
2018-19 Information Technology Services Overview

The Office of Information Technology Services has been highly engaged in the past year in delivering services and projects in support of Colby strategic initiatives. Key accomplishments include installation of a visualization wall in the Schupf Lab, replacing aging administrative applications, continuing to refine and improve operational services, and building a student data mart. ITS has been focused on the strategic themes of Empowering Teaching, Learning, and Research, Operational Excellence, and Engaging the Colby Community.

Colby Workday Project

July 16, 2019 Colby launched a year-long project to implement Workday Human Capital Management (HCM), Payroll, and Finance. In the fall of 2018, over 60 stakeholders participated in a process of assessing two vendors, with Workday being selected. An implementation partner, Sierra-Cedar, Inc. (SCI) was selected from a field of three implementation partners after campus presentations, proposals, and reference checks. The Board of Trustees approved the project at the April 2019 meeting. A consultant, Kim Higgins, is serving as Colby's project manager.

Twenty members of the Colby administrative staff from Human Resources, the Provost's Office, Office of Financial Services, Office of Financial Planning, and ITS have key roles in the project. In advance of the project kickoff, the project team took introductory training, hired project staff backfill, identified key Colby events the project timeline must consider, and identified essential reports.

Workday projects have five phases: Plan, Architect, Configure and Prototype, Test, and Deploy. The project team has just completed the Plan phase during which initial data conversion, training, project planning, and design of the financial data model were undertaken. The project is currently in the Architect phase, during which the team members have been learning about the functional business processes, developing integrations, performing more data conversion, and developing needed reports. Configure and Prototype will occur from November 1 through January 31, 2020. During this phase the team will be setting up Workday to work with Colby's data and requirements and will begin unit testing. The Test phase will occur from February 1

through April 30. During Test, end-to-end testing will occur and multiple parallel testing of payroll. The Deploy phase, the final phase, occurs from May 1 through July 1 and will be a time of significant activity in training community members.

A transition management team is dedicated to communicating news about the project as well as information about any processes that might change and when training will occur. Colby employees and students may access the Colby Workday Project website at: <http://web.colby.edu/workday-project/>

Modernizing Administrative Systems

While the Workday project is the cornerstone of our Modernizing Administrative Systems initiative, ITS continues to focus on other modernization efforts.

Replacing Homegrown Systems

ITS has continued efforts to reduce the number of homegrown applications requiring significant ITS maintenance time. In the past year, several cloud solutions have been implemented with stakeholders engaged in a collaborative process with ITS to select the best, most cost-effective solution for their needs. Examples include EvaluationKit (course and faculty evaluations), SimplyVoting (student and faculty elections), and ReportExec (campus security office management).

Reducing time dedicated to homegrown solutions provided the capacity to re-build a solution when one didn't exist in the marketplace. The software used to manage The Colby Liberal Arts Symposium (CLAS) was re-developed to allow for easier solicitation for presentations and improved scheduling for CLAS administrators, reduced ITS involvement, and empowers users of the system to do more on their own.

Student Data Mart

A student data mart was built to address the challenges on reporting on student data within the Jenzabar CX environment. Over the coming months, training in the use of the data mart with a modern reporting/analytics tool, Tableau, will be delivered to appropriate users.

Academic and Research Initiatives

Schupf Lab Visualization Wall

The Schupf Scientific Computing Center, or Schupf Lab, which was previously located on the fourth floor of Keyes, was moved into a larger renovated space in the lower level of Olin in the fall of 2018. Recognizing that scientific data visualization was increasingly the primary use of the Schupf Lab, ITS worked with faculty and administrators to identify more robust visualization tools that would benefit the lab and was possible in this larger space. Thanks to the continued generosity of Paul Schupf, the wall was installed by Facilities and ITS in January 2019 and is currently in use in classes.



Schupf Lab visualization wall

New Active Learning Classroom and Student-focused Workspace

The space adjacent to the Schupf Lab in the lower level of Olin was renovated this summer and opened this fall as a new active learning classroom. Over the past several years, ITS and Facilities have created additional spaces in Miller, Diamond, and Alford Commons. These classrooms include furniture and technology that allow faculty to more readily engage students in active learning pedagogies rather than traditional lecture or seminar. The new Olin classroom features highly flexible, rearrangeable furniture and technology infused breakout areas featuring data projectors that students may connect to wirelessly to display their laptop screens. Notably, this new classroom project was the first that was guided from start to completion by the

Learning Spaces Collaboration, a group convened by the Provost's Office that brings together all of the key stakeholders in classroom planning including Facilities, the Center for Teaching and Learning, and ITS.



Olin active learning classroom

Faculty Instructional Technology Fellowships

The 2019-20 academic year marks the fifth iteration of the Faculty Instructional Technology (FIT) Fellowship program. A partnership between ITS and the Provost's Office, the fellowship is designed to support faculty members seeking to substantially incorporate digital technologies into a new or existing course. Interested faculty submit proposals with three chosen annually for support by a course development grant. This year's proposals focused on virtual reality and 3D printing technologies available in the Mule Works Innovation Lab; novel ways to utilize the Schupf Lab's new visualization wall; and investigation of how digital video recordings of in-class lectures may be used by students for review, the effect on note taking and participation, and how they may enhance inclusive pedagogy.



FIT Fellow discusses virtual reality model with students in the Mule Works Innovation Lab

Information Security and Awareness

Training and Awareness

Information security initiatives this year included continued efforts in student awareness and communication with the community regarding the risks of fraudulent email. Targeted "phishing" exercises were conducted for all students to educate and raise

awareness of the threat of fraudulent email messages and the risks of credential abuse. In addition, the “Securing the Human” security awareness training saw over 200 students complete an online course as a component of health and wellness credits.

Endpoint Protection

The initiative to install advanced protection for all College-owned computers assigned to individuals was completed, with over 650 computers now under the protection and monitoring of the Cylance AI-based threat prevention platform. All reported threats are quarantined automatically and quickly followed up on for investigation.

New Identity and Access Management Solution

The transition to Okta, a cloud-hosted identity and access management platform, began this spring. The platform provides reliable, secure infrastructure to securely authenticate Colby account holders to web-based services hosted on campus or in the cloud. Twenty-eight applications were migrated to Okta authentication during the summer with many others planned during the coming year. Additionally, Okta provides multi-factor authentication to specific applications and groups. The Slate admissions platform was the first application to be placed under Okta multi-factor authentication and the Workday platform will also make use of this in the coming months.

Information Security Leadership

As of July 2019, the director of enterprise services, Dan Siff, was promoted to the role of information security officer. Dan previously held the position of director of information security at Colby from 2011 to 2014 and had remained actively involved in the information security program. This role change created the opportunity to announce a full-time information security analyst position for which a search is currently underway.

Infrastructure and Network Investments

Investments in network and systems infrastructure involved essential upgrades to campus network components as well as a refresh of the central server environment as part of a continued effort to ensure reliability and redundancy.

National Science Foundation Cyberinfrastructure Grant

Now at the completion of the two-year NSF Cyberinfrastructure grant, the final connections for a high speed ‘low friction’ network connecting Colby to data transfer nodes at the University of Maine Orono and the Jackson Laboratories are now operational. This

connection permits the movement of large scale data sets in minutes instead of hours, supporting active research in bioinformatics. In addition to the Schupf Lab and existing high performance computing infrastructure, access to the network can be extended to other academic areas on campus as a result of investment in connectivity upgrades to campus buildings completed in 2018.

Campus Network Upgrades

This year began the first of a three-year initiative to upgrade the network switches in campus buildings. The upgrades are part of normal hardware lifecycle maintenance to provide continued reliability as well as enhanced capabilities including increased 10 gigabit ports and power-over-ethernet (PoE) to every academic and administrative data port to support future deployments for voice-over-IP telephony, video cameras, and a variety of peripheral “Internet of Things” devices.

Cable to IPTV Transition

Streaming television service was introduced in early 2019, making high-definition cable television service and a catalog of on-demand programming available to any computer, smartphone, and display connected to the campus network. This permitted the retirement of the aging campus coaxial cable plant that had become obsolete in the wake of the transformation to digital high-definition service.

Support

The ITS Support Center continues to focus on providing the Colby community excellent customer service and technical support. Staffing changes, improved training, and migrating to a new service management software have been the focus in the past year. A vacant support center position was filled. Student technicians provide primary technical support for the Colby student population as well as back-up support for faculty and staff. Increased training for student technicians focused on customer service, technical support skills, and communication. In March of 2019, ITS implemented TeamDynamix, a best-in-breed service management software that fully integrates support center services, tracking, and reporting.