



TECHNOLOGY
TEXAS WOMAN'S UNIVERSITY

Learn to Thrive

Annual Report 2016-2017





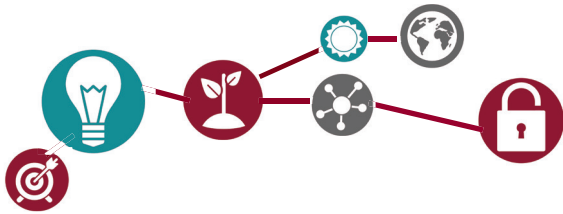
A sign promoting the new online course evaluation system in front of CFO, Denton Campus

Learn to Thrive Technology at Texas Woman's

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Texas Woman's Core Values





A Tribute to Service and a Focus on the Future

I would like to start this year's reflection by taking a moment to share a few thoughts with you as we start on a path with new leadership. Dr. Robert Placido, our long-time technology guru and CIO, has taken on a new role at a new campus and recently departed TWU after 20 years of exemplary service.

During Robert's 20-year career, he built a tremendous legacy for the foundation of our department on the core tenet of Service. In fact, he was praised by many departments and leaders for his commitment to service and his values that epitomize the Servant Leader. With phrases like, "it takes a second" and "push with a rope," he challenged our resolve – and patience – when it came to getting things done. He fought long and hard for student, faculty, and staff improvements throughout the years. His acts of selfless service were lauded by many and reflected great credit upon him, the department, and Texas Woman's University.

As we move forward and as TWU formulates a plan to hire our next CIO, we will continue to embrace the Servant Leader philosophy. The Office of Technology will forge ahead with current projects, services, and support to TWU's students, faculty, and staff. It takes a strong team to meet today's technology demands, and our team has what it takes to achieve the expectations associated with those demands.

TWU is changing and growing. New buildings are being scheduled for development, and others are being selected for demolition. Our own new leaders, including Dr. Alan Utter, Provost, and Dr. Randall Langston, VP of Enrollment, will surely have a new vision for their respective areas. Through all of this, I am confident that the Office of Technology will continue to provide top-notch service with pride and to be a great asset to this University.

I am proud to serve with each and every one of you.

Dennis Hoebee
Interim Vice Provost for Technology & CIO

Celebrating the Service of:
Rob Placido

Library Living Room
3:00-4:30 pm



Technology Dashboard

WHO WE ARE

86 Technology professionals

WHOM WE SUPPORT¹

15,655 Students (fall)
 467 Professors
 407 Adjunct faculty
 255 Graduate teaching assistants
 869 Staff

OUR ENVIRONMENT

3 Campuses
 4,275 Desktop computers
 1,124 Laptop computers
 992 Tablet computers
 539 Printers
 433 Virtual servers
 93 Physical servers
 1,530 Single-line phones
 952 Multi-line phones
 139 VoIP phones
 205 Fax lines
 1,151 Infrastructure phone lines to support building facilities
 222 Projectors
 41 Displays
 6 Interactive Flat Panels

FY16 to FY17 Significant Increases

↑ **285%** increase in **consolidated searches in Service Center**

↑ **17%** increase in **technology service tickets**

↑ **780%** increase in **users of Service Center**

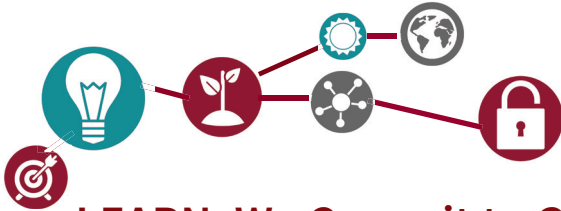
↑ **29%** increase in number of peak **users on Google Drive**

Notable Changes by Fiscal Year

	2013	2014	2015	2016	2017
Open Lab Hours	235,181	231,943	321,700	253,968	362,561
Pages Sent to Printers	9 million	8.5 million	6.7 million	5.8 million	5.2 million
Classroom Lab Hours	130,959	200,729	201,844	148,863	252,475
Videoconferences	585	653	892	1,267	1,125

Note: Data estimated using best information available at time of publication

¹TWU Fact Book (<https://www.twu.edu/media/documents/irdm/FactBook-Enrollment.pdf>) and TWU Campus Stats Report (<https://servicecenter.twu.edu/TDClient/KB/ArticleDet?ID=33211>)



LEARN: We Commit to Greater Purpose through Teaching and Learning

"Texas Woman's will educate individuals through a student-centered education focusing on the teaching and learning of the whole person for empowerment and long-term success."



StudentsACT member, JaLeah Logan, at a course evaluation table in spring 2017

Online Course Evaluations

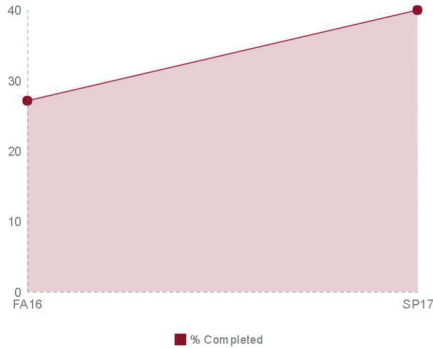
Whenever possible, TWU Technology will deliver custom applications to meet the unique needs of the University. In fall 2016, such a solution was delivered in the custom course evaluation system. While meeting the standards set by TWU's Faculty Senate, the **system allows flexibility for instructors** to adjust the start and end dates of their evaluations, as well as to add their own questions to their course evaluations. The system also delivers for TWU students: it is mobile-friendly.

The Students Advisory Committee for Technology (StudentsACT) promoted the new system to TWU students in the fall and spring of this academic year. Promotions included a communication plan featuring emails, digital signage, social media, flyers, and posters, plus a daily prize drawing and tables in high traffic areas where students could complete course evaluations onsite.

TWU Technology worked closely with academic leadership, faculty, and students to **collaboratively build and improve** upon this custom system. In its second semester, spring 2017, graphics were added to the instructor view so that section completion percent was viewable on demand.

48%

increase in percentage of eligible students who completed course evaluations in spring 2017 over fall 2017



Chalk drawing to promote course eval system

Strategic Marketing

The increase in student participation and number of evaluations completed may be attributed to the spring strategic communication plan. This plan targeted online students and Pioneers on all three campuses through a variety of media. TWU Technology created a strategic marketing plan that included a detailed approach to **both digital and physical marketing materials**.

Spring 2017 introduced new physical marketing materials such as yard signs, posters, table tents, sidewalk chalk illustrations, and a banner for the Bell Avenue bridge. The department also refined the social media approach, increased email correspondence, and designed a digital “countdown” campaign that advertised daily prize drawings and the number of remaining days to complete evaluations.



Amazon Fire TV Stick with Alexa



Erin Condren 18 Month Planner

Prizes for the course evaluation drawings were selected by students to increase their appeal

Student Self-Service

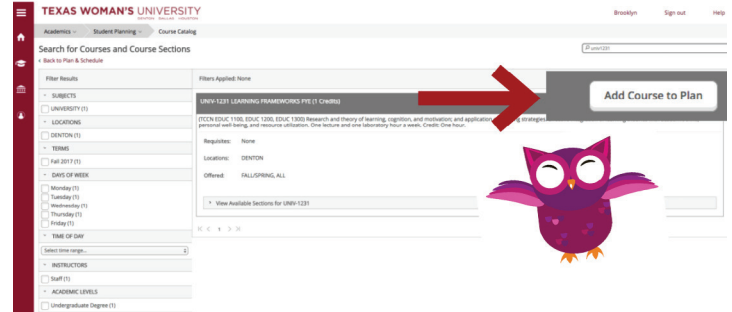
Student success drives much of TWU Technology's efforts. Relationships play a critical role in the department's ability to support students. **Strong partnerships facilitate transformation.** Such results were achieved this year through further implementation of and modifications to Colleague's Self-Service module.

A paradigm shift in academic advising and degree planning, Student Planning consolidates several processes for students and advisors with the goal of increasing retention and graduation rates, supporting the University's strategic objectives. To date, there have been 36 modifications and customizations made to Student Self-Service and Student Planning; examples range from small changes (e.g. changing the color of items displayed) to complex changes (e.g. custom Registration To-Do List and Express Registration replacement).

In preparation for a **live rollout of the registration portion of Student Self-Service**, the Students Advisory Committee for Technology (StudentsACT) members beta tested the system. During this testing period, TWU Technology staff resolved issues that would have affected the thousands of students who would register following the beta test. Further, the StudentsACT members made suggestions and recommendations to the Registrar's Office about the system and how best to make students aware of the change.

One of the StudentsACT recommendations was to develop a set of how-to videos. The Registrar's Office partnered with TWU Technology to develop a brief, explanatory video for students who attended new student orientations in the summer. Registration is the highlight of orientation, so having information in a format familiar to students significantly increases their satisfaction with the process.

Select courses by clicking Add Course to Plan



Texas Woman's new mascot made a playful appearance in the Student Planning video shared at new student orientations this summer.

Maximizing Uptime in Student Labs

This diagram shows the status of each PC in the Megalab and was taken during the first new student orientation this summer. The tool allows Technology staff to **rapidly diagnose PCs with issues** and to see how many seats are available. Through this tool and applied best practices, the department supports the essential and technology-dependent registration process.



Paperless Workflow for Today's Students

The dual enrollment program in Dental Hygiene allows students from community colleges to attend TWU to complete a bachelor's degree in Dental Hygiene. Previously, the application was a paper form. Amy Teague, associate clinical professor, worked with TWU Technology to develop a system that automates the application process. The result was an **online form, which includes workflow notifications**. Because the system is online, Teague can work from anywhere, providing more immediate responses to applicants. Automating this process also allows for data collection, which Teague will use for research.



A Denton student uses her phone to stay updated. Today's students are mobile and require technology that meets them where they are.

Supporting Students with Google Suite

When Hurricane Harvey hit, many students in the Houston area were affected. In the time of uncertainty and upheaval that followed, TWU faculty and staff made use of **Google Suite to coordinate efforts and share information**.

Occupational Therapy (OT) students that had been scheduled to complete internships in the Houston area were unsure if they would be able to fulfill their requirements. The School of Occupational Therapy's faculty and staff contacted students to communicate plans to accommodate their internships.

Tesse Scott, coordinator of field work administration, contacted internship sites across the nation to see if they could place extra students. OT staff used a **Google Sheet to keep track of the sites, how many extra students they could take, and what type of internships could be accommodated**. The Google Sheet has served many purposes: team collaboration, access from anywhere or anytime, and a way to store information in a usable form. Scott utilized skills she acquired through attending the School of Technology training, where she learned about Google Suite.

Likewise, Mary Beth Daugherty, coordinator of allied health applications, administered two surveys of the Houston incoming class. One of these forms was to account for all of the students. A four-person team communicated with the students and added information to the Google Sheet to coordinate and streamline information. The other **form was used to identify students' immediate needs**. In both cases, Google Sheets allowed for a coordinated effort to maximize aid to students in need.



Denton students work in the new specialty music lab

Repurposing Technology to Improve Learning Outcomes

The Music department worked with the classroom and labs team to move computers from one location to another which necessitated a room layout, furniture quote, negotiation of funding, and move of the computers with software and mini keyboards. The change better serves students in music courses, assists in their education, makes better use of existing space, and complies with accreditation recommendations.

Welcoming New Students with Wifi

University Housing is committed to providing its residential students with equal or better service on campus than they receive in their homes. They recognize that the world is now wireless and that most **students come to campus with two or more wifi-enabled devices**. As such, they worked with TWU Technology and a vendor to significantly increase the wireless access points (APs) in both Stark and Lowry Woods. Following installation, Technology staff have responded to requests for service when APs aren't working as expected.

52% increase in wireless access points (APs) on the Denton campus when 376 APs were installed in Stark & Lowry Woods in the summer of 2017

Classroom, Lab, and Conference Room Upgrades and Improvements

CFO	MUS	PH
104	223	105
MCL	OMB	SH
502	110	307
503	203A	308
612		
651		



Digital Media Lab

Dr. Gretchen Busl, assistant professor in English, Speech & Foreign Languages, received a TARGET grant from the Office of the Provost last year to create an innovative classroom space. The CFO 104 classroom lab enhancement was a collaboration between TWU Technology, Facilities Management, and the English department to develop the department-driven design for a digital media classroom lab. The result is a **learning environment that encourages collaboration and creativity**.

Divided into three zones, each with a specific purpose, the lab is a **high-tech space in which students maximize learning potential**. There is a collaboration zone with flexible seating; a computer lab zone; and a recording booth zone.

The classroom features a wireless touch panel that controls all displays, sources, and audio in the room. Each display can be assigned a source individually, and audio can be assigned to each zone. The **sources include a PC, document camera, Apple TV, and two Solstice Pods**. There is also an Interactive Flat Panel Display that is connected to the PC. TWU Technology enjoys working with departments to create innovative learning spaces.



SERVE: We Transform Lives through Inclusive Networks and Purposeful Partnerships

"Texas Woman's will express its ethic of service through engagement with our local, state, national, and international communities as a means to empower the lives of those who serve as well as those the university serves."

Empowering Prospective Students through Service

TWU Technology staff participated in the Office of Admissions' Pioneer Preview Day and Transfer Connection events by providing **support to prospective students** in setting up their Pioneer Portal accounts and connecting to their TWU Gmail.

Applicants must be able to log on with Portal credentials to view their admission status and to apply for financial aid. TWU Gmail is critical for prospective students as it is the primary communication tool that provides them information about scholarships, events, and services. Technology staff are proud to participate in events where they can empower students through technology.

TWU Technology staff volunteered at a Pioneer Preview Day. From left, Mai Nguyen, Ward Durossette, Michael Tran (with his daughter), Nikki Peyton, Gabby Puche-Faria, and Heather Davis.



Handshake Implementation

The TWU Career Connections Center partnered with TWU Technology to implement an upgraded and improved TWU Connect experience for students and alumni. TWU Connect is the university-wide database used for posting student jobs; and, with a new application powering the service, students and employers are now more connected than ever before.

Handshake, a national database that connects student job-seekers to employment, internship, and volunteer opportunities, is the new engine behind TWU Connect. Customizable student profiles, an expanded national job network, and personalized career recommendations are hallmark features of the new platform. With **access to over 200,000 employers, TWU students and alumni have greater opportunities** to search for meaningful employment. In addition to student benefits, on-campus employers can list jobs and work-study positions and search for student candidates based on student field of study and experience.

TWU Technology assisted with single sign-on integration so that students can easily access Handshake using their TWU email address and password. Technology also set up **automated student sync**, which regularly updates student Handshake accounts with information from the Registrar, such as major, minor, and classification.

The Career Connections Center and Technology's implementation of Handshake is in direct correlation with the University's strategic initiative to promote purposeful partnerships and empower students as they transition into careers and development opportunities.



Students at the Career Connections Center's open house to promote Handshake

MLK Day of Service

Mai Nguyen, Elizabeth Precht, Ward Durossette, and Heather Davis spent the morning of Martin Luther King, Jr. Day **cleaning and painting at Cumberland Presbyterian Children’s Home** as part of an arranged MLK Day of Service project through Texas Woman’s Center for Student Development. While many staff in the department regularly give generously of their time to a variety of organizations and causes (on-campus and in the community), this group appreciated the opportunity to give back to the community as representatives of TWU Technology.

Technology Staff & UNIV 1231

In fall 2016, Dennis Hoebee, interim vice provost of technology and CIO, and Lacey Monarch, project coordinator, each taught a section of UNIV 1231, the University’s **first-year experience core course**. They brought diverse experiences and perspectives to the classroom to the benefit of their students, aligning with the LEARN strategic objective to “capitalize on diversity and multiple perspectives to advance learning and innovation.” UNIV 1231 is a critical retention tool and a course that supports student success.



Lacey Monarch
with her UNIV 1231
students



Silent Services

Much of the work completed by TWU Technology is maintenance and operations of existing systems and hardware. Unlike an implementation project, where the benefits are tangible and apparent, the value of these "silent services" is less obvious. The following are examples of such services.

Audits require significant effort and resources, but their value is one of safety and assurance. Through an audit, the department uncovers opportunities to improve the security of the sensitive financial and student data maintained through enterprise software systems. TWU Technology was involved with four audits this year: THECB Compliance Monitoring, 2016 Colleague Financial Aid - State, Colleague Student Information System - TWU Internal, and 2017 Federal Compliance Audit for Student Financial Aid.

Compliance with federal and state mandates; laws (such as the Affordable Care Act); and required reporting by the Texas Higher Education Coordinating Board, demand a great deal of resources from the department.

Patch management assures that systems are secure. Before most patches are applied, system owners must complete or coordinate extensive testing to determine the impact of the patches on the system. In FY17, over 100 patches were applied to the Colleague and Oracle enterprise systems.

Data backups guarantee that information stored in enterprise applications are available should anything out of the ordinary happen. Most systems are backed up nightly. By scheduling backups during off hours, TWU Technology ensures maximum productivity across its systems.

Scheduled jobs transfer data from one information system to another. Like backups, these are scheduled during off hours, such as nights and weekends, to minimize their impact on the operations of critical systems.

Database accessibility is made possible by dedicated database administrators who deploy patch management and backups, working all hours to keep critical information systems running and accessible.

Information Security Controls

Technology's university regulations and procedures (URP) comply with the National Institute of Standards and Technology (NIST) *Security and Privacy Controls*—standards adopted by the Texas Department of Information Resources. Each URP lists the regulations and then specifies the procedures followed by the University. While most of the procedures are overseen by TWU Technology, some are in the domain of other departments. Technology is working internally and with others to **continue to move current practice into alignment with regulations and procedures**. This is a process of continuous improvement. Compliance with the NIST-standards demands greater diligence and its reward is less risk for sensitive information and systems.



INVEST: We Commit to Excellence within People and Sustainable and Safe University Environments

"Adding to the well-known triple bottom line framework, Texas Woman's will invest in people, prosperity, place, and planet to ensure a sustainable future."



Students at the TWU Institute of Health Sciences Houston work in the computer lab.

Improving Pioneer Portal: Responding to Students with Responsive Design

Through volunteer work at events, TWU Technology staff have the opportunity to interact with students and to watch their services in use. This can be invaluable to the department's goal of continuous improvement. At an Office of Admissions event in January 2017, a staff member noticed **prospective students struggling to set up their Pioneer Portal accounts** on their mobile devices. They would zoom in to see field names and back out to enter their information.

This would not do.

The individual took the time to redesign the Pioneer Portal account creation page to utilize responsive design, so that the **fields automatically responded to the screen size and orientation**, and updated the look of the Portal logon and account creation screens to match the University's visual identity.

By the next Admissions event, a month later, the revamped screens were ready, and they worked brilliantly. TWU Technology is excited to employ proactive and caring staff who work to improve the technology experience of everyone at the University.

Online Performance Evaluation System for Staff

Tony Yardley, manager of HR compliance & equity, faced a high profile project in improving the performance evaluation system. There were numerous limitations to the old system as it was detailed, lengthy, and still on paper. Committees were formed to consider how to improve the process. Both committees wanted to **transition the system to online**. HR worked with TWU Technology to determine what was needed, which reports to develop, and how to make the process smoother for everyone.

The new system allows both supervisors and employees to access historical data. **Since this new system has been implemented, there has been a higher rate of compliance**. Yardley credited the project success to everyone working together for the solution.

Working Together on Faculty & Staff Merit Pay

In an exciting effort to reward, recruit, and retain talent, this year was the **first round of faculty and staff merit pay**. After procedures were finalized, TWU Technology staff dedicated a couple of weeks to program the specifications, responding to changes along the way. The department **collaborated with Finance and Administration and Academic Financial Services** to perfect the code so that all eligible employees received the correct compensation.

Microsoft Exchange Upgrade

In fall 2016, TWU communication tools received an upgrade to the latest version of Microsoft Exchange. Microsoft Exchange 2016 **features improved tools and a faster connection** when compared to the version previously used on campus. These enhancements assist TWU Technology teams with speedier troubleshooting and provide the most up-to-date Microsoft Exchange security. Faculty and staff benefit from a more streamlined integration with the popular Microsoft communication tool, Skype for Business.



An Improved Calendar of Events

Scott Bynum, director of university web communications, envisions the TWU Calendar of Events as a hub for information about activities of every variety happening on each of TWU's campuses. In the past, as he thought of improvements or new features, he would submit a ticket request to TWU Technology. This year, the department created a **project that brought people and resources together** to look at the big picture. While still in progress, some work has been completed. Technology has created a form to submit events to the calendar. In addition, the project team designed the calendar features to work with the new web template. Additionally, those submitting events can choose to have the events appear on their own TWU website page in the events area.

Consolidating Technology Service Management

As a service organization, the Office of Technology is committed to providing excellent support. Through the TeamDynamix cloud-based work management software, the department has been able to provide **stronger support for students, faculty, and staff**. The department began using TeamDynamix for project management in 2014. In 2016, knowledge-centered support was deployed through a technology service catalog and knowledge base. By moving service and incident ticketing from Footprints software into TeamDynamix in late 2016, the University benefitted from **greater efficiency and resource allocation**.

Texas Woman’s constituents can manage their tickets in the same place that they access information about services and technology support: **servicecenter.twu.edu**. To market the transition and the new custom URL, the department used digital signage on all three campuses, as well as yard signs on the Denton campus. They also sent out “golden tickets” announcing the change to all employees at the institution.

285% increase in **users of the Service Center** from September 2016 to August 2017

“One benefit of a centralized solution is it provides a holistic picture. We are better able to manage prioritization and workload.”

-Lena McLain, senior applications developer

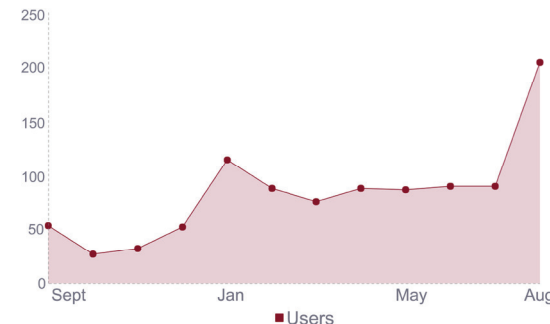
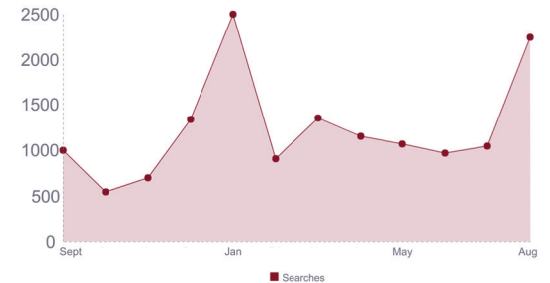
Who Maintains Information in the Service Center?

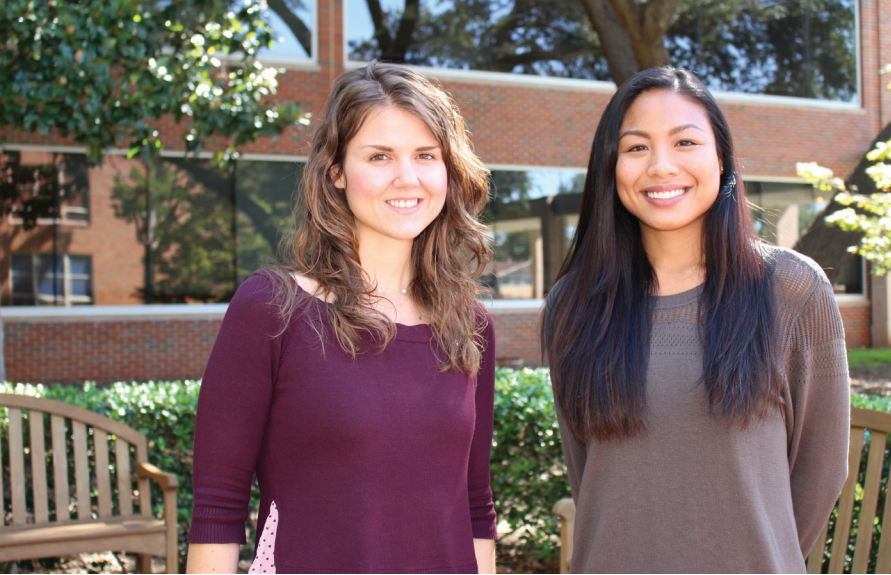
The Marketing Web Team and TWU Technology both use TeamDynamix **Ticketing**. While Technology is the only department using the Service Catalog, a number of departments maintain information in the **Knowledge Base**:

University Advancement
General Counsel
Human Resources
Registrar

TWU Technology
Center for Student Development
Student Life Handbook.

Service Center Usage FY17





Tiffany Peart and Mai Nguyen, project coordinators, TWU Technology

Project Coordinators Add Value

In December 2016, TWU Technology hired its first project coordinators. Mai Nguyen provides support of enterprise applications projects, and Tiffany Peart provides support for infrastructure projects. These new roles have resulted in a myriad of benefits for the department. Their efforts benefit the institution as well. **Technology closed over double the number of projects that were opened this year.** Beyond their job duties, Nguyen and Peart are active members of the TWU community, who participate in service, attend events, and serve in leadership roles. The department added a third project coordinator in September 2017. Lacey Monarch's position was reclassified. She will support client services projects.

Texas Woman's Technology Compared to Carnegie Class Peers

TWU Technology participates annually in the Educause Core Data Services survey which allows the department to **benchmark its services and metrics** against institutions across the country. For this report, TWU data were compared to medians from its Carnegie Class peers in the 2015-16 academic year.

Information security is a priority in TWU Technology. The department has increased its risk assessments by 603% over the last two years, whereas only 32% of TWU's peers have conducted a security risk assessment of cloud service or third-party providers.

The department supports the unique needs of TWU's students by providing a **lab computer workstation per each 26 students**, whereas the median for TWU's peers is 35. Educause student data for TWU indicate fewer of our students own laptops, so Technology provides more on-campus computers to close the gap.

Spending by Domain	Carnegie Class	TWU
IT support services	13%	20%
Education technology services	9%	22%

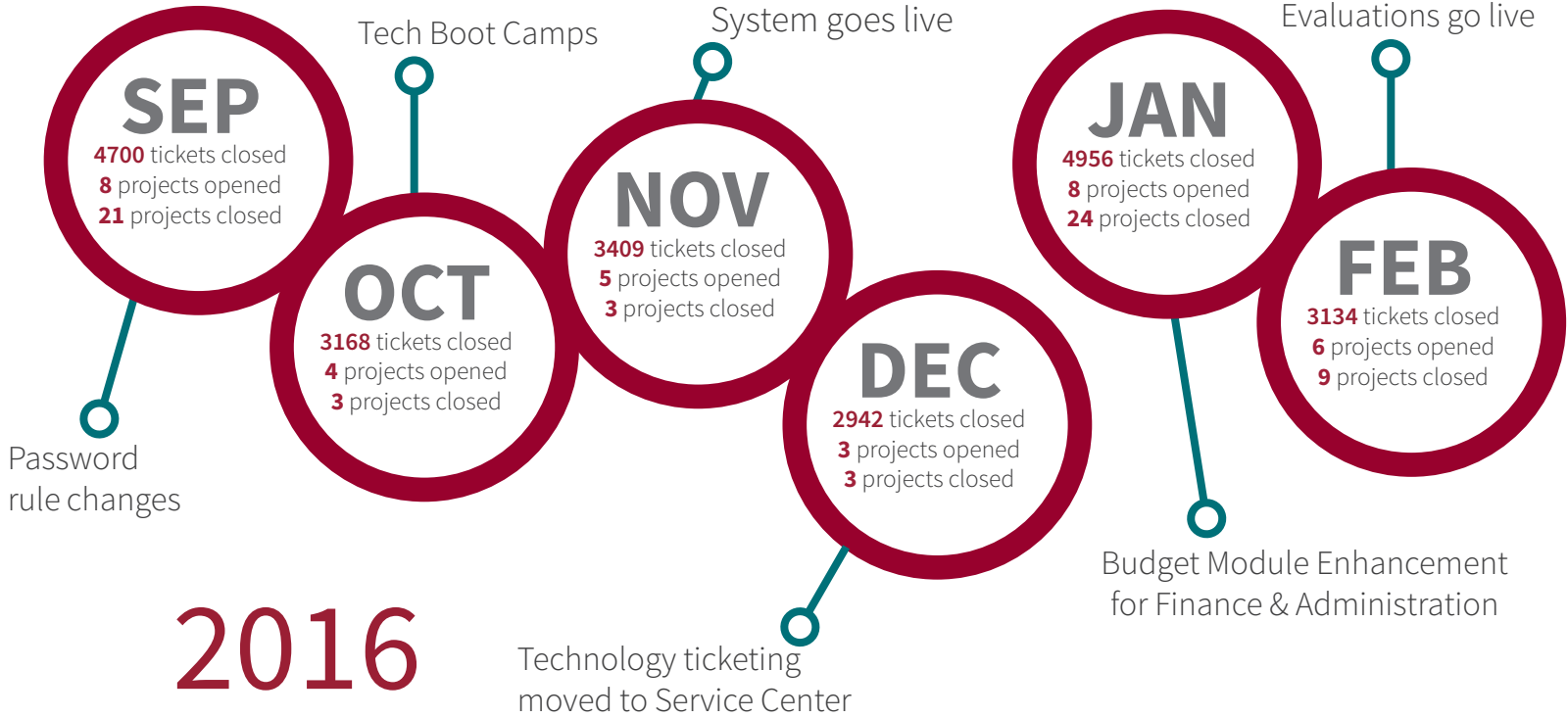
This table demonstrates how technology spending at TWU compares with peers. TWU spends 13% more on education technology services and 7% more on IT support services. Differentiations in spending demonstrate a commitment to a University principle: **"People and cutting-edge technology drive the discovery and creative expression that fuel our educational enterprise."**

Technology spends less per institutional FTE (\$793) compared with peers (\$955), while providing the same services and quality of support. Further, ongoing compensation spending at TWU (45%) is lower than peers (53%). Peers spend less on in-house infrastructure and services (34%) compared with TWU (43%). **TWU Technology does more with less** and creates custom applications that meet the specific needs of the University.

Year-in-Review

Project Highlights

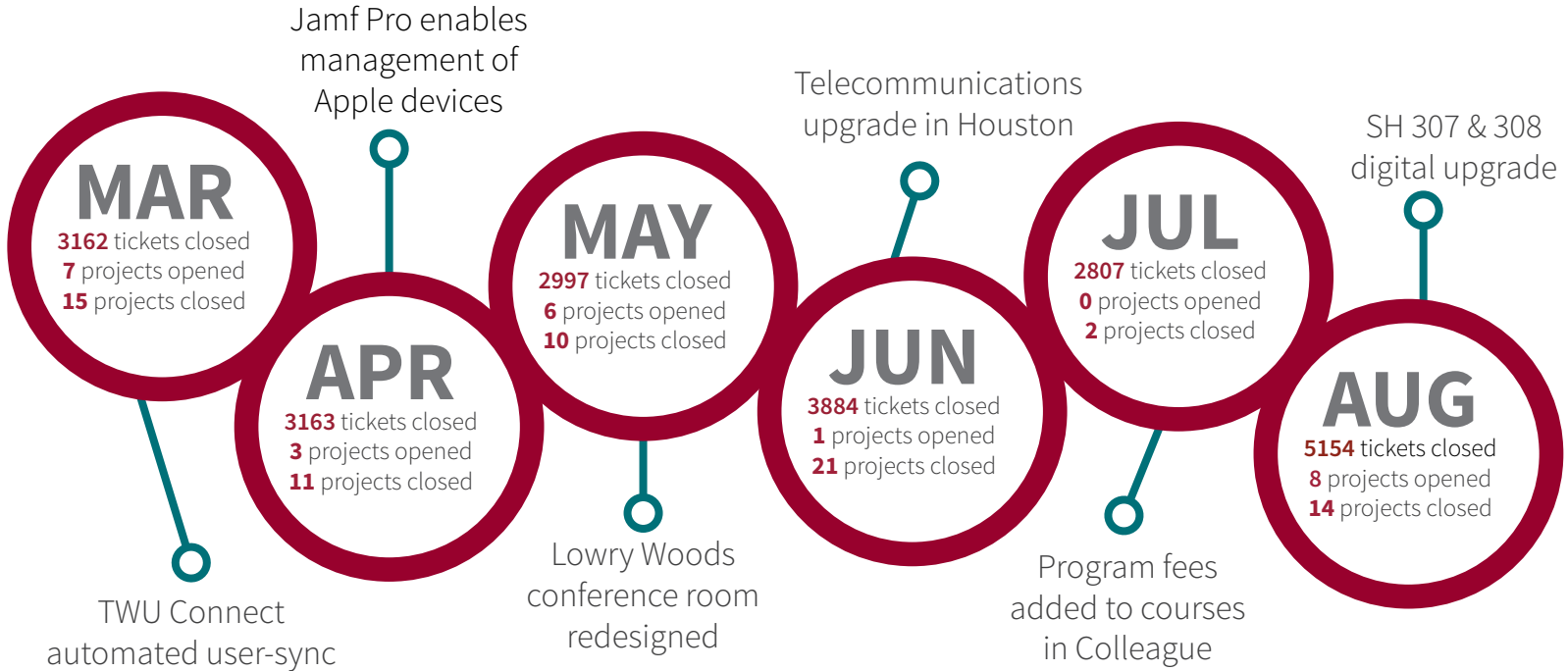
2017



417 web applications supported by TWU Technology



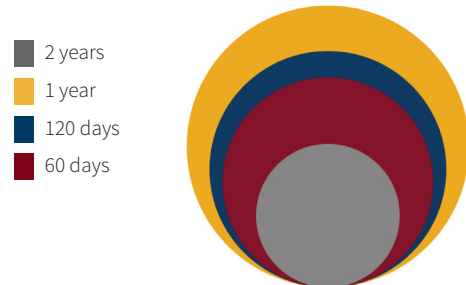
50% of technology projects were completed within 120 days



59 projects opened **136** projects closed

118 business days median project duration

Technology Project Duration



Increasing Security through Password Complexity

It is not surprising that secure logins are an important key to online security. TWU Technology implemented new password complexity measures, adding an **extra layer of protection for student, staff, and faculty data and accounts**. The enhanced complexity rules were introduced across all TWU access points including Pioneer Portal, email, and TWU Alumni Mail. Revised standards included a minimum character length and mandatory combination of upper and lowercase letters, numbers, and symbols. Additionally, password aging was enforced so that previously used passwords could not be recycled.

While it may have been challenging for some to develop new passwords under the vigorous rules, Technology offered password strengthening and passphrase support during building walkthroughs, via the Service Desk, and in the TWU online knowledge base.



Classroom Details Searchable

The department's learning technologists were able to make the knowledge base more robust by adding **information about classrooms at each campus**. An article was created for each room detailing the room type, capacity, available equipment, and how to reserve the room. The articles link to support information about the various equipment, as well as internal information about the room for Technology staff (e.g., IP addresses).

Remote Assistance Solution

The five technology service desk agents routinely handle 100 and up to 300 tickets each day. Often, they need remote access to resolve issues. While they had a solution on-campus, **they didn't have a tool to use to connect remotely for students and faculty and staff working off-campus**. With the variety of operating systems, hardware, and software in use among TWU constituents, the agents required a solution to provide the best support. This year the department implemented Bomgar, a remote assistance tool that protects the end-user and TWU's networks. The tool also provides chat functionality, another means to provide immediate support.

Portal Account Confirmation Page Upgrade

A cross-functional group worked together in 2015 to reimagine the Pioneer Portal account creation confirmation page.

The goal? To deliver information about tools in Portal to new users, tailored to their needs.

When someone creates a Portal account, information about the uses of their account appears on a confirmation page. Students see that they have access to computer labs and GMail, as well as a description of tools in Portal (e.g., scholarships, financial aid, emergency alert signup). A faculty member sees that syllabi are uploaded in Portal and that they may choose to use GMail or Exchange for their email. Previously the account creation confirmation page simply stated that the account creation was successful and to allow five minutes before logging on. The new confirmation **pages support prospective students and new faculty and staff** as they begin their journeys at Texas Woman's.



Risk Assessments

603%

two-year increase in **risk assessments** of applications. 32 assessments were completed in FY15. 225 were completed in FY17.

Email by the Numbers

46 million

Only 62% of Gmail messages and 72% of Exchange messages were delivered. Over 46 million messages were blocked as spam or other threats by Gmail and Proofpoint.

Network Stats

105,314

threats blocked by Fire Eye, keeping the TWU network safe from viruses and exploitation attempts

99.94%

average **host uptime** in FY17

Online Professional Development

1,145

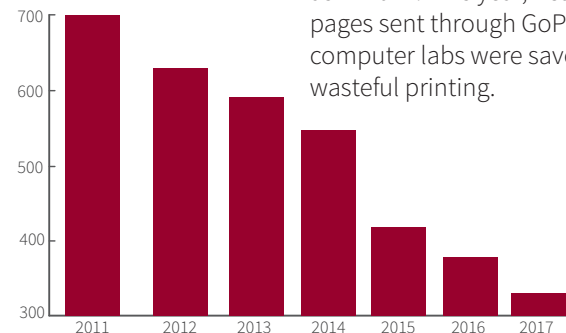
Lynda.com certificates of completion were earned by Texas Woman's students, staff, and faculty in FY17. 183 of those were earned by staff in the Office of Technology.

79%

increase in **PluralSight hours viewed** by Technology staff compared to last year. 79 individuals viewed 241 courses. This training is in addition to the Lynda.com coursework completed by staff in the department.

Printing in Labs

TWU students are **printing less than half of the number of pages** as in 2011. This year, nearly 20% of pages sent through GoPrint in the computer labs were saved from wasteful printing.



A Day in the Life of Pioneer Portal: August 17, 2017

60,359

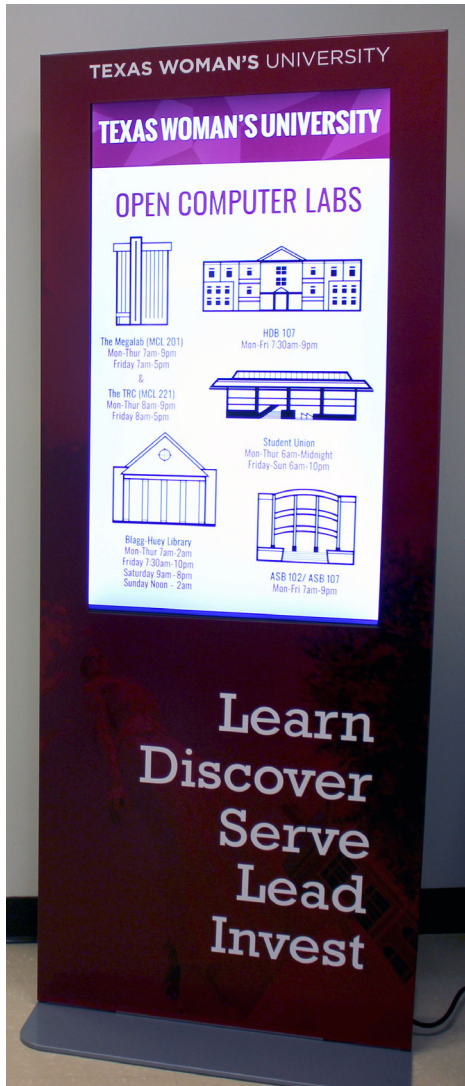
users

571,997

page views

Reaching Students through Digital Signage

Over the summer, digital signage in Denton got a new look. The stand-alone set-up allows the department to place digital signage in more areas across the campus, providing valuable information to students about a variety of events and services. The signage is managed through new software. Upon release of the updated Texas Woman's visual identity, the stand-alone signage received a **makeover featuring the strategic imperatives of the University**. Digital signage is a decentralized service: TWU Technology manages some digital signage on each of TWU's campuses and is capable of managing signage for other departments or consulting with departments on how to manage their own digital signage.



Stand-alone signage in Stoddard Hall on the Denton campus features the new TWU visual identity and strategic imperatives.



Digital signage at the Institute of Health Sciences Dallas



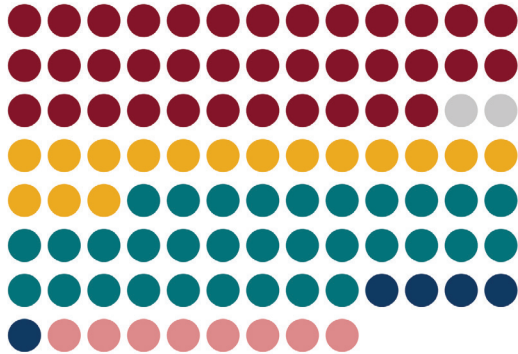
Digital signage at the Institute of Health Sciences Houston



Digital signage outside of the Megalab in Denton

Enterprise Applications Tickets

- Academic Affairs 404
- Chancellor 20
- Enrollment Services 180
- Finance 345
- Other 86



A conference room at the Institute of Health Sciences Dallas

1,094

tickets completed by Oracle and Colleague **enterprise application teams** in FY17



TRS Enterprise Application Modernization Program

Technology staff have been diligently working with Human Resources to prepare for the Teacher Retirement System of Texas' (TRS) effort to modernize its pension administration system to **ensure members are provided with the best possible customer service**. This effort, known as the TEAM Program, includes a new and improved web interface for employee data and payroll reporting, replacing the TRS Reporting and Query System.

DISTINCTION: EXPERIENTIAL LEARNING

TWU's Quality Enhancement Plan (QEP), Pioneering Pathways: Learn by Doing, is a five-year plan designed to enhance and engage student learning through hands-on, experiential learning. TWU Technology collaborated with QEP director, Dr. Kimberly Miloch, to advance the online QEP application where faculty and students log learning experiences. As a simple, all-inclusive resource, the QEP system gives students, faculty, and staff mentors a centralized online area to answer QEP questionnaires and provide feedback about QEP courses and projects.

In addition to courses, **projects are now included as qualifying experiences** allowing students to reflect upon group activities that connect real-world experiences to academic theories. The new QEP system also features a robust administrative portal, a more user-friendly questionnaire environment, mobile accessibility, and faculty reporting flexibility.

“The staff listened to our needs and worked diligently to create an ideal system. The system has streamlined our assessments and is much more user-friendly to both students and faculty.”

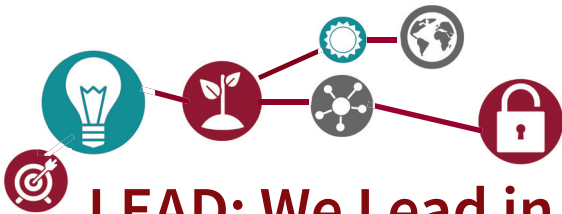
-Dr. Kimberly Miloch, QEP director and associate dean, College of Health Sciences

OnBase Implementation: Phase I

OnBase allows for document digitization and management and includes workflow. OnBase will replace the current Gmedia Imaging System. The project moved from planning, testing, and training into implementation with the new fiscal year. Requirements included infrastructure and installation, transcript capture, and granting departments access one-at-a-time, beginning with Admissions Processing, International Education, the Graduate School, and the Registrar. **Initially sixteen departments requested access to the system.** A handful of additional departments have requested access since the project began.

Oracle Assets: Phase I

TWU Technology worked with Facilities Management & Construction (FMC) to replace AssetWorks, a third-party software used to assign and/or update assets. Previously, FMC would assign/update assets, store changes in AssetWorks, and then manually enter them into Oracle. Phase I of the project allowed FMC to **use hand-held scanners to update Oracle Assets directly**, eliminating the need for AssetWorks.



LEAD: We Lead in Multifaceted Ways by Applying Our Individual and Collective Expertise

"Texas Woman's will provide systematic and meaningful opportunities for students, staff and faculty to celebrate the value of diversity in leadership and to acquire skills that empower them to lead with distinction, intentionality, and purpose."

Students Advisory Committee for Technology

The Students Advisory Committee for Technology (StudentsACT) coordinated with TWU Technology staff to host a number of information tables the week of February 13. The purpose was to **raise students' awareness of technology services** available to them. Volunteers interacted with hundreds of students across TWU's three locations.

Playing on Valentine's Day, the theme was I ♥ TWU Technology, and volunteers handed out candy and cupcakes, along with information about technology services. Students could also spin a wheel to learn about a service and walk away with a piece of Technology SWAG.

In addition, the **StudentsACT supported the custom course evaluation system** in both fall and spring, raising awareness and providing suggestions to increase student participation.

The committee also conducted a survey of student awareness of and satisfaction with technology services at TWU. 830 students completed the survey. Overall, students who completed the survey were less aware of technology services than those surveyed the year prior. This may have been a result of the committee spending more time promoting course evaluations and less time promoting all technology services.



Students participate at a StudentsACT info table

Technology Training Sessions

Throughout the summer, TWU Technology training offered 47 sessions through two themes: Tech Train, for professional staff, and Fishing School, for both administrative support and professional staff. Sessions were broadcast between the three campuses. **Offered in computer classrooms, the sessions followed a tell-show-do model** to maximize learning and knowledge retention. By allowing for collaboration with peers and introduction to new software, tips, and techniques, these offerings support the professional development of staff at Texas Woman's.

Expanding upon the Fishing School offered in 2016, Technology staff added new topics, including intermediate and advanced Google Suite, SQL reports, Microsoft Access, and Skype for Business. Further, they took into account feedback from participants and made changes to the structure and content of the sessions. **77 individuals participated in Tech Train, and 138 individuals participated in Fishing School. Altogether, 638 certificates were issued.**



Technology staff worked hard to make learning fun. To motivate and reward attendees, they provided snacks, beverages, and fish-themed toys.



Outside of the classroom, participants have put what they've learned into practice and capitalized on the connections made. Denise Bradway, senior secretary, Counseling and Psychology Services, worked with Technology to improve the Budget Manager's Detail SQL report. Pictured left, **Jacqueline Folsom, assistant to the Vice Provost for Undergraduate Studies and Academic Partnerships, met with Julie Muller, assistant to the Vice Provost for Technology & CIO, to share account reconciliation strategies.**

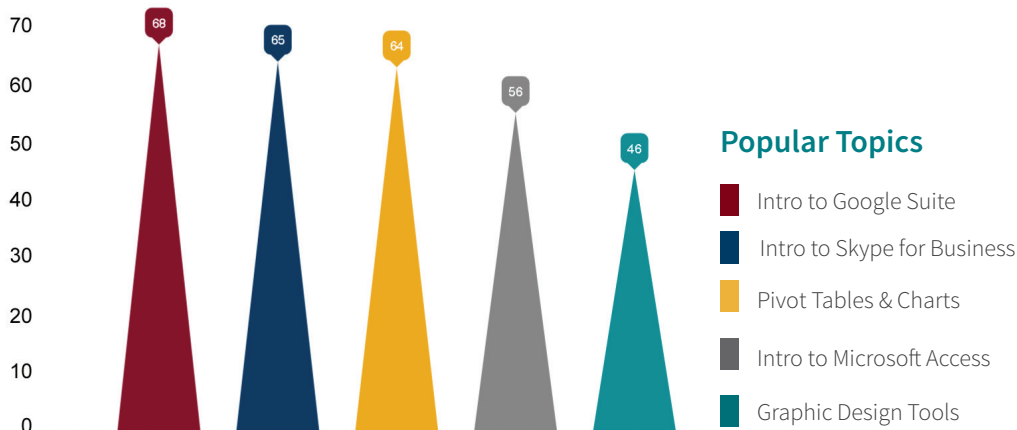
“I’ve been utilizing my School of Tech skills as I discover where they will work, and while it takes a little more time on the front end, it’s going to make my life easier in the long-run!”

-Angie Fielder, administrative assistant,
Center for Faculty Excellence

At the end of summer, participants and their supervisors were invited to attend a celebration (also connected between the three campuses), at which **participants were recognized for and congratulated on their commitment to professional development.**

638 certificates issued to training participants

Upper: Houston participants, Diana Pierce & Sandra Compton-Winbush. **Middle:** Denton participants, Jillian Morales, Tawnda Maxwell & Gail Orlando. **Lower:** Dallas participants, Chantel Brightman, Niateka Johnson, Karen Long Trail, & Stephanie Stephens.



Popular Topics

- Intro to Google Suite
- Intro to Skype for Business
- Pivot Tables & Charts
- Intro to Microsoft Access
- Graphic Design Tools



DISTINCTION: WOMEN & LEADERSHIP

"At Texas Woman's, women have found their voices and discovered the courage to lead. Continuing in this tradition, Texas Woman's will contribute knowledge and best practices that encourage women and men, together, to lead, thrive, and prosper in professional, organizational, and community settings for the advancement of humanity."

TWU Technology proudly supports the service and leadership of its staff. The department is **distinguished by a number of women who serve in leadership roles**. Specifically, **Raquel Clewis**, coordinator of telepresence operations, has been a member of Staff Council since 2013. She has served on the Pioneer Proud committee and will serve as chair of the service committee this year. **Heather Davis**, manager of IT training and development, serves the Honor Society of Phi Kappa Phi in three roles: regional VP, chapter past president, and student organization advisor. **Iris Du**, learning technologist, was elected to serve as an at-large representative of TWU Staff Council for 2017-2020. **Lacey Monarch**, project coordinator, served ASSET as publicity secretary last year and currently serves as president of this organization, which supports staff at the University. **Tiffany Peart**, project coordinator, is a member of ASSET, and she represented TWU Technology at the Disney Institute's *Disney's Approach to Business Excellence* course. This class focused on excellence in leadership, culture, service, brand, and innovation. **Cori Treviño**, director of enterprise applications, and **Patrice Armor**, senior manager of applications development, have both been involved with TWU scholarships given to local students through LULAC, the League of United Latin American Citizens. **Corin Walker**, senior learning technologist, has served as an advisor to the Baptist Student Ministry student organization for over twenty years.

Event Management System (EMS)

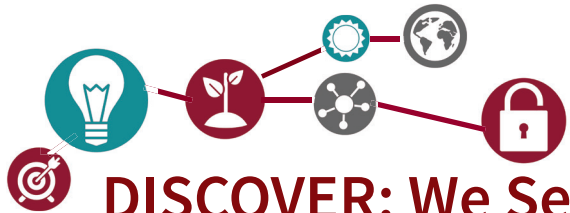
TWU Technology assisted in the implementation of Event Management System (EMS), an online reservation system that allows students, staff and faculty the ability to reserve non-academic rooms in the Student Union, Fitness and Recreation building, Pioneer Hall, and Dallas and Houston Student Life spaces.

To prepare for this software launch, TWU Technology built the necessary infrastructure to support the EMS Web App, EMS desktop client, and EMS Master Calendar application. To create a **seamless user experience**, TWU Technology also configured single sign-on for the EMS Web App so that all Pioneers may log on and make room reservations using their TWU username and Portal password.

EMS is brought to Texas Woman's by the Student Union & Conference Services staff. This technology enables student leaders to easily manage logistics so that they have more time to devote to leading their organizations. Further, the software saves staff time by reducing some processes that formerly took 20 minutes to complete down to two minutes.



TWU Technology staff are encouraged to participate in professional development activities. Here, Clint DeBusk, supervisor of the technology service desk, meets consultant and trainer, Jeff Toister, at the annual HDI conference. HDI is the association for technology support professionals.



DISCOVER: We Seek to Improve Our World through Creative Expression and Research that Matters

"Texas Woman's will grow its contributions to discovery by empowering the institution and its community to fully engage in the discovery process."

Technology to Support Faculty Excellence

TWU Technology worked with the Center for Faculty Excellence to upgrade the technology in its computer lab to a configuration similar to that of a Texas Woman's classroom. Mindful of budgets, every effort was made to repurpose components that were still safe for use.



The upgraded technology includes a **Solstice Pod, which allows for bring your own device integration**, enhancing the learning space by allowing for collaboration and interaction.

Improved technology supports the purpose of the Center for Faculty Excellence: to provide resources, support, and inspiration for the development and advancement of faculty in all career phases as teachers, scholars, mentors, and leaders.

Students collaborate and present research in class.

Informatics & Virtual Reality Lab

Students and faculty research is being conducted in a newly created Informatics & Virtual Reality lab. The lab **utilizes a 10G network connection** to enable high-end workstations and displays. The lab also features virtual reality systems and sophisticated analysis and modeling software. Faculty and students from across the University are using the lab.



Students and faculty interact in the new Informatics & Virtual Reality Lab.

A Denton student works on a laptop between classes.



Microsoft Office 365 Single Sign-On

Technology often strives to make daily tasks easier and more efficient. Keeping in line with this principle, TWU Technology implemented single sign-on for Microsoft Office 365 so that students, staff, and faculty can log in using their TWU email address and Portal password. Prior to this update, Office 365 called for a separate login, requiring Pioneers to remember an additional password for a TWU-provided resource. Pioneers can now **enjoy the flexibility of web-based Office applications with the convenience of single sign-on.**

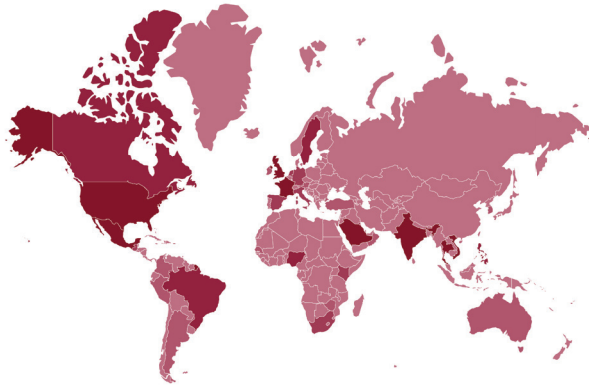


Collaboration Solutions Team

As Texas Woman's has shifted its strategic priorities, technology needs have changed, as well. Since 2014, TWU Technology has supported new services including **live streaming of large University events**, such as commencement and press conferences, and maintenance and support for conference rooms, while meeting an ever-growing demand for videoconference services. To serve the institution, TWU Technology created a new team dedicated to collaboration technology.

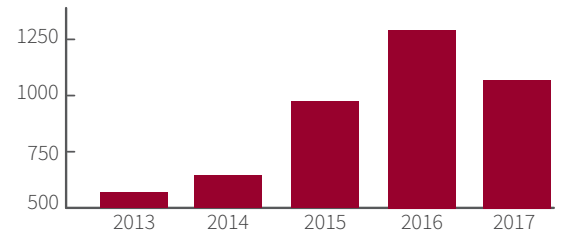
33 LiveStream events in FY17

Who in the world is watching TWU commencement? People in 94 countries viewed commencement via LiveStream. Outside of North America, viewers ranged from 2 in Cameroon to 92 in France to 178 in India.



The Technology collaboration solutions team: Raquel Clewis, Jess Tate, Caitlin Currie, and Clark Goode

7,989 views of May 2017 commencement ceremonies on LiveStream. 67% of those were live.



Videoconferences by year

Skype for Business Implementation

In late 2016, TWU Technology made Skype for Business available to the University. Skype for Business is Microsoft's replacement for Lync, a voice/video/text chat program. To increase the success of the implementation, the department planned to rollout features of the product slowly. The initial phase allowed for internal communications. This was followed by persistent chat.

In the deployment, the department enabled the **federation option of the software, which allows faculty applicants to be interviewed** in high-quality video. Still frame rates and packet loss averages are minimal thanks to the new throughput capacity of the 10GB science research network. .

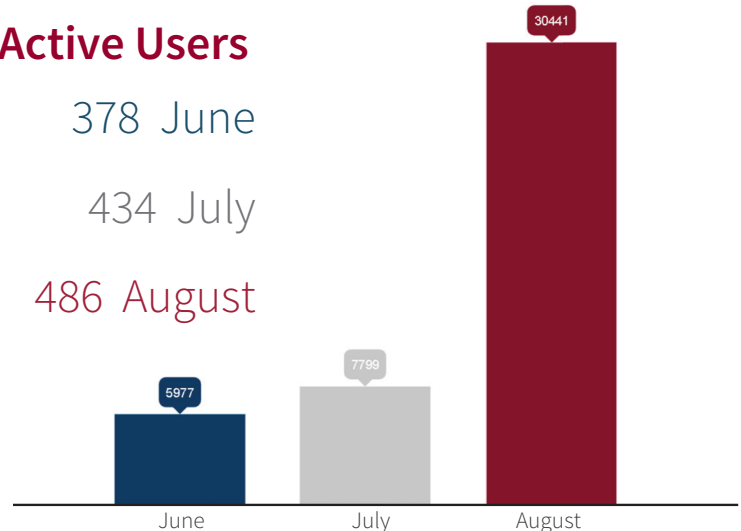
A robust solution like Skype for Business offers many attractive features, including calls for up to 250 participants, integration with Microsoft Outlook and PowerPoint, and encrypted communications. TWU Technology will continue with a modular implementation plan into the 2017-18 academic year.

TWU Technology hosted 142 fewer videoconference sessions in 2016. That reverses a several-year trend of exponential growth. Did demand decrease? Likely not. With Skype for Business, meetings can include video chat with screen share, so it is **a convenient alternative to a videoconference**. Further, Skype for Business is installed on all TWU-provided desktops, so there is no need to book an extra room if only one or two people are attending at a different location (which supports institutional efforts at maximum space utilization). Finally, Skype for Business is an affordable alternative to LifeSize, TWU's primary videoconference technology.

30,441

Skype for Business **IM sessions** held in August 2017

Unique Active Users



378 June

434 July

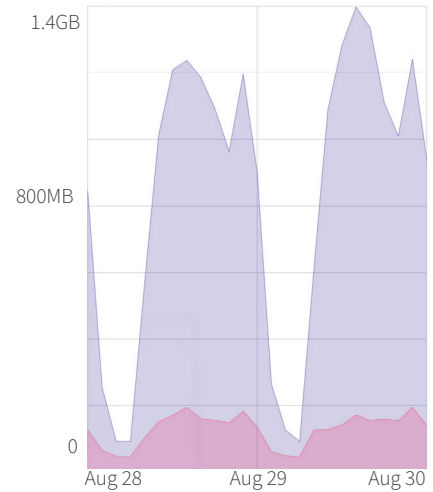
486 August

Science Network & Increased Capacity

In its Strategic Plan 2022, Texas Woman’s commits to providing “education and experience in research for the next generation of scholars.” The Science Research Network, pioneered by Dr. Robert Placido, Clay Till, and Andrew Clemens, and funded through an NSF grant, plays a vital role in meeting this commitment. The **high-speed connectivity and access to Internet2** enable research opportunities for students and faculty at Texas Woman’s.

The first year, the department focused on upgrading the edge network. This year, the project team **increased capacity to specific buildings** that would utilize high speed networks for research or classroom purposes. TWU Technology is excited to support the emerging culture of faculty and students creating scholarship at Texas Woman’s by leveraging powerful data, software, and hardware resources.

Connectivity to ASSC was increased from 2G to 40G, and 40G of capacity was added to MCL. GRB’s connectivity was increased ten-fold, and ASB’s capacity was increased from 2G to 10G.



Typical bandwidth use, August 28 & 29, 2017. Increased pipelines allow overall usage to surpass earlier limits of 1GB.

Collaboration technology in the updated Library conference room



Connecting, Collaborating

The Blagg-Huey Library on the Denton campus is home to a **new videoconference and collaboration space**. This renovated conference room allows the librarians to better connect and collaborate to the Dallas and Houston centers. They can also share screens and presentations with the new technology.

The space will serve multiple uses: a meeting space for library staff, a videoconference and meeting room for hosted sessions and conferences; and the space may be reserved by graduate students.

WHAT'S NEXT

A Message from Dennis Hoebee, Interim Vice Provost for Technology & CIO and Director, Client Services

Technology operations is facing an active year. Many faculty and staff will receive new PCs this year with the **Windows 10** operating system. Significant testing occurred over the summer to minimize potential issues for TWU employees. As machines in the computer labs reach the end of their lifecycle, they will be replaced with Windows 10 as well.

Responding to student feedback, **color printing** will be available at the Denton Library and at the Dallas and Houston Center main computer labs this fall.

The **Write Site** has a new home in the Denton Library, and we were proud to have participated in that transformational project. The space that was previously used by the Write Site will be the home of an innovative computer classroom that focuses on collaborative learning—using tablets instead of the standard computer desktop. We are also exploring more **bring your own device (BYOD)** areas on campus that include power and work areas for students who bring laptops and tablets to campus. To further enhance remote teaching and learning, we are exploring the use of Skype for Business in the classroom.

Technology changes rapidly. We will continue eagerly to embrace the changes and challenges that come our way.



A Message from Clay Till, Director, Technology Infrastructure

The TWU Technology Infrastructure teams are entering an exciting year focused on **collaboration, expansion, and sustainability**. We will fully implement OnBase, a new imaging application that centralizes content management and reduces the need for paper documentation. Not only will OnBase replace older infrastructure and increase efficiency in multiple departments on campus, it will align with TWU's mission of investing in technology that helps reduce the University's environmental impact.

Furthermore, the new **Faculty Performance Review System** will allow faculty to create and submit their annual performance evaluations and promotion and tenure portfolios online. This custom application provides faculty and administrators the ease and flexibility of accessing review documents from their desktop or mobile devices. The Faculty Performance Review System will assist with accessibility, and it will also replace a fully paper process; therefore, another University procedure would be more sustainable.

In addition to reducing environmental impact, we are also focused on **improving current infrastructure**. During the next year, we will increase the speed of our networks, the processing power of our servers, and the number of wireless access points across TWU campuses. Technology is always expanding, and we are committed to improving productivity as TWU grows.

A Message from Cori Treviño, Director, Enterprise Applications

In adapting to change and **working with new leadership**, the enterprise applications teams will focus our energy on transforming business at Texas Woman's University. While aligning with the University's strategic plan, we will also re-architect and re-develop our enterprise systems to ensure mobility, scalability, ease of use, and universal access. To ensure the integrity and security of data within enterprise systems, we will work to meet privacy and protection initiatives, security concerns, legislative changes, and federal/state compliance. Adapting to change, learning new technologies, and in alignment with our business partners, we will achieve a healthier future for TWU's enterprise systems.

Specifically, projects like Oracle iAssets will **streamline inventory control** across the institution while allowing individuals to easily update and maintain their assets. We will continue to develop Student Self-Service to add the financial aid and student finance modules. By doing so, students will be able to manage their degree plans, search and register for classes, and handle the financial aspect of their enrollment in one place.

A student at the Institute of Health Sciences Dallas works on a laptop in a nursing lab. TWU Technology supports experiential learning in the health professions through support of industry technology in the classroom.

*Produced by
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Narrative contributions by Mai Nguyen, Tiffany Peart, and Corin Walker

Photography contributions by Vanessa Kantaphone, Mai Nguyen, and Tiffany Peart and from twu.photoshelter.com

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Boldly Go.

The ubiquity of technology is so ingrained in contemporary society that one easily forgets the infrastructure required to support our appetites for all things digital.

It is incumbent upon the University to meet students where they are. As such, TWU Technology innovates to support the strategic plan of the University, which serves Pioneers future, present, and past.