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Systems and Digital Technology Departmental Report : July 1, 2017 – June 30, 2018

Nelson Poynter Memorial Library.

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University of South Florida St. Petersburg

Compiled by Berrie Watson

2018
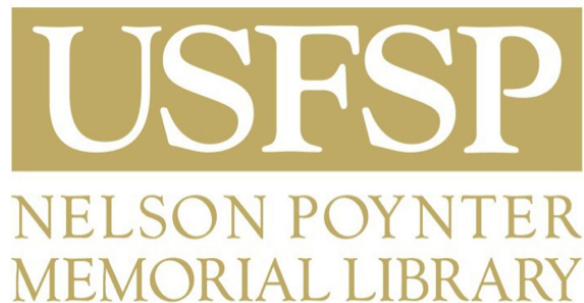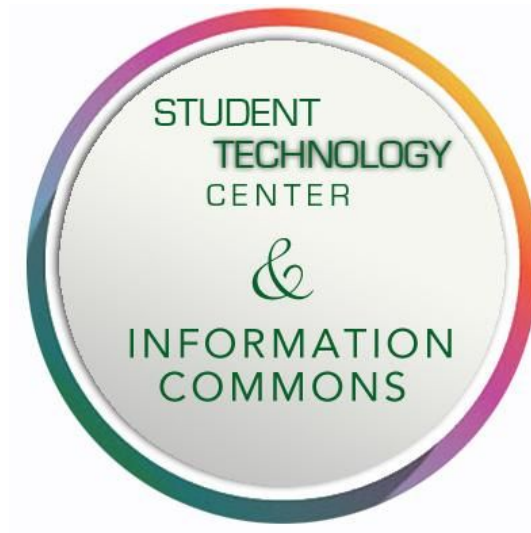
Department Overview

A primary USFSP technology provider in support of the library and services to USFSP students, the Systems and Technology office supports USFSP computing through multiple service endpoints. These include the Student Technology Center, a variety technology-enhanced student collaboration space, the library web presence, computing and networking technology for the library building's over 200 network device footprint, as well as a myriad of related components. These various offerings deliver computing services and resources to students, faculty, and staff of USFSP and visiting members of the USF system.

The department consists of Berrie Watson, Department Head (A&P) with duties as system administrator, network manager, and web developer, joined by Mark Couch, Systems Analyst (A&P) with duties as desktop support coordinator and administrator for student/public technology and OLITS computing support. The new manager of the Student Technology Center (OPS), Summer Natali, joined the library in the Summer of 2018 and manages a student-based helpdesk, digital makerspace, STEM electronics area, video recording booth and a training/facilitated student learning room.

Significant Departmental Accomplishments

Student Technology Center STEM Offerings
The Student Technology Center (STC) is organized into service points for Training/Facilitated Learning, Digital & STEM Makerspace, Helpdesk, and video editing booth The STC saw a change in management in Summer of 2018 with the addition of Summer Natali as manager. STEM materials were organized for use into categories based on complexity, for the Fall 2017 semester. The STC saw the addition of a six station bistro-height helpdesk, which increased visibility and work space for FWS student students and OPS technicians to provide employment experiences to students within the student-centered culture of the library. Ten laptops were made available for facilitated student learning sessions, and coordinated sessions in support of Lynda.com, SPSS, Canvas and Google Docs are scheduled for Fall 2018 within the space.

Library Website, Digital USFSP Archive Migration
Two web systems were discontinued after data was migrated to off-site hosting services. The first of these, DSpace, an open access repository server, was retired after migration of all content to the repository provider Bepress. The second major migration was of the NPML website, completed in the 2017/18 year, relocated to SpringShare's LibGuides product. Landing pages were redesigned as unique destinations per functional area of the library. Standards for style, page elements and navigation were adopted to visually unify the site and emphasize the user-centered role of the site to discover information. Standards and reference materials were

published to content managers through a website style guide (
https://lib.usfsp.edu/systems/style-guide). These content managers were selected per-area allowing a decentralized model that allows those closest to the content to manage it. A staff directory was created, website forms migrated, and standards reviewed and adopted by the web committee. The older website was repurposed to become an applications directory for USFSP students, to aid in locating software and supporting information online and in campus labs. Future directions include a second user experience study and adoption of statistical collection methods using SpringShare products and Google Analytics. The initial assessment conducted in Spring 2018 by the User Experience Library Committee brought forward several requests for changes to the design and navigation of the web site. These changes were approved by the web committee and Library Dean for integration during the next year.

Windows 10 Testing and Implementation, Software Offerings Expanded
A subset of seven library staff and ten student computers were upgraded to Windows 10 during the fiscal year. Additional computers were purchased for this project by the library and the USFSP IT group, to be distributed as needed to meet Windows 10 minimum hardware requirements. Windows 10 OS testing has been a careful ongoing process, due to update issues. Server hardware and virtual components were also an important part of the upgrade, two servers were permanently retired (public domain) and all remaining servers (commons and library domains) were upgraded to Windows Server 2016 at a 2008 functional level. Multiple older servers were retired, and one ESX host was replaced due to hardware failure.

All staff desktop computers were upgraded to the Office 2016 suite of applications, and all student use computers saw adoption of site-licensed software such as the Adobe Creative Cloud Suite, SPSS, Acrobat, ArcGIS, JMP and internet browsers.

New Ricoh-based Multifunction Printing Device and Student Government MOU
Free printing in the library was a popular new service introduced to the library in the 2016/17 year. This year, the primary print method was changed from an aging device to a new Ricoh Black & White printer, and support for the system was organized through a memorandum of understanding (MOU) with USFSP Student government. The MOU was adopted as a joint mechanism to support free printing to students, including support, maintenance and toner. Costs were negotiated through a revenue and costs analysis that included restricting free prints to more economical black & white prints. The BullBucks system was retained as the managing process through Tampa IT, which continues to provide color printing at break-even cost.

Additional Accomplishments

- An emergency phone system of nine phones was added in support of the library extended hours initiative.
- A six station bistro height work table and chairs was installed in the STC helpdesk, improving visibility and workflow.

- Computers were incorporated into 1st Floor study rooms, additional floors to follow.
- Storage array support and reassignments were made.
- Multiple Technology Fee funded projects were proposed and funded, to be implemented in the next year including important network infrastructure, STEM locker checkout system and increased virtual storage.
- USFSP Digital migration necessitated the forwarding of many links, previously hosted on DSpace. A new web server was created to facilitate this process.
- Several security changes were made to reduce the library's attack surface and reduce vulnerabilities. Servers were retired and network changes made in support of this initiative.
- Apple virus protection was added to all laptops and staff machines. Additional management system, JAMF will be explored in the next year.

Future Directions

vSAN Storage Backup for Digital Archive
The vSAN storage array, when implemented will be paired with an open-source backup server (LOCKSS), to allow local, non-active backups of the digital.usfsp.edu archive. The LOCKSS server group will also join other similar backup servers for redundancy.

Implementation of Additional Technology
USFSP Technology Fee initiatives will allow the library to add technology during the upcoming year. Three primary hardware projects are scheduled. First, a locker-based access method for technology hardware will be made available in the next year, using the USF ID card for access to laptops, STEM devices, chargers and more. Also, file storage will be expanded using vSAN virtual storage products and Dell 740 class servers. Lastly, the library network will be enhanced with a dedicated 10 Gigabit primary aggregate switch to allow greater network access and reliability.

Library Website, AppGuides Web Development
The library website will undergo a second user experience assessment in the upcoming year, with additional navigation changes being tested. Web development/programming may be necessary to take the AppGuides site to the functional level needed to be successful. A USF System Tech Fee proposal may be necessary to fund this effort, at which time the service would be a USF System service for all campuses and locations.

Services to OLITS
The Systems department also needs to record operating procedures and current practices and processes to document Systems activities and task loads in support of online learning through OLITS support. The systems analyst will create documentation, and a possible assessment tool

for services provided. The systems administrator will perform a similar process for server and storage tools. Additional storage may be recommended to replace an older OLITS-specific storage appliance, to unify library and OLITS storage onto the vSAN platform.

Significant Staff Accomplishments

Service:
Berrie Watson:
      Library Service:
            Library Leadership Team, Member
            Library Web Committee, Chair
            Search Committee for STC Manager, Chair
            USFSP Library Strategic Planning Committee, Member
            USFSP Library Space Committee, Member
      Professional Service:
            VMWare Users Group, Member
            VMWorld Conference and Training Event, Attendee
Mark Couch:
      Professional Development:
            USFSP Student, majoring in Information Systems Management
            Expected graduation date: Spring '20

Summer Natali:
            MIT Connected Learning Summit Conference, Attendee

Systems Statistics

	2017/18	2016/17	2015/16	3 Yr. Change
Help Desk: Total Number of Requests	271	130	314	-% *
Number of Open Use Computers	104	104	87	+%

Laptops for Student Checkout	20	20	20	0%
Number of Staff PCs & Laptops	87	78	59	+47%
Number of Distance Learning Faculty & OLITS Laptops	23**	40	37	-37%
Number of Wireless Coverage Points	20 ***	20	20	0%
Number of Library Servers	20	23	20	0%
Number of Distance Learning Servers	1	2	5	-80%
Amount of Server Storage	20TB	18TB Array	18TB	+12%
Amount of Backup Storage	25TB	17TB	13TB	+92%

*38 web tickets included, 106 tickets by Mark Couch, 165 tickets by Berrie Watson
** 40 laptops for OLITS repurposed, 18 Faculty checkout, 10 Systems for Student Checkout
*** Wireless access points were replaced, with the ability to support far more connections per access point and with greater bandwidth allowance.
**** Backup storage added for Weekly Challenger backups, others remained constant.

STC Statistics

The Student Technology Center (STC) completed its first full year of activity in Summer 2018, and was visited over 600 times for the areas of support it provides to students through the Summer 2018 semester. The statistics below include the primary categories of assistance, and do not include many visits for printing, wireless connectivity, and incidental walkup requests. The STC provides the most available in-person technology assistance available at USFSP with the widest hours of operation:

Technology Category	2017-2018
Digital Makerspace	16
Helpdesk Assistance Requests	228
MyStudio Booth Visits	7
Printing Assistance	89
Logon for Study Space Use	192
Training Room Use	69

Library Hardware Per Area

Area	Desktops	Laptops
Access Services	14	
Library Administration	3	5
Research & Instruction	6	5 (3 general dept. use)
Collections and Tech Services	5	
Special Collections & Archives	5	3
Library Systems and Technology	4	2
Student Technology Center	3	2
OLITS	23	7
Library Student Use	88	30 (10 in STC)
Faculty OLITS Use		23 (inventory and in use)