

# Office of Information Technology & Information Security Office Annual Report 2020-2021



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### Introduction

### A Year of Adaptation and Innovation

In many ways, this past year was characterized by adaptability and innovation. The Office of Information Technology (OIT) and Information Security Office (ISO) executed new services and refined many existing ones that were implemented in response to the shift to remote operations in 2020. The teams enabled remote teaching, learning, working and research to continue both in-person and virtually, as well as both domestically and internationally. Simultaneously, Rice witnessed a drastic transformation in its administrative operations with the launch of iO, the expansion of technology throughout campus buildings and grounds, the ability to make data-driven decisions based on daily, robust health data, and the continued need to protect the digital assets of the university. As future needs shift, the OIT and ISO will remain committed to being agile and flexible while serving as strategic partners with all university stakeholders.



### **Teaching and Learning**

### **Evolution of the Tech TA Program**

Prior to the launch of dual delivery teaching in fall 2020, the majority of instructors were unfamiliar with this format of teaching and the accompanying technology. Not only were faculty forced to rethink the organization and presentation of their materials, but they also had to become familiar with new tools while teaching in front of live audiences and making classes interactive to keep students engaged.

Learning Environments acted quickly to ease some of this burden from instructors by developing the Tech TA program to ensure that faculty had technology support when they needed it, especially during their classes. The program was launched with over 175 Rice students employed to fill the roles of Tech TA and Schedulers.

Even as instructor's comfort with technology grew and the university transitioned to hybrid classes, many instructors found it helpful to have a Tech TA manage Zoom sessions by monitoring the chat or overseeing breakout rooms. The program gave comfort and security to faculty and allowed them to concentrate on instruction. By spring 2021, many only needed support for the first few weeks of the semester. Some Tech TAs also helped with tasks outside the classroom, like publishing recordings in Canvas.

Student Tech TAs have been an effective way to leverage the support from the Learning Environments staff. Tech TAs triaged tech problems and escalated issues to support staff for a classroom service visit as needed. Previous to the Tech TA program, all support calls went directly to staff. "I'm very thankful for the program. I'm only in my second year teaching here. My lectures are not yet rote. I'm still developing them and thinking about them until the moment class starts. I just simply do not have the cognitive bandwidth to deliver a lecture while simultaneously being my own tech support."

"Assistance provided by the Tech TA allowed me to have more time to focus on preparing and delivering the lectures, and ensure that they were being property recorded and uploaded to Canvas."

"Providing access to a Tech TA is a wonderful program. Even if the faculty knows how to use the technology, it can be very distracting to have to switch your focus from teaching to tech and back again. I was able to keep my attention on the class content thanks to our Tech TA."

The Tech TA program will continue to evolve for the fall 2021 semester, but the primary objective, to support faculty in the use of technology while teaching, will remain. During the summer, faculty were asked to complete a Tech TA request form and indicate what they expect their technical support needs to be. While the university's fall 2021 plan is for in person course delivery, many factors may influence the needs of the faculty and thus the Tech TA program this fall. Flexibility was one of the main strategies Rice used to handle the COVID-19 crisis and Learning Environments will follow this approach.

#### New Partnerships to Support International Students

Not only did the pandemic require OIT to be innovative in its service model and technology offerings to support dual delivery for faculty and students on campus, it also required additional considerations for many students who faced a unique set of challenges while studying remotely outside of the United States.

One challenge for Rice students taking courses remotely from China was the censorship firewall, which banned access to various foreign websites that they would otherwise have access to while studying within the United States. Google is an example of one prohibited website, which was particularly problematic since it is the primary tool for Rice students' email accounts, among many other features such as file sharing, video chat and other collaboration tools. To overcome this challenge, OIT configured a virtual private network (VPN) and secured a backup VPN solution, Tencent, for the Rice students using facilities at the Southern University of Science and Technology in China. These partnerships enabled the students to have access to the same resources as their classmates in the U.S.

In addition to overcoming the technological challenges, additional considerations were taken to address the physical and social needs of international students. In order to foster the sense of community that comes with being on campus, Rice collaborated with WeWork for Education to provide Rice students in other countries to have access to designated workspaces with reliable wireless internet outside of their homes. The workspaces could be used for individual studying, as well as for collaborative work and networking in person. This partnership enabled many students to meet and build relationships with their peers in

ways that they otherwise would not be able to do virtually. WeWork for Education also developed a University Hub which consisted of a network of students from various universities and created opportunities for them to socialize with other students and professionals from potential employers.



#### **Experiential IT Learning for Students**

For the first time in the internship program's history, a total of 22 undergraduate and graduate students were employed throughout the full academic year. Interns supported projects in various units on campus including OIT, ISO, Facilities Engineering, and Planning, and the Office of Research. While the program previously only operated during the summer, the ability for interns to continue their projects during the semesters granted them the ability to obtain a full year of critical IT skills and experience, as well as the opportunity to develop interpersonal skills such as communication and collaboration.

Consistent with the previous summer, interns worked remotely both domestically and internationally. Because of the remote work arrangements and varying time differences, remote communication tools were critical to the program's success. Mentors and interns collaborated synchronously and asynchronously via tools, such as Slack and Zoom. John Mulligan, internship program manager, shared, "This flexibility allowed for the coordination of skills from the university staff's deep bench in order to rapidly advance projects that will be of direct use to the participating departments."

The internship program values learning through shared experiences and provides space for interns to learn not only from their mentors, but also from other students. Throughout the year, several projects were initiated by one intern and handed off to a new student in the following term. One intern noted, "Throughout the program, I have learned the importance of exchanging ideas, regularly communicating and touching base with my teammates, and seeking and incorporating feedback for continuous improvement."

At the end of the program, students depart with a breadth of new skills and experiences as well as a portfolio that can be used to convey their capabilities to potential employers. Upon reflecting on this past year, Mulligan shared, "The interns' work ethic and talent was, of course, outstanding, as one would anticipate from Rice students. The mentors also brought compelling projects to the table, from the automation of customer relationship management through chatbots, to the design of an iOS research application, to full-stack development, data pipeline architecturing and dashboard design, and interface design using rich GIS data sources." Likewise, in his final paper, one sophomore reflected, "I believe that Rice University has many great programs and projects that really enable interns like me to be part of something big and have great impacts... I am really grateful for that." OIT expects to continue offering this experiential learning opportunity in the future.



### **Research Computing**

### Tech Support Augments Campus Research Projects

Helping researchers to create a technology strategy is the specialty of the Center for Research Computing (CRC) and ranges from consulting on grants to advising on storage options to supporting optimization of specialized software. CRC staff maintain the shared infrastructure on campus as well as relationships with off-campus organizations and vendors. They also offer workshops on parallelization, virtualization and cloud migration and started a newsletter to communicate their services to the Rice community. Below is a sampling of this year's projects and collaborations:

CRC staff have been creating the second iteration of the Virtual Research Data Environment (VRDE). VRED2 will be the new secure enclave that meets stronger security standards set by a federal initiative to protect Controlled Unclassified Information (CUI). Projects such as the <u>Kinder Institute Urban Data Platform</u> utilize these secure environments.

CRC's ORION virtual machine infrastructure supports the <u>Covid-19 Reflections at Rice</u> <u>Archive</u> project, which is a partnership of the Woodson Research Center, Digital Scholarship Services and the Humanities Research Center and is intended to "preserve our community's experiences of the Covid-19 pandemic."

CRC's Spatial Studies Lab (SSL) worked on a variety of projects as part of the <u>Baker</u> <u>Institute's Glassell Map</u> project, which features digital maps that explore the spatial context and impact of public policy including <u>imagineRio</u> (digital atlas of the urban evolution of Rio de Janeiro), <u>Beirut Recovery Map</u> (tracks damage/recovery of the August 2020 explosion) and <u>Earth at Night</u> (global maps showing human settlements).

Researchers in the SSL also launched the <u>Mars 2020 Mission Tracker</u> project, which records the progress of Perseverance Rover on the surface of Mars in both space and time. Bruno Sousa, GIS Researcher, explained, "We used our diverse skills in GIS (Geographic Information Systems) for the data manipulation and spatial analysis in addition to using

ArcGIS Online and ArcGIS Enterprise Portal to host our data online and ArcGIS Experience Builder and JavaScript programming to create the interface of the website. The idea developed out of curiosity about the environment around Perseverance so we created a 3D environment and turned it into a web application available to everyone. We hope that this application will bring Mars closer to the public and hopefully instigate interest towards science and space exploration."



# Research Computing Supports Humanities Research: The SlaveVoyages Project

In 2020, history professor Daniel Domingues approached the Center for Research Computing (CRC) to discuss the possibilities of hosting the SlaveVoyages data and website at Rice University. A preeminent resource for the study of the history of the slave trade, SlaveVoyages.org is managed by a consortium of institutions to ensure the preservation, stability and future development of this online shared repository.

Rice was selected as the next host institution for an initial three-year term, during which time it will control the fees from consortium member organizations to help maintain and further develop the site. The CRC also obtained a unique grant in cloud computing credits from Oracle for Research to underwrite the development of an agile, containerized cloud deployment pipeline, which was built by Derek Keller, CRC Infrastructure Specialist. This new deployment infrastructure has allowed the team to better document the program's codebase and cloud infrastructure, reduce differences between what programmers see when they are testing new functionality and what the public sees when they are visiting the site, and dramatically increase the tempo of site updates by transforming much of the infrastructure into code, according to cloud infrastructure best practices. "These interventions will enhance the website and pave the way for other, similar projects in the Digital Humanities," Domingues said.

SlaveVoyages.org can create rich, dynamic visualizations based on detailed searches, and the site also has maps, timelines and videos to enrich learning. It strikes a functional balance between complexity and usability, in order to cater to the needs of its



broad user base: pre-college students, university-level undergraduate and graduate students, amateur and professional historians, as well as genealogists with a personal investment in the history it catalogues. Access to the site and data is free and is used by approximately 1,400 individuals daily. "It is hard for anyone to talk about the trade's history these days without drawing on SlaveVoyages," Domingues noted.

As the current stewards of the data, the CRC is carefully considering the implications of additional growth and weighing options for potentially more useful resources. John Mulligan, Humanities Computing Researcher/Facilitator, summarized the CRC's project vision, "This site is a living, breathing archive and it is crucial that the data is accurate, reliable, accessible, and editable given the significance it has for the study of history."

## **University Administration & Operations**

### Enterprise Resource Planning (ERP) Implementation

On July 1, Rice went live with its new Finance, Procurement, and Human Resource integrated application, Oracle Cloud. Over the span of 18 months, the project transformed hundreds of business processes, added several areas of new functionality, delivered role-based security across the platform, and provided dashboards for ease of use.

The project was led by a partnership between the Offices of Human Resource, Finance, and Information Technology. An implementation team of 140 members, including a system implementation partner, actively worked over the last year to design hundreds of process maps, perform system configuration, convert data, build 100+ integrations, and execute seven rounds of testing. Additionally, Finance built a completely new chart of accounts. A campus wide change network was established with over 200 people that worked with the project team to help provide feedback and assist with campus adoption.

Some of the immediate benefits include:

- Access to automated organization charts based on HR data for the first time at Rice. All employees have the ability to view the organization at the click of a button.
- Elimination of 14 disparate systems through consolidation into a single application with a single login and multi-factor authentication.
- Managers now have full access to their employees' data. They can view their job information, compensation, and other self-service features. They will be able to enter performance reviews online and have access to advanced features that include salary planning with market pay integrations.
- Streamlined workflows and approvals. Many processes are going from double digit number of steps down to fewer than five. Most approvals are now industry standard "one over one."
- New features such as online absence management that allow employees to proactively submit their PTO or other leaves and automatically integrate into Payroll. Managers can view team schedules and approve requests.
- Creation and management of supplier contracts. This improves procurement processes by tracking PO spend against contracts and reduces manual effort currently expended by each department in tracking paper contracts.
- Automation of 100+ integrations to both internal Rice systems such as OwlConnect and Tririga, as well as external vendors such as benefit providers, banks, etc. This will eliminate manual entry and effort to keep data in sync across various platforms.
- Implementation new functionality for learning tracking and delivery for employees.

Oracle Cloud will offer Rice automatic updates on a quarterly basis. Rice is establishing a continual process improvement (CPI) structure to continue the journey of streamlining, automating, and overall improvement.

#### Improved University Visitor Experience

One of the specific areas that the imagineOne project was tasked to deliver was a new single point of entry and streamlined Visitor Management System (VMS). The VMS, which launched in July, is used to register and onboard university visitors, which are individuals invited to establish a formal relationship with Rice who are not employees or students. This new solution replaced two former solutions, the Academic Visitor in Banner and a stand-alone Visitor Portal (for service visitors). Earlier this year, the VMS project team facilitated conversations among campus service providers to assess their needs and identify opportunities for improvement.

VMS intended to increase the efficiency of Rice's business processes and provide a simplified experience for university visitors and the staff who sponsor them. One finding the project team uncovered was the inclusion of various departments in the approval workflow that, after analysis and discussion, was not required for most visitors. The team streamlined the workflows by eliminating some approvals and shifting others to receive notifications once a visitor was approved. This change fulfilled the units' compliance needs and reduced the overall processing time from an average of two weeks to two days.

Also in alignment with imagineOne, the project team consolidated separate systems that were maintained for service providers and academic visitors. The VMS now features a user-friendly interface and single source for all visitor request types. Ownership of the VMS process shifted from Risk Management to Human Resources, in order to align the management of visitor records with other person records. While the VMS was built on a Salesforce platform, it integrates with iO and can be accessed directly through the iO system. This simplifies the experience for many administrative staff who are already transacting in iO to perform other aspects of their roles.

Lastly, the VMS introduced greater visibility and transparency into the process as the request moves through the workflow. Sponsors can track approvals and comments, and instead of rejecting outright, approvers can resend a request back to the sponsor for corrections. Overall, the VMS implementation has been well received by the campus community and complements the administrative improvements to the campus this year, and the project team continues to enhance the solution based on feedback.



### Emergence of Travel Registry during the Pandemic

Rice University's operations expand beyond the United States, with community members coming from all over the world and participating in international activities such as global research and study abroad programs. In order to protect the well-being of the Rice community, the Office of Information Technology launched an online registry tool to manage domestic and international travel records for faculty, staff, and students. The registration process was designed to identify travel to countries with high risks in factors such as health or safety and enables the university to ensure the traveler is informed of such risks and has access to appropriate resources.

The travel registry emerged as a particularly critical tool during the pandemic when travel to many countries was complex or even prohibited at times. The travel registry permitted university leaders and the Crisis Management Team to make data-driven decisions in assessing risks and adjusting COVID-19 policies, such as the requirement of a 14-day self-quarantine after international travel implemented during 2020. Decisions, such as the quarantine requirement, were significant in protecting not only the traveler,

but also other members of the Rice community who the traveler may interact with upon their return to campus. With travel activities being particularly intricate over the past year, the travel registry also enabled the university to collect information to ensure that travelers were aware of the entry requirements for their countries of arrival and departure.



The travel registry continues to evolve in support of university needs. Since the launch of Rice's new policy on anti-bribery and corruption, the travel registry tool is also being used to monitor community members' travel to high-risk countries for bribery and corruption and prepare them with resources for conducting university business abroad. Additionally, OIT aspires to integrate data between the travel registry and the platform of International SOS, an international healthcare, medical assistance, and security services company that Rice partners with to streamline processes for travelers. Overall, the goal is to continuously expand the travel registry as a robust tool that can produce information to enable university leadership to make data driven decisions on future policies and resources.

## Infrastructure and Support

### Balancing Technology with Aesthetics

The Rice University campus has changed significantly over the past few years with the addition of new buildings, as well as refreshes of existing structures. To ensure the proposed buildings serve their intended function, support Rice's vision, and exist in harmony with other campus structures, designers and architects play a key role in the construction process. OIT's dedicated Facilities Project Manager, Eric Withaar, is the liaison between the designers and the OIT technology teams.

The installation of new cabling and other critical infrastructure in the walls of older buildings is particularly challenging. Team members often must navigate around historically significant masonry, millwork, and other features



that cannot be altered. OIT is careful to preserve historical integrity, tailoring retrofit strategies to minimize the aesthetic impact wherever possible.

With new construction, technology and necessary infrastructure elements, such as wireless, networking, cabling, access control, security cameras, AV, cabling pathways, and IT closets are taken into consideration from the beginning. Multiple OIT teams are involved in the process of designing and developing the various systems:

- Network, classroom and AV teams design and develop the appropriate architecture to meet the space requirements.
- System administrators take part in developing applicable systems in access control, building automation and security cameras.
- The wireless team develops a plan for the placement of network hardware.



As technology continues to evolve, OIT will remain committed to work with our Campus Architect, Buildings and Grounds design subcommittee, and other campus leaders to ensure that Rice enjoys the very best technology, with minimal impact to our beautiful campus aesthetic.

### **Refining Campus IT Support**

In response to the university's shift to remote operations in 2020, OIT's Campus Services teams adopted a new support structure which featured contactless service, extended hours and a greater focus on self-guided resources. Both customer feedback and utilization data revealed that the modified service operations were highly successful. For these reasons, the Campus Services teams continue their efforts in refining and expanding the improved support model by streamlining services and strategies, utilizing self-service resources and productivity tools, and building on collaborations with Rice students.

Throughout the year, the Campus Services teams prioritized the maintenance of selfguided technical resources in the KnowledgeBase (KB) and the implementation of digital accessibility requirements. Live support remained available for extended business hours and through contactless methods. In order to sustain contactless service, OIT implemented new tools to enhance automation with respect to deployment of new devices and device security.

Campus Services consolidated OIT's and Fondren Library's equipment loaner programs and procured more equipment for a more streamlined customer experience. This enabled the equipment loaner program to expand from serving only undergraduate students to now providing laptops and networking equipment to undergraduate and graduate students, faculty and staff.

Campus Services' operations were also enhanced by a shift in the teams' staffing and training strategies from the "division representative" approach in which staff received specialized training to serve specific client groups to a strategy characterized by collaboration and cross-training. Working remotely over the past year, the staff obtained knowledge and skills across a broader set of technologies and equipment. This resulted in the development of a central pool of Campus Services staff that can interchangeably support a broader client base.

The success of the OIT Campus Services team is also due to its partnership with Rice students. The Student Computing Consultants (SCCs) act as Campus Services' primary

point of contact for walk-up services, which transitioned from the Mudd Building to the Fondren Library for increased visibility. OIT also welcomes the return of the OIT Ambassadors, who serve as liaisons between the students in their residential college and Campus Services. The ambassadors make announcements about OIT services and updates, direct students on how to find support, and maintain supplies in their college facilities.



### **Security and Policy**

### Advancing Information Security

The past year provided challenges beyond preparing and responding to COVID-19. The general information security landscape continued to see new and evolving threats, including novel attacks against technology supply chains and extensively used collaboration suites. Many have attributed these attacks to advanced, well-equipped attackers, including foreign governments. Additionally, incidents of ransomware attack grew exponentially, becoming the top threat to many organizations world-wide, regardless of their industry.

The Information Security Office (ISO) has taken a layered approach to combat these threats. We started with bolstering fundamental hygiene, including proactive security patching, extensive vulnerability detection and remediation, and continual password security audits. Knowing that there is no perfect protection, we also acquired new technologies and services to detect and respond in the event an attacker makes it into our environment. We also further refined our existing incident response procedures with key campus stakeholders to streamline our activities and align with our third-party partners.

Compliance around regulated research and protections around private information also expanded over the past year. The Department of Defense (DOD), for example, expanded their requirements around certain classifications of information for research contractors like Rice. Some of the requirements are in place now with others to follow over the next few years. After the passage of the General Data Protection Regulation (GDPR) by the European Union in 2018, other countries have drafted and enacted regulations around the protection of private information. Several states within the United States have followed suit in lieu of a federal privacy law. Because Rice has an official presence in many of these areas, the regulations can directly impact the university.

The ISO worked with the Office of Research, Office of Information Technology (OIT), and the Center for Research Computing (CRC) to create a streamlined process that ensures all parties understand the requirements of specific agreements and that they can support their part in it. Additionally, we have worked with OIT and CRC on current requirements around NIST SP 800-171 to provide a standard gap analysis on what is in place today and what needs to be addressed. We have also identified third parties to assist us with future requirements around research contracts with the DOD.

Over the past year, we have put more procedures into place to process external privacy requests, and have taken initial steps into developing a larger privacy program for the campus.

### Identity Environments

Identity continues to be an area of focus as customer identity requirements continue to evolve. New initiatives at Rice also require integration with a modern identity platform, and new capabilities will be needed in the coming years. This, along with development of applications integral to bringing these services to the campus community, require thoughtful planning and coordination with campus stakeholders and customers.

Over the past year, the Identity and Access Management (IAM) team successfully implemented our new identity management system, replacing much of the functionality of the previous environment with a modern solution. We worked closely with and in parallel to the imagineOne team to provide not only the new identity environment, but one that integrates with the new enterprise resource planning (ERP) system. This not only required careful planning around how identities are created and maintained, but also the development of software applications to support the integrations needed with other services on campus. Additionally, as the pandemic forced the university to shift to online education, we worked with departments around campus to facilitate the transition, from the Learning Environments team to the Rice University Police Department.

The Information Security Office and the Identity and Access Management teams have been working to not only help the university respond to concerns around COVID, but also to keep up with the current information security and identity environments and keeping an eye on what will be needed for the future to keep the university moving forward.



#### Launch of New Digital Accessibility Policy and Resources

In August 2020, Rice established a new policy, Digital Information Accessibility, that reinforces the university's commitment to diversity, equity and inclusion. The purpose of the policy is to ensure that "all forms of digital information should be provided in a way that is accessible to all members of the Rice community, including those with disabilities." The policy states that web pages must meet the Worldwide Web Consortium's Web Content Accessibility Guidelines (WCAG) version 2.1, Level AA Conformance and all other digital information should meet the Americans with Disabilities Act (ADA) requirements.

Additionally, the policy defines the roles and responsibilities of campus components and established a Digital Information Accessibility Steering Committee with members from the Disability Resource Center, Office of Information Technology, Public Affairs, General Counsel and Compliance. Perhaps one of the most critical roles defined is that of Content Creators, "any individuals (i.e. faculty, staff, students, and third parties) who generate Digital Information for or on behalf of Rice University...must ensure that Digital Information is created and maintained in conformance with this policy." With this definition a new significance was added to the roles of everyone who creates web pages or course resources for the university. Individuals are responsible for ensuring their items are digitally accessible and meet WCAG and ADA standards. You may wonder how content providers are expected to learn these skills. Enter the role of the Digital Information Accessibility Coordinator as explained by the policy, "who will be responsible for providing training and resources to faculty and staff relative to Digital Information accessibility and for coordinating with departments on the implementation of this policy."

In February 2019, Learning Environments hired a Digital Information Accessibility Coordinator, John Williams, to help in the development of this policy and to prepare the

campus for meeting these digital accessibility expectations. From the beginning, Williams encouraged the campus to attend workshops, "By learning a few simple techniques, you can do your part to make Rice a more inclusive community for everyone." Rice Policy 851 is the culmination of years of effort by many individuals and groups across campus and builds on national and international achievements in the areas of digital information accessibility.

Learning Environments is dedicated to ensuring that all content authors have the resources and support they need to create and share digital information that is accessible to everyone at Rice and beyond. We strive to facilitate more inclusive digital experiences through collaboration, education, and advocacy.

### On the Horizon

### Campus Connections: 5G and Outdoor Wireless

Most people don't think much about the technology that keeps them connected to their friends and family, the university environment, and the world unless it's not working or not working well. The job of the OIT Networking Services team is to handle that responsibility for the entire campus so members of the Rice community can work, study, teach, and play worry-free.

The Campus Wireless Refresh Project, which began in 2018 to replace the aging Wi-Fi infrastructure, is approaching completion. The project team, led by Sheila Luttrell, is currently at 82% completion with plans to be 100% by the end of the calendar year. Over this past summer, the focus was on classrooms and academic buildings like Keck and Baker Halls. The team will migrate all of the Athletics facilities shortly after the start of fall 2021 semester. The team also deployed a Wi-Fi access point in the remaining college residential rooms that were inaccessible due to COVID restrictions or were occupied over the last year. The personal SSID Proof of Concept was successful as well, enabling students to request their own personal wireless name in their residential room if needed.

To complement the wireless implementation, Rice is engaging with a major cellular carrier to design and install a state-of-the-art 4G/5G LTE cellular network that will cover the entire Rice campus. Legal, architectural and engineering requirements are close to



being finalized. This project is slated to break ground in December 2021. Verizon Wireless will be installing close to 30 nodes on campus. Some of these will be hidden in light poles while others will be built out on roof tops on campus. This should dramatically improve cellular based services on campus. Verizon will also lay fiber optic cabling to interconnect these nodes. Rice University will be able to take advantage of this infrastructure to further solidify our current campus interconnects.

### **Notable IT News**

#### Leadership

Klara Jelinkova, Vice President for International Operations and Information Technology, was selected as <u>HoustonCIO's 2021 ORBIE Award recipient for the</u> <u>nonprofit/public sector</u>.

The hiring of Klara Jelinkova as the new Vice President and Chief Information Officer for Harvard University was published in the Rice News article, <u>Rice's top tech exec headed</u> <u>for Harvard</u>.

Paul Padley's appointment as the interim Vice President for Information Technology and Chief Information Officer was announced via <u>Rice News</u>.

#### SlaveVoyages

The Houston Chronicle reported on History Professor Daniel Domingues and his work with the SlaveVoyages project in the article, <u>Rice hosting database with extensive records</u> of slave trade. The Rice News discusses the magnitude of responsibility for serving as data stewards in the article, <u>World's largest database on history of slave trade now housed at Rice</u>.

John Mulligan, Humanities Computing Researcher/Facilitator, explained the complexity of managing over 47,000 voyage records in a presentation in May at the Rice Digital Humanities Showcase, "<u>SlaveVoyages Cloud Migration</u>" [starts at 43:25 in the recording].

#### Tech TA Program

Two articles, <u>New technology TA positions empower students to partner with</u> <u>professors</u> by Rice News and <u>New Tech TA program popular with students and professors</u> by the Rice Thresher, gave positive reviews for the technology teaching assistants.