

Replacement of Michigan Tech's (Blackboard) Learning Management System

Walter Milligan, Chief Information Officer

Ellen Marks, Director and University Librarian, Van Pelt and Opie Library

Tom Freeman, Instructional Design & Online Learning, eLearning @ Michigan Tech

Michigan Technological University, Houghton, MI 49931

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Executive Summary

The Learning Management System (LMS) is the software that faculty and students use to communicate with each other in individual courses. Faculty members create and post course content, grades, comments, etc. Students view content, obtain assignments, submit assignments, take quizzes, participate in online discussion forums, obtain grades, etc.

Our current LMS is called Blackboard CE8, supported by Blackboard, Inc., which is essentially a re-branded version of WebCT Campus Edition. Blackboard acquired WebCT through a buyout several years ago. Blackboard has announced that it will not support Blackboard CE8 past 2013, and they recommend that CE8 institutions transition to "Blackboard Learn 9.1."

Therefore, Michigan Tech undertook a study of possible options for a new LMS approximately two years ago. Faculty and students tested four choices: Blackboard Learn 9.1, Moodle, Sakai, and Canvas.

Following an evaluation process that encompassed almost two years, Michigan Tech selected the Canvas Learning Management System, from Instructure, Inc. It was the clear choice of faculty and student testers, and is very intuitive and easy to use.

Canvas and Blackboard CE8 will both be available for Spring 2012, and Canvas will be the only LMS available beginning in Summer 2012. An aggressive training program will be offered for the next year.

Introduction

Pilot Testing Program

Beginning in Summer 2010, Blackboard Learn 9.1 was tested by faculty and students under the assumption that Michigan Tech would naturally move with Blackboard to their new product. This had been the plan for around 4 years, since the acquisition of WebCT by Blackboard.

It became clear almost immediately that Blackboard Learn 9.1 had serious issues of usability, stability, and design. Many faculty members with extensive experience using these products concluded that Blackboard Learn 9.1 was a step *backwards* from WebCT.

Over the next year, IT set up a Moodle server, and worked with Canvas and rSmart (Sakai) to provide test instances of Canvas and Sakai. Educational Technology Services and IT invited any instructors who wanted to try them to do so. Many faculty members took cursory looks at one or more systems and provided feedback; approximately 20 actually taught courses with one or more of the products in different semesters. Faculty members self-selected which product they wanted to try, with little guidance from staff.

By the middle of Fall 2011, many faculty members had taught live classes in both Blackboard Learn 9.1 and Canvas. A couple taught courses using Moodle, and only one had actually taught using Sakai. Several had investigated Moodle and Sakai but not opted to pilot test either by teaching a course with using them, based on their trial experiences.

In November 2011, quantitative data were collected from faculty members and students who had been involved in the pilot-testing program.

Results - Faculty

Twenty faculty members responded to a brief survey, and 13 provided detailed feedback about the products that they had tested. Of the 20, 14 recommended adoption of Canvas. Blackboard Learn 9.1 and Sakai received one vote each, while four faculty members chose not to vote but did give detailed comments.

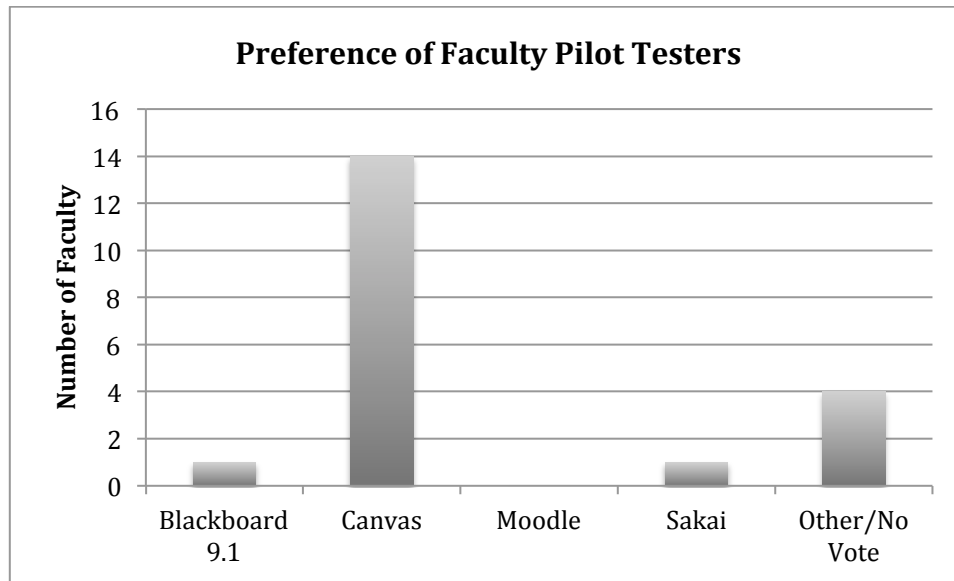


Fig. 1. Faculty members involved in the pilot testing program were asked which LMS they would recommend adopting. Results are shown. Not all classes were taught in Fall 2011. (Some were earlier.)

Of the four who did not vote, their comments may be summarized as follows:

- Two were generally or somewhat satisfied with Canvas, but had issues that prevented them from strongly endorsing it at this time. These issues are solvable by working with Canvas, if Canvas is willing to do so.
- One was very satisfied with Moodle, but did not know enough about the other choices to vote.
- One was satisfied with both Blackboard Learn 9.1 and Canvas, and did not want to choose between them.

If we take these comments and infer a vote, the faculty preference can be summarized in Figure 2. (Half-votes were applied when faculty members liked two products.) Both of these figures provide a clear mandate for Canvas from the faculty involved in testing.

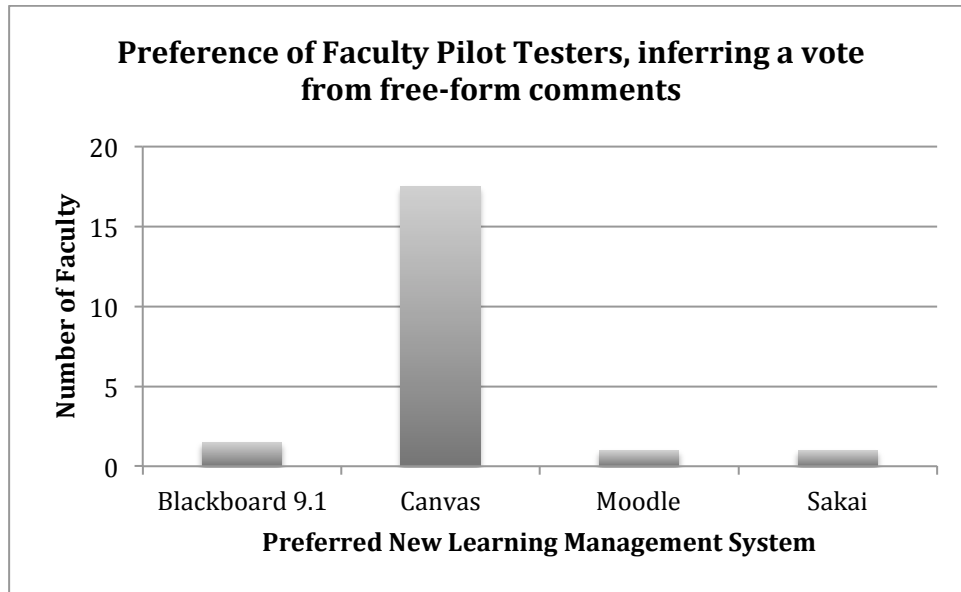


Fig. 2. Re-plot of data in Figure 1, after inferring a vote from text comments for the four faculty members who did not vote. About half of the faculty who voted for Canvas had also tested Blackboard Learn 9.1.

Faculty who pilot tested one or more LMS were also asked to fill out a detailed LMS Evaluation Rubric designed to measure their satisfaction with 37 different tasks, tools, or features commonly used or performed while using an LMS. Each task or tool was rated as follows:

- 0 – Did not use*
- 1 – Did not meet my expectations*
- 2 – Met my expectations*
- 3 – Exceeded my expectations/Superior*

Thirteen rubrics have been received so far. All but one of the respondents had tested and evaluated Canvas, and six tested and evaluated Blackboard Learn 9.1. Moodle and Sakai had three and two respondents who had tested and evaluated them, respectively. **Average ratings** for Blackboard and Canvas over all the tools were as follows. (Zeros for “did not use” were not included in the calculations).

- Canvas – 2.2
- Blackboard – 1.6

Only a couple of faculty fully evaluated Moodle and Sakai. They rated them highly, roughly equivalent to Canvas.

Results - Students

Student input was generally anecdotal and textual until Fall 2011. The anecdotal input from Summer 2011 and before may be summarized as follows: The vast majority of students were very positive, even enthusiastic, about Canvas, a strong majority were very positive about Moodle and Sakai, and opinions were mixed about Blackboard Learn 9.1, with significant numbers of students in those earlier semesters voicing strong complaints about Blackboard Learn 9.1. In one Physics class in Fall 2011, the instructor asked students if they liked Canvas better than WebCT, and 78 out of 80 said that they did prefer Canvas.

In Fall 2011, students enrolled in Blackboard 9.1, Moodle, and Canvas courses were asked to take a short survey. No input has been received from the Moodle course yet. Over 100 students enrolled in nine different courses using Canvas and Blackboard 9.1 participated. Figure 4 shows their opinions about whether Canvas or Blackboard 9.1 was better than WebCT. Canvas is the clear winner.

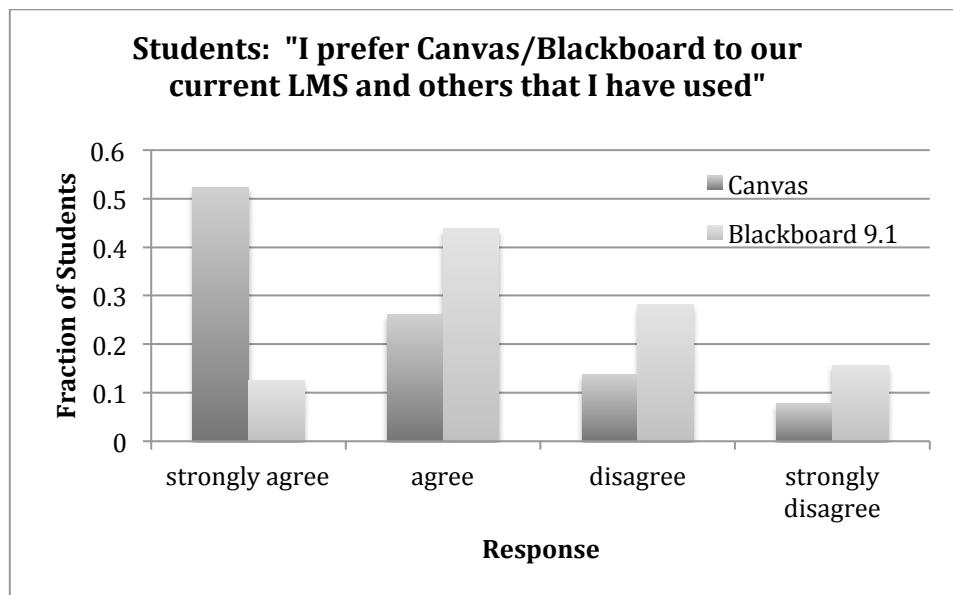


Fig. 4. Survey results of over 100 students in 9 different courses, Fall 2011.

Figure 5 shows student opinion about whether or not Michigan Tech should switch to the products they were testing. Again, this data clearly indicates a strong preference for Canvas. Free-form comments support the data, and there were far more negative comments about Blackboard Learn 9.1 than there were about Canvas.

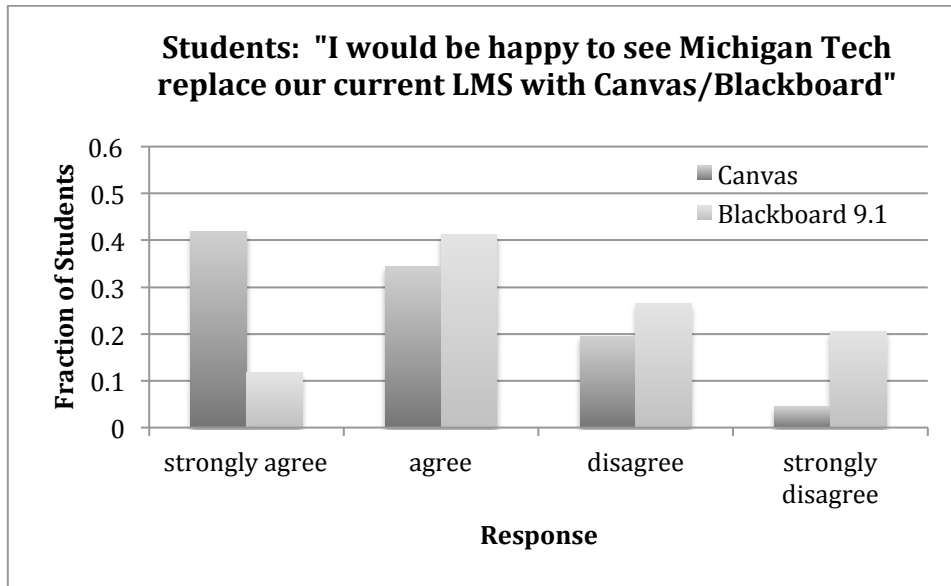


Fig. 5. “Final verdict” of over 100 students in 9 different courses, Fall 2011.

Results from Other Universities

Walt Milligan personally talked to staff involved with Canvas at Auburn, Brown, and Utah. All were very enthusiastic and stated that faculty and students, for the most part, were excited about using the product. Utah and Auburn further stated that Canvas integrated easily with Banner.

The University of Texas at Austin completed a pilot testing program similar to ours, but with more participants. They posted the results of the study publicly on the web. Canvas was the clear choice in that study, which included Desire2Learn in addition to our four choices.

Conclusion

Based on our own testing and interactions with other universities, a contract with Canvas was signed on December 1, 2011.