

S-1802: Online and Hybrid Course Support: Investigate and consider how online and hybrid courses are supported at Rutgers. How are courses created and delivered and how are faculty supported? Respond to the Senate Executive Committee by November 2018.

Learning Management Systems

Learning Management Systems are the primary vehicles for support of online and hybrid courses at Rutgers. Currently there are four major LMS in use at Rutgers:

- **Blackboard:** Blackboard has been used by the Rutgers Business School of Newark and New Brunswick since 2000, and by Rutgers University Newark since 2004.
- **Canvas:** Canvas replaced Pearson eCollege in 2018 as the platform for the online courses offered by the Rutgers Division of Continuing Education (DOCs), and is also being used by an increasing number of faculty for online and hybrid courses in New Brunswick and Camden.
- **Moodle:** Moodle is an open-source LMS used by RBHS.
- **Sakai:** Sakai is an open-source LMS that has been used extensively in New Brunswick and Camden since 2005.

In January 2017 a committee chaired by Doug Blair (Economics, New Brunswick SAS) and consisting largely of faculty was charged by Barbara Lee, the Senior Vice President for Academic Affairs, to investigate a variety of LMS and make recommendations on selecting a single Rutgers LMS. However, the committee was unable to come to any agreement and did not issue a report. Subsequently, in November of 2018 the University selected Canvas, the platform used by most Big 10 institutions,¹ as the official Rutgers platform. For a variety of reasons—the Newark Blackboard contract is in effect until the Summer of 2021; 20,000 courses will need to migrate out of Sakai—it is estimated that it will take two years to five years to fully implement Canvas.

Sakai

Whereas Blackboard and Canvas are commercially developed and maintained platforms, Moodle and Sakai are open source. This means that Rutgers IT staff are responsible for installing, developing, and maintaining the Rutgers version of these platforms, as well as trouble-shooting and assisting the Rutgers users of these platforms. Rutgers was one of the early adaptors of Sakai; for many years had Office of Information Technology (OIT) staff specifically designated for Sakai (including a Sakai Help Desk), and over the years had added many features requested by Rutgers faculty. However, Sakai's infrastructure is aging and at risk.

Recent organizational changes in OIT have resulted in significant reduction of Sakai support. Whereas three to four full-time developers plus two or three students were previously assigned to Sakai, in the Spring of 2018 there were only two staff members working on Sakai. Where there

¹ See <https://www.purdue.edu/lms-review/Documents/Big%2010%20LMS%20Update.pdf>

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used to be a separate Sakai Help Desk, there is now a general Help Desk that covers all of Rutgers LMSs. Support for Sakai is now provided by Teaching and Learning with Technology (TLT).

TLT, part of the Division of Continuing Studies, was formed in 2017 as a result of the merger of the Office of Instructional & Research Technology; the Center for Online & Hybrid Learning and Instructional Technologies; and Rutgers Instructional Technology & eLearning Solutions. TLT serves as the Rutgers system administrator for Canvas, Moodle, Sakai, and Coursera, the platform for about a dozen Massive Open Online Courses (MOOCs) that have been developed at Rutgers².

In the Spring of 2018, ICA heard from a number of faculty who reported significant issues with Sakai after an upgrade to Sakai 11, including problems with the grading module, with quizzes, with the rubrics tool, with Turnitin, and with the meeting platform. Some of these issues were the result of consolidating several versions of Sakai, some of which had been highly customized, which resulted in a version that in some ways was less functional than the previous version.

At their February meeting in Camden, ICA met with Maxwell Chen, the Sakai project manager, and William Pagan, the manager for instructional designers and the Help Desk, to discuss Sakai issues. Some of the issues the committee identified had already been resolved; some OIT was not aware of. They also were waiting for clarity from the University as to what LMS system was going to be chosen. Their focus at this point in time was bug-fixing and not development, or redevelopment.

Students with Sakai issues have also recently reported what seems to be diminished support—students with problems would be told to go to the professor first and if the faculty member couldn't resolve the problem then come back. And whereas Canvas and Blackboard have mobile apps, Sakai is not portable.

The University's recent decision to go with Canvas as the Rutgers LMS removes some uncertainty and allows for forward movement. However given the time frame for full implementation, and the attachment that many Rutgers faculty have for Sakai, means that Sakai will probably continue to be used by faculty and students for several years. As tempting as it may be (and understandable so) to devote most resources to implement the future, it can not be at the expense of the present. As long as Sakai is still in use it must still be supported. And issues continue to surface: as recently as mid-October OIT reported that Sakai was experiencing intermittent problems that "may prevent students and faculty from accessing the system to submit work, manage courses, or otherwise use Sakai." An LMS, whether it is supporting an online course, a hybrid course, or a face to face course, is a critical component of the instructional mission of the University. Sufficient resources to maintain that critical component, and respond to any faculty or student issues with that component, need to be allocated to Sakai during the transition.

² For a list of Rutgers' current MOOC offerings, see: <https://www.coursera.org/rutgers>

Collaborative Projects

One of Sakai's strengths is its ability to serve as the home base for collaborate projects. While this does not appear to be a Canvas feature, the University's recent selection of Box³ as its cloud storage solution will provide students and faculty with that option for future projects. However, there is the question as to what is going to happen to the many, many projects currently in Sakai. There is no plan to address the non-course related content until the course content has migrated. However since Sakai is a local system, presumably there is no reason why the non-course related content cannot remain accessible in Sakai until such time as the issue can be addressed.

Courses Being Migrated

In general, the intent is to migrate the most recent two years' worth of courses to Canvas. In part this decision has to do with resources. Whereas Moodle and Blackboard courses transition at about a 90 percent accuracy rate and require minimal cleanup, Sakai courses—the bulk of what is being migrated—only transition at a 25-70 percent accuracy rate and require significant manual manipulation.

Some faculty have expressed concern that with a two year migration courses taught more infrequently would be lost and that a lot of invaluable data would be lost as well. However, OIT⁴ has assured us that the plan is to allow each school/department/instructor to determine what level of migration best meets their needs. Courses marked by instructors, schools, and departments will be transitioned over regardless of how long ago they were utilized. The existing systems are being decommissioned but not deleted, so that courses and data can be retrieved even after the initial migration.⁵

Canvas Migration

Several units, including the School of Nursing and the Graduate School of Education, as well as those online programs previously using eCollege, have already moved to Canvas. Those who have migrated report a smooth transition, with opportunity for multiple training sessions at different levels, and excellent IP support from DOCs. However, a relatively small number of programs have actually migrated. It remains to be seen if this level of support can be maintained during a full-scale migration. Administration and support for Canvas is slated to be transitioned from DOCs to OIT. It is critical that OIT receive appropriate support for this endeavor.

Intellectual Property

Some faculty have expressed concern that moving from an open source LMS such as Sakai to a commercial LMS such as Canvas, could result in the loss of ownership of their course content.

³ <https://www.box.com/industries/education>

⁴ Charles Collick, Associate Director, IT Accessibility & Instructional Technology, email to ICA chair, December 6, 2018.

⁵ This is in line with previous migrations at Rutgers. When Rutgers-Newark migrated from a local version to a cloud version of Blackboard four years ago they migrated only two years (roughly 20,000) of course sections. Some 200 additional courses were migrated at the request of faculty. The rest of the sections were archived; faculty are able to request recovery of archived courses. A handful of archived sections are recovered each semester.

However this would appear to be addressed in University Policy 50.3.7 (Copyright Policy)⁶, Section III:

Faculty, teaching assistants, and graduate assistants also own copyright to pedagogical materials, including materials in electronic format or posted to a website, that they develop in the regular course of their teaching duties using resources ordinarily available to all or most faculty members (as described in the section of this policy concerning Use of Substantial University Resources). Copyright to works created by a teaching assistant or graduate assistant at the direction of a faculty member or the university typically will be owned by the faculty member or the university.

Section IV (Use of Substantial University Resources) also states:

Use of any or all of the following resources ordinarily available to all or most faculty are not considered “use of substantial university resources:” academic year salary and benefits, salary received on sabbatical, office space, library resources, personal computers and the university’s computer infrastructure, normal use of secretarial staff and supplies, use of instructional support services, such as teaching excellence centers or the Office of Instructional Technology, and small awards to faculty from certain internal grant programs. The faculty will own copyright to pedagogical materials (including materials in electronic format or posted to a website) developed in the regular course of their teaching duties using resources ordinarily available to all or most faculty members.

The LMS is certainly a resource “ordinarily available to all or most faculty members.” While the policy would appear to be fairly explicit, it might alleviate concerns if the language in Sections III and IV were modified to read:

III: “Faculty, teaching assistants, and graduate assistants also own copyright to pedagogical materials, including materials in electronic format or posted to a website or a Learning Management System...”

IV: “The faculty will own copyright to pedagogical materials (including materials in electronic format or posted to a website or a Learning Management System)...”

Other Online and Hybrid Support Issues

While Learning Management Systems are the current focus of most discussions of Online and Hybrid course support discussions at Rutgers, there are certainly other issues that can, and should, be addressed.

One area of concern is scheduling—our current scheduling system does not support hybrid courses if they are irregular. That is, if the course always meets face to face one day per week, it is possible to schedule a room for just that day. But if the course meets face to face every other week; or only during certain days during the semester, it is not possible to schedule a room for just those times. This may not particularly affect that course, but does result in valuable space

⁶ <https://policies.rutgers.edu/5037-currentpdf>

remaining empty and unavailable for other courses. Classroom space is a precious commodity at Rutgers—we cannot afford for it to be wasted.

It is not known if Infosilem, the new scheduling system, will be able to deal with this issue any better.

Increased opportunities for cheating in an online environment continues to be an area of concern. Proctortrack, software which uses biometrics to confirm student identity and then uses the test-taker's webcam to continuously capture video of the testing environment, was made available university-wide in the Spring of 2015. However many students were unhappy about the \$32 fee that they had to pay for each exam. So we are pleased to hear that both Blackboard and Canvas have integrated Proctortrack into their platforms and students are no longer required to pay the individual fees. However, as we noted in our 2015 report on Testing Facilities at Rutgers⁷ facilities for computer-assisted, or even just computer-based, testing are very limited. That report urged that the University look further into the advisability of constructing stand-alone testing facilities. To the best of our knowledge that has not been done.

Recommendations:

Be It Resolved The Rutgers University Senate recommends that:

1. During the extended migration to a new Learning Management System, the University allocate resources, both personnel and systems, that ensure that Sakai is maintained and supported at a level that permits the students and instructors using Sakai as their LMS to do so effectively.
2. That University Policy 50.3.7 (Copyright Policy) Section III be modified to read: “Faculty, teaching assistants, and graduate assistants also own copyright to pedagogical materials, including materials in electronic format or posted to a website *or hosted on a Learning Management System...*”
3. That University Policy 50.3.7 (Copyright Policy) Section IV be modified to read: “The faculty will own copyright to pedagogical materials (including materials in electronic format or posted to a website *or hosted on a Learning Management System*)...”
4. That The Office of Scheduling and Space Management investigate the issues surrounding classroom scheduling for hybrid courses in an effort to free up classrooms that are not utilized on a regular basis.
5. That the University investigate the advisability of constructing stand-alone testing facilities.

⁷ <http://senate.rutgers.edu/ICAConS1503TestingCentersNovember2015.pdf>

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