2012

Information Resources at Trinity University 2011-2012

Trinity University

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2011-2012 Report

As we move toward the start of the 2012-13 academic year, here is an update on our various operations and projects in the Information Resources area.

Information Technology

The new **student admissions management system (Recruiter)** is nearing the completion of implementation. Last year we were notified by the source of our then admissions system, The College Board, that they would no longer be supporting the system we have been operating on, Recruitment Plus. After an evaluation of several options, the system Recruiter from Ellucian (formerly this company was known as Datatel prior to a merger with Sunguard Systems) was selected for implementation. After a year of planning and implementing, we are now operating on Recruiter.

This system has advantages over the prior system in that it integrates with our administrative system, Colleague, also from Ellucian. It has distinct interface advantages while providing more information about prospective students to the admissions staff. It facilitates better analysis of admissions data. It uploads the admitted students' information for the Registrar's office more completely and with greater ease.

With a grant from AT&T, we have implemented a **new wireless network management** system called ISE from Cisco Systems. ISE will allow us to replace the long hated, but still necessary to prevent unwanted viruses and other malware from damaging the Trinity network, Clean Access network access control system. ISE provides a more transparent and efficient system to implement our network security policies while facilitating easier and broader access. ISE will permit direct access to the wireless network by Wi-Fi enabled smartphones, tablets, and other such devices without any need to contact the ITS Helpdesk. ISE will provide self-registration for campus guest access to the wireless network, again with no need to contact the Helpdesk. Connecting devices will be scanned for malware and directed to a website for information about any malware detected to enable removal prior to connecting to the wireless network. ISE went live in late July 2012. The network you will select on your various wireless devices is still called TUSecure.

We have noted some complaints in our student technology survey about wireless coverage being uneven in the lower campus area, specifically in the residence halls. We are conducting a wireless survey of the whole of the residence halls to determine where we can place additional access points to provide better coverage. That work should be completed within the Fall 2012 semester.

We have increased our **Internet connection** from 400 Mbps to 600 Mbps to accommodate the increase in primarily video traffic. We are now running two independent and redundant 300 Mbps internet connections on campus.

Over the past year, and with partial grant support from AT&T, Trinity has been experimenting with a **Virtual Desktop Infrastructure** (VDI) that we are expanding in the current year to various computing labs on the campus. VDI creates one's home desktop on any computer one uses to access the Trinity network. A server on the campus network provides the particular software and configuration of that individual desktop to the accessing device. The accessed software does not need to be resident on the accessing computer. The major obstacle to realizing the full benefits of VDI are the ways in which software vendors restrict their licenses to prevent such simultaneous use. They prefer to require a license

for every computer using the software. Their motives are to avoid any software cost savings by use of VDI. The various user organizations are working to convince the resistant vendors that change is inevitable here. Sound familiar?

The university benefits from VDI implementation because end users will be able to securely access their Trinity desktop, complete with network drives and available software, from any device with no need for special connection tunnels (VPN). This could also reduce the cost of desktop hardware since the host devices would require less storage and processing power in comparison to our current desktop hardware. We have even experimented with utilizing the telephones (VoIP) on the campus as the host computers. Such a hardware configuration requires a keyboard, mouse, a small module that attaches to the back of the phone, and a monitor (the telephone screens are a bit too small).

We have realized that over the years since our implementation of the **Colleague** administrative software that supports the administrative information operations of the whole of the university, and as employees come and go, there has been an inevitable erosion of knowledge of this software system across the university. To address that knowledge erosion, we began a three-year training program to refresh and upgrade the knowledge base for that software among employees in the various divisions of the university. That is enabling us to also implement aspects of the system that we were not currently using to improve efficiency and capacity. The program will continue next year.

A new set of modules (**business objects**) are being added to the administrative database, Colleague, to permit rapid reports on data of interest to facilitate more numerically based decision making. These programs are canned reports on metrics of interest to the university. Terms like data analytics and dashboards refer to reports of the sort we are implementing. The goals here include reduced I.T. staff demands to build reports repeatedly, more rapid information access and to provide feedback on various initiatives.

Information Technology Services (ITS) will **supply the following software** for university users. The specific conditions of the use of the software will vary from vendor to vendor as noted below:

- Mac OS (university computers)
- Windows OS (university computers), upgrades to Windows (students, faculty, and staff as well as university computers)
- SPSS (faculty, lab and electronic classroom computers)
- Adobe Master Collection (faculty, staff, lab and electronic classroom computers)
- Microsoft Office (student, faculty, and staff computers)

In addition, all computers on the campus network have access to the training and education modules of **Lynda.com**. It can be accessed by Trinity students, faculty, and staff from on or off campus by going to http://lynda.trinity.edu. These are individual, graphically-attractive video training and tutorial programs for all things computing related. This is a great resource for learning about various software packages, web design and construction, tablets and smartphones, and critical tech skills. Try it out and explore all the possibilities.

A **document management system** is in the early phases of implementation beginning with the Office of the Registrar. The system will make available online transcripts, applications, and other information currently stored on paper and optical discs, thus permitting rapid access to the information and better service to students and faculty. This system holds the promise of electronic advising records for faculty advisors. Ultimately all university paper records will be placed within the document management system as well as creating paperless forms for university transactions.

Personnel Changes

Rob Chapman is now the director of the **AT&T Center for Learning and Technology (CLT)**.

The assistant director for ITS, Tony Salinas, unfortunately suffered from an unrecoverable illness, and a search is underway to fill his former position.

Dr. Sean Connin was appointed the director of the Collaborative for Learning and Teaching and began his work at Trinity on July 1, 2012.

Steve Curry has resigned his position in the administrative systems group in I.T.S. at Trinity to pursue his interest in the ministry.

The Center for Learning and Technology

The CLT has been deeply involved in the selection of the classroom and lab technology for the new Center for Sciences and Innovation (CSI) building to ensure compatibility with current systems and hence familiarity to faculty and our support teams. Significant efforts are being made to support the transition to High Definition digital displays. The media:scape trials in the library by the CLT have been so successful that there will be a significant number of media:scape or media:scape-like installations in the CSI. The computing environment in the CSI will emphasize mobile computing and flexibility as will all our future implementations.

The CLT supports the learning management system, TLEARN, that is being upgraded to version 2.3 this summer. The update will be announced sometime in the first half of the Fall 2012 semester. The enhanced features of version 2.3.1+ will include a mobile format for smartphones and tablets among other new features. The new platform will run alongside our current system to provide time for integration and additional training. The new platform will also provide seamless integration with cloud services offered by Google Apps for Education (Tmail).

The advanced computer and media center in the CLT (on the 1st floor of Coates Library) has been upgraded with new computers and the most current releases of media editing and creating software. This space has also been updated with a full complement of dual monitors to add more usable workspace for multimedia project work.

The video conferencing center nin the CLT is available for faculty, staff, and student use. It provides telepresence-level technology complemented by a specially designed space and furnishings. It may be reserved by calling or stopping by the CLT.

The CLT also updated its available Skype account to premium status to enable multipoint video calls. The CLT is currently investigating tools to allow the bridging of soft client systems like Skype with the current video conferencing facilities.

The Collaborative for Learning and Teaching

During the past year, under interim directors Dr. Diane Persellin and Barbara McAlpine, the Collaborative (located on the third floor of the Coates Library) hosted many lunchtime presentations by Trinity faculty sharing interesting things they are doing in their classrooms. In addition, it hosted several guest speakers from other campuses as well as discussions about Trinity's curricular review. Over the

summer the seminar classroom space in the Collaborative was enhanced with a new glass doorway and was given a name: The Sandbox. Probably pretty obvious what the name means! The Sandbox contains projection capability, lecture capture technology, Internet connectivity, a classroom control interface, a Smart Board, audio systems, as well as configurable seating.

The reception area has Mac computers and coffee for faculty use and consumption. Irresistible! All that is intended to make it a welcoming space for faculty to linger and talk.

As Sean Connin works with the advisory board for the Collaborative to prepare the plans for this year, he will be sharing those with the Trinity community. The focus of the Collaborative is on the many ways to enhance student learning.

Please feel free to stop by the Collaborative and explore the interesting resources in that space. There are computers and coffee available for your use and consumption as well as comfortable spaces to hold conversations with colleagues or to read.

Technology Strategies

Strategies that continue to develop and enhance the technology environment while keeping costs down include the use of **open source software**, **cloud based computing**, **server virtualization**, and **consortium purchasing** of software. In addition the support of **mobile computing**, specifically smartphones and tablet devices, is a strategic objective. The availability of smaller and cheaper tablets from Google and Apple guarantee the presence of mobile devices on the campus will continue to increase. The introduction of the new wireless management system facilitates an easy "on-ramp" to our wireless network for the mobile computers in our pockets, bags, and backpacks. Over 75% of our servers are now virtualized. (Virtualization is a way of placing multiple systems on a single server box thus conserving hardware costs.)

Benchmarking: Budget

Educause is the major membership organization for higher education computing and technology. Educause collects the most comprehensive and detailed budget data for colleges and universities (The Core Data set). We are able to extract from that database the information for colleges like Trinity University. These are primarily colleges in the organization for Computing in Liberal Arts Colleges (CLAC)[1] of which Trinity is also a member. Between 58 and 66 CLAC colleges completed the survey.

The data from 2009-10, the most recently available data, indicated several things below about Trinity's expenditures on technology:

- Total I.T. Budget for Trinity was $4,112,312 vs. mean budget in CLAC colleges of $3,966,335. For Trinity that is $1,347 per FTE student, faculty, and staff vs. $1,655 per FTE student, faculty, and staff at CLAC colleges on average. Trinity is student size larger than most CLAC colleges.
- Total I.T. expenditures at Trinity were $5,667,857 vs. an average total I.T. expenditures of $5,952,306 at the CLAC colleges. (Expenditures include unbudgeted expenditures for typically new hardware and software)
- Staff salaries in I.T. at Trinity were a total of $2,424,100 while they averaged a total of $2,421,858 at CLAC colleges.
- Size of I.T. staff at Trinity is 38 vs. an average staff size in I.T. at CLAC colleges of 38.49.
- The Chief Information Officer is on the President's cabinet at 70% of the CLAC colleges (and that is also true at Trinity).

- The computer replacement cycle is 3-4 years at Trinity, which is also the case at 90% of the CLAC colleges.
- The number of computers owned by Trinity is 2,200, while the average number of computers at the CLAC colleges is 1,816 (reflecting the larger size of Trinity vs. the average CLAC college).
- 65% of the schools use an open source learning management system, as does Trinity.
- Wireless network coverage of all indoor and outdoor spaces characterizes 50% of the CLAC colleges, which is also true at Trinity.

Not included in the budget benchmarking is the grant received by Trinity for the support of technology of $5,000,000 from AT&T over the past 5 years. That money has enabled the acquisition of many infrastructure resources including a new wireless network and management system for that network, a new library management system called Sierra to be implemented this year (2012-13), and numerous other capital improvements including the renovation of the library space that became the Collaborative for Learning and Teaching and renovations to the CLT which included the video conferencing center.[2]

Portal Strategy

The Trinity portal, Tigers Lair, has been a work in progress for us, and that is an understatement. The idea of the portal is to be a gateway to internal digital resources for students, faculty, and staff. Our challenge has been to devote enough resources to it to make it attractive to users, to make it easy to use, and to make it the most effective way in. By logging into the portal we can deliver individually appropriate resources based upon your identity via that log in. We envision the portal to be the homepage for Trinity users. We recognize that we are not there yet!

The primary uses of the portal are to access university information ranging from pay advices, to clocking in, to salary information for yourself, budget related details, information and forms from university offices, various handbooks and policies, advising related materials and so forth. Links to materials of use to employees as well as students are also there. Newly admitted student email is accessed by new students via the portal. It is also a place to post messages to the community. It is our intent to make the portal easy to use on both desktop and mobile devices.

Information Resources Website

At some point early in the year we will be opening a new website for the Information Resources area. We are building this website with an open source content management system called Drupal. The idea is for easier access to the information you seek (for example network status, how to's, FAQ's). Between the portal and our soon to be new website, we are trying to anticipate and respond to your inquiries and needs. Again, we are intent on making this site render appropriately for both desktop and mobile devices.

Student use of Technology

During the late spring semester of 2011-12, Trinity participated in a national student survey by Educause (above) of student use of technology. We had 566 Trinity students respond to that online survey. The student respondents were about equally divided across the 4 undergraduate year levels.

The far most popular computer format was a laptop with the type equally split between Macs and Windows PCs.

Most of the respondents had a smartphone (N=377) and the majority of those were iPhones (N=156). The smartphone was rated as at least "moderately" to "extremely" important to their academic success by

about 1/2 of the smartphone owning students. Accessing TLEARN and the library website were the most common academic uses of their smartphones. More than a few actually registered for classes using their smartphone.

The most important form of communication to achieving academic success, second to face-to-face, was email. Also rated highly important as a form of academic communication was TLEARN. Of the resources they wished faculty would use more, TLEARN and open courseware were most often identified.

What is generally called blended learning, a combination of on-line and in-class components was identified as the type of environment in which they learn the most. About 200 of the 566 respondents indicated that "a few" of their courses utilized a blended learning approach.

About 1/2 would just as soon not be the Facebook friend of a faculty member, though were more willing to be a friend with a faculty member when not taking a class with them. (Note that this is not the same thing as creating a class page on Facebook where various class "news" would appear in their news feed on Facebook.)

The responses to asking for suggestions as to what the student respondents thought their faculty could do with technology to facilitate their academic success most frequently included greater use of TLEARN and putting more materials on-line.

We will place more details of the survey results on the new Information Resources website in the fall semester when we receive the data from the other participating colleges for comparison purposes.

If you need assistance with any technology the HelpDesk is available at ext 7409.

Welcome to the 2012-13 academic year at Trinity.

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[1] The Consortium of Liberal Arts Colleges (CLAC) is an organization comprised of many of the top liberal arts colleges in the United States. The group evolved from meetings of college presidents in 1985 and 1986 at Oberlin College; a brief history of the Consortium has been compiled. CLAC has focused on the uses of computing and related technologies in the service of the liberal arts mission. The CLAC is the same group as the Oberlin Group of libraries in liberal arts colleges.

[2] The grant from AT&T also funded the complete renovation of the Trinity television studios in the Department of Communication.