RICE

Office of Information Technology Annual Report 2015-2016



"...to enlarge the boundaries of human learning and to give powerful aid to the advancement of knowledge..."

From "The Meaning of the New Institution" by Edgar Odell Lovett

ABOUT OIT

The Office of Information Technology is the university's central technology provider, supporting research, academic and administrative systems, other core applications and voice, network, computing infrastructure for the Rice community. OIT is an integral part of Rice committed to supporting the university mission through innovative uses of technology and service excellence.

CONTENTS



05 Overview

IT Executive Committee IT Council Departmental IT Leaders



8 Research, Teaching, Learning

New Learning Management System Center for Research Computing Data Warehouse Students Helping Students



7 Enabling Business Partners

Degree Works Web Hosting



20 Infrastructure

Campus Network Security



25 A Look to the Future

New Advancement System Migration to New Learning Management System (Canvas) Supporting Research Initiatives Improving University Security Posture ITEC Prioritized Projects Emerging Needs

⁵ Overview



Lovett Hall

OVERVIEW



In 2015 as a result of a yearlong self-study on technology needs, Rice University established the Office of Information Technology (OIT) and created formal university advisory and prioritization processes.

IT Executive Committee

The IT Executive Committee (ITEC) provides overall university-wide IT prioritization and investment oversight. The Provost (Marie Lynn Miranda), the Vice President for Finance (Kathy Collins), the Vice President for Administration (Kevin Kirby), the faculty chair of the IT Council (Paul Padley) and the Vice President for IT (Klara Jelinkova) serve on the ITEC. All major technology expenditures across the university are reviewed by ITEC.

OVERVIEW

IT Council

The IT Council (ITC) is a faculty committee chaired by Paul Padley. The ITC has three subcommittees. Its membership includes a faculty at large member (Caleb McDaniel), the three subcommittee chairs, and subcommittee staff.

Academic Technologies Subcommittee

Scott Rixner, Chair	Diane Butler (staff)	Josh Eyler	Kathy Matthews	Renata Ramos	David Tenney
Sid Burrus	Justin Denney	Klara Jelinkova	Paul Padley	Rafael Salaberry	Lesa Tran

The Academic Technologies Subcommittee of the ITC is chaired by Scott Rixner (Computer Science and Electrical and Computer Engineering). Diane Butler (Associate Vice President in OIT) staffs the committee. In the last year the subcommittee completed a review of the learning management system (OWL-Space) and recommended moving to a new platform Canvas. It also reviewed classroom technologies and audience response systems and worked with OIT and the Office of the Registrar to assure replacement lifecycle for classroom projectors.

Research Computing Subcommittee

Farès El-Dahdah, Chair	Anthony Brandt	Keith Cooper	Sara Lowman	Paul Padley
Dominic Boyer	Cecilia Clementi	Klara Jelinkova	Jan Odegard (staff)	George Phillips

Farès El-Dahdah (Humanities) chairs the Research Computing Subcommittee of the ITC. Jan Odegard (Associate Vice President in OIT) staffs the committee. In the last year the subcommittee reviewed technology support for research and recommended additional investments in storage to the IT Executive Committee for FY17. It also reviewed needs for support for computing environments in addition to high performance computing (HPC) and consulting services with recommendations to be completed next academic year.

Administrative Technologies Subcommittee

Paul Padley, Chair	Jana Callan	Brad Fralic	David McDonald	Wayne Robinson	David Tenney
Elaine Brewer	Randy Castiglioni (staff)	Klara Jelinkova	Rachel Miller	Renae Scott	

Paul Padley (Physics and Astronomy) chairs the Administrative Technologies Subcommittee of the ITC. Randy Castiglioni (Associate Vice President in OIT) staffs the committee. In the last year the subcommittee reviewed an extensive list of projects, started a process of prioritization of these projects as well as engagement with functional owners and academic units on requirements, needs and dependencies.

Departmental IT Leaders

Elaine Brewer Diane Butler Randy Castiglioni Mike Dewey William Deigaard Doug Hayes

Robin Meeks Jan Odegard

eks Karen Rubinsky ard Marc Scarborough

John Thomas Library representative

OIT collaborates closely with staff in departments with responsibility for technology. In 2015 these leaders started to meet monthly to improve coordination, communication, resolve tactical issues, and eliminate duplication of effort.

OVERVIEW

Research, Teaching, and Learning



Oshman Engineering Design Kitchen

8

RESEARCH, TEACHING, AND LEARNING

New Learning Management System

Collaborating with faculty, the Office of Strategic Initiatives and Digital Education, and Fondren Library to select a new learning management tool

OIT partnered with the Office of Strategic Initiatives and Digital Education and Fondren Library to start the evaluation of Canvas as a new learning management system (LMS). The IT Council and its Academic Technologies Subcommittee provided faculty oversight. The goal of the pilot was to ensure that Canvas would meet faculty needs and was a modern platform that would allow for better integration and portability of content between different teaching modalities.

During the summer 2015, fall 2015, and spring 2016 semesters, over

60 courses piloted Canvas. The cloud-hosted application is mobile friendly and accessible, which are high priorities for Rice. Faculty were recruited or volunteered to participate in the pilot. Pre and post surveys of faculty and students, which were gathered by Fondren Library's User Experience department, assisted in the decision. The ITC Academic Technologies Subcommittee chaired by Scott Rixner solicited additional feedback from fellow faculty that teach a variety of courses and use different of features in an LMS.

Professor Robert Englebretson taught LING 200 in spring 2016 using



Robert Englebretson, Professor of Linguistics

Canvas for the first time. When asked why he chose to teach his course on Canvas instead of the current OWL-Space, he commented that he needed to rework a course and wanted to do it in the new system. His thoughts on Canvas? "The quizzes were more robust and easier to work with than OWL-Space." He added "I really like the modules. We can set up a structured list of tasks that a student has to do to complete something, and that they have to do it in a particular order."

Another piloter, Professor Renata Ramos, who is a member of the



Renata Ramos, Lecturer in Bioengineering

ITC Academic Technologies subcommittee, taught BIOE 320 in spring 2016 and BIOE 385 in fall 2015. Ramos was one of several members of the committee that piloted Canvas and was able to bring her experiences to the discussion. She wanted to pilot Canvas because she wanted to try new technology that would aid in student learning. When asked about her experience with Canvas, she stated "From the instructor's side it's very user friendly and the students enjoy how easy to use it is." Ramos was not alone in her sentiment about the grading in Canvas (called SpeedGrader) and said "I really, really like the ability

to grade online and to be able to mark things as we go on a document without having to print things."

Based on the feedback from the survey as well as the discussions the ITC Academic Technologies subcommittee had with faculty, the committee unanimously voted to recommend Rice University move to Canvas as its LMS. The rollout will begin in the fall 2016 semester.

Center for Research Computing

Supporting computation in partnership with Ken Kennedy Institute for Information Technology

The Center for Research Computing (CRC) within the Office of Information Technology, in partnership with the Ken Kennedy Institute, manages Rice's shared research computing, storage, networking, and visualization facilities. The CRC operates five research computing clusters, research storage infrastructure, and the Chevron Visualization Laboratory. The CRC also works closely with faculty to enable access to national computing infrastructure such as the NSF-funded Extreme Science and Engineering Discovery Environment (XSEDE) resources.

Rice's shared research computing infrastructure is important to Rice faculty. The Ken Kennedy Institute estimates that somewhere

between 60% and 70% of Rice's research expenditure is enabled by shared managed computing infrastructure and continues to have a substantial impact on the success of attracting research funding. Shared infrastructure supports the research of over 170 PIs, roughly 35% of Rice's tenure and tenure-track faculty (up from 160 from a year ago), and 600 users (up from 500 from a year ago). At any given time the clusters are, on average, being actively used by over 200 unique users working for over 60 unique PIs. Of the total capacity, 75% is part of the compute commons and 25% are faculty owned compute condos.

The Chevron Visualization Laboratory is located on the first floor of Dell

Butcher Hall and was enabled by a generous donation from Chevron. The lab is the home of the Data Analysis and Visualization Cyberinfrastructure Wall (DAVinCI Wall) funded by a National Science Foundation grant. The lab enables the display, analysis, and interrogation of data and images in two and three dimensions. The CRC's visualization support extends past the lab itself and works to enable data visualization across multiple platforms such as research labs, offices, and mobile devices.

The CRC operates 2.2 petabytes of storage. In FY17 plans include bringing on additional storage resources under the guidance of the ITC Research Computing Subcommittee.



The Computing Resource Center staff

The Research Cyberinfrastructure Working Group

Stephen Bradshaw
Cecilia Clementi
Erik Engquist
Klara Jelinkova

Alan Levander Caleb McDaniel Jan Odegard Paul Padley Amina Qutub Tayfun Tezduyar Moshe Vardi

The Research Cyberinfrastructure Working Group is part of the ITC Research Computing Subcommittee and tasked with providing advice to the CRC about all aspects of existing shared high-performance and high-throughput computing, storage, and visualization infrastructure. 13

Data Warehouse

Partnering with the Office of Institutional Research to build a reporting facility for analyzing university data to gain insights to inform campus decisions

Rice University is a highly complex organization. The complexity is reflected in the vast amount of data generated as the university carries out its various activities from teaching and research, conducting its financial and business affairs, to building relationships with its students, faculty, staff, alumni, and many other constituents. This data is contained in various systems and is routinely used to manage the operations of specific functions areas such as tracking a student's academic progress, sponsored research, employee benefits, procurement, accounting and other financial and administrative functions.

In 2015 OIT in close partnership with a number of offices but primarily the Office for Institutional Research

(OIR) restarted a project to build a data warehouse. A highly diverse team of staff with expertise in existing transactional systems, data modeling, data transformation, and visualization was assembled. Initial load into the warehouse focused primarily on student data and a way to visualize that data using new Tableau tools. Besides Tableau other technology that OIT is using to create these integrations and enable end user analytics are Talend for data integration and Oracle databases including in memory processing for storing and processing data warehouse information more quickly.

Though the initial data set is limited, faculty are already finding new and creative ways to use these tools. As an example, Farès ElDahdah, Director of the Humanities Research Center has used grant information from the data warehouse and blended it using Tableau with information that he has stored in the cloud in an Airtable database to create a personalized financial report to monitor graduate student spending.

Going forward, work continues on a number of use cases across campus including these three:

1. Development and Alumni Relations (DAR) relies heavily on data driven decision-making. Doward Hudlow explained, "DAR is in the business of building relationships and measuring the strength of these relationships through the contributions of time, talent and financial support."

RESEARCH, TEACHING, AND LEARNING

2. Katie Cervenka. Executive Director of the Office of Corporate and Foundation Relations (OCFR), explained their needs, "The challenge OCFR faces is that there is no way to access complete information about a company's activity on campus because relevant data (recruiting and internship statistics, philanthropic investments, sponsored research, executive education, alumni statistics, volunteer engagement) reside in a variety of different databases or even in Excel spreadsheets."

3. William Turner, Assistant Vice Provost for Research, combines financial data about research grants with the space data and human resources data to create dashboard reports on space utilization by grant and principal investigator.



Rice University Operating Revenue Sources(*)

Graphical financial statements generated using Tableau of Rice operating revenue sources. *The data source is financial statements: http://www.professor.rice.edu/professor/Financial_Statement.asp. Totals include unrestricted, temporarily restricted, and permanently restricted sources.

RESEARCH, TEACHING, AND LEARNING

OIT ANNUAL REPORT 2015-2016

operations

Students Helping Students

In each college, OIT Ambassadors serve their fellow students by answering questions, relaying information, and directing them to OIT services

Each of Rice's 11 colleges has a unique culture and self-governing structure; OIT strives to respect their independence with a student outreach program that works within each college's system. A resident student in each college serves as their college's OIT Ambassador for the academic year. Shreeya Patel, the Wiess College OIT Ambassador for the past two years, explained the peer communication system, "As an OIT Ambassador. I have had the opportunity to help other students at my residential college with IT related problems, ranging from printer jams to network issues. My role is to provide resources to help students,



Shreeya Patel, Wiess College

at my residential college, with any technical problems they are having. I serve to assist in communicating the opinions of the students to the Office of Information Technology, in order to ensure that students are getting what they need."

Occasionally, ambassadors are also techies, perhaps computer science

majors or already working for OIT. As Nicholas Kwon, a computer science major, explained, "I am Martel College's OIT Ambassador, facilitating communication between OIT and Martel College. Half of my job is to update students about



Nicholas Kwon, Martel College



"Every time students encounter IT problems ranging from downloading software to getting a laptop fixed, I help with my personal knowledge or direct them to OIT services and documents."

Zhifan Li, Lovett College

things like printing and wifi; the other half is to relay technical issues at Martel back to OIT. As a former OIT Student Computer Consultant, I have a deeper understanding of students' technical issues and how OIT can solve them."

OIT Ambassadors are critical at the beginning of the fall semester to introduce new students to OIT services and to spread the word on attending a fall study break that provides technical tips. Due to reports from ambassadors, OIT has addressed disruptive wifi issues, installed requested software on college lab computers, and investigated printer issues. Ambassadors have facilitated getting students to like the OIT Facebook page, gathering feedback on issues, and answering many questions.



"The OIT ambassador program gives a friendly face to Rice's OIT. By embedding a member of the college, the OIT department has a direct channel to the students that live there. I have done everything from sending outage emails and technical updates to my own newsletter. Whenever there are critical changes to Rice's OIT program, I meet with the college at council meetings, so the communication pipeline is always flowing. My college has seen a major reduction in printer and networks complaints over the last few years and I believe it is strongly correlated to the ambassador program."

Alex Nunez-Thompson, Sid Richardson College

¹⁷ Enabling Business Partners



Meeting of Public Affairs and OIT's Web Technology staff

ENABLING BUSINESS PARTNERS

Degree Works

A campus collaboration with the Office of the Registrar to ensure undergraduates are on track for their degree goal

The Student Information Systems team in OIT has been working closely with the staff from the Office of the Registrar on a new system for certifying degree candidates, providing information to advisors, and enabling a student to track and monitor their progress toward the degree they seek. The Office of the Registrar worked with the departments across campus to gather and verify the degree requirements for all of Rice's undergraduate degrees. Once coded, verified, and approved the

degree requirements were migrated to the production DegreeWorks system. On the technical side software was developed to move the Scribe rules from the test system to the production system to remove the work of rekeying the rules in the production environment and also eliminating keystroke errors. The Student Information Systems team developed the integration between DegreeWorks, Banner, and Esther. Both groups were involved in software development and extensive testing. The integration involved loading and refreshing the student information from Banner to DegreeWorks as well as the mapping of students to their advisors.

"Currently, a student can disappear (not see an academic advisor) for a couple of years then reappear only when it is time to audit the degree. By then it is often too late to fix things. I hope to address this problem by periodically downloading the entire list of majors and minors with my department, then use Degree Works to review their progress. Thank goodness for Degree Works. Adopting the system was a great idea. My plan is to conduct reviews at least once a year and spot students who are behind or perhaps are at risk due to low grades."

David Caprette

Professor in the Practice, BioSciences

Programs	Degrees	2015/2016 Catalog	Offered	Enrollment
248	40	5546	Fall 2015: 3015	Fall 2015: 3839
Includes Majors, Minors, Certificates, Masters, Doctoral	Any degree active and accepting applications for the 2015-2016 academic year.	All courses that could be offered for the 2015-2016 academic year.	Spring 2016: 3352	Spring 2016: 3724
T , , , , , , , , , , , , , , , , , , ,				

Courses

Total numbers of academic programs, degrees and course sections supported in the student system this past academic year (2015-2016)

ENABLING BUSINESS PARTNERS

Web Hosting

A partnership with Public Affairs provides tools and templates for consistency across Rice web sites

OIT's Web Technology team and Public Affair's Web Development and Design team partnered in the spring of 2015 to launch a new model for creating Rice websites. The strategy leverages the use of a leading commercial cloud hosting service by Acquia Corporation using the Drupal content managing system. The model uses a set of templates that greatly simplify the creation of sites. The templates are predefined but allow for flexibility in arranging content. They also comply with Rice brand standards.

The Public Affairs team provides the design themes and creates the templates, the OIT team provides engineering support, Drupal expertise, and template training. They also develop software modules and integration with other Rice systems for automated content such as course feeds. Once the shell of the site is completed, including navigation and integration points, the site owner provides the content. Minimal technical skills in web development are required in order to add and maintain content. There is no charge to the Rice department for the creation of a template-based site or ongoing hosting costs within the framework.

The first sites that tested the new process were new sites created to support Rice's strategic research initiatives including the Rice Academy of Fellows (http://www.riceacademy. rice.edu/) and the Creative Ventures (https://creativeventures.rice.edu/) websites. The team's skills and workflow were successfully put to the test when the sites needed to go live in a few weeks in order to maximize the timeframe in which applications could be accepted for the program.

Weekly Drupal training sessions are held for the campus web community to become familiar with the templates techniques for adding and maintaining content. Other activities include co-sponsoring a monthly web forum for campus administrators with an interest in or responsibility for web sites.

²⁰ Infrastructure



New access points on campus

INFRASTRUCTURE

Campus Network

Increasing speed, improving redundancy and security, and preventing disruptions are goals of upgrade

The RiceNet3 project is nearing completion and represents Rice's third significant investment in network and data communications. Primarily, this network refresh consists of higher bandwidth, more support for network-powered devices, and a complete backup power system for the entire network. Additionally, RiceNet3 also provides a framework for the deployment of new and more advanced services such as a more secure network logon, significant improvements in the detection and prevention of security threats, and more effective management and monitoring.

FY 2015 – 2016 was a busy year for all groups in OIT as the Rice Networking and Data Center teams deployed RiceNet3 equipment

into every Rice building. Over the past 13 months, over 300 routers, switches, or power systems were replaced or installed with minimal disruption to campus activities and operations. Every access switch on the Rice campus now has redundant, higher speed (10 gb/s) uplinks to the campus network core which interconnects to the Internet via multiple 10 gb/s links to commodity networks and via a 100 gb/s link to the Internet2 research and education network (one of the first installed in Texas). Additionally, every single RiceNet3 network device is supported by an emergency backup power system so it can continue to provide services when power is disrupted to the whole campus or individual buildings for periods less than one hour. This helps improve all campus operations by significantly minimizing

the disruption and ensures critical systems such as security devices (access controls and cameras), building automation systems, and monitoring systems remain on-line through power blips.

Additional time has been invested in the development of a new 802.1X-based Identity Services Engine (ISE) system. ISE provides an authentication and policy system for connecting devices to RiceNet3's wired network in a more secure and flexible manner. The Rice Networking team, in conjunction with the IT Security team, systems administrators, Campus Services team members, and members of the campus community have developed and tested ISE. All of the residential college buildings are already using ISE successfully on a daily basis.

OIT ANNUAL REPORT 2015-2016

INFRASTRUCTURE

Wireless enhancements have been implemented in a number of campus buildings. Rice's network team has been performing wireless surveys, working with the campus community to identify and understand their needs in order to improve everyone's experience through better placement of existing access points (APs) as well as installation of additional units. Throughout the last year, significant improvements have been made across campus and in residential apartments by adding 250 APs, raising the total number of campus APs to 1,836.



Networking Team

INFRASTRUCTURE





It seemed like an ordinary request: A Rice employee got an email from a colleague asking for university bank account numbers. Fortunately, rather than simply hit reply, the employee picked up the phone — and that's when the jig was up.

The email was a convincing spear-phishing attack targeted at stealing financial information. $% \label{eq:conversion}$

"What made the email look so convincing was that it appeared to come from someone the victim knew and someone from whom the request would seem normal," said Marc Scarborough, chief information security officer for Rice's Office of Information Technology. "The attacker in this case actually took the time to learn Rice's reporting structure and crafted a targeted email message to a single person."

The "From" address on an email is easily forged. It's essentially the same as a return address on a postal envelope. People generally write an accurate return address, but anything can be written there. That's true for emails as well. And it's even harder to detect a forged "From" address on a mobile device since less information is shown on smaller screens.

"We should be aware that not all emails we receive are from whom they say they are," Scarborough said. "If an email requesting information appears unusual, even if it appears to be coming from someone you know, take the time to investigate. Call the person who supposedly sent the message. Find out if they really did request the information before you send it, whether it's banking information or any other type of private information account information, student information or general information about your department's operations.

"Not all phishing emails are the same. Some are more than the poorly worded emails asking for our passwords that we're used to. Attackers are getting much better at learning about us to make their attacks more successful."

For more information about Rice IT Security, visit http://it.rice.edu/security/. For information about National Cybersecurity Awareness Month, visit https://www.staysafeonline.org/.

Two educational posters developed by Public Affairs and the IT Security Office



Office of Information Technology

Cybersecurity Awareness Month 2015

Don't take the bait:

- If you're at all suspicious about an email, it's probably a scam. No one at Rice will ever ask you to verify your NetID account or ask for your password, ID number, credit card information or other personal details by email.
- If you fall for a phishing message, immediately contact the Help Desk at helpdesk@rice.
 edu or 713-348-HELP (4357) to reset your password.

RICE



What would you do if you lost access to everything in your digital world?

Consider this scenario: Your emails, contacts, documents and even photos are out of reach — or worse, being deleted. Your passwords to all your accounts have been changed. Your contacts are receiving unwanted or even harmful emails from you — or so they think.

If someone steals your password, it could happen.

Passwords have a single purpose: to protect a resource. Generally speaking, a password's strength — its length and complexity — as well as how often it is changed should be directly related to the value of the resource it's protecting.

In a single sign-on environment like Rice, where one password is used for everything — from checking email to accessing Rice's virtual private network to using departmental shares — passwords should be strong. They should include numbers, symbols, and capital and lowercase letters, and they should be changed periodically.

For some resources, another option is "multifactor authentication," or MFA. This type of authentication can help protect accounts even if a password is stolen. Much like a bank ATM requires both a card and a PIN to access an account, MFA requires at least two forms of authentication before access is allowed. Rice Google accounts, for example, can be configured to use not only a password, but also a unique, one-time code sent to a user's mobile phone. Google calls it "Google Two-Step." If an attacker does steal a user's password, the villain will not be able to log into the Google account; the attacker will not have the one-time, unique code sent to the user's mobile phone. Twitter and Facebook have similar technologies that can be enabled for that extra layer of logon security.

"Rice is also looking at providing MFA to some sites on campus," said Marc Scarborough, chief information security officer for Rice's Office of Information Technology. "We are currently piloting technology similar to what Google and Facebook offer — a way to further enhance the logon security of some of our Web-based applications. We are partnering with Duo Security to provide MFA to these sites and services. As we move forward in our pilot and implementation, we will provide more information."

For more information about Rice IT Security, visit http://it.rice.edu/security/.

For information about National Cybersecurity Awareness Month, visit https://www.staysafeonline.org/.

Office of Information Technology

Cybersecurity Awareness Month 2015



Keep digital accounts secure with strong passwords:

•Enable extra security options when available.

•Enable "Google Two-Step" authentication on your Rice Google account.

•Choose different passwords for different sites. Using the same password in multiple locations, even though convenient, lowers the security of those services. If one of them has a breach, then that stolen password will work everywhere it's used.

• If you have access to confidential and sensitive information, change your password at least once a year.



Security

Helping the campus community protect Rice data

Every October, the university participates in the National Cyber Security Awareness Month (NCSAM), an annual information security awareness event held across the United States. This year OIT partnered with Public Affairs to coordinate a more comprehensive security awareness campaign. Each week highlighted a different area of risk for the campus.

The campaign focused on four key and time-relevant topics pulled from past incidents. Each featured a Rice News article and custom graphics for posters placed in key areas around campus. The first topic, "Remember the 'golden rule' when handling confidential, sensitive information," highlighted Rice's data classification policy and gave guidance to departments on how to handle and process confidential and sensitive information. The second topic, "Lock it down: Keep digital accounts secure with strong passwords," discussed the risks of weak passwords and advocated for the use of "extra security options" (such as multi factor authentication) when available. The third topic covered sophisticated phishing techniques with the "Spear phishing: Don't take the bait" campaign with strategies to identify and report suspected phishing emails. The fourth and final topic, "Safeguard mobile devices" offered information and guidance on protecting mobiles and tablets.

The campaign was wrapped up with a presentation at the Administrator's Forum discussing challenges departments face when trying to recover from lost data issues.

A Look to the Future



A LOOK TO THE FUTURE

A Look to the Future

Goals for fulfilling the university's future IT needs

New Advancement System

In FY17 OIT in partnership with the Office of Development and Alumni Relations will start the implementation of a new system to support university outreach and development efforts. After an inclusive system selection process that helped refine requirements the implementation will start in the summer of 2016. The go live is planned for January 2018.

Migration to New Learning Management System (Canvas)

Following the recommendation of the ITC Academic Technologies Subcommittee, OIT will start and make significant progress on migration to Canvas. New courses will be created in Canvas starting in FY17. The goal is to complete migration in FY18.

Supporting Research Initiatives

In May of 2015 the Board of Trustees approved three initiatives: Data Science, Research Competitiveness, and Materials and Molecules. OIT is supporting these initiatives in FY17 by improving storage services for researchers. These improvements are following the recommendations of the ITC Research Computing Subcommittee.

Improving University Security Posture

In order to effectively manage risk to the university's operations, intellectual property, and other assets OIT needs to increase the amount of attention paid to IT security campus-wide. High-priority actions include:

- Improve consistency of policy framework and standards
- Strengthen vulnerability scanning and the university's network border
- Provide more in-depth training on safe data sharing
- Improve outreach and awareness of policies

ITEC Prioritized Projects

The following projects have been prioritized by the ITEC for FY17.

- In partnership with the Office of Institutional Research continue improvements to the reporting and data warehousing facility
- 2. In partnership with the Office of the Registrar implement Course Leaf (course management software)
- In partnership with the Office of the Vice Provost for Academic Affairs implement a new Faculty Information System based on technology provided by Thomson Reuters.
- 4. In partnership with the Office of the Vice Provost for Academic Affairs run a pilot of a new cloud based course evaluation system (IDEA Course evaluation).
- Hardware upgrades to university wide systems including: E-mail system, budget planning system, Banner database server, OnBase imaging server and facilities system (FAMIS) amongst others.

Emerging Needs

OIT will continue to work with the Office of Strategic Initiatives and Digital Education, Glasscock School of Continuing Studies, Jones Graduate School of Business, and other partners to improve systematic technology support for non-degree seeking students including students who complete most of their work online.

OIT will continue to partner with the Office of Development and Alumni Relations, Doerr Institute for New Leaders, and others to implement system(s) to better link students and various opportunities.

OIT will engage campus in planning the replacement of its eighteen-year-old phone system with the goal to move to Voice over IP technology and increased mobility.









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