
2015-16 Information Technology Services Overview

The Office of Information Technology Services had a productive year supporting important College initiatives, ensuring a high quality computing environment, managing information security risks, and engaging in innovations in support of the academic mission.

Academic Initiatives and Activities

ITS partnered with the American Studies Program on the Digital Maine initiative to establish an online home for digital scholarship and student-faculty collaboration focused on stories by and about Mainers. Contributors find, digitize, create, and archive artifacts—things like photos, letters, maps, films, reports, and oral histories. The artifacts are used to build interpretive projects about Maine and its cultures, telling interdisciplinary stories through video documentaries and short films, radio documentaries and podcasts, interactive maps, and multimedia interpretive narratives.

ITS is a key member of a developing academic support partnership taking shape along with the arrival of the founding director of the Center for Teaching and Learning (CTL). This partnership, called the academic collaborative, brings into closer alignment the teaching and research support services offered to faculty and students by academic technology, the writing program and writer's center, research librarians, and the CTL.

ITS also worked closely with the Physics and Astronomy Department and the Physical Plant Department on the installation of a second telescope at the observatory's new location on Runnals Hill. The new telescope and dome feature control software that permits students, working at the observatory or remotely in a classroom, to choose locations for observation from star maps and have the telescope automatically focus on that area of the night sky.

Working with the director of safety and the director of risk management, members of ITS assisted in drafting a Small Unmanned Aircraft System (sUAS, aka "drone") policy for the College. A member of the team qualified as a remote sUAS pilot certified to conduct commercial flights so ITS may offer faculty sUAS (drone) aerial photography services for various film and fieldwork needs. The picture to the right is the new telescope from the new drone.

Two technology enabled active learning classrooms were designed and implemented last year. These classrooms feature breakout areas for group work supported by wireless projection to large wall-mounted monitors. The purpose of the active learning classroom (ALC) layouts is to specifically support student-centered learning with technology-rich environments.

ITS supported the Colby Liberal Arts Symposium (CLAS) through re-design of a system for students to register their projects or presentations and worked with the steering committee to implement and distribute an agenda building app for smartphones. ITS worked with faculty and students to produce around 300 conference-style posters for display at CLAS.

An academic dishonesty application was created and implemented in support of the Provost Office's initiative to promote a culture of academic integrity.

Using funding from the Clare Boothe Luce Foundation, Stephanie Taylor in the Computer Science Department worked with ITS to acquire eight server blades with a total of 256 processors to replace 24 aging CPUs in the Natural Sciences Division's high performance computing cluster.

A new 100 Gbps dedicated network switch was installed in the Miller data center, resulting in a four-fold increase in capacity to support Colby's growing research and high performance computing cluster.



The new observatory as photographed by the College's sUAS "drone"

Information Security

ITS improved Colby's information security posture with the following accomplishments:

- Achieved Payment Card Industry Data Security Standard (PCI DSS) compliance.
- Implemented a service to raise awareness of Colby's faculty and staff to sensitive data being stored in cloud-based storage locations (e.g. Google Drive). The service sends an alert to faculty and staff members who store sensitive information on these services asking that it be removed.
- Implemented a solution to discover and map the location of sensitive data such as social security numbers and credit card numbers across Colby's file servers and personal computing devices.

Network Robustness, Capacity, and Security

A number of improvements were made to the College's IT infrastructure with an emphasis on growing network bandwidth and enhancing performance. Additionally, Colby, like all higher education institutions, must guard against increasingly sophisticated, persistent, and potentially damaging attacks to the College's networks aimed at saturating them with unsolicited traffic to deny service. These improvements include:

- An increase in network capacity and technology by purchasing additional commercial Internet bandwidth, replacement of Internet routers, and adoption of an external traffic mitigation solution to better withstand network attacks.
- An additional 65 wireless (WiFi) access points were installed as phase two of the campus wireless network replacement, addressing areas with weaker coverage. ITS now has deployed over 700 state-of-the-art access points with a monitoring system to provide proactive service and in-depth troubleshooting of reported issues.

Operational Excellence

In support of Colby's administrative functions, ITS integrated, developed, and implemented new services and upgrading existing systems. Highlights include:

- Developed integrations for Slate, Colby's "best of breed" admissions system. Data from Slate is required for processes in financial aid, scheduling, advising, and institutional research.

- Participated in the implementation of PowerFails, Colby's new financial aid award system. In addition to implementing PowerFails, the team worked on data integration to our core enterprise resource planning (ERP) system, Jenzabar CX.
- Upgraded the C*Cure access control system from the version implemented 15 years ago to the latest version. The system enables the ColbyCard to be used as a proximity card to open doors in spaces students live and study, as well as for use with laundry, vending and bookstore purchases. Photos of all students and employees are stored in C*Cure 9000 then exported for use with class rosters.
- Supported the transition of catering operations to Bon Appétit by reconfiguring cash registers, setting up new accounts, importing students into the dining system, and making other modifications to systems ITS has in place to support dining.
- Developed collections of necessary data for required ACA Compliance reports.



Students taking advantage of the upgraded WiFi

Leadership

Cindy Mitchell was appointed Chief Information Officer in 2016 through a national search; she joined Colby in late August. Cindy's initial focus is meeting with the many Colby stakeholders to learn about IT services, challenges, and needs and supporting Colby's strategic initiatives. With several aging administrative systems, growing demand for research computing, the critical importance of sound information security practices, the need for high quality reporting and data, and engaging a governance process for IT decision making, the upcoming year will be a year of opportunity to prioritize the activity and strategic direction of the Office of Information Technology Services in its service to Colby.