and workshops hosted by other campus areas:
  - Council of Assistant and Associate Deans retreat
  - Faculty Senate IT Sub-Committee and Faculty Senate Steering Committee
  - IT Service Desk staff
  - New faculty orientation events
  - Professional Staff Assembly
  - Capstone College of Nursing Distance faculty, Graduate faculty, Undergraduate faculty
  - College of Arts and Sciences Biological Sciences faculty and lab coordinators, Gender and Race Studies, Military Science, eTech, First Year Mathematics Program, Spanish 100 and 200 level TA cohort, Technology mentors
  - College of Commerce and Business Administration Student Services Staff
  - College of Communication and Information Studies All faculty, School of Library and Information Studies
  - College of Continuing Studies Online faculty
  - College of Engineering Computer Science, Freshman Engineering Program
  - College of Human Environmental Sciences All faculty
  - School of Social Work: All faculty
  - UA Libraries Office of Library Technology

During the 2012 transition year, faculty development efforts were shared by the Center for Instructional Technology - Faculty Resource Center and Emerging Technology groups. Since Jan 2013, all faculty development and support is handled by the Faculty Resource Center.

6. PROVIDE FUNCTIONAL AND TECHNICAL SUPPORT FOR THE NEW LMS
OUTCOMES:

• Blackboard Learn Section Maintenance tool allows instructor of record to create and combine Banner-integrated Blackboard Learn courses. (developed by OIT - EDAS)
• Admin Section Maintenance Tool: allows support staff to create Banner-integrated Blackboard Learn courses and synch course enrollment without direct Banner access. (developed by OIT - EDAS)
• UA Blackboard Learn team members underwent training from Blackboard on instructional design and functions and on system functional administration

PROVIDE THIRD PARTY TOOLS CONNECTED TO AND ACCESSED THROUGH THE LMS.

OUTCOMES:

eLearning had 14 third-party tool connections, including Turnitin, Tegrity, Turning Technologies clickers, OIRA syllabus tool, Wimba products (replaced by Blackboard Collaborate), among others.

As of May 2013, nearly 30 third party tools have been connected to Blackboard Learn including the following:
• EAC Outcomes Test Analysis
• UA Testing Services Export to Blackboard format (developed by OIT – EDAS, accessed via myBama)
• OIRA Syllabus Link (developed by OIT – EDAS)
• Blackboard Collaborate Web Conferencing, IM, and Voice Tools
• Blackboard Connect Professor Notification Tool
• Blackboard Mobile Web Services Building Block
• Respondus LockDown Browser
• Tegrity Lecture Capture
• Turning Technologies Clicker
• Turnitin Plagiarism Prevention and Writing Tools
• Textbook/Publisher resources

REQUESTED AND ACTUAL EXPENSES

The following table shows requested funds for FY 2011 through FY 2014 and actual expenditures for FY 2011 through FY 2013. Categories include Blackboard hosting, Blackboard Learn licensing, other related licensing (Bb Connect for Learn, Mobile Learn), support and training, graduate students, and permanent staff.

FUNDING DISCUSSION

• The category with the largest difference between requested and actual funding is permanent staffing. While basic instruction was available for faculty, lack of resources curtailed faculty development plans during the transition period and slowed the growth of Blackboard Learn during the 2012 pilot semesters. If more faculty development staff funding had been available, CIT would have been able to offer more in-depth training about advanced Blackboard Learn features, such as the Retention Center, multimedia tools, and new course development.
• Graduate student funding is shown in the fiscal year when it was disbursed to CIT. Not all graduate student funding was used before project completion in May 2013. As of Aug 2013, approximately $16,000 remains of the $141,255 received from Academic Affairs for Blackboard Learn graduate students. The carryover is being used for CIT graduate students who assist with daily support for Blackboard Learn and affiliated tools.
<table>
<thead>
<tr>
<th>Funding needs</th>
<th>FY2011</th>
<th>FY2012</th>
<th>FY2013</th>
<th>FY2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Requested</td>
<td>Actual</td>
<td>Requested</td>
<td>Actual</td>
</tr>
<tr>
<td>Bb Hosting Production and DR</td>
<td>--</td>
<td>--</td>
<td>$301,000</td>
<td>$228,500</td>
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<tr>
<td>(Already in UA budget)</td>
<td>$103,000</td>
<td>$103,000</td>
<td>$113,610</td>
<td>$108,710</td>
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<tr>
<td>Bb Learn Licensing</td>
<td>--</td>
<td>--</td>
<td>$80,268</td>
<td>--</td>
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<tr>
<td>Support/Training</td>
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<td>--</td>
<td>$91,980</td>
<td>$60,506</td>
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<td>7 CIT graduate workers</td>
<td>$4,250</td>
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<td>$119,000</td>
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<td>ITS IV - CIT - Instructional Technologist</td>
<td>$5,500</td>
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<tr>
<td>ITS IV - CIT - Instructional Technologist</td>
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<td>$66,000</td>
<td>--</td>
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<tr>
<td>ITS II - CIT - Functional Administrator (started 2/2012)</td>
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<td>FY Totals</td>
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FY 2011-2014 Total Requested Funds: $3,213,546
FY 2011-2014 Total Actual Funds (includes projected costs for FY 2014): $1,604,999
LESSONS LEARNED AND UNEXPECTED OUTCOMES

- Performance issues:
  - Fall 2012: Blackboard Learn was unavailable for 45 minutes during final exams. The root cause was a bug in Blackboard Learn code. Repaired by vendor before next exam period.
  - Spring 2013: Blackboard Learn was unavailable for a short time during exams due to inadequate hardware sizing. New hardware was added within hours.
  - Summer 2013: Blackboard Learn was unresponsive for a short time (<30 minutes). Root cause is still being determined.

- Large-scale on-campus, synchronous exams (Fall 2012): Biological Sciences with 400+ students per section used Blackboard Learn and Respondus Lockdown Browser to give proctored exams (200+ students in shifts) in Lloyd computing facilities and faced technology and user-based challenges. Overall, the department deemed the endeavor a success. In the future, better communication is vital with campus areas implementing large-scale instructional technology use, including preliminary individual faculty meetings with FRC.

- Issues with grade integration with Banner (midterms, Spring 2013): The Blackboard Learn update applied in Dec 2012 altered web services components used to pull Blackboard Learn grades into Banner. UA’s internal testing did not detect the issue, which was not seen until Spring 2013 midterm grading. Workarounds were used for midterm grades and the issue was fixed for Final grading. Increased web services testing is now part of UA update procedures.

- Retention tools and Early Warning System: It was anticipated that the retention tools could be useful to advisors and faculty. Due to complications in set up and changes in faculty development priorities, these were not promoted or implemented as originally planned.

- Building blocks and policy challenges: It was discovered that a building block update included the option to purchase materials directly from the publisher, which is not permitted. The option was quickly removed and building block procedures now include this prohibition.

- Unexpected and emerging outcomes:
  - EAC Visual Data is supplying the College of Nursing with important test analysis used in accreditation reports. This tool will be promoted to other campus areas through May 2014.
  - Athletics is using Course Observers for athletics advisors.
  - Office of Disability Services is using the Blackboard Learn institutional repository to distribute e-text materials to registered students.

FUTURE STEPS

- UA’s LMS status, Blackboard Hosting usage, and campus LMS requirements should be revisited at least every three years and more frequently if the need arises.
- Capacity planning reports should be given to Blackboard prior to each fall semester to ensure that the appropriate hardware and monitoring resources are used.
- Third party tool implementation will continue to grow and should continue to be evaluated, including security and retention policies.
- FRC faculty development is ongoing. As more instructors use Blackboard Learn and third party tools, faculty development will likely change in its depth and breadth.
- Major Blackboard Learn updates will occur twice each year (usually August and December) with smaller updates more frequently. Each must be tested for compatibility with all UA Banner integrations and third party tools.
- Analytics evaluation and stakeholder collaboration is beginning and will help drive the above needs through intelligent data analysis.
- Blackboard Learn and third party usage will likely expand. Periodic review of staffing support levels in CIT/FRC, EDAS, and related groups is needed to maximize the university’s investment in this resource.
- It is necessary to monitor emerging LMS use cases (Visual Data test analytics, Athletics Course Observers, Office of Disability Services e-text repository use, College of Arts and Sciences Academic Continuity Initiative, large course exam initiatives) to ensure that faculty and technical support can be maintained.