Information Technology Services

2017 Annual Report

Highlights of the 2016-2017 Academic Year

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Introduction

The 2016-2017 year has been a year of challenge, change and opportunity for ITS. We were challenged as an institution this year with the loss of our beloved Chancellor, Dr. Debra Saunders-White. Chancellor Saunders-White had a unique appreciation for the importance and power of technology. As a former CIO, she knew that, for a campus to meet the needs of the 21st Century Scholar, that scholar must be seen as a Techno-Scholar. As a result, information technology must continuously change and look for opportunities to contribute, collaborate and be strategic.

Information Technology Services has embraced that message and developed goals that align with and support NCCU's strategic plan and goals. This annual report will provide details of projects as well as operational objectives that illustrate and highlight ITS' contribution to student success, public service, community engagement, internal communications and intellectual climate. Examples of these projects are:

Student Success
- Student advising and degree audit system
- myNCCU Mobile
- Classrooms upgraded to the campus technology standards

Public Service
- $10,000 Google Fiber sponsorship
- Students intern and work in ITS

Community Engagement
- Google ENGINE CS Grant, Leah Kraus Co-Investigator
- Marbles Kids Code events
- Triangle Startup Weekend

Internal Communications
- TechnoPalooza
- IT training
- Office 365

Intellectual Climate
- Faculty Professional Development
- Research website
- Support regional, national and international collaboration with WebEx

Student Success

Student Advising and Degree Audit System

In collaboration with Academic Affairs, ITS provided project management and technical support on the high priority DegreeWorks implementation. Named, Eagle DegreeWorks, this web-based application is designed to assist our students in navigating the requirements of their degree program. This resource, which is widely used by other colleges and universities nationwide, has proven to help students take the courses they need to stay on a direct 4-year path to graduation. This resource is not intended to take the place of regularly scheduled meetings with academic advisors, but to enhance the student overall academic-advising experience.

As our students become familiar with Eagle DegreeWorks, they will discover its many benefits and user-friendly features, including:
- Real-time advice and counsel
- More transparent course and credit transfer options
- Interactive "What If?" scenario planning, which allows students to see the impact of changing a major or adding a minor
- A GPA calculator to determine different grade outcome scenarios
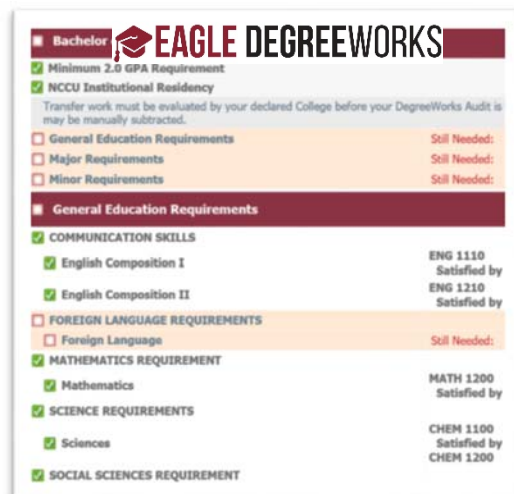
myNCCU Mobile

Beginning fall 2015, ITS began piloting and evaluating various mobile solutions with the Student IT Advisory Council. Based on their feedback and the feedback from the Student Government Association, ITS developed a comprehensive list of requirements for the myNCCU Mobile application. In Fall 2017, the application became available to students.
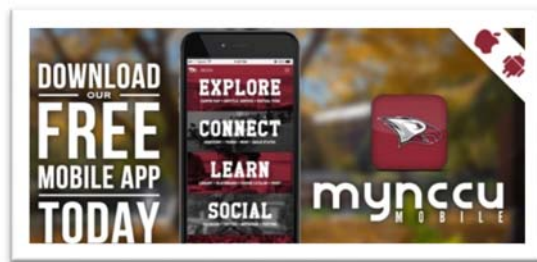
The app provides instant access to campus news, maps, library, athletics and other resources that are available on the NCCU website. However, myNCCU Mobile also provides a real time listing of GoTriangle and NCCU Shuttle information. Taking the app one step further, students can also access Blackboard and register for classes.

After rolling out the initial features, ITS set its sights on other ways to use the app to engage students. Partnering with Student Affairs, myNCCU Mobile became the go to resource for orientations beginning January 2017. Additionally, collaborating with University Relations, ITS was able to send targeted messages to students about commencement exercises.

In the coming year, ITS expects to have further collaborations and enhancements targeted to various constituents on campus.

Classrooms Upgraded To The Campus Technology Standards

The ITS Technology Enhanced Classroom team took on expanded roles in Fall 2013. The team has developed a classroom technology standard that can be easily installed and adapted to different size spaces on campus. The team established specific criteria to be used in reviewing spaces in order to develop an upgrade schedule. This has resulted in tremendous efficiencies in updating technology regardless of when funding becomes available. So far, 13 classrooms have been upgraded using a combination of Title III, ITS and Academic Department funds. This greatly enhanced the student learning experience and transfer of knowledge, and expands the possibilities of other technologies (personal devices, lecture capture, etc.).

Before   *After*

Public Service

Community Internship Opportunities Provided by a $10,000 Google Fiber Sponsorship

ITS acquired a $10,000 sponsorship from Google Fiber to implement a Google Fiber Community Leaders Program for the 2016-2017 Academic year. During the first year of the program, 12 students provided over 250 hours of community outreach in partnership with the ENGINE CS grant, Durham Housing Authority (DHA) and Kramden Institute. These students assisted with Girl Scout troop badge activities, and worked with Kramden Institute helping to teach digital literacy classes and developed a fifth class. The students also participated in community events with Google Fiber such as Create Your World Day, NCCU's TechnoPalooza and many other digital outreach activities.

An additional 15 students will join returning students in the leadership program. These students will add other projects, in addition to a focus on digital literacy for underserved areas of Durham. The students plan to work with Triangle Digital Literacy Council, reach out to a local middle school to provide training, survey businesses around NCCU to assist with getting those businesses more online and continue to work with Kramden Institute and DHA.

Students In ITS Work Jobs From Lab Support To Web Developer

ITS's Student Employment Program provides opportunities for NCCU students to gain professional work experience within ITS. In addition to hiring NCCU students, ITS partners with Durham Technical Community College to provide professional development through experiential opportunities to students in their Work-Based Learning program. Through this program, over 12,672 support hours were added to cover areas such as lab support, the computer support center, ITS helpdesk, field computer support and web development. In addition to their day to day tasks, these students have supported top ITS initiatives such as the Office 365 project, TechnoPalooza, NCCU transfer and first-time student orientation activities.

Community Engagement

Google ENGINE CS Grant, Leah Kraus Co-Investigator

Leah Kraus, Chief Information Officer and Co-Investigator of the grant, along with Dr. Alisha Malloy, School of Business faculty member, applied for and successfully received an HBCU-Google Community Tech Grant in the amount of $41,275. The grant, *Enabling the Next Generation of Innovative Neophytes through Emersion in Computer Science's* (ENGINE CS) purpose is to educate, engage, excite, and empower future generations of computer scientists and foster an interest in technology and computer science.

The grant allowed for a partnership with Girl Scouts of North Carolina Coastal Pines and provided opportunities for Girl Scouts to acquire their computer science badges along with hosting a Computer Science Exploration Day for Girl Scouts and other girls from 6th to 12th grade. The Girl Scouts have an Imagine STEM Series that focus on the fact that "Girls can do anything!"

On May 21, 2017, NCCU hosted the CS Exploration Day, which included a Welcome to NCCU, four round-robin sessions (tour of computer hardware, networking, robotics, and computer programming), and a Closing Women in ICT Panel discussion. Over 50 young women participated in the all-day event.

Marbles Kids Code Events

On June 7, 2017, ITS participated in the third KIDS CODE event. KIDS CODE at Marbles Kids Museum focuses on encouraging the community to learn about computer science and specifically to ignite interest at an early age in technology. ITS hosted a table where participants were encouraged to take computers apart and put them back together. The event had over 2800 guests participating in the various activities. Kids and families were engaged in learning through hands-on activities.

> *"A tremendous thank you for participating in Kids Code last weekend and supporting the event with terrific volunteers. We had more than 2886 guests at the museum on Saturday."* ~ Hardin Engelhardt, Marbles Kids Museum

Triangle Startup Weekend

On April 7-9, 2017, NCCU hosted its first Triangle Startup Weekend. Triangle Startup Weekend (TSW) is an opportunity to turn ideas into action in 54 hours.   TSW is a 54-hour event that supports early stage entrepreneurship. Anyone is welcome to pitch their startup idea, or just listen in. Teams coalesce around top ideas and embark on a 3-day frenzy of business model creation, coding, designing, market validation and creation of a prototype.

Internal Communications

TechnoPalooza

TechnoPalooza, the ITS annual technology fair, was reinstated March 30, 2017. The event, hosted on the first floor of the James E. Shepard Memorial library, invited students, faculty and staff to learn about NCCU's IT department and infrastructure as well as a myriad of vendors. There were five sessions including: IT Security/Phishing, Gaming Safety, Jabber/WebEx and myNCCU Mobile. There were 12 vendors, approximately 1,400 participants and 11 giveaways. TechnoPalooza was seen as a great success.
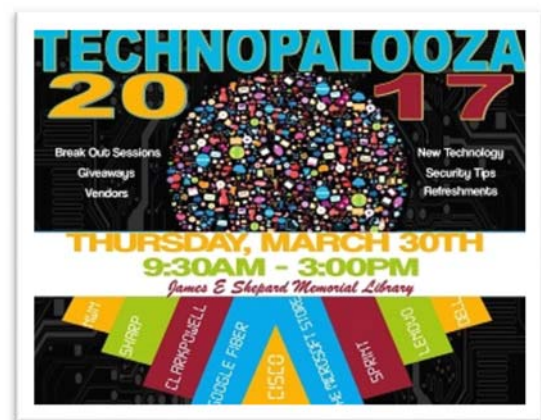
IT Training

The NCCU community has requested additional resources required to gain knowledge about new and current applications and utilize software needed for instruction, classes and job performance. ITS added self-service information through video tutorials, Microsoft Imagine Academy and increased knowledgebase articles in its ITSM system (TeamDynamix). There has been an increase in the usage of the Microsoft Imagine Academy by 43%. Faculty, staff and students have increased their usage of the ITS knowledge base and webpage by 50%. ITS training videos have a total of 729 views (an increase of 95%) and we've trained approximately 150 members of the campus community.

Office 365

ITS consistently reviews its infrastructure and service portfolio for best practices, improvements and efficiencies. Migrating faculty and staff mailboxes to Office 365 was the culmination of a year of study and planning. As a result, NCCU has a platform that provides a rich set of web-based collaboration and office productivity tools as well as increased storage and email capacity. As of May 1, 2017, all faculty and staff are able to take advantage of Office 365 including its feature to easily collaborate on documents with NCCU constituents as well as those outside NCCU, by using the controlled and secure O365 environment.

Intellectual Climate

Partnering with Faculty Professional Development

ITS embraces partnership and collaboration across divisions. One such example is the partnership with the Office of Professional Development to offer both face-to-face and online trainings. This partnership provides both faculty and staff with a variety of professional development opportunities and certificates. Through this partnership, ten sessions have been offered with over 60 individuals participating in those sessions.

Research

The ability to relay the extensive graduate and undergraduate research being conducted on the NCCU campus was the driving force behind a request to ITS to enhance and expand the presence of research on the NCCU website. Upon completion, this new website will provide a mechanism to link researchers on and off campus, students the ability to see the various research opportunities on campus and provide a comprehensive research portfolio. The website will illustrate the breadth of research on campus.

> *"Although we are in the early stages of our TV Studio renovation project, the insights of the two of you as IT staffers and, more importantly, alumni of the University and of the TV Studio have been invaluable this far."*
>
> ~ Dr. Calvin Hall, Ph.D., Department Chair & Associate Professor, Mass

Support Regional, National and International Collaboration

Providing technology tools that allow the campus to collaborate regionally, nationally and internationally, has been a focus for ITS. With the implementation of WebEx, SharePoint and Office 365, NCCU faculty and staff currently have those tools. One example of the transformation through these tools is the use of WebEx. In addition to this tool being used for virtual meetings, teachers are using WebEx to hold virtual/video classes; student tutors are using it to support students remotely; and many offices are using the tool to assist students in filling out administrative forms by using the screen sharing capabilities. SharePoint is used by administrative offices to not only store documents, but also to collaborate and process documents. Office 365 has provided faculty and staff the ability to collaborate and share documents with those external to NCCU.

All of these tools are available to faculty, staff and students while either on or off campus as long as they have a device connected to the internet. After a short time, these tools have proven to be a game changer in efficiency and collaboration for the NCCU community.

Information Security

In 2016, ITS underwent a comprehensive 6-month information technology controls audit conducted by the NC Office of the State Auditor (OSA). Out of the hundreds of control measures audited, only four findings were identified which were addressed and remediated within six months. A few months later, the auditors lauded ITS for the risk assessment methodology, instrumentality and approach that was used in identifying the security risks within ITS.

To date, ITS has completed two additional audits, a risk assessment audit conducted by the NCCU internal auditor and a financial controls audit conducted by the NC OSA. Neither of the audit engagements yielded any findings.

ITS takes safeguarding the confidentiality, integrity, and availability of all NCCU data that is processed, stored, or transmitted over our technological network, whether at rest or in flight, very seriously.

The further hardening of our technological systems and network is a top priority and a focus given the recent hire of our new Chief Information Security and Compliance Officer.

Conclusion and Looking Forward

Information Technology Services (ITS) takes an active and strategic role in collaborating and supporting North Carolina Central University and the strategic goals as set out in the NCCU 2020 Strategic Plan. This Annual Report provides a glimpse of the collaborations and projects that have been implemented and the impact the ITS team has made throughout campus. NCCU. The ITS team is excited to work with Chancellor Johnson Akinleye as he establishes his priorities and direction for NCCU.

During the 2017-2018 Academic Year, ITS has plans that include both an operational and strategic focus. In the past, NCCU has not had an IT strategic plan in place. This year, the CIO will be leading the IT Planning Committee in developing NCCU's first IT strategic plan. Strategic partnerships across campus will lead to the implementation of several new systems. Working with Enrollment Management, ITS will assist in the implementation of Ellucian Recruit, an Enrollment Management Customer Relationship Manager system. To further enable operational efficiencies, ITS will collaborate with Administration and Finance in the implementation of Ellucian Travel and Expense Management powered by Chrome River, a system that provides easier travel and expense submissions and payments. This will occur while ITS also does a full Banner upgrade.

The NCCU website is the entry point for current NCCU students, faculty, staff and alums. It is also a critical information portal for prospective students, donors and external constituents such as researchers and corporate partners. ITS, with the support of University Relations and the campus web liaisons, will review and update the NCCU website design and content structure.

2016-2017
Stats and Activities

99.8% Network & System Uptime

60,500 average daily spam messages blocked

50,000+ devices registered on wireless network by 8100 individuals

3440 WebEx meetings with over 13,000 participants

114 Web Liaisons trained through workshops and 1:1 refreshers

5159 Students utilized student printing

7618 Enrolled in PortalGuard

TechnoPalooza hosted with 1400 participants and 11 giveaways

59 ERP/Banner patches or upgrades installed

2300+ computers managed by SCCM

The network infrastructure provides the foundation for the applications and systems. The increased demand for seamless wireless connectivity, media rich content, distance and remote teaching and learning, and cloud based technologies requires a review of the current campus network infrastructure. ITS will conduct a thorough review of the infrastructure and develop a plan to provide a network that meets the needs of our students, faculty and staff. ITS will develop a strategic plan for the current and future needs of our campus by designing the next generation network.

Providing the best support for students, faculty and staff means more than answering calls and resolving tickets. This year, ITS will provide new technical training to faculty and staff, offer students new ways of learning about the various technologies on campus and offer new technical services. Strategic support means going beyond the computer and working with academic units to upgrade classrooms and provide strategies for computer and classroom replacement. Finally, *Eagle Excellence* also means that ITS has systems in place that provide transparency for requests for assistance whether it be repair, upgrade or a new project. Therefore, ITS will work with all campus constituents to ensure timely and consistent responses to ticket and project requests.

ITS is focused on delivering *Eagle Excellence* every day. As a team, ITS enjoys collaborating and partnering with the campus community to make a difference for students, faculty and staff.