2016-2017 UFIT CONTRIBUTIONS

OneIT for the #GatorGood

UF | UNIVERSITY *of* FLORIDA
Information Technology

UF | UNIVERSITY *of* FLORIDA

We seek to put in place exceptional services that facilitate UF's rise to top ten.
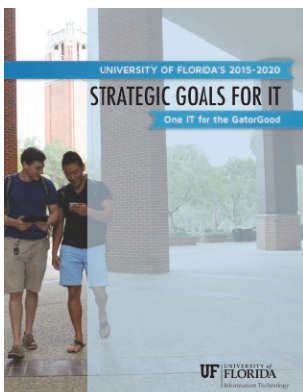
Charles E. "Charlie" Lane, Ph.D.

Senior Vice President and Chief Operating Officer

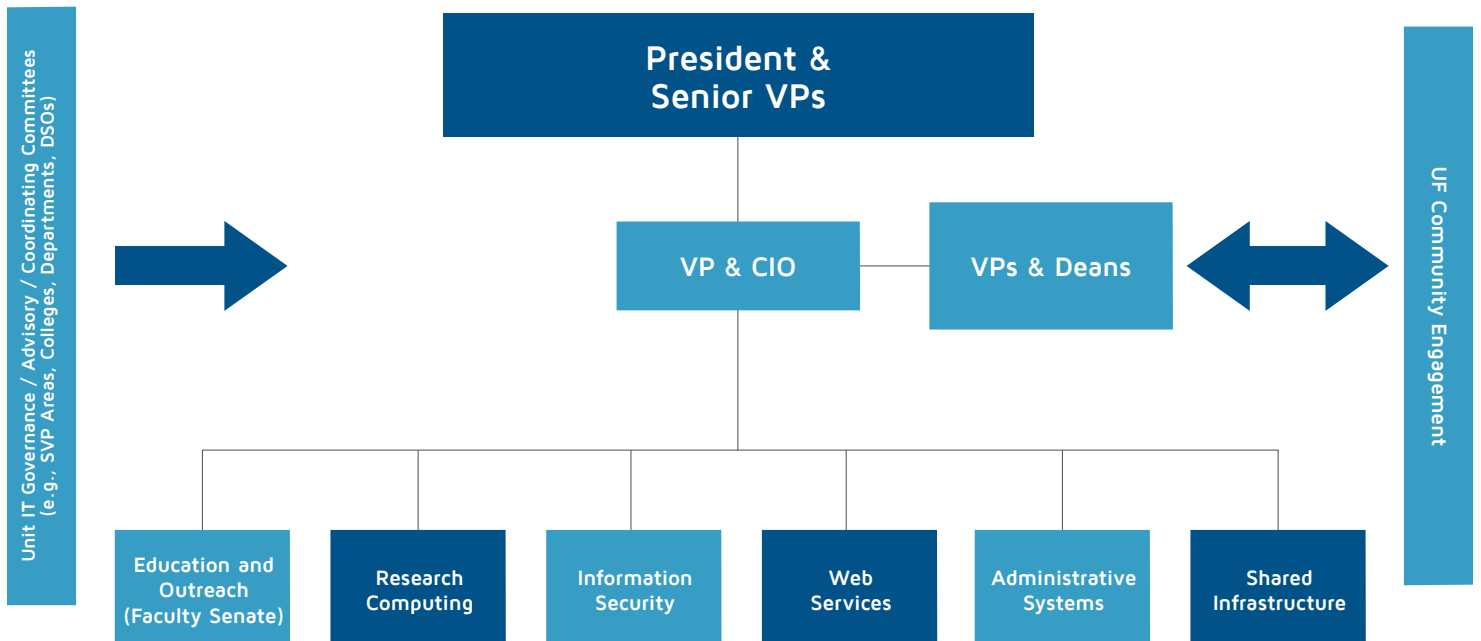# 2016-2017 UFIT CONTRIBUTIONS

OneIT for the #GatorGood

WHAT'S INSIDE

To view the **University of Florida's Strategic Goals for IT 2015-2020** online or to learn more about UFIT's governance process, visit: http://www.it.ufl.edu/leadership/strategic-plan

UF Information Technology Governance Overview

INNOVATION, RESPONSIVENESS, AND EFFICIENCY

Unit IT Governance / Advisory / Coordinating Committees
(e.g., SVP Areas, Colleges, Departments, DSOs)

UF Community Engagement

President & Senior VPs

VP & CIO

VPs & Deans

Education and Outreach (Faculty Senate)	Research Computing	Information Security	Web Services	Administrative Systems	Shared Infrastructure

UF Information Technology governance is a well-defined, transparent process.
These topical advisory committees provide recommendations and guidance on policies, standards, and priorities in support of the university's mission and business goals.
Information about the six advisory committees can be found at:

https://www.it.ufl.edu/governance

CIO's Welcome

ELIAS G. ELDAYRIE
Vice President &
Chief Information Officer
@Eldayrie

Our work is to support the mission of the University of Florida. We are always looking for ways to partner with our faculty to bring about innovation—in the classroom, the lab, and to our extension programs. Sometimes that means providing new resources to ensure the university's electronic information technology (EIT) compliance. Other times, innovation leads to developing new models for predicting student success or attracting more investment to **HiPerGator**, the university's supercomputer. Having a reputation for innovation draws the brightest minds to our university and jobs to our state.

This year our university placed in the U.S. News top-10 publics for the first time. The work it took by our faculty, administration, and state leadership to achieve top-10 is extraordinary. The ranking required innovative approaches in resource allocation and strategic prioritization—two things we focus on daily in UFIT. And now, as President Fuchs says…"Why not top-five?" Why not, indeed!

I'd be happy to have a conversation with you about any topic in our **2016-2017 Contributions Report.**

Thank you and…Go Gators!

Education and Outreach

GOAL #1: CREATE A TECHNOLOGY-SUPPORTED ECOSYSTEM

Outcomes:

- Supported 7,594 web conference sessions in e-Learning, totaling 8,950 hours
- Developed a participation index and predictive model for a Spring 2017 large-enrollment undergraduate class, achieving 98% accuracy in identifying students who by week eight are off-track in their academic success
- Added four online computer-based testing booths in Library West
- Enabled 17,986 online surveys with 1,087,207 auditable responses

GOAL #2: TRANSFORM LEARNING SPACES

Outcomes:

- Enabled more than 950,000 computing sessions in UF libraries, labs, learning spaces, and classrooms, including 237,000 sessions in UFApps, the university's virtual apps service
- Standardized the faculty and student user experience in UF's collaboration spaces, libraries, the University Athletic Association student labs, and in the UFApps service
- Improved audio-visual support services in UF's classrooms with new remote support and monitoring
- Completed the deployment of high-definition digital document cameras and podium accessories in UF classrooms
- Expanded UFIT's support of public workstations in the Education, Architecture & Fine Arts, and Health Science Center libraries

GOAL #3: MOBILIZE TEACHING & LEARNING SERVICES

Outcomes

- Increased available power outlets for charging mobile devices in numerous classrooms
- Developed training for instructors to learn how to incorporate new technologies into their classroom activities

GOAL #4: OFFER SERVICES FOR RICH MEDIA PRODUCTION

Outcomes:

- Facilitated the creation of 26,000+ multimedia presentations
- Expanded automated recording system capabilities in several high-capacity lecture halls
- Produced 3,748 high-quality studio recordings for online course delivery

GOAL #5: PROVIDE MULTIPLE TECHNOLOGY TRAINING CHANNELS

Outcomes:

- Developed and delivered high-demand SPSS training and consulting
- Added 13 new offerings to UFIT's Training catalog, and incorporated another 28 existing trainings from around the division into the training.it.ufl.edu umbrella
- Increased face-to-face participation in UFIT workshops by 230% and online participation by 320%
- Received and fulfilled nine on-site custom training requests on the UF, UFHealth, and UFHealth-Jacksonville campuses, and also for IFAS Extension

GOAL #6: ENGAGE WITH LEADING INSTITUTIONS AND ORGANIZATIONS TO FOSTER PARTNERSHIPS AND COLLABORATION

Outcomes:

- Engaged with leading organizations and fellow Research-1 universities to develop analytics in support of advancing teaching and learning
- Worked with other leading public and private peer institutions through the Learning Technology Consortium to improve the design of classrooms and teaching and learning technology services

GOAL #7: SUPPORT AND ENCOURAGE AN INNOVATIVE ENVIRONMENT AND CONTINUOUS IMPROVEMENT

Outcomes:

- Assisted 100+ instructors in enhancing already-developed courses in e-Learning
- Implemented an ePortfolio tool in e-Learning

"I recently attended the Course Mapping Bootcamp put on by UFIT's Center for Instructional Technology and Training (CITT). Initially, I was concerned about spending two full days of my summer at a 'Bootcamp' but I am so glad I attended. The CITT staff are exceptional! The workshop was extremely well done and I gained a completely different view on developing courses. What I learned could immediately be implemented into my current courses, and I'm confident that I can now help other faculty build more meaningful courses. All instructors need this kind of training."

Joslyn Ahlgren, Ph.D.
Senior Lecturer and Undergraduate Coordinator
Department of Applied Physiology & Kinesiology

Project Spotlight – New Classrooms for Flexible Pedagogies

The 260 central classrooms and online learning environment are integral to achieving the university's teaching and learning mission. Each year, UFIT works with faculty and students to identify how classrooms can be improved. While state-of-the-art digital presentation systems are in all of UF's classrooms, the conversation now revolves around enabling student-centric pedagogies, flipped pedagogies, and blended courses. Flexibility, adaptability, and convertibility are the metrics driving the upgrade of existing classrooms as well as the design of new classrooms.

During the 2016-17 academic year, UFIT completed 31 classroom renovations and began 16 more. In each of the new classroom designs, flexible furnishings and learner-focused technologies were installed, enabling students to work collaboratively. Wi-Fi expansion and inclusion of power outlets for recharging devices while in class were also planned and configured into the design and build of these spaces. This was done as part of anticipating future needs, where mobile computing devices become an even more prevalent (and less intrusive) component of the classroom experience.

Research Computing

GOAL #1: EXPAND HPC, DATA STORAGE, AND RESEARCH NETWORK CAPACITY, PERFORMANCE, AND USABILITY

Outcomes:

- Migrated the Large Hadron Collider experimental data 1.5 PByte to the new HiPerGator infrastructure
- Deployed ability to request interactive sessions on HiPerGator for intense graphical processing
- Added limited support for new Intel Xeon Phi KNL processors
- Implemented metrics for node and storage availability

GOAL #2: ENHANCE AND EXPAND SERVICES THAT USE HIGH-PERFORMANCE COMPUTING, DATA STORAGE, AND NETWORK RESOURCES

Outcomes:

- Increased services to include new, interactive developer sessions
- Provided disk usage alerts for users when storage capacity of their allocation is nearing 90% utilization
- Upgraded the user interface in ResVault to increase productivity

GOAL #3: IMPROVE FACULTY AWARENESS AND ACCESS TO USE OF RESEARCH COMPUTING SERVICES

Outcomes:

- Expanded opportunities for face-to-face consultations on demand: Department staff now hold regular office hours in UF's Genetics Institute, at the Communicore complex, and at the UF Informatics Institute
- Developed new training for using ResVault
- Presented experience with restricted data environments at conferences and workshops around the country
- Offered consulting to numerous universities seeking to implement IT environments for research on restricted data.

209 Principal Investigators Supported in FY 2017

STEM Education for Florida's Future

This year, UFIT launched the Gator Computing Program (GCP), a two-week science, technology, engineering and math (STEM) program for Florida tenth and eleventh graders. Held on June 5-16, 2017, the program attracted more than 60 applicants. Twenty-four exceptional high school students from nine counties—representing the Panhandle to cities in Southeast and Southwest Florida—were selected.

All lecture topics, tours, and activities in the program had computing power and emerging technologies, such as 3-D printing and artificial intelligence, as the commonality for inclusion on the GCP schedule. Participants experienced:

- 12 Visits to UF Facilities, Labs, Institutes, and Centers
- 10 Faculty Lectures
- Eight Computer Programming Lessons

The Gator Computing Program will be offered annually by UFIT, with plans to ask some of this year's students to serve as mentors for new participants. UF's Center for Pre-Collegiate Education and Training is helping to identify ways to encourage a more diverse applicant pool. STEM programs for Florida high school students will help drive success for our state now and in the future. This is an undertaking that UFIT is proud to sponsor.

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:

- Implemented new IT risk management solution and business process to improve the information security risk assessment process
- Designed a risk ranking methodology and applied it to the IT risk assessment process to facilitate informed decision-making
- Collaborated with UF Procurement Services to identify IT purchases and categorize them based on multiple criteria (e.g., renewal, data classification, and alignment with enterprise strategy)

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

Outcomes:

- Guided the Information Security Advisory Committee through the development of six new information security-related policies for the VP and CIO, and created educational materials to introduce these new policies to the UF community
- Collaborated with information security managers to foster understanding of the IT control framework, and solicited their feedback to create a set of control questions for end-users
- Delivered multiple presentations throughout UF, UFHealth, and UFHealth-Jacksonville to raise information security awareness and drive home that accountability for protecting UF information systems and data resides with the unit

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

Outcomes:

- Conducted hundreds of IT risk assessments and assisted units to effectively mitigate numerous information security risks
- Directed units to deploy information systems into closed and protected zones, and required VPN connections to better shield from outside attacks
- Advised on ResVault security controls and procedures to better support research with restricted data
- Conducted multiple internal and third-party penetration tests of UF systems and applications to discover vulnerabilities before unauthorized individuals did, and helped asset owners mitigate those vulnerabilities
- Recommended improvements to email, specifically addressing email threat detection and response
- Rebuilt the UF data discovery tool and environment and implemented new scanning policies and processes to streamline client access to this service

5,907,846,215

MALICIOUS EMAILS BLOCKED
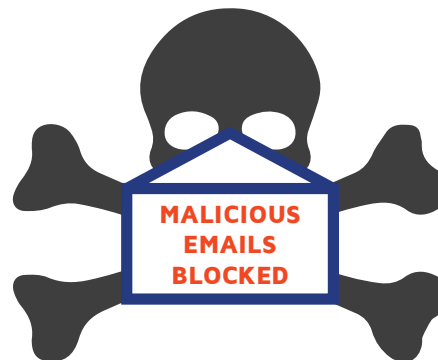
From the UF Network in 2016!

"No matter how well you think you think you know a subject, good education by quality instructors can always improve your game. That's what I found when I took the 'Cyber Security @ UF' course. The training is very enjoyable. I highly recommend making UFIT Training part of your staffs' busy calendars."

Matt Herring
Director for Museum Technology
Harn Museum of Art

Educating UF About the Dangers of Cyberspace

UFIT is committed to protecting the university's computing environment and data from cyber-threats. Education and training programs, social media campaigns, and presentations at faculty, student, and staff events are all part of UFIT's communications calendar. Often, the most effective activity to protect and defend UF from cyber-threats is by working directly with faculty and staff. UF's Information Security Office (ISO) makes an effort to do as many in-person office visits per year as possible, allowing for one-on-one conversations about effective password usage and discussing other ways to mitigate risk and loss of personal and university data.

In 2016-2017, the Information Security Office presented on cyber security at the annual New Faculty Orientation, trained nearly 200 campus IT staff on the new risk management process, and provided security updates and news through UFIT News articles, digital signage, and informational posters. In October, the ISO helped more than 300 students secure their personal technology as a part of UFIT's annual Student Tech Fair. The ISO also developed a new, hands-on **Cyber Security @ UF** training. This half-day training has already been attended by 125 faculty and staff. **Cyber Security @ UF** will be available to the university community statewide when it debuts as an online training later this year.

Administrative Systems

GOAL #1: MODERNIZE LEGACY SYSTEMS

Outcomes:

- Began implementation of COMPASS initiatives around admissions, advising, constituent relationship management (CRM), financial aid, master data management, student records, event management, data governance, and others
- Deployed Prospecting and Recruiting (College of Engineering) and the Coalition undergraduate application to replace UF's former mainframe application

GOAL #2: IMPROVE USER EXPERIENCE

Outcomes:

- Implemented a new design for the ONE.UF dashboard, complete with advanced search capabilities and support for role-based workspaces
- Introduced Unofficial Transcript and Degree Audit functionalities into ONE.UF

GOAL #3: PROVIDE PERFORMANCE ANALYTICS TO CLIENTS

Outcomes:

- Implemented a new version of enterprise reporting tools with IBM Cognos Analytics, providing the ability for self-service dashboards and visualizations
- Developed a proof of concept for scorecards used by the Office of the Chief Financial Officer to track and communicate exceptions related to asset management, purchasing, and HR to all UF departments
- Created college-wide faculty summary and transaction detail packets, which contain both summary and detailed monthly financial reports that are delivered electronically to several colleges

GOAL #4: COLLABORATE WITH BUSINESS UNITS TO IMPLEMENT BUSINESS PROCESS MANAGEMENT

Outcomes:

- Collaborated with the Office of Research on UFIRST Phase 3, which addressed the post-award business process, adding electronic integration to grants.gov for federal submissions. This allowed UF to retire a legacy system
- Expanded electronic document management and imaging solutions to several departments, streamlining business efficiencies and eliminating paper processes

116,093

Degree audits conducted by students since Sept. 2016 app's launch in ONE.UF

"ONE.UF has made it easier for me to register for my classes. It can be extremely stressful when it's your turn to register and you can't get in to meet with an advisor. ONE.UF shows me my unmet degree requirements in a way that is easy to understand. It makes life so much easier to be able to register, access my grades, and view transcripts all on one site."

Brandon Stokes

Senior

Major: History

COMPASS Program Releases Scheduled in 2017-2018

The Campus-wide Modernization Program to Advance Student Services (COMPASS) project go-lives are scheduled for implementation based on UF's academic calendar. Five major go-lives are scheduled during FY 2017-18. For more information about the COMPASS Program, visit https://compass.ufl.edu.

Release	Functionality	Go-Live Date
1	Graduate/Professional Supplemental/UF Online Application, Academic Structure, Biographical/Demographic Data, Constituent Relationship Management (CRM) Phase 2 Prospecting and Recruiting Coll. of Engineering Pilot	Aug. 7, 2017
2	Course Catalog, Institutional Student Information Record (ISIR) Loads, Transfer Credit Evaluation	Nov. 6, 2017
3	Career/Program/Plan Stack (Major/Minor), Residency Processing	Jan. 16, 2018
4	Degree Audit, Registration Prep, Award Aid, Schedule of Classes	Mar. 5, 2018
5	Registration, Enrollment Verification	Mar. 26, 2018

Shared Infrastructure

GOAL #1: CREATE A HIGH-PERFORMANCE INFRASTRUCTURE THAT IS RESPONSIVE, AGILE, AND SCALABLE TO MEET UF NEEDS

Outcomes:

- Improved wireless connectivity for campus with the installation of 510 new access points, a 12.5% increase
- Enhanced desktop connectivity by deploying 4,000 additional wall-plate ports
- Unified UF's Main and Health Science Center's collaborative communication services
- Increased network security by deploying software-defined and virtualized networks

GOAL #2: ADOPT NEW TECHNOLOGIES AND STANDARDS THAT LEAD TO IMPROVED SERVICES AND HIGHER EFFICIENCY

Outcomes:

- Leveraged collaboration opportunities through a mix of on-premise, hosted, and cloud services for streaming and conference services
- Implemented the industry standard secure network for building automation and security systems in 42 campus buildings, and standard PCI network for secure credit card transactions in 17 buildings

GOAL #3: RATIONALIZE COMPUTING AND NETWORK INFRASTRUCTURE

Outcomes:

- Merged telephone systems into one telephone system, and consolidated local directories into one single UF active directory
- Increased virtual servers to 200, saving space and electricity for UF
- Created a standardized environment by merging UFHealth and UFIT wireless access services

2.92

Number of internet-enabled devices undergraduates bring to campus each day
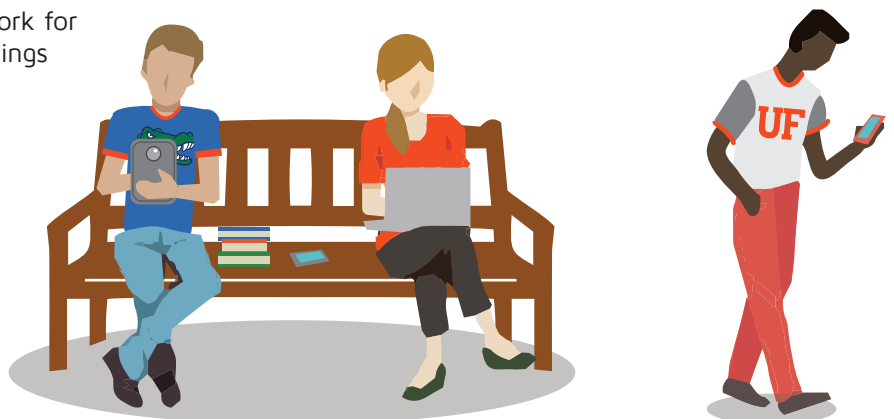
"I was hired by the Counseling and Wellness Center (CWC) to assist with a transition of their IT Manager position. When it was time to tackle a website migration and SQL database consolidation to streamline services, I reached out to staff in UFIT's Infrastructure & Communication Technology group. The expertise and excellent response time they provided allowed for seamless transitions at the CWC, all with minimal downtime."

Ronald M Scott, Jr.

IT Manager

Emerging Pathogens Institute

Meeting the Wi-Fi Bandwidth Needs of UF

Recent national survey results show that 99.7% of UF students bring two or more internet-enabled devices with them to campus each day, with the majority having three devices.[1] The connectivity needs of our students, faculty, staff, and campus guests require UFIT to continually invest in the university's Wi-Fi environment.

Wi-Fi enhancements and a full replacement of the university's guest Wi-Fi network completed in FY 2017 provide a more streamlined and efficient log-on process for the UF community. Several enhancements to the network are planned in FY 2018. A revised webpage for first-time access to UF's wireless network will go live in fall, 2017, featuring the UF template (design standard launched during the previous fiscal year). The new first-time access page will also provide enhanced onboarding support for MacOSX, iOS, and Android devices.

With the trend to an ever-more "bring your own device" environment at the University of Florida, UFIT will continue to invest and expand Wi-Fi resources to meet demand.

[1] Source: Spring 2017 EDUCAUSE – Survey of Students and Technology

Web Services

GOAL #1: PROMOTE A COMMON, HIGH-QUALITY USER EXPERIENCE ACROSS THE UF WEB DOMAIN

Outcomes:

- Encouraged rationalization of web content by deploying and managing a universal web content management system
- Provided training, phone, and in-person support so colleges, departments, and units can manage their own web pages
- Updated online resources and shared expertise to campus web developers so they could create websites that adhere to UF's brand standards

GOAL #2: ENSURE AN ENVIRONMENT OF ADA/WCAG 2.0 COMPLIANCE AT THE UNIVERSITY OF FLORIDA

Outcomes:

- Updated the Web Accessibility resources page and created training videos for web developers related to making content accessible in the web content management system
- Supported the Electronic Information Technology for Accessibility officer in bringing enterprise-level accessibility checking tools for web and course content to UF
- Continually socialized EIT policy relating to web content via list-servs, meetings with campus clients, and through training opportunities

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

Outcomes:

- Ensured UF websites are responsive and adaptive for a rich user experience
- Prioritized web applications in relation to their level of use/need for mobilization
- Refined standards and recommend practices for application publishing and development at UF
- Committed professional development resources to ensure UF mobile developers stay current with development trends and best practices

Redesigned IT.UFL.EDU in FY 2017,

Efficiently Connecting Customers to Services

Find a Service [   ] SEARCH

395,486
Total Page Views

"The Web Services group is a huge asset to the Department of Emergency Management. They were instrumental in creating our nationally recognized website (www.emergency.ufl.edu) and continue to maintain the UF Alert system's automated posting processes to UF's homepage.

We cannot thank the Web Services group enough for their continued support, professionalism, and expertise."

Hal Grieb
Emergency Management Coordinator
Division of Public Safety

Enabling Compliance: EIT at UF

The University of Florida is committed to maintaining an inclusive and accessible environment for all. An electronic information technology accessibility (EITA) policy was adopted this year. The policy established the minimum standards necessary to meet the university's goals and ensure compliance with all applicable laws.

EITA accessibility legal actions are invasive, disruptive to business, and often result in close monitoring of the institution's practices for several years after a resolution is reached. Grant and federal funding is impacted, since federal funds are denied to entities not complying with EITA accessibility laws. Additionally, a lawsuit or audit result may bring negative business consequences.

New services and enhancements to existing services in support of EITA are being deployed. These include expansion of captioning services and tools to assist faculty and staff in creating accessible websites and courses.

Alignment with the University's Goals

In December 2015, President Fuchs presented **The Decade Ahead**, the report issued by The President's Task Force on Goals. **The Decade Ahead** outlines the goals and objectives adopted to guide the university's decision-making for the next decade.

Some of UFIT's outcomes that support the goals identified by President Fuchs and the task force include:

GOAL 1
An exceptional academic environment that reflects the breadth of thought essential for preeminence, achieved by a community of students, faculty, and staff who have diverse experiences and backgrounds.

GOAL 2
An outstanding and accessible education that prepares students for work, citizenship, and life.

GOAL 3
Faculty recognized as preeminent by their students and peers.

GOAL 4
Growth in research and scholarship that enhances fundamental knowledge and improves the lives of the world's citizens.

Established annual high school STEM (science, technology, engineering, and math) program

Implemented app development program for students

Supported online graduate programs, now ranked #1 nationally

Expanded services for electronic information technology (EIT) compliance

Enabled $552M of UF's $724M sponsored research portfolio

Positioned UF as a leader in research computing and innovation

Built and deployed HiPerGator, the State of Florida's first world-ranked supercomputer

Provided a technology platform compliant with an evolving, complex regulatory environment

Modernized UF's sponsored funding systems and services

GOAL 5

A strengthened public engagement of the university's programs with local, national, and international communities.

GOAL 6

Alumni who are successful in their careers and in life and who are proud to be graduates of the University of Florida.

GOAL 7

A physical infrastructure and efficient administration and support structure that enable preeminence.

Improved usability and mobility of IT services university-wide

Collaborated with peer institutions to improve online learning environments

Presented at conferences on areas of recognized subject matter expertise

Created IT services and support to improve the student life experience

Received accolades at the national and international level for technology innovation

Created mobile services to keep alumni connected as they become advocates for UF

Modernized UF's legacy student systems and underlying technology

Empowered collaboration across campus

Improved learning environments