

Committee on Information Technology Annual Report 2015-16

To: Academic Senate, Santa Cruz Division

Executive Summary

The Committee on Information Technology (CIT) is charged with advising on acquisition, implementation, utilization, and impact of instructional technology, information systems, software and electronic communication facilities, including wireless service.

In 2015-16, the committee spent a majority of its time discussing cyber security and learning about the current state of IT security on campus and potential proactive steps to maneuver the campus towards a securer cyber security environment. Members continued monitoring eCommons and began advocating for the adoption of a new learning management system – Canvas – after issues of eCommon's vulnerability became apparent. Lastly, CIT followed up on requests from faculty members concerning ITS support services and computing resources for faculty.

Campus Cyber-Security Monitoring

The University of California has acquired a new cyber-security monitoring system called FireEye in response to the cyber-attack at the UCLA Health Center in June 2015. Although FireEye does have greater intrusive capability, the campus will continue to adhere to the UC Electronics Communication Policy.

UCSC will be the last campus to implement this system. The committee has partnered with the Vice Chancellor for Information Technology (VCIT) Mary Doyle in a communication to address and inform faculty about their security monitoring and breaches concerns, best practices, and recommendations for IT security.

The campus has an open network system that is assigned geographically; however, the most effective way to curtail cybersecurity breaches would be to move the campus towards a closed network. The committee consulted with the Information Technology Services (ITS) Network Operations Manager John Haskins to determine the feasibility of implementing a closed network and learned that it would be difficult. This type of project will require large scale coordination to gather expertise in ITS and a tremendous amount of research to assess the implication of transitioning to a closed network. Other issues that need to be reviewed and considered are:

1. Defining the service for the support of network infrastructure
2. Access control
3. Firewall expenses
4. Equipment replacement cycle
5. Overall budget
6. Personnel

Another option the campus can explore is to implement protected subnets (e.g. Police Department and Bay Tree Bookstore); this will also entail significant discussion and collaboration with ITS. The School of Engineering has support for outbound packet data protocol but not inbound where the protection is by access. The committee would like to revisit the topic of implementing a closed

network in January 2017, as ITS will have a better idea on the scalability based on the status of the Telecommunications Infrastructure Update project.

Campus Learning Management & Course Evaluation System

The Committee on Information Technology in consultation with the Committee on Teaching (COT) has made the recommendation to the CP/EVC to move the campus rapidly toward acquiring a new learning management system given eCommons' increasingly unstable support environment. The campus will be able to take advantage of the knowledge and expertise gained from the other UC campuses (Berkeley, Merced, Irvine, and Davis, including UC Online Education and UCSC Extension) that have contracts with Canvas. The committee will partner with COT in ensuring the transition from eCommons to Canvas will be as smooth as possible and have made the following recommendations to the CP/EVC:

- 1) After at least a year-long period in which faculty and instructors have access to both eCommons and Canvas to migrate content from one platform to the other
- 2) Provide the highest level of technical support available from Canvas, with online support for faculty and staff
- 3) Employ of student workers to assist with troubleshooting during the changeover
- 4) Provide easy and convenient opportunities for faculty to be introduced to the new system
- 5) Provide possible incentives for early adoption

Chair Renau served as the CIT representative on the Vice Provost of Academics Affairs' Online Course Evaluation Steering Committee to assist in selecting a new course evaluation system for the campus. The transition to a new evaluation system has been on an aggressive schedule due to the instability of the current system. There were four vendor demonstrations in April 2016 and the evaluation system is anticipated to be implemented by Fall 2016. We look forward to working on the transition to a new learning management and course evaluation system to enable our instructors and students to have a better teaching and learning experience.

IT Support & Computing Equipment Resources for Faculty

In 2014-15 a professor from the Social Science division requested CIT advocate for better IT support services and timely computing equipment replacement. CIT did not take up this matter previously because the Committee on Research (COR) was working with divisions on this topic but decided to examine the faculty's concern this year.

The committee consulted with the IT Support Center Manager to better understand IT support service on campus and was provided an overview of the campus ticketing system. He informed the committee of ITS' new service level agreement¹ for all assistance request to be assigned within four hours, down from eight hours. Other recent process improvements included continual ticket review, consolidating knowledge, implementing remote connect, and defining first tier assistance (80% of the student employees are new) with escalation to professional IT employees. IT support services seems to be timely and reasonable and perhaps the initial frustration in support services was due to personnel turnover and changes within the unit. ITS accountability services and system metrics² are available for review.

¹ The agreement may be viewed at - <http://its.ucsc.edu/sla/campus-its-sla.html>

² The metrics may be viewed at - <http://its.ucsc.edu/sla/metrics.html#resolution>

The other matter of concern was the lack of basic computing equipment resources. CIT consulted with the Committee on Research (Chair Whittaker) to learn about computing equipment request through COR's faculty and special research grants. Chair Whittaker noted the increase in computing equipment requests in grant proposals, but COR is unable to approve these proposals because the grants are intended to further research. COR has brought their concern about the lack of computing equipment resources to the attention of the Campus Provost/Executive Vice Chancellor (CPEVC) Alison Galloway in 2014-15 and conveyed that computing equipment should come from central funds. CIT and COR partnered on a correspondence to the divisional deans to advocate for the review of the computer replacement policy and requested that there be a plan to restore computing equipment funding to provide faculty with the tools necessary to engage in basic teaching, research, and service activities. We are happy to note that we received a response from the Dean of Social Sciences indicating plans to restore computing funding. Next year, CIT and COR will follow up with the other divisional deans.

ITS Updates & Other Committee Business

VCR & CIO Cyberinfrastructure Summit

The 2015 Vice Chancellors of Research and Chief Information Officers Cyberinfrastructure Summit resulted in a white paper and a draft recommendation for a system-wide alliance to enable system-wide support for multi-campus research. VCIT shared with the committee the draft proposal to create a UC Research Cyberinfrastructure Alliance. The committee reviewed the draft recommendation and would like more clarity on the resource allocation for the storage and equipment of data, an integration plan, and the funding support for the proposed salary.

UC Learning Data Privacy Principles & Recommended Practices

The Director of Learning Technologies Jim Phillips, who is a part of the UC Ed Tech Leadership Group, requested that the committee review a draft of the "UC Learning Data Privacy Principles and Recommended Practices" document. Members reviewed the draft and agreed that the purpose sounds reasonable as organizations are trying to monetize student data, although it is not clear what solution or policy changes will need to occur.

Telecommunication Infrastructure Upgrade Project (TIU)

The TIU project is in the second stage of the project out of four total phases. Most of the campus phones are now on voice over internet protocol although analogue is still available (in case of emergencies) in specific buildings. The upgrade is intended to increase the campus resiliency and wireless speed. The committee will continue to monitor the status of this significant project.

Updates from Vice Chancellor for Information Technology

The committee was pleased to partner and work with VCIT as a standing guest on the committee. The VCIT kept the committee informed of ITS projects and news. The following may be of interest to the Senate:

- Recent implementation of multi-factor authentication³ on campus to increase password security
- ITS review of Educate, an Amazon coursework services (which provides free credit to faculty) to understand the full implications for the campus
- The campus acquisition of the license for SPSS, a statistical software program for students, faculty, and staff
- ITS creation of a section on the Campus Directory site to provide faculty the ability to input their “Area of Expertise” in an effort to facilitate collaboration and the ability to search for faculty by their research and expertise

Upcoming Agenda for 2016-17

The committee will continue to monitor the cyber security situation on campus, work on the adoption of Canvas, and work on the integration of the yet to be determined online course evaluation system.

Members will explore the following topics further in 2016-17:

Data Center/Space. The committee would like to gain a better understanding of the options available for a data center or other space to store excessively large amounts of data. The campus once had a partnership with the University of California, San Diego; that partnership is no longer available, and the data storage options on campus are not adequately meeting the needs of faculty.

Software & Licenses. Committee members commiserated about their experience purchasing software and licenses, as new faculty member and are interested in reviewing and improving the process. Relatedly, it would be useful to have communication or accessible resources (e.g. workshop, website, on-boarding) to inform faculty on all related IT issues, including how to get their research started or purchase software or equipment. Further, CIT members would like to be more involved in future campus-wide acquisition of software.

Computer Labs. A member remarked that the computers in the labs (e.g. Social Sciences 1, Engineering 109) are slow and would like to see if it is possible to improve the processing speed to make better use of classroom time.

Respectfully submitted;

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³ More information about multi-factor authentication may be viewed at - <http://its.ucsc.edu/mfa/index.html>

August 31, 2016