

Senate Committee on Information Technologies (SCIT)

April 5, 2016

Minutes of the Meeting

These minutes reflect discussion and debate at a meeting of a committee of the University of Minnesota Senate; none of the comments, conclusions or actions reported in these minutes represent the views of, nor are they binding on, the senate, the administration or the Board of Regents.

[In these minutes: Unizin Update; Network and Cybersecurity Upgrade; IT Governance]

PRESENT: Eric Watkins (chair), Madeline Doak, Nancy Carpenter, Michelle Driessen, Brandon Vanderbush, Robert Rubinyi, Carlos Soria, Bernard Gulachek, Geoffrey Ghose, Tim Nichols, Kate McCready

REGRETS: Benton Schnabel, Yoichi Watanabe, Kate Martin, John Butler, Santiago Fernandez-Gimenez, Sean Conner

ABSENT: Karen Monsen, Diane Willow

GUESTS: Brian Dahlin, chief security officer, Office of Information Technology (OIT); Kemal Badur, senior director, OIT; Kristi Jensen, program development lead, University Libraries; Donalee Attardo, manager of academic technologies, OIT

OTHERS: Al Beitz, director, Center for Educational Innovation

Professor Eric Watkins, chair, welcomed the committee and asked members to introduce themselves.

1. Unizin Update: Donalee Attardo, manager of academic technologies, Office of Information Technology (OIT), and Kristi Jensen, program development lead, University Libraries, provided the following update on Unizin and the Canvas pilot, now in its second semester:

- In fall 2015, 24 courses and 800 students were involved in the pilot. Spring 2016 increased participation to 66 courses and 2500 students.
- Courses in the pilot represented 36 different departments and three system campuses.
- In general, students expressed a slight preference for Canvas over Moodle when asked which learning management system (LMS) helped them better succeed in classes.
- Instructors indicated that Canvas was better for teaching.

- The pilot has been extended through the end of Spring 2017, as approved by Provost Hanson; Wendy Lougee, University Librarian; and Bernard Gulachek, interim vice president and CEO, OIT. This will enable the University to continue its evaluation of the tool and the participation in Unizin collaborations.

Attardo said that faculty involved in the pilot were incentivized with money. She said that they will not incentivize use in the future, and will try to recruit individuals who have not used either Moodle or Canvas.

Professor Rob Rubinyi asked if there was a set of criteria being used to assess whether the University would make the switch from Moodle to Canvas. Attardo stated that they do not know yet, but they will have criteria in the future. She said Unizin is one of the considerations, but how the tool works for student learning will be the primary indicator.

Gulachek added that it is important to understand that the provost and the institution joined the effort because it is a consortial approach to solving content management, course management, and analytics issues that was not available to the University previously. It was an opportunity to engage with colleagues in the CIC to explore the possibilities. He added that the University entered into a three-year agreement, and are in year two. The goal, he said, is to know as much as possible about the Unizen platform in this time period; the University has been using Moodle for five to nine years and it is important to gather as much information as possible now to be able to make platform-related decisions. He said that a switch to Canvas from Moodle is not a foregone conclusion. Gulachek said they are now starting to pursue some of the analytics coming out of the courses, which are richer than what can be extracted out of Moodle. Learning analytics enable advisors and faculty to receive student progress alerts and use analytical data on how students learn in electronic environments.

Attardo said they have picked up momentum in regards to participation in Unizin task forces. A variety of staff from various departments and units are serving on them. Most of these will finish up in May, she said, and they will then have concrete information to share.

Jensen then talked about the early adopter program called Content Relay, part of Unizin Engage. She said that the early adopter program (EAP) is a tool designed to validate or invalidate the development direction of a prototype. Content Relay is specifically focused on discovering instructional content aimed at meeting instructor and curricular needs, and contributing and unifying disparate sources of content for the purpose of sharing and collaboration. University participants in the Content Relay EAP include faculty, academic technologists, instructional designers, teaching and learning specialists, and librarians. Jensen said the work is beginning to inform next steps in how to support faculty in moving content into the LMS.

Jensen then talked about the pilot of Unizen Courseload Engage, an e-Text and digital content platform enabling faculty to organize, deliver, and measure interactions with open and licensed materials. Its features include annotating, highlighting, Q&A interactions, and sharing of notes. The goal is to integrate that into the Unizin LMS and analytics software services. She said it is not solely available to Canvas; it can also be used with Moodle. The libraries are managing this program for the University, added Jensen. They have three courses currently using the program and hope to pilot five to ten courses in fall. Jensen added that they will evaluate this tool as a possible platform to deliver course materials, including those that are library-licensed.

She then demonstrated how downloaded content looks in a course. Instructors can upload content, she said, but she was not sure if PDFs or PowerPoints would still have the highlighting capability. Students can share notes with others by changing privacy settings. The system tracks how many notes, annotations, or questions a student has posed or asked regardless of the privacy setting. Jensen added that the University has the opportunity to provide feedback during this pilot period, to suggest improvements that would make the tool more use-able for faculty.

2. Network and Cybersecurity Upgrade Update: Gulachek said that it was important for the committee to know that the current network, a large CISCO-based network, was installed during the years of 2004-2007, and will soon be unsupported by the vendor. The new network project, he added, has the following three major concerns: the growing and evolving needs of users in the institution, the stability that users should expect to see, and a large cybersecurity component. These have all been included in the University's supplemental request to the state.

Gulachek said that the upgrade itself is an electronics "swap-out." Fiber optic cables that are already in the ground will continue to be used. This means most of the replacement will be equipment, followed by the moving of cable connections. He said the down time should be minimal for individual users. The network itself is for all system campuses, and Enterprise institution-wide from border router to wireless access point. The cost is significant, he said, but that is because it is the first time the institution has expressed a single number for a replacement like this.

Gulachek stated that they are currently in the RFP process and that 124 different vendors have responded. The team is beginning to study the responses. He then provided the following overview of the project and the reasons for it:

- Network usage at the University is forecast to increase exponentially, as daily use and devices have greatly increased. Students expect faster and better services both in the classroom and in the residence halls.

- The business of the University is also fully dependent on this network; it is mission critical for daily operations.
- For 2005 the number of devices on the network was 44,000. For 2025 the projected device number is 450,000.
- Bandwidth in 2005 was 2GB, in 2025 it is expected to be over 200 GB.
- There is a decrease in the number of wired connections and a drastic increase in wireless connections. So, the savings in wired equipment can be devoted to wireless equipment.

Kemal Badur, senior director, OIT, then talked about the operational components of the upgrade. The university has done a good job of keeping up with the requirements so far, he said, but to maintain the same stability in ten years would require a continuation of protection against hardware failures. He said they will need to upgrade building and infrastructure capability to account for growing Wi-Fi demand, and will also need to be sure to have the latest technology available for evolution in the technological environment. Kemal added that some components of the University network are showing their age. They are at their maximum capacity and nearing the end of their life. Additionally, security updates for old equipment will eventually not be available.

In regard to security, Brian Dahlin chief security officer, OIT, said that the department wants the following features: intrusion detection capability, advanced denial of service attack defenses, more advanced firewalls for the data center, appropriate firewalls for general access network, and advanced logging and security monitoring. Dahlin added that they are working toward equipment that can handle the network speed, but can also segment the network so that highly sensitive data can be separated from the general operations of the University involving data, to protect from a full system shutdown.

Gulachek said that the total estimated cost (prior to the competitive purchasing process) of the network upgrade, and the number shared with the Board of Regents and the state legislature, is \$77,965,000. The security subtotal is \$19,075,000. He said the network upgrade should deliver a new network that lasts as long as the current one has lasted.

Professor Michelle Driessen asked about the difference between Wi-Fi access points now and with the new system. The current system is designed for 35 people per access point, and Gulachek said they know they will eventually have more than 7000 access points, but those will come out of future operational dollars, not this proposal budget. Professor Geoffrey Ghose asked if the estimate covered telecommunications issues. Gulachek replied that it positions the University for more telecommuting but does not include the specific electronics equipment. IP

instruments and routing electronics, would be additional costs, for instance, if the University chose to go that way.

In response to how the implementation might affect central costs to colleges and departments, Gulachek replied they are still trying to figure that out, and that they have been modeling different scenarios. If the state does not fund the entire dollar amount, he added, OIT has some funding to bring to the table, but they are still working to figure out how the entire project might be funded. The availability of funds could affect the speed with which the upgrade happens, he added.

Watkins asked what early indications were from the state. Gulachek said the president has presented the plan to both the senate and the house and the project funding has moved through. He said they are cautiously optimistic, as it is a one-time ask that aligns with the Governor's initiatives.

3. IT Governance Process: Attardo then asked what issues and priorities the committee had for OIT in the upcoming year, as IT Governance seeks to plan for 2016-2017. She received the following comments:

- On the St. Paul campus, the Wi-Fi connection is still cumbersome, and a lot of teaching happens outside.
- Turnitin.com has not been fully functional. A site with thousands of students on it does not sort.
- There is not much guidance in terms of what works and what does not work. Instructors end up trying things on their own, which does not necessarily percolate up, and feedback on interactive technologies does not seem to trickle down.
- It seems sometimes like system campuses are an afterthought, or it takes a while to get information out to them. System-wide inclusion would be good.
- Perhaps IT could look at technologies that have been developed in the units and assess them for wider use.
- Letting faculty know about options that work really well rather than letting individual faculty stumble on to them on their own would be good.
- Some data sharing is underway but that could be strengthened, with more centralized support.
- Everyone has a need for collaborative tools, authoring, communications, but there is not much direction. This is an area that could benefit a lot of individuals.
- It is difficult to collaborate and also to communicate with patients and keep it HIPAA compliant. If there was some solution to this, that could really positively affect all of the AHC. Schools across the country are in the same boat and it could be beneficial for all of them. The reason for the problems are understandable, but can seem nebulous.

- When asked what might be eliminated in the next two to three years, both Camptasia and Turnitin were mentioned by committee members.

Gulachek concluded the meeting by suggesting that he, John Butler, and Geoffrey Ghose meet over the summer to work on an agenda for the upcoming academic year, to include areas such as the libraries that touch on this group's charge.

Hearing no further business, the meeting was adjourned.

Patricia Straub
University Senate Office