Supporting the University of Florida

2015-2016 UFIT CONTRIBUTIONS

OneIT for the #GatorGood
We seek to put in place exceptional services that facilitate UF's rise to top ten.

Charles E. “Charlie” Lane, Ph.D
Senior Vice President and Chief Operating Officer
This fall UF is implementing its learning analytics strategic plan. UF, through a partnership with the Unizin consortium, will improve the learning experience with technology, leveraging data to increase the instructor’s predictors for student success. There is much to be excited about in bringing learning analytics to the UF undergraduate academic experience, but one important outcome of implementation is that it will benefit those students struggling in a course with early intervention activities. Multiple studies demonstrate that:

1. Students benefit from early intervention and multiple channels of notification and support
2. Awareness of comparative activity levels and associated grades produce higher engagement, and;
3. Student engagement strongly correlates with academic success

Who wouldn’t be excited about leading the way on a project that can positively impact so many students for a lifetime? Learn more about UFIT’s role in learning analytics on page 4.

Another major initiative this year began this spring: the COMPASS program. COMPASS is a multi-year program that will change the way we interact with student data, from initial application through graduation, and beyond. There are some IT projects that can truly transform the lifeblood of a university, and COMPASS is one of them. Information on the goals of COMPASS may be found on page 10.

Our efforts to support research and innovation have resulted in national and international recognition for the university. Last fall, HiPerGator was judged to be the second most powerful supercomputer among U.S. public universities. UF was also honored with Dell’s 2015 Impact Award at the 2015 DellWorld summit, given our innovative approaches to curating and storing Big Data.

It is a great time to be a Florida Gator!
Education and Outreach

ADVANCE THE UNIVERSITY OF FLORIDA TO THE FOREFRONT OF TEACHING

GOAL 1: CREATE A TECHNOLOGY-SUPPORTED ECOSSYSTEM
Outcomes:
• Completed transition of all active courses into the Canvas course management system
• Established UF Learning Analytics governance subcommittee

GOAL 2: TRANSFORM LEARNING SPACES
Outcomes:
• Upgraded the technology in 33 additional classrooms to help support new pedagogies
• Provisioned more than 2 million presentation views in Mediasite
• Provided support for 247 high-definition classrooms

GOAL 3: MOBILIZE TEACHING & LEARNING SERVICES
Outcomes:
• Offered numerous workshops, at times convenient for faculty, on collaborative technologies so instructors could maximize in-class mobile device use
• Supported 200 videoconferencing endpoints across campus used for collaboration and teaching

GOAL 4: OFFER SERVICES FOR RICH MEDIA PRODUCTION
Outcomes:
• Built the One Button Studio in Library West, allowing students to easily create their own videos
• Expanded faculty instructional design toolbox options for rich media production in teaching and learning
• Enabled 10,449 multimedia presentations to be created in Mediasite

GOAL 5: PROVIDE MULTIPLE TECHNOLOGY TRAINING CHANNELS
Outcomes:
• Reallocated staff to bolster UFIT’s Training group to better meet UF’s technology training needs
• Added many online, on-demand, and face-to-face workshops to the UFIT Training catalog

GOAL 6: ENGAGE WITH LEADING INSTITUTIONS AND ORGANIZATIONS TO FOSTER PARTNERSHIPS AND COLLABORATION
Outcomes:
• Supported staff efforts to take leadership roles in national forums and with leading higher education organizations, including Unizin, EDUCAUSE, and IMS
• Utilized resources from leading organizations to extend knowledge-base on IT topics relevant to higher education

GOAL 7: SUPPORT AND ENCOURAGE AN INNOVATIVE ENVIRONMENT AND CONTINUOUS IMPROVEMENT
Outcomes:
• Collaborated with faculty across the university to implement a learning analytics program

Project Spotlight – Learning Analytics

Analytics is the use of data, statistical analysis, and explanatory and predictive models to gain insights and act on complex issues. The University of Florida recently began developing and deploying analytics with the goal of improving learning outcomes. The research into—and application of—analytics in higher education is relatively new. UFIT started the Learning Analytics Initiative to improve teaching and learning as well as become a leader in the field of learning analytics research.

Learning analytics is of critical strategic importance for the University of Florida, aligning with three of the goals in President Fuchs’s Goal-Setting Task Force Report. Learning analytics is also aligned with three goals in the University of Florida’s 2015-2020 Strategic Goals for IT. Working closely with UF’s Faculty Senate and the newly launched Learning Analytics governance subcommittee, these are the goals for UFIT’s Learning Analytics Initiative:

1. Improve learning outcomes.
2. Increase student success.
3. Decrease time to graduation.
4. Improve quality of teaching resources.
5. Achieve wide adoption of the use of learning analytics at UF.
UF's FISMA-compliant environment went live in summer, 2015. The environment, known as UF Research Shield or “ResShield,” was fast-tracked to meet the FISMA and NIST standards deadline associated with UF Principal Investigator Dr. Betsy Shenkman, who was awarded a $40 million contract from the State of Texas for UF’s Department of Health Outcomes and Policy (HOP). The required standards, developed to protect sensitive research data, were met ahead of the June 30, 2015, deadline.

By demonstrating that UF can manage the significant hardware and security protocols required to meet the FISMA standard has enabled our faculty to be more competitive when applying for federal funding.

The Federal Information Security Management Act (FISMA) establishes security guidelines for federal agencies or those providing services to federal agencies. The mandates include specific requirements for security programs, along with extensive documentation, policies, and clearly defined processes be in place in accordance with the national security standard (NIST 800-53). Creating a security environment of this level for UF researchers—while not impeding their ability to collaborate and analyze their data—has been recognized in the national higher education community and by federal agencies.
Information Security and Risk Management

LEVERAGE IT RISK MANAGEMENT AND INFORMATION SECURITY PRACTICES TO REDUCE ADVERSE IMPACTS TO THE INSTITUTION

GOAL #1: INTEGRATE BUSINESS AND INFORMATION SECURITY PRACTICES

Outcomes:
- Evaluated 100+ proposed technology implementations to determine if it’s a duplication of effort with current enterprise systems and if appropriate IT controls are in place
- Assisted the COMPASS program by defining general security requirements for its projects
- Continued educating units about the risk assessment process and their roles and responsibilities, and helped them to define the overall scope of projects from a security perspective
- Completed the evaluation, selection, and purchase of a new system to facilitate the risk assessment process, and implemented major improvements to the assessment intake process
- Generated metrics on risk assessments to evaluate efficiency with the assessment process and gage current risk assessment efforts

GOAL #2: INCREASE AWARENESS OF SECURITY RELATED POLICIES AND STANDARDS

Outcomes:
- Attained approval for six new UF policies related to security and privacy. All were developed in coordination with the Information Security Advisory Committee (ISAC)
- Utilized the UF/UFHealth Jacksonville campus screensaver to instill persistent security awareness
- Continued to ensure campus constituents understand the UF risk assessment reports and reinforce that they are accountable for all residual risks

GOAL #3: ENHANCE INFORMATION SECURITY ANALYTICS TO BETTER PREVENT, DETECT, RESPOND, AND PREDICT THREATS TO UF’S INFORMATION SYSTEMS AND DATA

Outcomes:
- Gave numerous security awareness presentations to faculty, students, and staff to facilitate stakeholder understanding of their responsibilities relating to UF data and information systems
- Completed more than 70 risk assessments in 2015–2016, and improved processes for evaluating and managing risks with the creation of a mitigation database for residual risks
- Scanned the university’s entire IP address space every 30 days and notified system administrators of critical vulnerabilities
- Established a process for notification and blocking of hosts running end of life (EOL) software, notifying system owners in advance of an EOL event
- Added new vulnerable software versions to the UF detection processes to minimize compromised systems
- Implemented blocking mode testing with the intrusion prevention system to block command and control traffic for hosts that have downloaded and executed malware

PROJECT SPOTLIGHT – Cybersecurity 2.0

Higher education is an early adopter of the ‘bring your own everything’ (BYOE) environment. While BYOE provides an enhanced level of device connectivity for the university community, privacy issues, data protection concerns, and authenticating system access is an ever-increasing challenge for UF.

UF is obligated to manage risk in order to meet its legal, contractual, regulatory, and moral issues. To continue succeeding in our global information security climate, UFIT is now planning and deploying Cybersecurity 2.0. This project continues our information security mandate to predict, detect, defend, and respond to threats to UF data, networks, and hardware. Data can seem like a remote concept but, apply it to what UF creates and stores—that’s your medical chart data, your personally identifying information and tuition payment data, and your favorite professor’s transformational research study data.

UFIT partners with campus on a variety of initiatives to underscore the fact that information security isn’t just an IT issue—it’s everyone’s responsibility. In furtherance of this partnership, investments in the information security staff continue, as well as to dedicating significant time and resources to communications, training, and outreach activities.
As a preeminent university at the forefront of online teaching and learning, the University of Florida needs agile and modernized student services systems. UF’s existing platforms are increasingly difficult to support, due to new opportunities like UF Online and other innovative degree programs. The technological advances, consumer demands, and constant threats to data security have made the modernization of its student systems a critical need for our university.

In spring 2016, the University of Florida launched the multi-year COMPASS Program. COMPASS is the acronym for ‘Campuswide Modernization Program to Advance Student Services.’ The COMPASS Program incorporates nine projects that, when fully implemented, will transform UF by unifying its students systems and data.

COMPASS will be implemented in staged releases based on the student lifecycle: Academic Structure, Admissions, Enrollment/Registration/Room Scheduling, Advising/Student Records/Degree Audit, Student Financials, and Financial Aid. COMPASS also includes implementation of a modern Constituent Relationship Management tool. Visit https://compass.ufl.edu to follow the progress of the COMPASS Program.
With the completion of Phase III of UF’s Distributed Antenna System (DAS) project, the University of Florida’s DAS is now the largest in higher education. It’s also the largest DAS project ever undertaken in the U.S. by AT&T. The project, begun in 2012, increases the call volume capacity, cell phone coverage, and wireless performance that tens of thousands of students, faculty, staff, and campus visitors rely on each day. The expansion also provides a major boost of connectivity and performance for 90,000+ Gators who descend on The Swamp for gameday Saturdays. The university DAS expansion now provides increased coverage for UF’s public safety needs as well as for the medical personnel, patients, and their visitors across 11 buildings of UFHealth.

By the numbers:

• 1,427 antennas installed on the UFHealth campus
• 312 antennas installed at Ben Hill Griffin Stadium
• 33 wide-coverage outdoor antennas covering the Main campus

The next phase of the DAS project focuses on the University’s East Campus and the O’Connell Center. Work is slated to begin in 2017.
GOAL #1: PROMOTE A COMMON, HIGH-QUALITY USER EXPERIENCE ACROSS THE UF WEB DOMAIN

Outcomes:
- Enabled improved management of websites for distributed IT and departments by deploying and managing universal web content management (WCM) system
- Provided the training and expertise to allow colleges, departments, and units to manage their own web pages
- Provided a more consistent user experience across the university’s web presence by upgrading nearly 20 of the critical path websites with the new UF template

GOAL #2: ENSURE AN ENVIRONMENT OF ADA/SECTION 508 COMPLIANCE AT THE UNIVERSITY OF FLORIDA

Outcomes:
- Updated the Web Accessibility resources page, and undertook an ADA and Section 508 awareness campaign with UF’s web managers, IT directors, and academic and administrative personnel
- Provided training and updated resources to enable compliance
- Work is ongoing to update and socialize all university policies related to Accessibility

GOAL #3: DEVELOP STATE-OF-THE-ART MOBILE WEB APPLICATIONS

Outcomes:
- Worked with the Web Services Advisory Committee (WSAC) and UFIT’s leadership to prioritize applications in relation to their need for mobilization
- Developed standards and recommended practices for UF’s app developers; work and outreach towards this objective will continue in 2015-2016
- Efforts underway to increase staff competencies in web and mobile application development. Additional training will be scheduled in 2015-2016

Project Spotlight – Online Accessibility at the University of Florida

All of UF’s electronic information technologies, like e-Learning, online services such as payment systems and course scheduling tools, and UF websites must comply with the Americans with Disabilities Act’s Section 508 standards. Section 508 outlines web accessibility requirements. Making University of Florida online resources accessible to everyone, regardless of physical limitation, is not only important to UF’s mission of teaching, research and scholarship, and service—it’s the law.

The University of Florida is committed to ensuring all of its electronic information technology resources are ADA-compliant. This spring, UFIT’s Center for Instructional Technology and Training (CITT) developed “Accessible Online Environments,” a new course in e-Learning. The course is designed to teach faculty how online content components that are not accessible or non-compliant can present problems for learners with vision, hearing, cognitive, or motor impairments. The CITT also increased their online toolbox with additional resources for instructors wanting to improve their classroom accessibility skills. More information was also added to UFIT’s Web Services Accessibility Recommendations page (http://webservices.it.ufl.edu/about/accessibility-recommendations/) for web content managers’ use across the university.
Recognition For UF

ENABLING ACCOLADES AT THE NATIONAL LEVEL

MEDIASITE
LARGEST CATALOG OF STREAMING VIDEOS IN HIGHER EDUCATION

ANTENNA SYSTEM
LARGEST DISTRIBUTED ANTENNA SYSTEM IN U.S. HIGHER EDUCATION

HIPERGATOR - WORLD RANKINGS
RANKED 2ND IN U.S. PUBLIC EDUCATION TOP500 LIST NOVEMBER 2015

BIG DATA
UF AWARDED 2015 DELLWORLD IMPACT AWARD

HIPERGATOR EXPANSION
GENERATED STORY PLACEMENTS FOR UF IN MORE THAN 20 NATIONAL NEWS OUTLETS

ONLINE PROGRAMS
RANKED 1ST IN BEST ONLINE PROGRAMS – 2015 US NEWS & WORLD REPORT

MYINVESTIGATOR
UF AWARDED SACUBO 2015 BEST PRACTICE AWARD

SC’15 DELL VILLAGE VIDEO
FEATURING THE UNIVERSITY, ITS RESEARCHERS, AND HIPERGATOR

LARGEST DISTRIBUTED ANTENNA SYSTEM IN U.S. HIGHER EDUCATION

LARGEST CATALOG OF STREAMING VIDEOS IN HIGHER EDUCATION

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FEATURING THE UNIVERSITY, ITS RESEARCHERS, AND HIPERGATOR
Established the new UFIT division under the VP & CIO, consolidating IT departments and unifying service delivery for campus.

Launched new governance committees and established monthly meetings with campus IT directors, all to advise and inform the decision-making of UFIT.

Hired UF’s first institution-wide Chief Information Security Officer, elevating the university’s commitment to data and network security.

Introduced an investment matching program for research faculty, strengthening UF’s ability to receive grants and conduct research.

Distributed the University of Florida’s Strategic Plan for IT: 2011-2013, a comprehensive goals document built around the six areas of governance.

Made substantial investment to expand online course production, increasing capacity by 400% and enabling Florida to be an acknowledged leader in online education delivery.

Teamed with the Office of the Provost to enhance the http://teach.ufl.edu website, providing a more robust portal for instructors to enhance teaching skills and efficiencies.

Connected to Internet2, expanding UF computing power tenfold and offering a network found in (at the time) only three other U.S. locations.

Opened the UF Data Center, providing continuity of operations and greatly expanded capacity for research, academic, and administrative services.

Launched UFApps service, providing 24/7/365 access for students to more than 70 software packages from anywhere, on any device.

Introduced HiPerGator, the state of Florida’s first supercomputer.

Renovated the collaborative learning spaces in Marston Science Library, providing next-gen technologies in the commons area and in meeting spaces.

Partnered with other top public universities to form the Unizin consortium, leveraging technology costs and curating information on best uses of IT in higher education.

Launched the ONE.UF portal, providing a mobilized, modern look that is fully accessible for accessing UF systems and resources.

Created ResShield, a FISMA-compliant secure storage environment enabling UF to secure the largest grant in its history.

Completed UF’s Distributed Antenna System, a provider-agnostic service that is the largest in U.S. higher education.

Achieved a #2 ranking in U.S. public higher education with expansion of HiPerGator, impacting institutional perception and garnering extensive national press for the University of Florida.
Faced with the challenges of improving learning outcomes and reducing students’ time to graduation, UFIT developed a strategy to achieve these goals using learning analytics. Assembling a learning analytics team required new staff competencies, which were realized by investing in staff development—not by adding staff. Individuals with topical expertise were identified and supported while they acquired high-level proficiencies in learning analytics.