

# 2019 - 2020 Annual Report

Blend  
central and self-  
directed **support**

Enhance teaching,  
student **learning**  
& computational  
research

Transform  
**data integration** and  
process efficiency

**Modernize web**  
and mobile  
platforms

**Embrace cloud**  
and shifting IT  
infrastructures

**Information  
Technology  
Services**



Carleton

# ITS team highlights



## Welcome to the 2019-2020 ITS Annual Report!

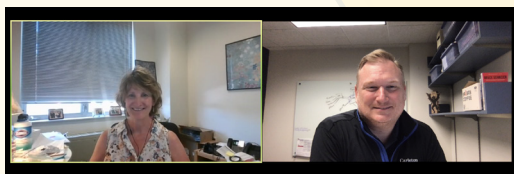
In this document we will highlight some of the accomplishments of ITS over the past year. Our work has been significantly affected by COVID, and we will share stories that illuminate this moment of adaptation and reinvention. Even with additional constraints on our time, we still found great value in this reflective practice, and we hope you do as well.

I am always proud of the members of ITS for their dedication to Carleton and its students, staff and faculty, but never more so than this spring. I saw, and I know that many of you saw, their calm under pressure and their creativity in supporting an environment with many unknowns and daily discoveries.

It was also impressive to see how quickly faculty and staff adapted to new ways of working and teaching. I want to thank all of you for your innovation and for your partnership during these unusual times.

Wishing you the best over the summer and the coming year.

*Janet Scannell*



The **Technology Purchasing Coordinator** orders all of the hardware, software, and IT equipment for the campus. The **Information Security Officer** is responsible for all dimensions of Carleton's IT security program, including technical controls, user training, and policy & governance.

- ◎ Switched the campus over to VoIP Phones.
- ◎ Facilitated the ordering and distribution of the first round COVID-driven remote work technology.
- ◎ Selected a new cybersecurity training program.
- ◎ Partnered with St. Olaf in expanding our data-loss protection services to include cloud-hosted storage at a lower cost-per-seat than previously.
- ◎ Added additional VPN capacity for remote work.



The **Technology Support Group (TSG)** supports Carleton community members' use of technology in offices, classrooms, labs, event spaces, and remote locations. This includes services such as the Helpdesk and PEPS, and functions such as hardware and software purchasing, configuration, and distribution.

- ◎ Partnered with St. Olaf to replace our ticket system with a more comprehensive service management solution called TeamDynamix, allowing us to better track, coordinate, and schedule our work.
- ◎ Worked extensively with vendor partners McGough and EPA in the renovations of Olin Hall.
- ◎ Assessed the computing and network needs of all students in the wake of the changes to Spring Term, with followup conversations with more than 300 students.
- ◎ Shipped roughly 60 computers and 20 hotspots to students who needed technology for remote learning.



The **Academic Technology** group (AT) consults with the community on current and emerging curricular and research technologies. This includes supporting online learning and teaching, and finding ways to integrate digital thinking into the curriculum.

- ⦿ Held over 100 drop-in sessions during Spring Term for just-in-time support of remote teaching and learning technologies.
- ⦿ Created digital materials for visualizing different eyewitness depositions of the Boston Massacre for a digital humanities History class.
- ⦿ Added new DataSquad services that include: replication and archive support, regular data and code support drop-in hours with the QRC, and data visualization assignment data prep and classroom support.



The **Enterprise Information Services** group (EIS) administers software applications for campus student information, financials, human resources, document management, and reporting and data warehousing. EIS also provides analysis and process review for interested campus departments.

- ⦿ Revamped parts of the Hub portal (**Hub2021**), with new screens for students, faculty and staff.
- ⦿ Leveraged OnBase tools to automate and digitize many processes across campus in response to the COVID-19 situation.
- ⦿ Expanded the use of Salesforce, which helped to get student information out to several offices on campus.
- ⦿ Improved departmental software integration with our enterprise applications.



The **Systems and Infrastructure Group** (SIG) builds and maintains Carleton's core technology infrastructure: datacenter, servers, storage, and networking. We also manage authentication and identity management across hundreds of applications. SIG works closely with the information security officer to safeguard the systems under our control.

- ⦿ Added redundant cloud authentication.
- ⦿ Rebuilt the virtual server infrastructure.
- ⦿ Migrated to VoIP phone environment.
- ⦿ Designed the Olin and Hulings network upgrades.
- ⦿ Deployed a new hyperconverged infrastructure.
- ⦿ Retired Fibre Channel storage infrastructure.



The **Web Services Group** (WSG) partners with all areas of the college to create and support Carleton's web presence. In addition, we are focused on migrating the college's web sites from Reason to WordPress and identifying the best ways to deliver solutions for more specialized needs.

- ⦿ Migrated 148 additional sites to WordPress
- ⦿ Premiered the new Carleton home page.
- ⦿ Launched the new campus directory for WordPress.
- ⦿ Developed the Trustee Directory for WordPress.
- ⦿ Created features for the commencement site.
- ⦿ Developed the new Bio Book for alumni.

# ITS by the numbers

AY 2019 - 2020

## Supporting Technology

Over **5350** tickets in TeamDynamix since January

New features!

Over **1675** Client Portal submissions

Over **225** Live-Chat Support sessions

### VoIP Conversion

delivered  
**640** physical phones  
**61** softphones

## Supporting Teaching

**17** spring break workshops facilitated with LTC

**70** video lessons created in Moodle micro-course:

**215** unique viewers

**11,470** clicks in those Moodle lessons

## Vimeo

**1900** views of training videos in April

## Security

Average daily users of the VPN

**50** (before Spring Break)

**205** (after Spring Break)

## Panopto

**414** faculty and staff created and/or uploaded

**6916** videos

These videos were viewed by **3299** faculty, staff and/or students

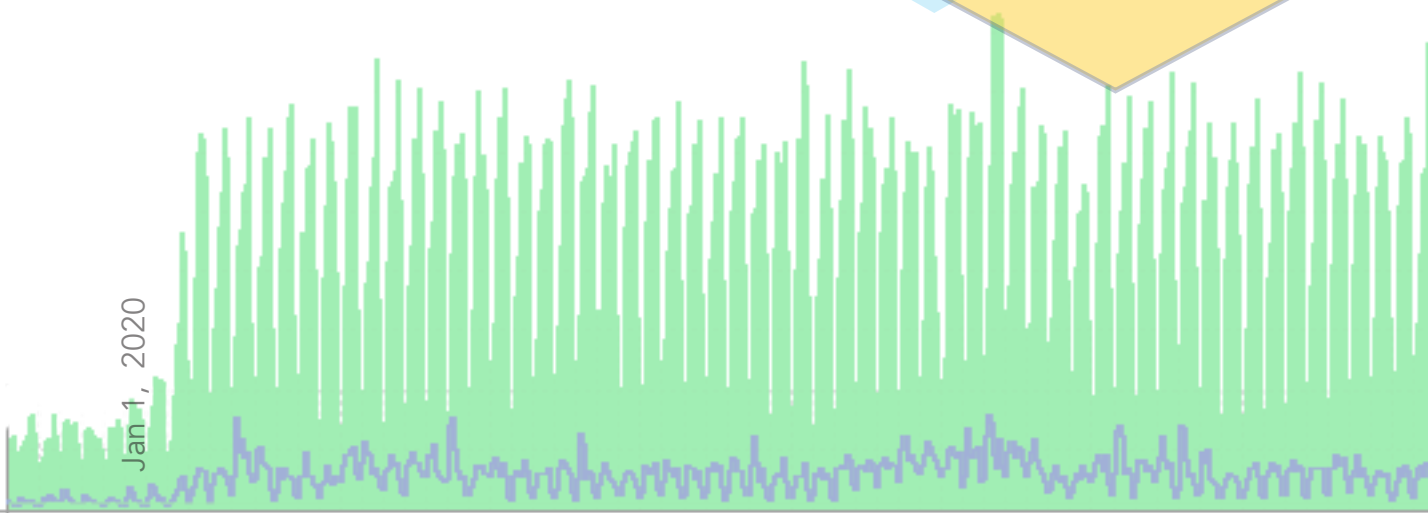
## Supporting Academics

## Zoom

**6,655** sessions with **334,170** participants in **92** countries.

1.8 Gbps  
1.6 Gbps  
1.4 Gbps  
1.2 Gbps  
1.0 Gbps  
0.8 Gbps  
0.6 Gbps  
0.4 Gbps  
0.2 Gbps  
0 bps

Jan 1, 2020





## Web

**148**

websites migrated from Reason to WordPress

**79%**

of major sites have been migrated

**138,968**

unique pageviews of COVID site  
*(through Aug 5th 2020)*



**1,761,788**

pages printed spring 2019

**181,985**

pages printed spring 2020

**115**

trees saved during COVID

**212**

faculty and staff attended at least one training session during spring break

**67**

faculty and staff received an iPad

**53**

faculty and staff received a webcam

**18**

students received a device for wifi

COVID

**58**

students received a loaner computer

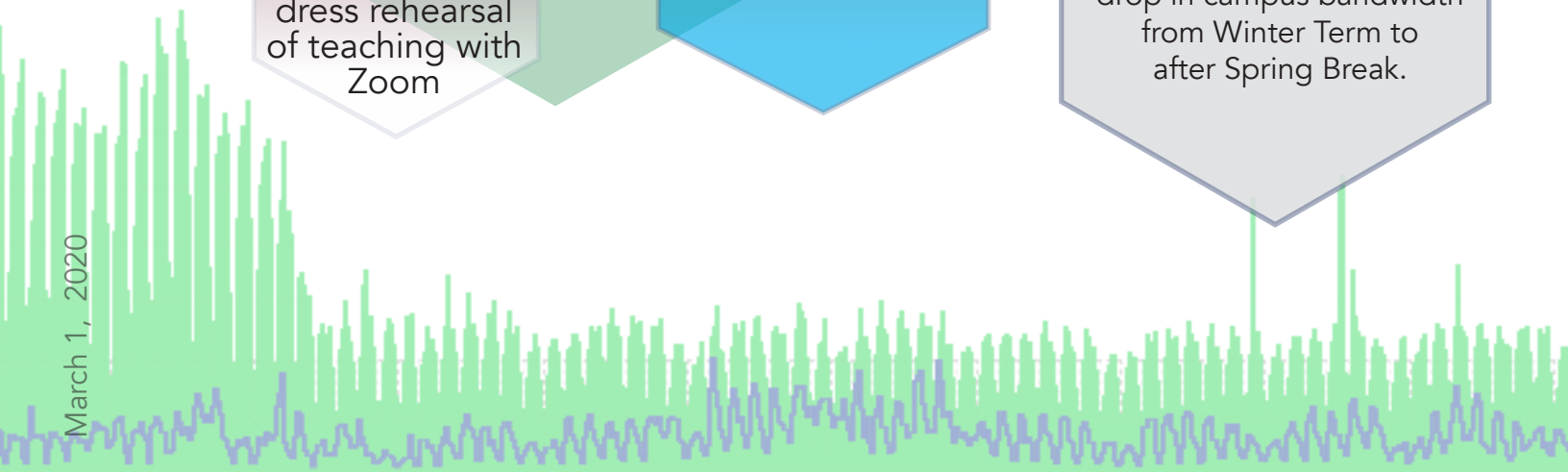
**180**

volunteers for dress rehearsal of teaching with Zoom

## Background

**Image below** shows the drop in campus bandwidth from Winter Term to after Spring Break.

March 1, 2020



# ITS partnerships

AY 2019 - 2020

During times of rapid change, Carleton's fully built-out data warehouse allows us to move more nimbly than other small institutions. As **Jane Rizzo**, Director of Budgeting and Financial Analysis, has noted, *"My job would be nearly impossible (or at least very slow and likely inaccurate) without the data warehouse. One of the benefits in COVID times has been the speed factor. We have reviewed and will continue to review dozens of financial scenarios. Without the data warehouse, I would not have been able to pull data so quickly."*

When COVID hit, the ITS Helpdesk quickly added an option for chat-based support, which was used 250 times over Spring Term. Here is a Q&A with one of those users, **Nora Peterson**, Sexual Violence Prevention Coordinator.



## Why did you choose chat for your question?

*"I chose chat because I had a 'quick' question. In general, I will call ITS when I am desperate or need assistance immediately. I will create a ticket when I have a bigger problem that is not time sensitive. I use the chat feature when I have a question that I imagine someone with more tech knowledge could answer easily."*

## What went well about the chat interaction?

*"Most significantly, the staff member who helped me was very friendly, helpful, and went the extra mile to make sure they were giving me the correct information. The tech itself also worked extremely well—very intuitive, easy to use and navigate."*

ITS also added [Instant Video Support](#), offering real-time video help for Zoom, Google Meet and Panopto. PEPS and student staff were available for about 9 hours per day during spring term.

This year, in-person group review of files was not possible for the sophomore Writing Portfolio. Matt Wallace (from the EIS team) reworked Carleton's existing institutional document management system (OnBase) so that it automatically distributed portfolios to reviewers, collected evaluations, provided reminders, and collated results from multiple readers, providing a workaround to the long-standing tradition of passing files around a conference table. The new process also avoided the printing of 40,000 pages of essays.

*"The shared camaraderie of reading portfolios with colleagues, like so many things in these pandemic times, cannot be replicated, but the online portfolio assessment process is remarkably smooth from a technology standpoint and is, in fact, easier in some ways than the three-day, in-person operation that it has been since its inception."*

**- Chico Zimmerman, Classics**

When the decision was made to send students home in the spring, Web Services worked with the **Registrar's Office** to convert 9 PDF forms and their corresponding submission and approval workflows to online forms. This ensures that forms are available to everyone who needs them and that the review / approval process can continue to happen while students and employees are remote.

As Carleton entered spring break and students transitioned to remote learning, it became clear that they would need access to a reliable computer, course-specific software, and decent internet.

Working with **IRA**, ITS surveyed students to identify concerns about their computer, their internet access, or both. To clarify responses, a coalition of ITS staff and other collaborators, including **Trey Williams** (TRIO), reached out by email, text, and personal calls. In addition, **Paul Bernhard** (CAMS) and **Mike Tie** (CS) reached out to students in their departments. Staff from **Graphic Mailbox** visited CMC to demonstrate and train student workers to package iMacs for safe shipping around the world. Another set of volunteers prepared 43 iMacs that **Locke Perkins** and his staff shipped out. An additional 26 iMacs were prepared for on-campus pickup.



**David Entenmann and Kevin Chapman**

ITS took two approaches to providing access to software that students needed to complete their courses. First, Rebecca Barkmeier and Jeanne Blair worked with software companies to negotiate terms that allowed students to install licensed software on their personal computers. More than 90% of them gave us free or deeply discounted licenses. Second, we created the RemoteLab—a room full of 90 public lab computers equipped with every Carleton-licensed application. It was designed as a way for students to log into these computers remotely, from wherever they were in the world, and use any course-specific software they needed.

Throughout this process, ITS consulted on setting up cameras and microphones, and helping with remote network issues, including: working with internet service providers, configuring routers, reducing interference and optimizing internet speeds, and providing hotspots to twenty students who had no other internet options.

During the last two weeks of March, LTC Director **Melissa Eblen-Zayas** and the Academic Technology team conducted 17 unique workshops to prepare faculty for teaching in a digital environment. As Melissa shared in a recent workshop, *“when we started the Carleton Undergraduate Bridge Experience in 2016, we didn’t know how valuable that experience would turn out to be in this current environment.”*

After the LTC recommended Moodle as the single online location for sharing course materials, submitting assignments, providing feedback, and making announcements, Carly Born created a series of skill-building videos *within* Moodle for *learning* Moodle. These tutorials introduced faculty to new features that were especially valuable for online learning.

In the wake of Zoom's 20-fold increase in daily users, the company attracted heightened scrutiny of their security and privacy practices. Carleton's Information Security Officer was involved in tracking Zoom's actions during their “90-day focus on security,” talking with concerned students and working with others in ITS to propose new settings which went into effect on May 15th.

*“Using Moodle to post podcasts with follow-up writing assignments went really well and the students were surprisingly interested and engaged! I plan to use this method even when we return to face-to-face instruction.”*  
- **faculty member**

*“I was really impressed with the quality of Zoom and the ability to do breakout rooms and polling. I was quite nervous about whether Zoom would work, but it really did.”*- **faculty member**

# GETTING SUPPORT

## **For help with a work-stopping issue:**

Call: 507 222 5999

## **For help with an urgent classroom issue:**

Call: 507 222 7070

## **To check whether a service is down:**

Visit: <https://go.carleton.edu/its-service-status>

## **For help with a non-urgent issue:**

Visit: <http://go.carleton.edu/helpdesk>

Visit: <http://go.carleton.edu/servicecatalog>

## **To get technology alerts via text:**

Visit: <https://go.carleton.edu/tech-alert>

Follow the instructions to add your cell number

## **To discuss an idea or get connected to specific expertise:**

Contact any of the ITS managers or

Janet Scannell, CTO, at: [jscannell@carleton.edu](mailto:jscannell@carleton.edu)

