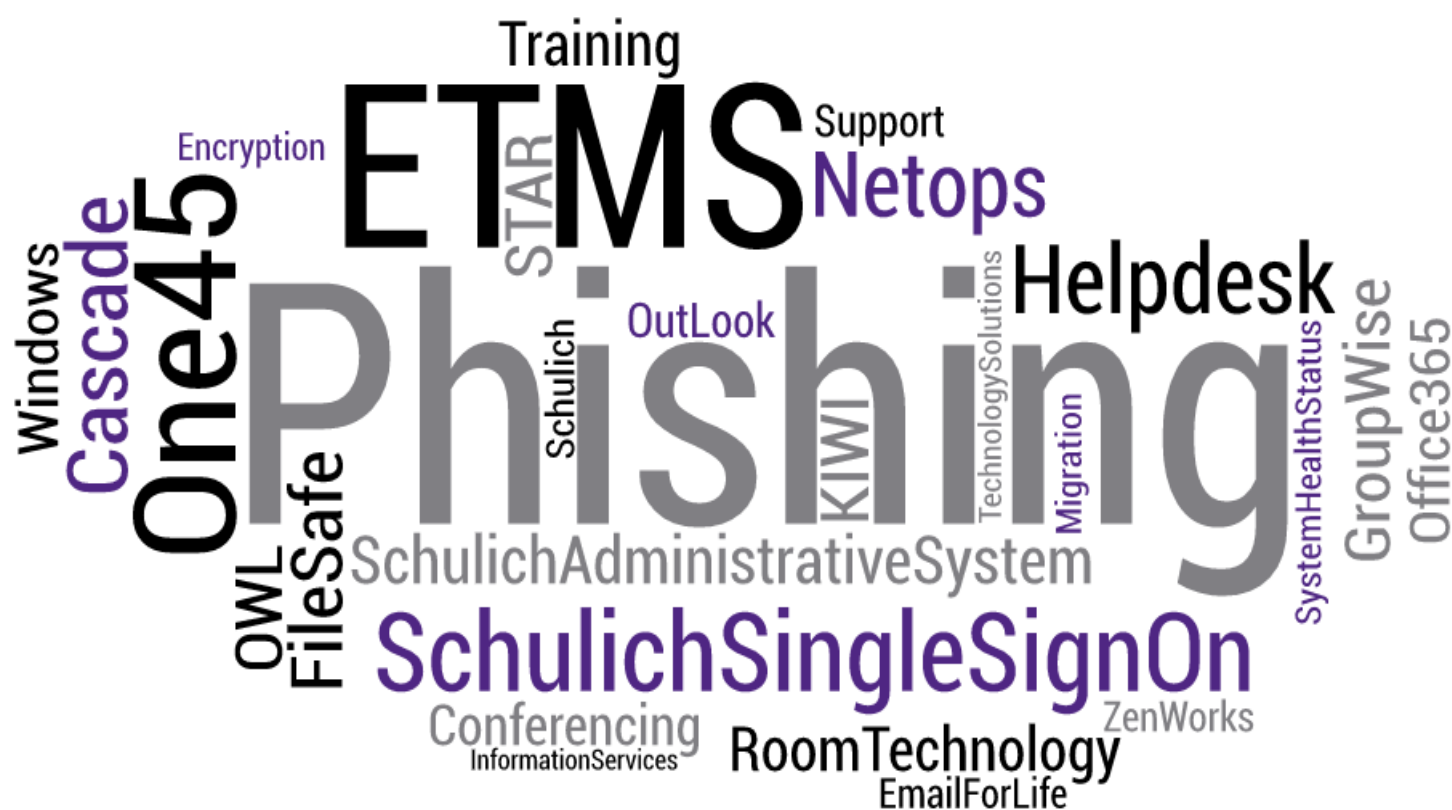# Information Services

Annual Report 2016

INFORMATION SERVICES ANNUAL REPORT—2016

Schulich School of Medicine & Dentistry

Key Unit Goals:

- *To provide technology solutions which improve and enhance organizational processes benefitting members of the School including faculty, staff and students*
- *To provide training and support of technology equipment and systems as well as the delivery of excellent customer service.*
- *To develop and support applications which assist the organization in the management of data and information in support of the organization's goals and strategies*

A LETTER FROM THE DIRECTOR, SERGIO RODRIGUEZ

I am pleased to present the inaugural Information Services annual report for the year 2016. The report presents highlights of the excellent and important work that our team carried out last year on behalf of and in service to you, our customers.

2016 was an exciting and busy year with plenty of challenges, opportunities, and ultimately success stories for Information Services. We continued work in support of strategy including aligning our operations with School wide goals, customer focused service, optimizing use of campus wide and cloud based technology services, optimizing in-house application development, and enhancing the skills and competencies of our team to best serve our School to include not only technical but also business proficiency. All this, in addition to providing core infrastructure services such as desktop, room technology and server support to keep our community productive.

I would be remiss if I did not highlight that underlying all the activity and our accomplishments in 2016 was a fundamental commitment by each and every individual in Information Services to want to serve Schulich to the best of our ability. I have no doubt in my mind, that our greatest strength is our people. I consider myself extremely lucky to work with a group of highly committed, hard-working, skilled professionals who strive to do their best, and produce great results, in what is a very dynamic and challenging environ-ment.

I hope you enjoy reading about our work in 2016 and we look forward to an even better 2017!

- Sergio

Table of Contents

WELCOME TO THE FIRST EDITION OF THE INFORMATION SERVICES ANNUAL REPORT

The purpose of this report is to provide insight into the ever changing environment of the Information Services Department here at the Schulich School of Medicine and Dentistry. Often times Information Technology departments are seen as "fixers", taking reactive measures when systems break or malfunction. While this is a reality for IS, it is only part of what we strive to bring to our customers. We aim to make our customer's daily lives at work or school better through creating efficiencies with technologies we custom build, upgrading software to versions that are more stable with better features, expanding the ways we use technology to enhance teaching and learning, and educating our users and customers about how to keep their information secure through best practices and encryption (plus so much more!).
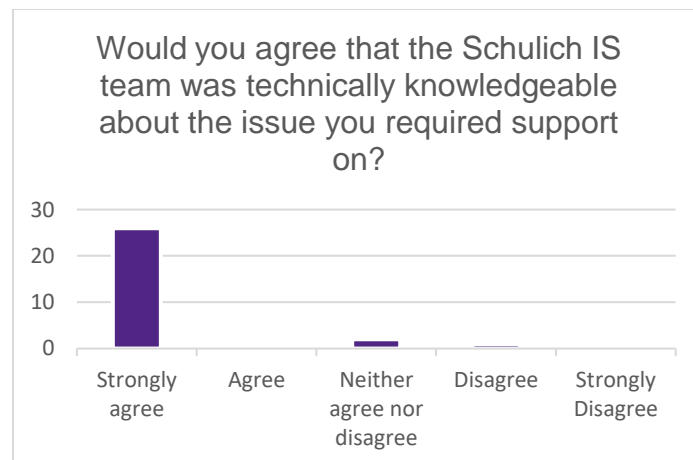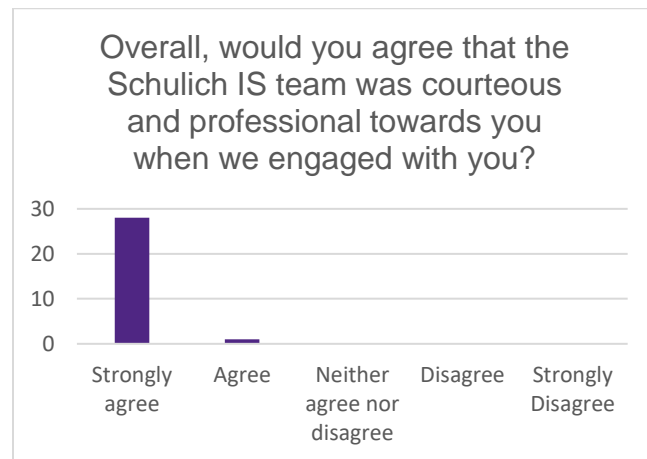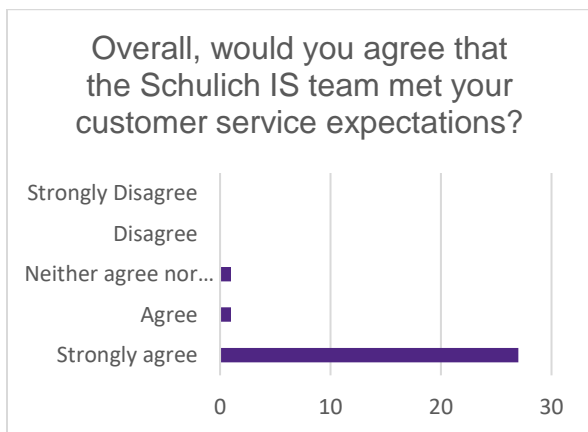
Information Services: By the Numbers

41,854	Unique page views of the Information Services webpage http://www.schulich.uwo.ca/informationservices/
20,000	Dollars in initial savings per room by moving from 2 codecs to 1 in MSB146 and MEB1115
5,300	The number of faculty, staff and students/alumni, Helpdesk provides high levels of support to their customers
4,570	Support Tickets created by Information Services in 2016
4,500	Active users in Schulich Single Sign On (SSO)
4,375	Support Tickets RESOLVED by Information Services in 2016
3,000	Students assisted by the Helpdesk with the Email For Life (E4L) migration to Office 365
2,000	Faculty and staff using the Acuity STAR application
2,000	Network devices (printers, computers, mobile devices etc.…) requiring support and service
1,700	+/- hours of video conferencing & projection per year in our main distributed medical education classrooms
1,694	Videos available on the secure VoD (Video on Demand) portal
1,315	The number of support tickets received by the Application Development team in 2016
1,233	The number of support tickets closed by the Application Development team in 2016
688	Meds 2018 captured lecture videos available
514	Meds 2019 captured lecture videos available
302	Meds 2017 captured lecture videos available
250	Cascade editors supported by Information Services
162	Meds 2020 captured lecture videos available
130	New webforms created by Information Services for our customers
100	Unique Cascade websites upgraded to the Western Responsive design template
77	Workstations purchased for deployment in the Dean's Office and Dentistry
66	Travel Packs Purchased for Schulich Mobile Device Users
64	Workstations/Switches and monitors installed in the Dental Simulation Clinic
62	Videos posted for web and/or OWL
39	Did You Know Tips posted to the Information Services Website
36	Network orientations provided to new users
31	Online Customer Feedback Forms Completed
25	News Items Posted to the Information Services Website
20	Number of staff employed by Information Services
11	Information Services provides support to customers across 11 buildings on the Western Campus, at the University of Windsor
10	Physical servers disposed of as part of virtualization efforts
9	Cascade training sessions conducted
6.5	Hours of processing time per night saved by re-engineering a backend routine to process data in SaS
5	Classrooms/Meeting rooms(MSB146, MSB105 & MSB148 in London and MEB1113 and MEB1115 in Windsor) received an AV upgrade
2.5	Terabytes of storage (file shares) moved from Schulich to Western's ITS
1.7	Terabytes (and counting) of storage and bandwidth on the video on demand system
1	AWESOME Information Services team at Schulich

Customer Feedback Form Highlights

In 2016 Information Services received 29 submissions from the online feedback form. The results from these forms are used to assess and improve the quality of service we at Information Services are providing to you, our customers.

Overall, were we able to resolve your issue to your satisfaction?

Overall, would you agree that the Schulich IS team was courteous and professional towards you when we engaged with you?

Overall, would you agree that the Schulich IS team met your customer service expectations?

Would you agree that the Schulich IS team was technically knowledgeable about the issue you required support on?

You disagree or strongly disagree, please explain:

"I have been stymied with the "remote-gate" for remote access for e-mail. E. at the helpdesk was most helpful in clarifying the termination of support for computers running VISTA. Also the web access has been set up, and is operational. Hopefully I'll be able to get by with that for the near future."

"Sometimes yes and other times, there was a significant lack of knowledge - which may be due to the software rather than the individual, but the result was a protracted issue."

What Our Customers Had to Say about Information Services in 2016

** This information was gathered through the Information Services Customer Feedback Form **

"The Schulich IS Team never disappoints. Excellent service always!"

"I am always so impressed by the entire staff at Schulich IS.
Most recently, I have been helped by Matt, Nancy M, Nancy F, Patricia, Denise, and of course
Erin. Thank you to the entire team, you never disappoint, and you always deliver the goods.
We are so, very fortunate to work with such professionals. Sometimes, I forget to say thank you,
as I just get used to the wonderful service.
So, thank you to everyone who has recently worked on projects for me."

"Thank you Andrew so much for your help. This was the first meeting of a group for the first
time, and the first time I had to provide support in H101. Everything went well!"

"I never feel anxious when having to contact one the IS team. I quite often get Erin on the phone
when I need to contact IS. I find her friendly and extremely helpful. The IS team does not make
me feel stupid when I ask questions or need assistance with troubleshooting. You have a Great
Team. I am impressed."

"Schulich IS was incredibly helpful and accommodating. Thank you!"

"Excellent service with a smile always!
Thank you."

"The Schulich IS Team, from Erin, the polite voice who answered my numerous inquiries...
through to Greg, the genius who took my computer and brought it back to life...truly exceeded
my expectations. Never lose these people. They are gold. Professional, understanding and
thorough. Thank you"

"Friendly, flexible, trying to help and succeeding"

"IS team is always above my expectations. Cheers"

Helpdesk

Erin Robertson, Nathan Nagalingam and Bronwen Mattison

The Help Desk team aims to provide the highest level of support and service to the staff, faculty, students and all other customers here at Schulich through services such as technical and desktop support for individual users as well as computer labs, hosting network orientations, hardware and software upgrades and email support. Below you will find a list of the projects and key services provided by the Help Desk team to Schulich in 2016.

Scope of Support

The Help Desk Team provides support and services to:

> 1,800 full and part-time faculty
> 1,500 staff
> 2,000 + students and alumni, Medical Affairs offices including staff and physicians at London teaching and regional hospitals as well as Schulich's Distributed Education program

In addition to the 5,300 plus people who are supported by the Help Desk team there are multiple dedicated computer labs and facilities, such as the 142 seat Valberg Educational Resource Centre (VERC), and over 2,000 networked devices (computers, printers, mobile devices etc...).

The Help Desk team also assists with Admissions Interview Weekends by providing afterhours IT support and coverage for the 440 students who have interviews over the two weekends. During this time the Help Desk staff member who is assigned to the coverage ensures that the computer labs are functioning for testing, and assists the instructors and students with any issues they might experience during the process.

A few other general support items that the Help Desk team provides:

- Worked with clients on archive data migration to Western ITS servers – the move to Western servers in order to minimize service duplication

- Worked with Western ITS to examine/suggest upgrades to Wi-Fi. Several new Wi-Fi access points were added to the Medical Sciences Building for a more stable Wi-Fi connection for all users

- Updated the layout of the ***How Do I*** webpage and created a number of Pow-toon videos for our customers – these videos are provided as a self-help platform to allow our clients to get assistance for a range of topics such as re-synching your phone's email and calendar or setting up remote desktop connections.

Hardware Upgrade

In 2016, 64 workstations were purchased by Information Services and are currently being deployed out to Dean's Office and Dentistry Faculty and Staff. As part of this new hardware deployment the Helpdesk team conducted a spare equipment inventory, the surplus items from this inventory were either donated or put into the surplus equipment sale to recover some of the cost of the new equipment

Software Upgrades

A key project for the Help Desk team in 2016 was the Windows XP "End of Life" project. The Help Desk team worked closely with staff and faculty to upgrade units with Windows XP operating systems to Windows 7 or higher. By completing these operating systems upgrades our customers received a better functioning, more secure, machine with up-to-date software and technologies.

Microsoft Office 2013 was rolled out to 300 users in the Dentistry and Deans office. The 2013 version offers users an enhanced tablet like interface which is cleaner looking. This cleaner look allows for a better end user experience. Some other interesting features offered in Microsoft Office 2013 are available in excel, recommendation of suitable charts and pivot tables, a new read mode in Word 2013 and the built in Skype feature.

Printing Upgrades and New Multi-Function Devices

The implementation of a mobile printing solution called PaperCut for the Masters in Public Health (MPH) Program was rolled out in 2016. This mobile printing solution is used by students and staff in MPH so they have the ability to print documents from any device, anywhere, to a printer in the WCPHFM (Western Centre for Public Health and Family Medicine) building on the 4th floor. Papercut was also deployed in he VERC in 2016/

The Help Desk team participated with Western Procurement Services and ITS to finalize the Request for Proposal process for the replacement vendor and equipment for the current Multi-Function Devices (MFDs). Through this process 30 MFDs were deployed throughout the school and with this 300 electronic scanning boxes were created. During the procurement process for the new MFD's the Help Desk team also conducted a vendor evaluation process for printer toner purchasing and maintenance to ensure our clients at Schulich are receiving the best prices for printer tonner and support/services.

Email Support

In 2016 the Help Desk assisted approximately 3,000 students in the migration from Email for Life to Office 365. This migration offers an increase in mailbox storage space and a better graphical interface that is more up-to-date and user friendly. The Help Desk team also offered assistance with a project initiated by Western ITS of migrating Schulich users' @uwo.ca accounts from Convergence to Office 365.

Help Desk Staffing Changes

2016 was a year of large scale projects and internal changes for the Help Desk team. There were some internal staffing changes which saw two Help Desk staff members transition into new roles within IS, Erin Robertson transitioned into the role of Desktop Support Specialist and James Topping moved into the role of Network Analyst. With Erin leaving the role of Technology Support Specialist for her new role the Help Desk has welcomed Bronwen Mattison to the team. In addition to welcoming a new team member IS said goodbye and good luck to Greg Postma who, after 10 years with IS, accepted the role of IT Client Support Specialist in the Faculty of Health Sciences

COMING IN 2017

MIGRATION TO OFFICE 365

Novell GroupWise is migrating to Office 365.

Visit O365 Migration for more information

Network Operations

Ramiro Ruiz and James Topping

2016 was a year of simplifying, streamlining and providing assistance on projects for several other units within Information Services for the Network Operations (NetOps) team. In addition to working on multiple large scale projects and decommissioning equipment in 2016, the NetOps team welcomed James Topping to the role of Network Analyst; transitioning from a Desktop Support Specialist role within the Helpdesk unit. While IS welcomed James into his new role, we said goodbye to Ari Porzecanski as he accepted a position with Western ITS as a Network Analyst.

Collaborative Projects

The NetOps team has provided collaborative support for various units internal and external to the Information Services in 2016.

- As part of the workstation refresh project with the Help Desk team, NetOps procured 77 workstations for the Dean's office and Dentistry which allowed us to replace older workstations which are now out of warranty resulting in us having a majority of the workstations managed by our department now covered under a 4 year warranty cycle.

- Collaborated on two large projects with Dentistry which included:

    o Simulation (SIM) Clinic for Dentistry (65 Workstations and 1 file server)

    o Picture Archiving and Communication System (PACS) for Dentistry (4 Servers)

- Collaborated with Western ITS on migrating the old student Email For Life system to Office 365 resulting in our current and former medical and dental students having and updated mailing system with increased storage, better user interface and allowing us to decommission the server and storage system that housed the hold system.

Server Maintenance

2016 was a big year for server maintenance for the NetOps team. Some benefits of ensuring that servers are up-to-date include: improved security, increasing per-formance levels as well as new or enhanced features. Below is a list of some of the server initiatives carried out in 2016:

- Migrated servers running outdated operation system, bringing current systems up to date and allowed the Information Services Application Development team to update their programs to the latest versions for enhanced features and performance of services.

- Decommissioned three servers which saves on yearly maintenance and licensing costs.

- Deployed new Zoomify server for Pathology, as well as 4 new servers for the Dentistry Digital Radiology project and the new Dentistry Simulation Clinic.

- Migrated testing servers infrastructure to Western ITS freeing up over 2.5 terabytes of storage from Schulich which allowed NetOps to decommission older storage and therefore save costs on maintenance and licensing.

- Disposed of 10 Physical Servers located in SSB (Support Services Building) which freed up rack space which will allow for us to consolidate our remaining equipment to a single rack and thereby have a cost saving benefit.

- Upgraded our server virtualization infrastructure from version 5 to version 6 including the testing environment resulting in an up to date virtual server infrastructure.

Miscellaneous:

- Upgraded RedCap system (research electronic data capture) which provided Schulich's clinical department in Surgery department with an updated RedCap environment.

- Updated and maintained our Windows 10 Master image which provides cost savings to our clients as it allows us to reimage a workstation in minimal time thereby limiting downtime for our clients.

- Migrated the VERC (Valberg Educational Resource Centre) print services to PaperCut (Western's printing solution) providing the ability to print from mobile devices in the VERC, as well as leveraging a university with print solution.

Clinical Application Support

Derrick Gould

The goal of Clinical Application Support (CAS) to is to provide excellent customer service and application enhancement to the faculty and staff who are using the Acuity STAR application. This application is for staff tracking and activity reporting (STAR) and is used by all clinical departments to track and report on faculty career activities; allowing users to create a standardized CV (curriculum vitae).

ACCADA 2016 – Ottawa

In October, Clinical IT Project Manager Derrick Gould was asked to speak along with Mr. David Allsop, (Department of Medicine, The Ottawa Hospital/University of Ottawa) on the topic of *CV Databases* at the 2016 Association of Canadian Clinical Academic Department Administrators Annual Conference. The focus of this year's conference was on Collaboration.

The primary goal of this speaking engagement was to increase the communication between the Universities in the area of Activity Tracking and to start conversation between Managers of Administration and Finance and the Information Services departments across the country.

Teaching Dossier Report Improvements

Some of the recent improvements to the STAR teaching Dossier include: adding standard course descriptions to the courses taught; added teaching evaluation score tables to the teaching dossier report, and we have added Impact or outcome fields on several STAR pages to allow members to expand on their specific contributions to the activities recorded.

The implementation of these above mentioned features allows faculty members to make a stronger case for promotion by allowing the Dean's Office to better understand the faculty member's listed activities and the impacts and outcomes they have made for the department and Schulich.

Please contact your department STAR Coordinator if you have any questions about these features.

Faculty Assessment Report for all Clinical Departments

We are currently in the process of helping all clinical departments locate the sources of their teaching evaluations data for both UGME and PGME teaching, and designing a process to have those evaluation scores imported into STAR to support both the Teaching Dossier and the new Faculty Assessment Report.

The Faculty Assessment Report is a document that is generated from STAR which gathers all teaching evaluations and their related comments into a single report to give faculty members an overall view of their teaching assessments. We hope to be able to start rolling these assessments out later this year (2017).

Ability to Import Data Records for Multiple STAR Screens

Added a bulk data import function to the Program Teaching, Presentations, Grants and Clinical Funding, Maintenance of Certification, and Administrative Committees pages in STAR.

These bulk import functions are currently being tested by the STAR department coordinators, and will eventually be rolled out to the faculty members and secretaries. In the short term, the bulk import function will allow the STAR Coordinator to be able to quickly export, fix and reimport large volumes of STAR data when required.

Faculty members are still required to make corrections to individual records needing update in STAR.

Other Recent Improvements to STAR

- Added mandatory fields to all STAR pages to improve the quality of STAR CV data.

- Added a new 'STAR Database Audit' feature to help users identify data gaps in the CV

- Added a new 'STAR Database Search' feature to help find STAR entries quickly

The implementation of mandatory fields helps STAR users to ensure that they have all of their STAR data up-to-date and assists the departments in ensuring that these aggregate reports are complete. The database audit function helps to identify the STAR records which are missing mandatory field data, and the STAR search greatly reduces time spent looking for saved STAR data.

Best Wishes and Thank You to Paul Malcomson

Paul Malcomson has recently been promoted to another project management position within IS, and we all want to wish him the best in his new role. For over three years, Paul has been an invaluable resource to STAR users and administrators alike, and we will all miss greatly. Good luck in your new role Paul, you'll always be a STAR!

> **Please contact your department STAR Coordinator directly if you have any questions about these STAR enhancements.**
>
> **https://www.schulich.uwo.ca/star/**

Collaborative Project with Western Computer Science Department

In December 2016 Information Services staff members Derrick Gould, Matt Walsh and Paul Malcomson collaborated with Prof. Nazim Madhavji and TA's of the Computer Science Department at Western University to provide a 'real-world' problem for the twenty students of the Computer Science 3307A class on Object Oriented Design and Analysis to study and solve.

TEAM TITAWIN

Pictured above Derrick Gould and Matt Walsh with Team Titawin project members

(2016)Chakrabarty Kuldip, Leung Aaron, Mulk Manzur, Oh Michael, Ouellette Christopher John, Sun Rongchen and Xie Kun. The four TAs were: Daniel Page, Jon Demelo, Nilesh Khiste, and Stephen Arturo Solis-Reyes

Project Management Group

Paul Malcomson

2016 marked a busy year for the newly established Information Services Project Group. There were four major focuses for this unit: Picture Archiving and Communication System (PACS), Dentistry Simulation Clinic rebuild, Dental Clinics Management System (DCMS) and Project structuring.

Dental Picture Archiving and Communication System (PACS)

A picture archiving and communication system (PACS) is a medical imaging technology which provides economical storage and convenient access to images from multiple modalities (source machine types).

- Provide all project management activities to evaluate, obtain and implement a PACS system.

- Project was delivered on time and on budget.

- One change request was raised during the project to provide community dentist access to PACS, using an external portal.

Dental Clinics Management System (DCMS)

This very large and very complex project will touch most elements of how Dentistry operates at the school. All Clinical operations are being analyzed and documented in order to provide the School with options when choosing an Electronic Dental Clinic Management System AND to provide the school an opportunity to redesign processes and procedures in their Clinical Operations. Process redesign and a DCMS together directly support most of the strategic goals that the school has established.

Some clinic operation processes include:

- Clinic readiness (data and electricity); workstations in cubicles

- Patient treatment planning (move from paper charts to electronic)

- Patient billing

- Scheduling of patients, students, dental faculty and chairs

- Project Go Live target date is May 2018

- Conducted environmental research to gather information from other Canadian Dental Schools on their Dental Clinic Management system

- Provide all project management activities to evaluate, obtain and implement a DCMS system.

- Design and provide formal Change Management through the ADCAR model and process reengineering activities.

- Project went through a formal Request For Proposal with Western Procurement. Vendor decision to be made Q1 2017

- Project core team visited other dental schools (Toronto, Detroit and Boston) to gather information on their dental clinic software and processes.


Project Structuring Group

- Established a standard set of project management processes, tools, and templates that can be used by project teams across IS

- Group looked at existing IS tools and recommended an efficient utilization of these tools for project management.

- Projects will go through the five phases of project management: initiation, planning, execution, monitor and control, and closure. Using the established framework from the Project Management Institute (PMI).

- Project Templates include: Project Charter, Stakeholder Profile, Communication Plan, Project Schedule, Project Budget, Risk Management Plan, Procurement Plan, Quality Management Plan, Scope Change Request Form, Status Report, and Meeting Agenda and Minutes.

- The establishment and usage of a formal Project Management framework and methodology will help IS to more effectively manage tech projects for out customers and ensure the delivery of desired project outcomes.

Dentistry Simulation Clinic Rebuild

This project was a refresh of the original Dental Simulation Clinic constructed in 1994. After over 20 years the Sim Clinic was due for an overhaul. The installation of new state of the art simulators as well as the addition of computing devices at every student work station has fundamentally changed the way instructors are able to teach their classes.

- Provide project management activities and purchasing guidance for the technical equipment in the new Simulation Clinic

- Working with Dental faculty to:
  - o Evaluate, design and purchase student computing devices ($66k CAD)
  - o Evaluate, purchase and coordinate the installation of dental microscopes ($145k CAD)
  - o Evaluate, purchase and coordinate the installation of an HD Dental light/camera (27k CAD)
  - o Evaluate, purchase and coordinate the installation of digital xray equipment ($45k CAD)
  - o Evaluate, purchase and coordinate the installation of intra oral cameras ($30k CAD)
  - o Evaluate, purchase and coordinate the installation of an Audio Visual system ($100k CAD)
  - o Evaluate, purchase and coordinate the installation of Wet Lab equipment (mixer, vibrator, grinder) (60k CAD)

- · Coordinate with construction project manager to ensure component installations met with build schedules.

- · Work closely with the construction project manager to track and report on spending against the budget.

- · Develop and provide orientation and training to new environment to staff and faculty

- · Project was delivered ON time as students were able to use the Simulation Clinic September 2, 2016, in time for classes.

- · Project budget was maintained - purchases were part of overall project budget, managed by the construction project manager.
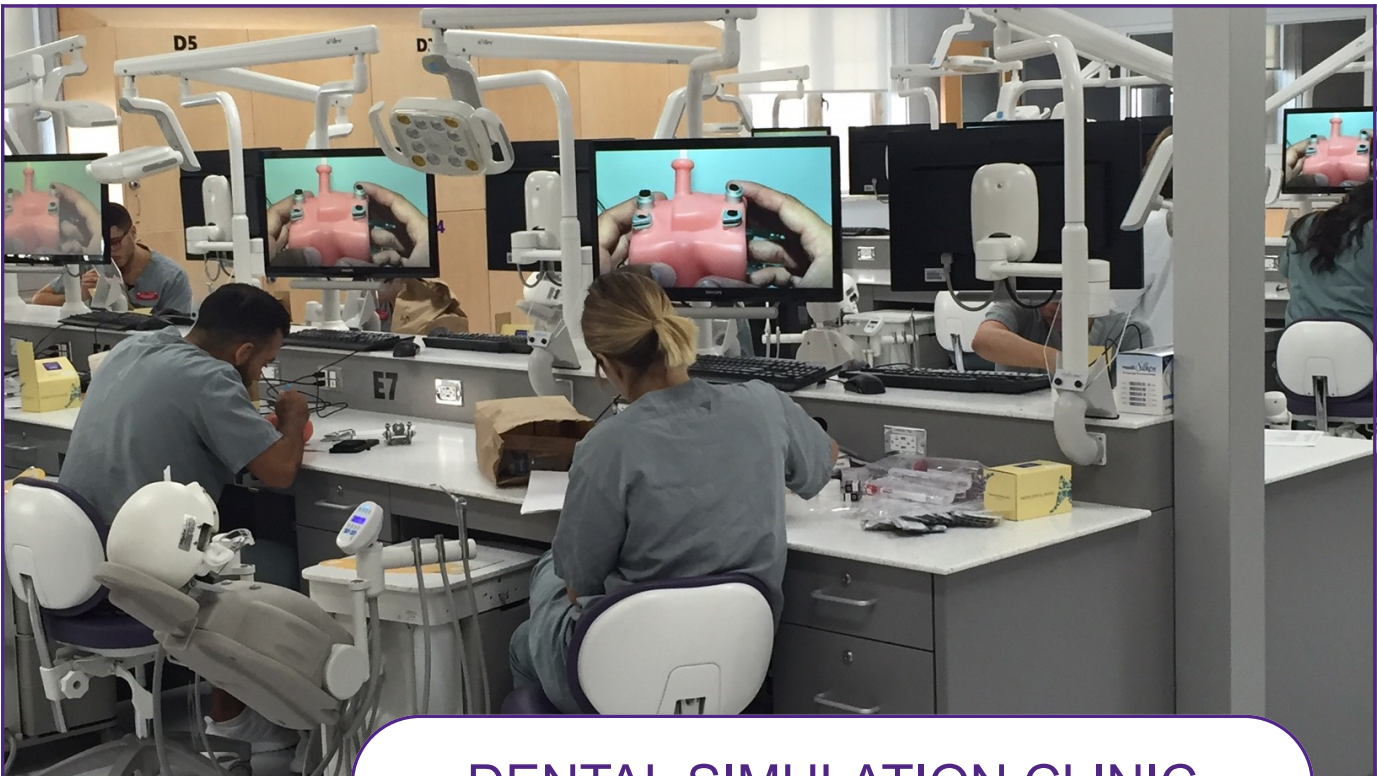
DENTAL SIMULATION CLINIC

Educational Technology & Media Services

Dave Creces, Andrew Dunseath and Davor Linkes

The goal of the Educational Technology Media Services (ETMS) team is to provide and support technology that enables and enhances teaching and learning , and collaboration amongst faculty, staff and students and Schulich.

2016 was a busy year for the ETMS team with many large scale projects taking place, as well as technology refreshes and improvements in various facilities. These upgrades are designed to enhance student, staff and faculty experiences in the various classrooms and conference rooms throughout Schulich. Below you will find a list of the projects ETMS worked out throughout 2016.

Schulich Video on Demand (VoD) Phase II

The second phase of the Schulich Video on demand (VoD) solution carried over into 2016 and some new 'types' of public-use cases were added. Integration of video into OWL and/or websites was greatly expanded in 2016, with the help of some willing participants. Our private VoD platform for the UME program has also reached its largest capacity to-date. We hope to provide demonstrations of the service for Dentistry and other groups within Schulich who are not familiar with the service, as we believe that there is much to gain by engaging instructors to use the VoD for their classroom media.

Stats:
- Managing 1694 videos behind the secure VoD portal
    - Meds 2017: 302 videos
    - Meds 2018: 688 videos
    - Meds 2019: 514 videos
    - Meds 2020: 165 videos
    - Physiology: 10 videos (new for Phase II)
- Using 1.7 terabytes (and counting) of storage and bandwidth
- Managing 62 videos for web and/or OWL

Schulich VoD Migration to New Platform (Kaltura SaaS)

In 2016 ETMS worked with our provider (Kaltura Inc.), Information Services NetOps team and Western ITS to migrate and test all existing media into corresponding channels on the new Kaltura platform prior to cutting over to the new services. The cut-over was performed under emergency conditions, as the BC-based service in-use was failing multiple times per week during the school year. Although the cut-over was expedited and not performed according to plan, the prep work performed by ETMS early in the migration stage, in combination with support from NetOps, made it possible for the emergency cut-over to occur smoothly. The cut-over to Kaltura SaaS provided a much more stable VoD service for Schulich's Med students in the 2016/2017 academic year.

Stats:
- Migration included approximately one terabyte of data

Dental Simulation Clinic AV

Given the layout and the nature of the work being performed in the facility, Schulich's new Dental Simulation Clinic required audiovisual equipment for transmitting video sources from a teaching-station directly to 60 simulation workstations. Installation of a recording and picture-in-picture feature was recently completed, as of December 14, 2016. The audiovisual design allows students to follow-along with examples of work (as provided by the instructors) without having to turn away from their simulation stations to look at a centrally-located display.

Stats:
- 64 Workstations / Switchers and Monitors Installed in June / July 2016
- This installation has marked the first time that ETMS has designed audiovisual for a simulation clinic

Lecture Theatre Upgrade

A multi-site audio-visual upgrade to the most utilized video conference sites at Schulich: MSB146 in London and MEB1113 & MEB1115 in Windsor. All existing equipment had reached end-of life and required a refresh/upgrade. Each room was upgraded with an identical core – a suite of digital audio and video switching designed to work with the existing peripherals (microphones, cameras, devices) from the original installation. Redesigned in house three times (2014, 2015 and 2016), an RFQ was generated in April 2016 for the multi-site installation, which began in July 2016 and was completed mid-August.

Stats:

- Replacement of 9 high-powered lamp-driven projectors with new high-output laser projectors lowers the annual operational cost of each room by approximately $15,300 based on lamp usage & prices (1.7 lamps per year @ $3000 per lamp)

- A school year requires projection and videoconferencing in MSB146 & MEB1115 to run +/- 1700hrs (about 42.5 hrs a week for 40 weeks)

- Reducing the number of video conference codecs required to deliver classes (from two codecs to one) has provided an additional initial savings of $20,000 per room, and will provide an ongoing operational savings of approximately $3000 per room per year.

- The lecture theatre audio-visual switching can be used for web-conferencing as well as video conferencing, enabling virtually any web-conferencing solution (Skype for Business, Google Hangouts) to be used with push-to-talk capabilities enabled

MSB105 Audio-Visual Upgrade

MSB105 is a high-traffic room used for conferencing, small group meetings, data display and teleconference. Prior to the upgrade, MSB105 had a number of issues, the most obvious of which was environmental noise from the windows, HVAC and the hallway. As is now standard procedure with all general-use room upgrades, a consultative approach to needs assessment was used to identify areas requiring improvement and feature-requests from the users. The installation began in August 2016 and was completed in September 2016. Based on feedback received from our users, the upgrade to MSB105 addressed the following recurring requests:

- Add Integrated teleconference
- Improve acoustics
- Improve audio
- Improve video conference
- Improve computer performance
- Add dual interactive displays
- Provide connectivity from the table

MSB148 AV Upgrade

MSB148 is a classroom used mainly by Dentistry, Anatomy and student-run special interest groups. An upgrade to the audiovisual equipment in the room was due, as the projector was failing and the PC-based AV controls were no longer reliable. The upgrade to MSB148 was completed in July 2016 and addressed the following recurring requests from our users:

- Improve AV switching controls
- Improve projector image quality
- Add document camera for use with acetates and models
- Provide more audio volume & coverage
- Provide projection for (pre-existing) dual-screens
- Provide new wireless microphones
- Provide web conferencing capabilities

NEED HELP?

Reach the Education Technology & Media Services (ETMS) team located in MSB 143 or by calling extension : 83035.

- Room Technology Support
- Live Stream
- Video Conferencing Services

Application Development Services and Support

Matt Walsh, Nancy Fedyk, Patricia Morris, Aaron Gray, Kevin Muma, Matt Hebel, Nancy McVittie,and Denise McGonigle

The main goal for the Application Development team is to provide the highest level of customer service and support for all enterprise software application systems in use by the Schulich School of Medicine and Dentistry. The customer base includes: all faculty, staff, and students within the school, as well as stakeholders from other Western faculties; such as the Registrar's Office, ITS, WISG and external groups such as Medical Affairs. The unit strives to provide continuous improvement to existing software systems with the vision of assisting to improve overall business processes and efficiencies in a fast paced and ever changing environment. Below is a brief summary of the benefits brought to Schulich users from this team:

- Risk reduction by eliminating systems that require a specific knowledge base that are difficult and time consuming to support.

- Performance improvements with application systems via implementing: 1) products to facilitate improved business processes and current business requirement, 2) database improvements such as improved data models and indexing and 3) re-engineering back end jobs resulting in faster access to data and information for end users.

- Improved access to real time data by implementing direct import routines and eliminating some back end processing.

- Better utilization of current technology while establishing standard development platforms and practices.

- Improved database management services and processes by standardizing practices, collaboration, re-engineering data models, and implementing database performance tuning initiatives.

- Improved the efficiency and utilization of resources through collaboration and merging systems into a more focused number of development platforms.

- Broaden customer base by providing other support services for Microsoft Office and Microsoft Access solutions.

- Effectively utilize Western central application systems and services where appropriate.

In addition to the improvements listed above, the Application Development Services and Support unit worked on/completed nine major projects and initiatives throughout 2016.

Cascade Website Migration Project

- In March, the Cascade Website Migration project was completed with the publishing of the remaining 20 sites. This project started in January 2012 in collaboration with Schulich Communications.

- Five new dentistry labs sites were created and launched.

- Schulich IS provides support for approximately 250 editors of over 100 sites in Cascade.

- All 100+ websites were upgraded to the Western Responsive design template.

- Nine Cascade Training Sessions were conducted. The process for requesting access and training was automated with a new online form to streamline the process.

Did You Know?

Cascade is being upgraded to Cascade 8 on April 9, 2017.

You can sign register for training on the new Cascade system here:

https://www.schulich.uwo.ca/informationservices/about_us/news/2017/03102017_cascade_upgrade.html

Staffing Changes in the Application Development Team for 2016

The Application Development team was pleased to welcome Aaron Gray to the team in the role of Programmer.

Secure Content – Private Websites

- There were 183 private pages on the old Schulich Content Management System (CMS). Through consultation with the originating department it was determined that only 14 were in fact still needed.

- After further evaluation, it was determined that Western's content management system, OWL, was the best application to house the private content. Information Services provided each department with the necessary instruction and support to create and manage their OWL sites.

Web Forms (MachForms)

- The team designed and created over 130 new web forms. They include, but are not limited to, the London and Windsor Awards of Excellence, 50+ UME Award nomination forms which have automated 3 of their business processes, various registration forms, and three new e-commerce forms.

Collection Accounts System (CAS) – Finance/Clinical Departments (approximately 30 users)

As part of the Personnel Database decommissioning project, a new web based solution is being developed using Microsoft technologies – C# and ASP.net MVC, in order to replace the existing Collection Accounts system. The new system has been implemented and is undergoing a parallel run with the existing application as of December 1, 2016.

Single Sign-on (SSO) – Faculty, Staff and Students (approximately 4500 active users)

Significant improvements and additions have been made to SSO to upgrade to current technology, redesign functionality and improve the end user interface. These include the following tabs:

- Core framework was ported to Yii2
  - My Info tab ported to Yii2
  - Awards tab ported to Yii2

- Clinical Science Electives (CSE)
  - As part of the Student Database decommissioning project, the CSE functionality was moved to SSO and now includes all administrative functions as well as improvements to the student interface. This project was started in 2016 and completed in January 2017.

Schulich Administrative System (SAS) (approximately 270 active users)

- Database table structures were redesigned to remove redundancy and facilitate access to real time data.
- Indexing on Grid views in the application has improved speed and performance dramatically.
- Re-engineering the System Calculated Fields backend routine reduced overnight processing time from 8 to 1.5 hours, which results in improved access to the application and data for end users.
- Numerous back end routines were re-programmed using C# and more current deployment practices to improve performance and for risk reduction by eliminating old legacy code systems.

Database Initiatives

- Implemented a solution to import VSE and CSE data directly from the AFMC portal – we are the first medical school in Canada to develop this full solution.
- Initiated a DB management group to manage DBA activity via a collaborated team effort.
- Removal of 120 redundant tables from the database.
- Re-engineered base code tables into a proper relational data model to improve performance and to normalize data.
- Created a database development standards document and management process.
- Created standalone applications systems using Microsoft Access – an application to manage clinical evaluations for Dentistry and a CRM system for Masters of Public Health.

Decommissioning of Legacy Applications (260+ active users for the 3 systems below)

The remaining legacy systems (Student Database, Personnel Database, Clinic Database (Dental)) are in the process of being decommissioned:

- Student Database (SDB)

  o The Clinical Science Electives (CSE) program for UME has been moved to SSO.
  o Non-Credit Electives and Observerships will be moved in 2017, which is the final migration item before shutting down the SDB.

- Personnel Database (PDB)
  - The Collection Accounts System is being rewritten as a standalone web application and is targeted for completion July 2017.
  - The Medical Affairs functionality is currently in the requirements gathering stage.

- Clinic Database (Dental) (CDB)
  - The CDB is being maintained by the Development Team until the new Patient Management System is launched.

Information Services Team Building and Planning Retreat: Summer 2016

The purposes of the Information Services Team Building and Planning Retreat was to focus on team building activities and exercises, as well as information sharing and future planning among all of the groups in IS. Below you will see some pictures of the boat building challenge where teams created boats out of cardboard to support a team member on Fanshawe Lake.

**Greg Postma, Matt Hebel
Maha Nasser, Nancy McVittie**

Patricia Morris, Nancy Fedyk, Ari Porzecanski, Kevin Muma, Sergio Rodriguez

Paul Malcomson, Derrick Gould, Ramiro Ruiz, James Topping

Erin Robertson, Matt Walsh, Dave Creces, Andrew Dunseath

Ronald McDonald House Breakfast Club