Monday Morning

**Deploying Assisitive Technology Across Campus: a Collaborative Approach**

Advancements in technology have not only increased the amount of information and resources available to college and university students and staff, but have also opened doors for countless individuals with disabilities. Various forms of information technology devices and products have provided the disabled population with increased access to education. More importantly these advances have helped to redefine possibilities for many individuals who previously had limited opportunities. At the same time, individuals with disabilities continue to face challenges when it comes to accessing information, conducting everyday business, and participating in general communication and collaborative endeavors which require the use of technology. As more and more people gain access to this world of digital information, IT specialists will play a crucial role in ensuring that this information is available and accessible to disabled and non-disabled populations alike.

This presentation will address accessibility considerations as they relate to technology at colleges and universities, and how these technologies can be deployed in a cost effective and proactive manner through a collaborative approach. Attendees will learn about existing technology available as well as the significance of incorporating universal design concepts in IT projects. In addition, the presentation will highlight the importance of collaboration across departments — encouraging the blending of resources, ideas and expertise as an effective way to further the goal of universal accessibility.

**Envisioning New Learning Spaces: Creating a Center for Visualization at Indiana State University**

Growing interest in visualization and stereography has prompted the Center for Instruction, Research, and Technology at Indiana State University (ISU) to expand visualization resources available to faculty and students. Beginning in the spring of 2006, ISU built four new active learning spaces equipped to handle various faculty members’ visualization needs. The “Science Room” is a 20-seat, multi-disciplinary visualization classroom, equipped with stereoscopic projectors, an 11-foot, 16:9 format polarized screen, viewing glasses, and a powerful workstation. Faculty throughout all colleges with stereoscopic instructional material may schedule the room for entire semesters or on a per-class/as-needed basis. Normal Hall, room 121, was remodeled to become a multidisciplinary visualization laboratory. Researchers now have access to both active and passive stereoscopic systems. One of the systems in Normal Hall is capable of displaying HR (high definition/high resolution) objects on a 14-foot large format screen. Included in the laboratory is a three-dimensional laser scanner capable of creating digital representations of objects in their natural environments. This scanner has recently been used by faculty to create digital three dimensional representations of clay pots recovered from an archeological dig. In addition, a powerful rendering cluster combining supercomputing and visualization technologies is in place to simultaneously process 3-D graphics, imaging, and video data in real time. The rendering cluster enables faculty to tackle the most demanding visual computing challenges. Visualization applications are available for many disciplines including science, art, business, and engineering. This presentation and paper will focus on the process of building these new learning spaces and marketing them to faculty on the ISU campus.

**University of Toronto Mississauga – “The One” Project**

Two years ago, the University of Toronto (UofT) Mississauga embarked on a project which we dubbed as “The One”; one identity, one card, one phone number, and one helpdesk, as an in response to the Provost’s White Paper on Enhancing the Student Experience. UofT Mississauga-UofT Mississauga began implementing and adopting a model to consolidate services to students, staff and faculty. In general, the University of Toronto (which UofT Mississauga is a part of) is has a highly de-centralized IT structure.

This paper will attempt to encapsulate our experiences and the aches and pains, of implementing “The One” Project. Adopting one identity for all members of the UofT Mississauga community means that our users do not have to remember multiple login ids and passwords. Using one card for food, printing, photocopying, and door access means that users have only one card to carry. Having one phone number that can reach all departments at UofT Mississauga means our constituents only have to remember one number. Having one helpdesk to deal with not just IT issues but facilities as well as utilities means our users have to go to only one location on campus for all of their needs.
Reduce Response Time: Get “Hook”ed on a Wiki

Managing the flow of information both within the IT department and to our customers is one of our greatest challenges in the Office of Technology Information at Valparaiso University. To be successful, IT staff first need to acquire the right information from colleagues to provide excellent service. Then, the staff must determine the most effective way to communicate that information to internal and external customers to encourage the flow of information. To advance the IT department’s goals, how best can we utilize “information” and “communication” vehicles to exchange information, improve workflow, and ultimately communicate essential information to our internal and external customers? We’ve asked ourselves this question and have resolved that “information” and “communication” need to work cooperatively! How better than with a wiki?

Recent changes in departmental structure gave us the opportunity to examine our communication vehicles—specifically the software tools we use to facilitate the flow of information. Our previous knowledge base, First Level Support, a module of the HEAT support software produced by FrontRange Solutions, once met our needs as an internal knowledge base solution. We realized we had outgrown FLS and needed a more robust alternative. Our student employees asked for a newer, more interactive method of sharing information. With the assistance of our UNIX systems administrator, we investigated various options and decided to implement the MediaWiki™ system. As we had anticipated, use of this wiki system reduced the response time a customer must wait for an answer to their inquiry. What we didn’t realize was that utilization of the wiki would meet many more needs than we had anticipated. It has also helped us meet other departmental needs, such as increased collaboration, an online knowledge base, and a training tool for staff. Come see how a sprinkle of pixie dust improved communication through adoption of the wiki, and brought information to the forefront of our operations.

Save the Sprint Across Campus: Bring the Classroom to the Helpdesk

At the University of Rochester, Classroom Technology is responsible for technology support for over 80 rooms, as well as computing/printing support for more than 400 computers and 24 printers spread across 15 buildings on two different campuses. All of this is accomplished by a small compliment of staff that at any given time answer the phones, deliver equipment, offer “walk-in” support, and provide the more time-consuming support “in the field”. As the technical complexity of the teaching environment has increased, we are faced with the challenge of how to remain available to provide support without adding staff. The solutions have all involved reducing the need to run across campus for routine support matters such as turning a projector on, or installing software.

Most supported rooms are part of a centralized system that allows our helpdesk staff to monitor and control key room functions, such as turning the projector on, controlling volume, and switching between media types. Most of the tools used for this integration were built in-house and work seamlessly with existing commercial packages to allow for a consistent interface, regardless of how the rooms are actually configured. In a similar vein, all of the computers we support can be accessed and monitored centrally. We know what software is being used, patches and entire software packages can be deployed on the fly, and the integrity of the machine is maintained. The result is an (almost) magical ‘immediate’ response, regardless of the problem.

The Wild Wild Waste: e-Waste

e-Waste is a popular, informal name for discarded electronic products, such as computers, VCRs, and cameras, which have reached the end of their “useful life.” Discarded electronic products contain a stew of toxic metals and chemicals such as lead, mercury, cadmium, chromium, and PCBs. Based on the Gartner estimation over 133,000 PCs are discarded by U.S. homes and businesses each day. Less than 10 percent of all electronics are currently recycled. Most European countries and a growing number of countries around the world require electronic companies to finance and manage recycling programs for their products. There is no such federal law in the United States. Being environmentally responsible makes perfect sense for higher education institutions. Unfortunately, e-Waste, a dangerous byproduct of technology’s relentless expansion is one of the fastest growing segments of higher education institutions’ waste stream. We need to be strong advocates of “producer responsibility” and give companies an incentive to produce environmentally friendly products. In addition we must learn about and educate our campus communities about managing old electronics and associated materials. In this report, we attempt to answer the question “What should be done with old electronic products?”, discuss opportunities for waste prevention and reuse, and talk about regulatory issues.
Dealing With the Veiled Devil: Eco-Responsible Computing Strategy

Today, there is much concern about the effect of our computers on the environment. In addition, the issue of power and cooling is a mounting anxiety. These concerns would not seem so important if there were only a few computers in our campuses, but today there are millions of computers in use at the data centers, offices, and computer laboratories across campuses. To put this in perspective: a typical desktop computer can consume 200–300W of power. This results in emission of about 220Kg of CO2/annum. By using more efficient systems, the level of CO2 produced by a typical desktop computer could be reduced by 75%. Moreover, a computer laboratory with 50 computers can generate about 10KW of heat requiring extra cooling. Rapid growth in energy costs and increasing dependency on sustainable computing increasingly require 3R (Reduce, Reuse, Recycle) endeavors in our information technology operations and management of our information technology resources.

From the viewpoints of environmental preservation and resource utilization, managing e-waste and eco-computing is becoming an important target for higher education institutions worldwide. Furthermore, tackling eco-friendly solutions on campus environments takes a group effort and starts at the Information Technology division. In this report we review major eco-responsible initiatives and detail moves towards more efficient and sustainable technologies. In addition, we look at ways to assess the environmental impact of our data centers and eco-friendly solutions.

Decentralized and Centralized IT Support at Tulane University - a Case Study From a Hybrid Model

The decentralized- versus centralized-computing debate has raged for years; a survey of SIGUCCS papers and presentations from the past 25 years will confirm that fact. A new paradigm is emerging at Tulane University – a collaborative approach in which decentralized IT groups work with central IT to implement university-wide projects.

One such project was Tulane’s recent successful implementation of Exchange. Key to the success of this major university-wide change was the inclusion of 2 major decentralized computing groups – the Law School and the Business School – as pilot projects. These groups, both from academic departments, brought a new view to the project planning table.

This paper describes how this new collaborative approach has worked at Tulane, how it came about, what has worked (and what has not worked), and how such an approach provides a foundation for future benefits.

TAG - You're It!

With the explosion of various technologies throughout the university, Information Technology faces the challenge of providing a high level of customer service with the same number of support staff. To address this challenge, Millersville University developed a TAG (Technical Action Group) Team consisting of technical staff from all areas of Information Technology. The team’s goal is to share information and address issues about technical projects.

TAG Team meets once a month not only to discuss technical projects occurring throughout the campus but also technical projects occurring within Information Technology such as server and application upgrades, DHCP conversion, and domain structure changes. Many technical projects require assistance and support from more than one area of Information Technology. TAG Team meetings give individuals the opportunity to discuss how they can help each other; thus providing not only higher levels of customer service to the campus but also within Information Technology. In addition, the TAG team approach provides opportunities for individuals to learn and assist with aspects of other areas. The TAG Team approach ensures a more cohesive team within Information Technology.

Some of our future ideas for TAG Team include inviting individuals from other departments and our student assistants. Also, TAG Team will start to investigate and evaluate new technologies and products and make recommendations to the management team. The TAG Team’s overall goal is to remove silos and build bridges throughout the university.
Monday Afternoon

1:30
Salon 1
Salvatore Sorce, DINFO - Dipartimento di Ingegneria Informatica
Agnese Augello, DINFO - Dipartimento di Ingegneria Informatica
Antonella Santangelo, DINFO - Dipartimento di Ingegneria Informatica
Giovanni Pilato, DINFO - Dipartimento di Ingegneria Informatica
Antonio Gentile, DINFO - Dipartimento di Ingegneria Informatica
Alessandro Genco, DINFO - Dipartimento di Ingegneria Informatica
Salvatore Gaglio, DINFO - Dipartimento di Ingegneria Informatica

A Multimodal Guide for the Augmented Campus

The use of Personal Digital Assistants (PDAs) with ad-hoc built-in information retrieval and auto-localization functionalities can help people navigating an environment in a more natural manner compared to traditional audio/visual pre-recorded guides. In this work we propose and discuss a user-friendly, multi-modal guide system for pervasive context-aware service provision within augmented environments. The proposed system is adaptable to the user needs of mobility within a given environment; it is usable on different mobile devices and in particular on PDAs, which are used as advanced adaptive HEI (human-environment interaction) interfaces. An information retrieval service is provided that is easily accessible through spoken language interaction in cooperation with an auto-localization service. The interaction is enabled by speech recognition and synthesis technologies, and by a ChatBot system, endowed with common sense reasoning capabilities to properly interpret user speech and provide him with the requested information. This interaction mode turns to be more natural, and users are required to have only basic skills on the use of PDAs. The auto-localization service relies on a RFID-based framework, which resides partly in the mobile side of the entire system (PDAs), and partly in the environment side. In particular, RFID technology allows the system to provide users with context-related information. An implemented case study is showed that illustrates service provision in an augmented environment within university campus settings (termed Augmented Campus"). Lastly, a discussion about user experiences while using trial services within the Augmented Campus is given."

2:30
Salon 2
Benjamin Villanueva, University of Wisconsin Whitewater
Lorna Wong, University of Wisconsin Whitewater

Metamorphosis: From Traditional Computer Labs to Collaboratories

The University of Wisconsin-Whitewater embarked on a pilot project to build group working space in the General Access Computer lab area in response to the social needs and working style of the net-generation student population. We started by converting an existing room in our computer lab into 5 smaller group work rooms equipped with the technology, flexibility and privacy students need. These 'collaboratories' have been extremely well received since its opening in the Spring semester 2006. Over 900 groups of 3 or more students with more than 3700 student head count used these spaces out of our student population of 9,800. We continue to reconfigure additional space for smaller group work. Learn more about the process we went through in creating a new learning space as we move towards a new generation of learners within our limited resources.

3:30
Salon 3
Jace Laakso, University of Montana
Kathy Garramone, University of Montana

Online Courseware Inspires IT Student Consultants and IT Staff

To provide consistent and in-depth training to The University of Montana’s IT Central student help desk and to the Student Technology Assistants Program (STAP), we successfully implemented an on-line training program. UM has a population of over 16,000 students, faculty and staff. IT Central and STAP support the software computing needs of students and the desktop/software needs of departmental faculty and staff. While the student consultants have a diverse set of skills and knowledge, they need to provide consistent customer service for the software and systems we support.

Since funding at our small university doesn't allow for staff to provide training to students on a regular basis each semester, we began researching online courseware options.

We chose SkillSoft; the response has been enthusiastic. Using their curriculum, we designed a training program whereby student consultants progress from basic to advanced classes. Each consultant is responsible for completing a specific number of courses per semester, ranging from desktop support to network troubleshooting. At the end of each semester, they may be eligible for a raise based on their coursework completion and actual hours worked. When they complete several semesters of courseware, they are then prepared to take the Microsoft Desktop Certification Exam if they desire.

Our primary goal is to improve customer service among our student consultants. Secondly, SkillSoft programs are also being utilized by IT staff and UM’s Library and Residence Life technology assistants. In addition, we are pleased that there is significant interest in offering SkillSoft to other campus department personnel.
"You Know More Than You Think You Do" - Helping Participants Transfer Knowledge

Software training can be challenging, particularly with complicated programs and new users of technology. However, there are ways to help people get over the "fear factor" of trying something new by putting information in a context that makes sense to them. This may be by pointing out commonalities across programs, or by using analogies that make sense to a particular user population.

By using visual clues, you can help participants transfer skills and knowledge from one software program to another. While this is especially true across programs from the same vendor (for example, transferring skills from Adobe Photoshop to Adobe Illustrator, or from Microsoft Word to Microsoft PowerPoint), there are also many visuals that are the same across a variety of programs. By making users more aware of the cues with which they are already familiar, you can help them gain confidence and reinforce their skills.

Using scaffolding techniques like analogies that strengthen the concept being taught, you can guide participants through new or unfamiliar tools by building on previous knowledge that they may not have realized they possessed.

This paper focuses on techniques - including improving visual skills and analogy - that can help your participants get the most out of your one class session.

Multi-platform Computer Labs and Classrooms: a Magic Bullet?

Although the idea of multi-platform computers has been around for a long time, the recent convergence of both the Mac and Windows worlds to Intel hardware has brought this concept to the forefront. Throw in the latest in virtualization technologies, and it is now technically very possible to offer Mac OS X, Windows XP, Windows Vista, Linux, and more all on one single computer. Solutions to allow multi-boot configurations, virtualized operating systems, and API emulation all conceivably mean that a computer lab or classroom could be outfitted with only Macintosh computers, but still be able to provide a range of computing platforms.

There are both costs and potential savings to this approach. Some of these come in the form of direct expenses on hardware and software while others are more in the form of administration, support, and training time. Ultimately, a multi-platform lab must meet the needs of the faculty and students who use it. Are the compromises or complexities of these systems detrimental to the actual teaching and computing needs? The University of New Hampshire has been exploring all of these issues as we look towards classrooms slated for new computers in the summer 2007.

Computer Lab Solutions for Everyday Problems

This paper provides a background overview of the inception, design, build and implementation of Seneca College's customized lab management service featuring a multitude of computer lab tools in the support of the teaching and learning process. Based on numerous identified needs and designed for our environment, with continuous input from the college instructors, this work in progress continues to be modified and updated with new services.

Conjuring Funding for Services

Funding for programs vanishing? Do requests for new services seemingly appear out of thin air? Conjure funding for new resources through fee-based services. At the University of Oregon, School of Architecture and Allied Arts we have successfully implemented a large-format color printing service that is completely self-funding. By using a pay-to-use funding model we are able to provide on-going digital imaging services to the campus that are unaffected by the ups and downs of grant funding or general budget changes. Fee based funding also gives us the flexibility to create resources for new services and provides a sustainable framework through which they can be maintained. New services that we have been able to add include slide/film scanning, large format document scanning, large format paper trimming, promotional poster printing, additional staff, and better communication with the computing services department. We are now in the process of exploring new services in digital fine art and art reproduction.

Seem like magic? Hopefully, our experience developing a digital imaging lab can help inspire you to create a little magic of your own.

What Happens at the End of the Outsourcing Contract

The concepts of outsourcing and right sourcing are given great consideration in higher education. I will cite some reasons for outsourcing and some of the reasons for why it does not live up to its expectations. I will look at the history of one institution that decided to abandon its outsourcing decision. I will examine the consequences of the decision to move from an outsourced IT provider to an in-house staff. The primary conclusion is: we should prepare the exit strategy for outsourcing at the time of contract negotiation.
American ITIL

ITIL® (pronounced 'Idol'), or Information Technology Infrastructure Library, is gaining popularity in the management of IT Services...not just in Industry but in Higher Education as well. Hobart and William Smith Colleges is beginning to use the ITIL® framework to transform the way it provides services to the Colleges. During this session, the CIO and Director of Operations and Technical Support from Hobart and William Smith Colleges will walk you through how the Colleges are using ITIL, including Incident Management, Problem Management, the beginning stages of creating a Service Catalog, developing internal Operating Level Agreements (OLA’s), establishing Service Level Agreements (SLA’s) and creating metrics. Approaching service in this way, will allow you to create meaningful metrics that the customer can understand and that the IT support personnel will buy into. Involving key customers and IT personnel throughout the process is critical to success. We will talk about our approach to involving both IT support personnel and customers in each step of the process.

The Magical World of an Information Commons

The Oberlin College Center for Information Technology and Library, as well as representatives from other groups on campus, began working on the development of an Information Commons, which we now call an Academic Commons, in early 2006. Our initial proposal stated “In response to changes in student learning patterns, changes in libraries and educational technologies, and perceived campus needs for improved academic community and cultural space, a group consisting of representatives from the Library, the Center for Information Technology, Audiovisual Services, and the General Faculty Library Committee has been discussing preliminary, broad outlines of a plan to create an information and learning commons on the main level of Mudd Center. Since that time, we have acquired funding and the authorization to proceed. The Academic Commons is expected to be completed by the start of the 2007-08 academic year. It will provide a “magical world” of library and IT resources, including an electronic classroom, student computer help desk, information desk, multi-media facility, many more computer workstations, group study rooms, and a café. This paper will describe the process from start to finish, with a focus on the magical outcomes!

Vista Preparedness at Indiana University

In June of 2006 the Director for User Support at Indiana University (IU) issued a mandate stating that the organization should begin to prepare the support infrastructure for the release of Microsoft Vista and Office 2007. The goal: to ensure staff was trained and documentation in place to manage what could be a huge load on user support resources.

A ‘Vista/Office 2007 Readiness Team’ was assembled. The team consisted of members from across the University Information Technology Services organization; experts in the areas of Frontline Support, Knowledge Management, Messaging, Security, Student Technology Centers, Residential IT Services, Local Support Provider Services and User Communications. With access to beta versions of Vista and Office, the team was able to do extensive testing of the products and identify potential problems.

User communications was an essential element of the Vista/Office 2007 Readiness project. While the various technology experts shared insights regarding technical problems the User Communications and Knowledge Management teams were there to take that information, distill it into a form readily digested by the average user and then construct a plan to communicate this information to the users.

The group’s experience proved that educating a user community about high profile IT issues is best done in an environment in which information is shared across relevant segments of the IT organization. It is assumed that this model will work for future large scale implementations at Indiana University.

Windows Vista: Implementation Challenges

Since Windows Vista was released in January 2007, Lehigh University was eager to start the task of planning for the campus wide implementation of Vista – until it was tested. There were numerous incompatibilities with various systems and software packages on campus which left the University’s technical staff scrambling to find solutions. In many cases, the roadblocks encountered included a variety of issues including: hardware limitations, driver incompatibilities and peripheral incompatibilities but in many cases it was outright software incompatibility. In November 2006, Lehigh created a Windows Vista Task Force to look at specific problems relating to Vista and to start planning for the numerous problems anticipated when students, faculty and staff start showing up with Windows Vista and the numerous questions to follow – why doesn’t my computer work with the campus network? What do you mean I don’t have enough RAM to run Vista? Why doesn’t the university site-licensed software work under Vista? Why can’t I sync my handheld with university calendaring system? Why don’t my network drives map properly? This presentation will outline the Vista planning process at Lehigh, the major problems encountered, the problems solved and how Lehigh is planning for the future.
Using Marketing to Put the Sparkle Back Into Your Training

Although I have been a Computer Application Training Specialist at Saint Louis University for 11 years, one of the challenges that I faced was low class attendance. To overcome faculty and staff apathy and unawareness, I knew that I needed to grab the potential customers' attention. Once I captured their attention, I needed to hold their interest long enough to make them aware of the service I was offering. Therefore, it was my goal to learn how to market the classes so that I could fight the apathy and attract potential and past customers to our computer application classes.

To achieve my goal, I gathered as much information on marketing a training program. The research material helped me to realize that to be strategically sound the ad or advertisement must be carefully directed to a certain audience. Furthermore, in the creation of an advertisement, the use of careful wording and eye-catching headlines is critical. I wanted to target the objective and tailor the message so that I could appeal to the concerns of the consumer. Engaging the emotions of the consumer assisted in making the advertisement memorable, and improved consumer attitudes toward the product. The next step entailed selecting the right method of communicating the advertisement to the audience. The decision was made to send the advertisement electronically and via inter-office mail.

Once the advertisement was delivered to the audience, a relationship was developed between the consumer and myself. I had to decide how I would manage the relationship and keep the lines of communication open. A decision had to be made as to who would handle the questions and enquiries that might be generated after the advertisement? How often would an advertisement be sent to the consumer? We were able to accomplish this by understanding the makeup of our audience, and committing to this new role. The results showed that the classes that were advertised more than doubled in attendance.

The purpose of this paper is to share my findings, to discuss the challenges, and my success in developing a marketing strategy to attract potential customers to our various computer application training classes.

Looking for Magic - Hoping for Inspiration: What We Learned from Our Training Survey

What do you do when the attendance in all of your workshops drops to fifty percent? This isn't a sudden drop. It is something that you notice has been happening over several semesters. These are workshops that you've been offering for years.

Does that mean that you've saturated the campus? Or, are your workshops old and out dated? You've been revamping them to the new versions of software, but has that been enough?

Are you meeting the training needs that people are expecting? What are those training needs? Are those training needs what you thought they were? Are you offering workshops at the right time? Should you be offering evening and Saturday workshops?

These are all questions our department, Instructional Services at the University of Kansas, found ourselves asking about the workshops that we offer. During the spring and fall semesters, we offer a range of over 40 different types of workshops with about 100 workshop time frames during the semester. These workshops are open to faculty, staff and students as well as KU affiliates.

During the past several semesters we've noticed a dramatic decrease in attendance. We wanted to take a hard look at our workshops. We put together several different surveys targeted specifically at faculty, staff and students. We planned to make these surveys available through a new feature in our portal that everyone at KU has the ability to access with authentication. We will share our results and how we changed our workshop structure.

Tulane Faculty Symposium on Digital Trends: An Experiment in Instructional Technology and Outreach

In many universities, instructional technology groups struggle with creating new opportunities for collaboration with faculty. Nonexistent or infrequent communication, overburdened workload, and lack of active outreach and resources prevent the full and appropriate utilization of instructional technology teams.

At Tulane University, these challenges are being addressed through a multi-faceted program designed to bring instructional technology and faculty into a mutually beneficial partnership. One aspect of this outreach program, the Tulane Faculty Symposium on Digital Trends, was specifically designed to introduce faculty to the instructional technology group and instructional new media topics through discussion-based sessions on current technology trends. This program was launched in March 2007, and the response from campus faculty has been overwhelmingly positive.
**Traversing the LMS Terrain**

With the emergence of strong open source contenders in the Learning Management System (LMS) arena, many schools are evaluating whether to stay with one of the commercial LMS products such as Blackboard/WebCT or moving to one of the open source solutions which are free to use, but offer no corporate support. There are many factors contributing to such a decision beyond price including migration from a current LMS, technical and faculty support and buy in. In the end, it is a decision that an institution needs to be well informed to make.

This panel will discuss the approach of several small schools in making this decision. Each panelist will share why they chose their LMS, give a short demo of the interface and some of the features of the LMS, discuss the implementation process and describe any lessons that they have learned during the process.

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**From the Silent Generation to Generation X, Y and Z: Strategies for Managing the Generation Mix**

Today’s workplaces are not only culturally diverse, but also generationally diverse. The Silent generation (pre World War II), the Baby Boom generation (1946-1962), Generation X (1963-1977), and Generation Y (1978-1986), all have different workplace values and needs. This can create a challenge for the manager who works with a generational mix of team members. Today’s younger employees have different values and needs than those of their more “traditional” colleagues of the Silent and Baby Boom generations. For example, Generation X and Y employees saw their Baby Boom parents work so much that often family was neglected and, for all of the overtime hours of work, see their parents still struggle with retirement decisions and finances. These were the “latch-key” children and so younger generations want a balance between work and a personal life. They will not give up all of their personal time for the benefit of their employer like their parents.

When you examine the various characteristics of each generation and understand their life experiences, you can see what has shaped their roles in today’s workplace. Each generation’s values are different and understanding these differences, while identifying misconceptions, can lead you to successfully managing this diverse group.

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**T.W.I.S.T.: Trust the Wisdom in Student Teams**

Can students and student teams enhance, expand, and complement your IT organization? Learn how Illinois Wesleyan developed students from mere “financially attractive options for staffing” into “essential components for IT support.” We’ll discuss addressing initial challenges and considerations, creating student teams solutions, and developing student resources, as well as what did and did not work for us.

Watch the magical outcomes when you “Trust the Wisdom in Student Teams”! Use these essential components of student teams and enhance the resources within your institution.

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**Measuring the Effectiveness of CIRCA Operations Training Program**

The Center for Instructional and Research Computing Activities (CIRCA) at the University of Florida has a training program with the following design: philosophical approach, goals, training methodology, and evaluations. The philosophy is to train Technology Consultants (TCs) to maintain CIRCA as an institution and to empower them to offer the best service to students, faculties, and staff. The goals have been to improve the old training program, to evaluate the program to measure its effectiveness, and to encourage TCs to work professionally in four labs to maintain CIRCA as an institution.

The program has eleven training sessions arranged in two phases, and it is offered every semester. Phase I covers policies and procedures and how to work with the hardware. Phase II deals with the most common software that users use in the labs. Lectures are offered with one of the following participatory methods: group discussion, role-play, and brainstorm.

Evaluation is carried out by testing knowledge, skill, performance in the labs, and trainees' degree of satisfaction toward each session of the program. All questions received in our labs are recorded per week. Trainees must have 100% attendance, pass the knowledge and the skill tests, obtain at least a moderate score in the performance test, and submit all questions received per week to satisfactorily complete the program. The evaluations and the questions received in the labs help to modify the main topics covered in each phase, to change lesson plans, and to adjust participatory methods. We have successfully implemented this program since Fall 2000.
Tuesday Morning

Experiences Merging Two University Websites

The University of Toledo (UT) and the Medical University of Ohio (MUO) merged in July 2006 to form the third-largest public university operating budget in Ohio.

While the merger meant bringing together two distinctly different Web development groups, it was also an opportunity to reevaluate everything from Web tools, applications and programs to processes and management.

UT has been allowed to reinvent Web development through the merger process. Staff, applications and processes have all been evaluated and revamped.

The first step was creating a merger team representing Web developers, programmers, server administrators, content managers and management who collaboratively reviewed all aspects of Web development and made decisions that carved the path for the future of Web at the new University of Toledo.

The team created a strategy supported by administration that included a content management system (CMS), Web applications standardization, a consolidated platform and a centralized approach to Web content support.

Working within the new university brand, a new site and navigation structure was introduced that utilized the strength of the CMS, addressed accessibility and took into consideration the needs of the new university and as well as better use of staffing in Web and Technology Support.

Additionally, Web development has taken a strategic role in incorporating Web and interactive technology into marketing strategy for the new university.

Believe In Magic: Creating a Shift Substitution System with No Budget

This paper describes the process Lab Services that the University of Tennessee, Knoxville used to create a shift substitution system, including the requirements needed and the technical reasons for changing certain policies.

How to Hire 100 Student Employees in 4 Hours

The Office of Information Technologies at the University of Notre Dame employs over 100 students in our computer labs. Two years ago we changed the entire process and hosted a “job fair” where students could stop by, fill out an application, test their technical skills in a hands-on “obstacle course” and be interviewed the following week by the student managers of their preferred computer lab. The net result is that our hiring process is compressed into 1 day, and, while intensive, we have found that everyone involved prefers to have the process shortened. We will discuss the overall process, the publicity used on campus, and the part student managers play.

Developing an Equitable Tardiness/Attendance System

How do you compare two student employees who have different tardiness and attendance issues? It’s not easy. Some student employees have issues with tardiness, some have issues with attendance, and some have issues with both tardiness and attendance. In an effort to make sure that disciplining employees for such issues is equitable, we developed a point system. Points are assigned to various tardiness and attendance issues, and in a semester, student employees are allowed to accrue no more than 12 points. We developed this point system in conjunction with our student employees to ensure their buy in” with the assignment of points for various tardiness/attendance issues. It has worked well for us, and to continually improve this point system it has evolved and will likely continue to evolve.”
Open Source - a Practical Solution

A small group in the Amherst College IT Department was given responsibility for researching new ticket tracking software during the spring and summer of 2006. The help desk staff had been using purchased software for several years and had learned to live with the quirksiness of some of the modules, the costly maintenance fees, and more importantly, the resistance from other groups within IT about using it. Open source became our mantra for the cost-saving benefits, but we had to embrace the same programming conventions (Java, PHP, and Perl) and database infrastructure (SQL) we used for other systems. The wish list included finding a solution that would allow future API integration with a knowledge base and self-service module. We also knew it had to have a web-base interface, a relatively sophisticated search function, automated email notification system, and provide a queue-oriented navigation schema. Lastly, the software implementation had to coincide with the rollout of a new Content Management System scheduled for mid-January of 2007. This gave our team less than six months to research and recommend software options for testing, make a decision based on the criteria from our ‘feature wish list’, and have the software available for use by January. This presentation will provide insights into the realm of support for open source, the surprising collaboration between internal and external constituencies during the research and implementation process, and how this experience has affected our support initiatives.

Ursula Or Ariel? Is Your Help Desk Application Evil or Good in the Eyes of Your Support Staff?

This is a panel discussion on the pursuit, selection, and evaluation of a help desk software application. We are well into the process of selecting a new help desk incident and call tracking application to replace our much-despised one. This is a familiar and well-traveled path for many help desks at colleges and each seem to approach the process anew. We will share what we’ve learned, including the application selection process, using an RFP, overcoming organizational hurdles, and tackling other obstacles in the hopes that others can build upon our foundation. We expect the audience will by and large have some level of experience with this and will lead a discussion in order to share knowledge and learn from each other’s successes and failures. Together we can share our experiences in order to get to a happy ending.

Overhaul Your Helpdesk Ticketing System

Before implementing the Footprints helpdesk ticketing system MassArt had a homegrown system that was not user friendly and therefore by and large, unused. Does this sound familiar? The college needed a comprehensive, centralized, and customizable solution for issue tracking and technology requests. The new system was implemented in August 2006 and now ten months later we have closed over 1700 helpdesk tickets. This paper will cover the following:

- evaluation of products
- initial installation, setup, and implementation
- learning curve for staff and users
- initial problems and training
- tweaking the system
- working with the vendor
- steps to success

The package that we implemented at MassArt was Unipress* Footprints 7.0 (Footprints), we have since upgraded to 7.5 and have worked closely with Unipress to customize the product to our needs. Footprints is linked to our LDAP server for authentication, has a dynamic-link address book, and has built-in reporting and survey tools. We have been able to track issues very closely as well as increase productivity and accountability of work with this new system. The software is 100% web-based and runs on a Windows 2003 Server. The customer response has been 99% positive and we are very happy with our system thus far. This presentation strives to answer any questions that there may be about implementing a new system like this. The target audience is IT staff who either do not have a system in place or who are looking to implement a new system.
Drag and Drop Streaming: the Next Revolution in E-Learning

The Virtual Technology Center at the University of Houston has developed a web application, called VClass, that completely automates the process of capturing and publishing in-class lectures on the web using nothing more than a standard computer.

The captured lectures are distributed to students as streaming video that includes audio, notes, and any projected media.

Beyond classroom capture technology, VNet also features numerous course management features such as assignment posting, discussion forums, and announcements.

After just 2 years more than 200 courses are using VNet at the University of Houston to publish more than 11,000 resources. VNet receives over 1,200 unique users daily from all over the world – including Venezuela, Brazil, China, South Africa, France, Mexico and Iraq.

This presentation will cover how VClass functions and how VClass has impacted teaching and learning at the University of Houston.

Teleteaching Anywhere Solution Kit (tele-TASK) Goes Mobile

Tele-TASK is a tool for recording lectures and presentations. It does not only record the audio and video of the speaker but also everything happening on the presenter’s computer. No matter if he is showing a Powerpoint presentation, a software demo or even the BIOS configuration of the computer, tele-TASK is able to record, encode and stream the whole presentation out of the box. The result is one synchronized and platform independent multimedia video in the RealMedia format. Hundreds of Tele-TASK lectures are already available online (http://www.tele-task.de). Apple has a big success with the release of the iPod series and accessories. It enables the user to carry around music and videos, play them back while he is on bus or even use it as a digital multimedia library accessible via your TV set. Unfortunately the video iPod is neither able to play videos encoded in Real format nor to play back several videos at once.

Current development in e-learning technologies aims to make learning and teaching available everywhere. In the stream of this evolution, the Web-University Project at the Hasso-Plattner-Institute explores and studies novel Internet- and IT-technologies with the aim to enhance university teaching and research. This paper describes how we extended our teleteaching system to supply the learner not only with streaming media but also with additional iPod-ready lecture recordings and presentations in order to enable mobile learning wherever the learner likes to.

Seeking Activity: On the Trail of Users in Open and Community Source Frameworks

Usage data captured and logged by computers has long been an essential source of information for software developers, support services personnel, usability designers, and learning researchers [1,2]. Whether from mainframes, file servers, network devices, or workstations, the user event data logged in its many forms has served as an essential source of information for those who need to improve software, analyze problems, monitor security, track workflow, report on resource usage, evaluate learning activities etc. With today’s generation of open and community source web-based frameworks, however, new challenges arise as to how, where, and when user activity gets captured and analyzed. These frameworks’ flexibility in allowing easy integration of different applications, presentation technologies, middleware, and data sources has side effects on usage data: fragmented logs in a wide range of formats often bestrewn across many locations.

This paper focuses on common issues faced especially by academic computing support personnel who need to gather and analyze user activity information within heterogeneous, distributed open source web frameworks like Sakai and uPortal. As described in this paper, these kinds of challenges can be met by drawing upon techniques for coordinated distributed event monitoring along with some basic data mining and data visualization approaches. In particular, this paper describes a work-in-progress to develop an approach towards building a distributed capture and analysis systems for a large production deployment of the Sakai Collaboration and Learning Environment in order to meet a wide range of tracking, monitoring, and reporting log analysis in one university setting.
**Implementation of File Interpolation Detection System**

Recently we have found a high possibility to encounter file interpolation and Web defacements by vicious crackers and software. It is not easy for us to find such interpolated files because of the numbers and volumes of files are great in computer systems. We need a good tool such as “Tripwire” for that purpose. However, such a system is only for system administrators and not for users. It is also difficult for administrators to set up the configuration file to do the suitable file check.

We implemented the file interpolation detection system for both administrators and users. The system detects insertion, deletion, and modification (interpolation) of files. Both administrators and users can check the files concerned to themselves and get the result. Users can update the file specification information in the database by command, then it makes the system possible to avoid finding of the error interpolation. The system can be periodically executed by CRON or on demand by users, and then compares the value of MD5 for each file to detect file interpolation. The system has the command line interface and Web interface.

The system first creates the database that contains full path file name, last update time, and values of MD5 according to the in-formation set-up by users that specifies the location to check for each user. It judges the insertion and deletion of files by the existence and no existence of records in the database. It also judges the file interpolation by the comparison with the value of MD5 for every file. It reports the result by e-mail, in command line interface, or in Web interface.

**UD Dropbox 2.0 Service: Collaboration Magic**

Project collaborators quickly realize that using e-mail attachments to exchange large amounts of information is less than optimal. Exhausted quotas and stringent attachment filtering can lead to e-mail messages being rejected by mail servers. At the same time, users become frustrated with lengthy transmission times and the inefficient handling of massive attachments due to e-mail protocols and client storage schemes. Alternative internet applications, such as anonymous ftp or web publishing, create additional problems for systems and collaborators such as security issues, access control, and overall inconvenience of use. To provide an easy-to-use, secure and efficient solution for sharing information with users across the internet, Network and Systems Services (NSS) at the University of Delaware developed the UD Dropbox 2.0 service. It allows a user to upload files and specify recipient e-mail addresses from a web browser. An e-mail message is sent to each recipient in lieu of the actual files and contains the information necessary to download the files via a web browser. The UD Dropbox 2.0 service software package is distributed by the University of Delaware under the GNU General Public License (GPL) and requires a web server with PHP support. This paper will explain the details of the UD Dropbox 2.0 service and why it is collaboration magic.

**A New Thought Paradigm: Delivering Cost Effective and Ubiquitously Accessible Storage with Enterprise Backup System via a Multi-tiered Storage**

Multimedia applications are characterized by their demand for high performance storage and computationally intensive functions. Ringling College of Art and Design is at the forefront of addressing challenges inherent to multimedia applications. In spite of using state of the art storage systems, we realize the need to raise our storage systems to a new level. This new level is based on the facts that the more data is managed centrally, the more economically and highly leveraged it becomes. Moreover, storage consolidation drives other consolidation such as servers and backup systems.

To raise our storage to the next level, we have developed and deployed an innovative three tiered storage framework and an enterprise backup system. Our framework takes advantage of our observation that active user data clusters are considerably smaller than the total user data clusters. Our three tiered storage system consists of the highest performance storage; good performance storage; and the highest capacity, lowest cost per unit storage seamlessly integrated to function as one system. From the user’s perspective, this system appears to use traditional file system structure and operations.

In this report, we will present our framework, implementation details, issues and challenges, lessons learned, and the results we achieved.

**Client Services Work Planning**

The Integrated Technology Services Department (ITS) at the University of New Brunswick recently started implementing unit work planning. Traditionally ITS has done high level work planning only at budget time. This case study will show how the Client Services Unit of ITS implemented work planning for its teams in an environment where this has never been done before. Client Services is responsible for 5 teams, Hardware Support and Repair Services, Publications and Communications, Client Support, IT Procurement, and Account Administration. The work planning process included: developing team mission statements and management plans; prioritizing the team’s work and developing tools to find out how busy we are; determining cyclical activities; tying work plans to team management plans and mission statements; and finally reporting and reviewing team work plans. The Client Services work planning process was implemented in September of 2006. A number of challenges were faced as the process moved forward. Team managers had to be on-board with the process and steps taken to address their issues. Work planning takes time and there was some resistance to its implementation. This presentation will cover both the challenges and successes of the implementation as well as where we are today. Finally, a number of next steps will be reviewed. The implementation of work planning has been an eye-opener to all members as the learning process continues.
When Disaster Struck: How Pennington Biomedical Research Center Supported an Entire Academic Health Center

How would you do your job tomorrow if you lost your physical space today? Just this one question probably makes your mind spin in all directions looking for answers. This paper will guide you through the process of starting up an entire campus that was destroyed by a disaster.

- SPACE – Should you partner with another university within your city or state for space to replace your physical office space?
- INGENUITY – Since Higher Education is not wealthy, can you find creative ways to collaborate?
- GOALS – “The Show Must Go On”. Can academic programs take a year’s leave of absence?
- UNITED – Is the IT Department now responsible for everything since every department uses the web to disseminate information?
  - Faculty curriculum, syllabus, and grades
  - Payroll, Business Office, and Budget data systems
  - Student computers left in dorms
- CASH – What funds would you access to set up a school, department, and network if your campus location and surrounding city was severely damaged by a catastrophe? You will need servers, printers, computers, software, and office space.
- COMMUNICATION – How do you contact your faculty, students, and staff? Do you have a Crisis Server already setup in an offsite location?
- SUPPORT – How large of a skeleton crew is needed during the post-emergency time for startup?

These questions will be answered in this paper. The process will start with the initial crisis meeting; take you through the setup of networks, classrooms, and faculty offices; discuss how to support the schools during their time on your campus; and finally talk about the day when they say “I AM READY TO GO HOME!”

Please and Thank You - Still the Magical Words: Training Student Employees to Provide World Class Customer Service

In 2002, I was asked to create a Student Employee Development Program in Information and Technology Services. This program was aimed at retaining students within our organization and assisting in the University’s goal of improving overall retention rates. As I established this new office, I met with each IT student supervisor and specifically asked what I could do to improve the job performance of our students. The feedback I repeatedly heard was that our students needed to clearly understand how to deliver customer service and that the delivery had to be consistent throughout the organization.

While our 300 student employees go through job-specific training at the time of hire and throughout their career with us, no one was providing any in-depth training on how to interact with our customers.

I developed a series of four mandatory training modules that lead to Customer Service Training Certification. Each module is comprised of one and one-half hours of group training. The four modules include an orientation to our organization and work ethics, delivering excellence in customer service, dealing with difficult situations in the workplace, and effective communication skills on the job.

The program is now becoming well-recognized throughout the University. The Rochester Leadership Institute allows students to substitute two of my classes for two of theirs in order to meet their Leadership Certificate requirements. The Finance and Administration Division is setting up an identical program for their 1000+ student employees in partnership with us.

We are convinced that our students are dispensing their outstanding customer service skills throughout the University community and this paper will address the methods used to achieve this magic.

Creating and Managing a Helpdesk In a Multicultural Environment

In the Fall of 2003 a new campus for Texas A&M University at Qatar (TAMUQ) was established in Doha, Qatar. This campus offers students a degree in either Electrical, Petroleum, Chemical or Mechanical Engineering fields just as if they were on our Main Campus. This paper will describe the history of how the Helpdesk within Information Technology Services (ITS) was created on the Qatar campus and how it is managed today in a multicultural environment. I will describe what happens to a problem ticket when it is submitted to the problem tracking system and the many challenges we encounter.
Who’s Really in Your Top 8: Network Security In the Age of Social Networking

Social engineering has been around for a long time, even at the college level. From the days when someone stood around a dormitory door waiting for someone else to open it, pretending to have forgotten his or her key, to today where virtually every college student has at least one online entity. Instant Messaging programs and Social Networking websites such as MySpace, Facebook, Ruckus, Friendster, LinkedIn, SecondLife, and even YouTube, encourage students to create online versions of themselves in an effort to share information and meet new people. While in theory this process may sound harmless, students are not only unwittingly allowing themselves to be targets of identity thieves, but they are also posing major security threats to university and college networks.

In a recent class demonstration, it was shown how a simple homemade application can be launched unknowingly through Internet Explorer (IE) using Web2.0 to disable IE, even with security settings at a high level. If a simple homemade application can disable IE without the knowledge of the user, imagine what is being distributed through MySpace bulletins and comments. I intend to conduct interviews with security experts and surveys of college students, to show students they unknowingly open themselves, and their campus networks, to malicious attacks. With the proper security solutions in place at the network layer, along with much needed user education, the dangers posed by social engineering can be minimized.

Virtualization’s Next Frontier: Security

Server virtualization improves sharing and utilization, reduces server sprawl, saves power, cuts maintenance costs, and reduces the quantity of hardware to acquire. While these benefits have traditionally been considered valuable and compelling reasons for server virtualization, there is a paradigm shift in the foundation in which higher education institutions are interested in virtualization technology. Server virtualization can improve overall system security and reliability by isolating multiple software stacks in their own virtual environments. Security is improved because intrusions can be confined to the virtual environment in which they occur, while reliability can be enhanced because software failures in one virtual environment do not affect the other virtual environments. In addition, server virtualization simplifies an array of security related tasks from disaster recovery, forensic analysis, to intrusion detection and prevention. At Ringling College of Art and Design we are approaching security by virtualization and achieved noticeable results. In this report we plan to discuss our approach, framework, implementation details, lessons learned, and next steps.

Tuesday Afternoon Poster Exposition

A Little Help from My Friends

During the past five years, we have had the ability to design our publications with the support of students in the Penn State Art 475 class. The synergies are apparent: we receive fresh design ideas and the students receive "real world" experience.

Each semester we work with Professor Lanny Sommese and his students in designing the main covers of the ITS Academic Computing Newsletter (http://css.its.psu.edu/news/itsp07/) and the "Your Guide to ITS @ Penn State” (http://css.its.psu.edu/internet/).

This poster session would describe in depth the project of redesigning the “Your Guide to ITS @ Penn State.” During the spring semester 2007, Art 475 students redesigned this publication. In addition to a graphical redesign, this year's class reviewed the content of the publication as well, emphasizing what is relevant to them.

What follows in this paper is a discussion of the amount of student involvement, the supervision time, the updates and changes, and the fun involved in working with Art students.
Bippity, Boppity, Boo: Magical Presentations Using Color and Large Format Printing

IT User Services at the University of Delaware offers students, faculty and staff large-format color printing to enhance presentations and graphic communication in a cost-effective manner. We offer support for their projects from start to finish. Extensive documentation and one-on-one help is available to assist users in designing their documents for large format color printing, configure their print drivers, and create and view their documents as PDF files before printing the final copy.

The response to printing large-format color documents on campus has been overwhelming. We have seen an increase in volume due to contests, advertising for departments, campus-wide campaigns, conferences, and course-specific projects. Our convenient location, inexpensive pricing, and extensive support all contribute to the success of the service.

This poster session will cover the hardware and software evaluation process, configuration, printing material selection and costs, cost comparisons and recovery, and ongoing support for this service.

A Course’s Comparative Analysis: Traditional Classroom and Distance Learning

Inter American University of Puerto Rico (IAUPR) is a private institution that recognizes that technology and information systems are essential in teaching and learning processes. Since 1987, the university incorporates into its curriculum a course that prepares students to effectively use computers and software tools in their university preparation, and in their professional life. This course is part of the General Education Program, where it is required for any bachelors’ degree from the institution. This course is classified as “Basic Skills: Access to Information and Computers”. A code and title of course are: “GEIC 1000-INFORMATION AND COMPUTER LITERACY.”

Two years ago, the metropolitan campus of Inter American University began offering this course by distance learning. This paper will provide a comparative analysis of this course on two modalities: traditional classroom and distance learning. The statistical analysis focuses on retention index, course approval, and final grades. We also analyzed a student profile based on age, and credits/hours approved.

12 Steps To Recovery: My Codependent Relationship with Tivoli

Several years ago Baylor University moved from a passively managed data backup model to an actively managed strategy. As much as we would like the responsibility for data backup to reside with the owner of the data, we realize that in most cases this does not hold true. Our clients’ expectation is that the Information Technology Systems (ITS) department is backing up their data. In the past, data backup was not likely to be something our client gave any thought to. We often did and still do see faculty members working on research, publications or databases requiring hundreds of hours of work. Users will often keep the only copy of the file on the desktop of their PC. As portable storage devices (flash drives) have come down in price, we are now seeing users backup a copy of a file to a flash drive in order to work on it at another location. They will usually copy a file here or there but usually not for disaster recovery purposes. Although most of the computers on campus have read/write to CD or DVD capabilities, again we don’t typically see our users archiving their files unless we instruct them to do so. We see that there is often confusion on their part as to what data is accessed from the client’s hard drive and what data actually resides on a server.

The storage solution used for Staff/Faculty electronic data at Baylor University is the Tivoli Storage Manager® software program. The support side of ITS was not involved in the decision to migrate to this software so we were not prepared for the amount of attention that would be required. Tivoli Storage Manager® is a powerful program and from a Help Desk or Client Support standpoint, it was a high maintenance relationship from the beginning. We tried unsuccessfully to rid ourselves of this time consuming and frustrating relationship. Later we realized that as much as Tivoli needed us, we needed Tivoli. Much like any other codependent relationship, we’ve had our ups and downs. We like to believe that we have reached a point of happy coexistence with Tivoli and we’d like to share the journey we took to arrive at this place. We also realize that like any other relationship in our lives, it requires effort on our part to ensure that the data backup process continues to work in a smooth and consistent manner.

We may not be able to change the need for the software or the software’s need for our attention but a shift in thinking can open up different ways of handling issues that come up in a positive and productive way. We will use the premise of a 12 step program used to recover manageability to one’s life as a basis for the presentation of our data recovery program.
The Dual OS Classroom: If You Build It, Will They Come?

The University of Southern Maine needed another computer classroom, primarily to meet the needs of faculty who utilize Macs or those with small, often upper-level classes. The opportunity presented itself to inherit a space that had previously been used as a Foreign Language Lab. We purchased thirteen Intel Core 2 Duo iMacs. We settled on Parallels Desktop for Mac 2.2 running Windows XP on Mac OS X 10.4 (Tiger) to allow simultaneous running of both operating systems. By the time of this presentation, we will have experienced with the latest version of Parallels Desktop for Mac running Windows XP and Vista, and Apple’s latest release of Boot Camp, also booting Windows XP and Vista. Two Software Support Specialists collaborated on the process behind the scenes, spending several weeks refining the final product. Some of the issues encountered included: early adoption of beta software (Parallels and VirtueDesktops); choosing between Faronics Deep Freeze for the Mac and Centurion Technologies MacShield (both new to Intel Macs); configuring settings for simultaneous IP connections on each platform; implementing our authentication (login) process; incorporating our in-house pay-for-print system; investigating Parallels Coherence mode pros and cons; utilizing WinBatch and other third-party tools for machine customization; and choosing a disk imaging solution.

Getting IT into the Orientation Mix

At the University of Illinois at Urbana-Champaign, we believe that when incoming students know more about computing services that are available on campus their initial college experience is enhanced. In order to educate incoming students about IT, CITES (Campus Information Technologies and Educational Services) set out to partner with non-IT groups (e.g., Office of the Dean of Students and the Office of Student Affairs). To build these partnerships, CITES adopted a more campus-wide perspective with regard to IT and developed an internal culture that enabled us to take advantage of orientation opportunities. While our orientation efforts have concentrated on incoming students, we have also participated in events for faculty and staff at the University.

Implementing Preinstallation Environment Media for Use in User Support

The cost of flexible tools for servicing computers, especially those involving multiple licenses, can be a roadblock for some IT Support departments. To help support staff provide faster service, our department is working to implement a Preinstallation Environment (PE) media for use as a tool in cleaning security attacks, data recovery, and repairing Windows installations. While in some cases a simple ChkDsk /r at the command prompt is sufficient to fix errors, at times, more diagnostic work is needed. In cases such as these, a user’s data needs to be retrieved and stored. In our environment, the hard drive is usually pulled from the chassis, transported to another office on campus, then attached to a secondary system to be worked on. We are in the process of building and testing a bootable PE device in which a system can boot from a CD/DVD or USB device where additional tools can then be run or data recovered at the location of the system. We then plan to create additional devices for the support staff to use when they are dispatched to an office. This presentation will review the design and creation of this tool and the benefits it provides. Compared to other more expensive commercial products, our purpose is to build a flexible, cost-effective solution.

Implementation of Software License Management Support System

Managing the software license in PCs is very important and difficult. Many companies pay much attention to making sure the software is used legally even using expensive tools to verify this. In universities, it is not easy for teachers and students to manage the software license because students graduate every year, they do not like the centralized control for their PCs. Teachers and students need easy and reliable tools to find the status of software in PCs. We implemented the Software License Management Support (SLMS) system to improve the situation.

We implemented a program in Visual Basic 6 that provides the name of all software installed in PCs easily. Users can upload the software information to the license management server via a Web interface, register, update, and display the license information of software via this interface in the system. As a result, users can confirm the software license that they are using in their PCs.

We are operating the software license management support (SLMS) system in our laboratory. It provides us with enough information about the software installed in PCs. Users can set the license information in the database of the SLMS system and check them. The administrator can also check the license status such as no license and the multiple use of one license certainly. It helps users and administrators to make clear which software is installed and which license is used in the PC.
Creating a Story and Message about Information Technology on Your Campus: The Power of a Technology Profile

The Office of Information Technology (OIT) and the Center for Instruction, Research, and Technology (CIRT) at Indiana State University provides an annual Technology Profile to its user community to document the activities of the prior year and to share information about growth and progress in the area of technology with the campus community. In its fourth year the document has been recently aligned with the Information Technology Infrastructure Library (ITIL) as a way to facilitate high quality information technology service delivery. The employees of OIT and CIRT are committed to providing the students, faculty, and staff of Indiana State with stable and robust state-of-the-art technology in support of their academic, research, administrative, and social activities. This paper focuses on the process of developing ITIL alignment and the construction of the Technology Profile which can be found online at: http://www.indstate.edu/cirt/comm/profile.htm.

Poof: No More Viruses

American University’s office of Information Technology (IT) deployed Cisco Clean Access (CCA) across the student network in 2005 to combat the continual rise in virus and spyware infections. After two years, there has been a 79% reduction of malware infections reported by our students to the IT Help Desk. Several factors combined to facilitate the tremendous success of this Network Admission Control (NAC) implementation. These factors included: extensive communication with users; requirements selection, which reflected a thorough analysis of requirements to address the greatest areas of risk in the simplest way possible; and development of custom software tools to simplify the process of performing individual updates. After the dramatic reduction in malware infections for the student population, IT is in the process of transitioning all AU staff and faculty to CCA during the spring and summer of 2007. Due to an accelerated timeline for deployment and the unique needs of staff and faculty, IT developed a new transition strategy that leverages AU’s existing Novell infrastructure and new features of CCA to create an almost seamless transition for the end user. As CCA is enabled in each department, machines can be silently evaluated to determine if they meet AU’s requirements and new applications and patches may be deployed through the use of login scripts. The end result is magic. Therefore, IT is prepared to quickly and painlessly migrate all 3400 staff and faculty to CCA within months.

Toward a Software Development Model for Automatic Marking Software

In recent years, we have developed several automatic marking systems and used them for marking students’ programs, Word files, Excel files, and e-mails in our courses. The automatic marking software provides an effective way to know students’ learning states, and enables us to conduct many tests in a large class or an internet online class. Teachers can give students more appropriate instructions and advice referring to the information collected by the systems. If we can expand the use of automatic marking software for other subjects, more teachers and students would benefit. However, developing reliable and efficient marking systems using conventional methods is a difficult and time-consuming job. To help programmers develop automatic marking systems in a clearer, more systematic way, we need a software development model for automatic marking systems. Through development of our systems, we found common structures among several different systems. Generalizing the structures is a first step towards making the model. In this paper, we share our experience of developing automatic marking software and using them in our classes. We then formalize generalizations of the automatic marking systems.

Tracking System Bugs: Why Are Buffer Overruns Still Around?

A buffer overrun is caused by the limited size of a string variable’s allocated space and the unlimited size of the actual string that is stored in the space. In the C programming language, it is the programmer’s responsibility to make sure the actual string size does not exceed the size of the space allocated for it. However, programmers sometimes fail to put in the necessary checks for string size. It is possible, when programming in C, to write past the end of the current string and into the allocated space for an entirely different variable. The affected variable may or may not be another string. However, the integrity of both variables will be compromised. This paper will present the results of an experiment which shows exactly what happens when strings and other variables are compromised in this way. Writing beyond the end of a string allocation seems like a trivial problem. These faults should be easy to find and fix. However, in reality, they are nearly impossible to find in many situations. The experiment makes the problem very clear so that everyone will understand why these faults are not easy to find and fix before they cause serious problems. Since this is a C programming language problem, and both Windows and Unix operating systems are written mostly in C, many system errors may be a result of this problem. Understanding the problem can save countless hours in system debugging.
Jerry Martin, The Ohio State University

**Working and Training from Home**

Due to a serious illness of a family member, I recently needed to perform a large percentage of my normal work duties from home. These included the easy things like reports, e-mail, and documentation. The more difficult tasks were attending meetings, held sometimes in rooms with very little technology, and training. During training I needed to see what the student was doing on their computer, as well as being able to demonstrate on a large screen projection system in the same room. In addition to the technical challenges, the needs of the family members at home had to be balanced with work, sometimes both needs were concurrent.

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Trevor Murphy, Williams College

**A Tale of 101 Digital Stories**

Digital storytelling at Williams has become a standard part of how ITech introduces the use of video to faculty, staff, and students. From 2002 to the present, Williams College has invited Joe Lambert and others from the Center for Digital Storytelling [1] at least once a year to conduct three-day workshops for eight to twelve faculty and staff on digital storytelling. Participants create a three to five minute video from still images, audio narratives, music, and sometimes video. Though learning the technology necessary to create and edit the final videos is definitely part of the workshop, a greater emphasis is placed on the art of storytelling and script writing. The culminating event of the workshop is the movie showing at the end of the three days.

The Office for Information Technology at Williams College has in turn used the Center for Digital Storytelling model of teaching digital storytelling to train students how to work with audio/video hardware; collect high quality audio, video, and still images; work with video editing and project management; and get to know each other in a new way.

This paper covers the process of teaching digital storytelling and examines the outcomes from providing this training to the faculty, staff, and students of Williams College through interviews with past workshop participants.

Ari Tencate, University of Washington

**Inspiring Collaboration through the Use of Videoconferencing Technology**

At the beginning of 2007 the University of Washington opened the Odegaard Videoconference Studio which allowed groups on campus to communicate with colleagues that were physically in different locations. The opening of this facility inspired all sorts of collaborating on a more frequent basis as traveling, and more importantly the time and expense involved with traveling, was now not as necessary in order to have a meeting.

Many boundaries for collaboration were removed through the use of different types of technology that allowed for video and audio conferencing, and, data and application sharing. This provided for a way to share ideas in more detail, make decisions, and receive feedback quicker, making the overall process more efficient, personal, and overall more effective.

Dustin Hopkins, Southeast Missouri State University

**Web-based Work Order System for Tracking, Reporting, and Solving IT Issues**

The Information Technology department at Southeast Missouri State University provides service and support to the main campus and three satellite campuses consisting of approximately 1,400 employees and 10,500 students. After years of using a homegrown mainframe technology work order system, a personal computer based commercial technology work order software was purchased and used to establish work orders for faculty, staff, and students. Advantages for changing this software were perceived to be improved knowledge-base, management reporting functionality, and updating to a PC based program. Shortly after installation, the software performance was found to be disappointing and the knowledge-base improvement was miniscule. Unfortunately, the finance manager of the I.T. department was not interested in purchasing a different work order system. When the opportunity arose to alleviate some of the associated problems or issues with the current purchased work order system at no cost, the Director of User Services was easily convinced to give a new PC based homegrown system a chance. The newly developed WebTrak was considered a success by the Help Desk staff and the supervisor is busily making plans to add further functionality.
Is Your Support Services Train Derailing? How One Integrated Software Package Got Us Back on Track

Loras College is a ThinkPad University and our IT Department was faced with several issues from a support standpoint that needed addressing. We were looking for an efficient way to image large quantities of laptops for distribution to our Faculty, Staff, and Students as well as manage the hardware and software in our mobile user environment. Our networking staff needed a way to enforce compliance of specific patch/security levels and remediate any vulnerabilities on systems before allowing them access to our network. Our Help Desk needed a way to remotely control our users both on and off campus to alleviate the need to send a technician on-site to work on their machines. The answer to all our problems was an application suite called LANDesk. LANDesk provides many useful tools and services which include: Image capture and Deployment, Remote Control, Trusted Access, Security and Patch Management, and a Software Distribution Portal. This paper takes a closer look at each of these applications in more detail and explains how they have helped us reach many of our support services goals.

Desktop Imaging to Achieve Standardization and Application Delivery

From 2006 to 2007 The George Washington University designed and developed an in house desktop imaging process. The process replaced the previous method of having one image for each department on campus and relies on Novell ZENworks. The new method utilizes one “Base OS Image” and a series of add on images. This allows a computer to be imaged in the field and applications to be installed on a la carte. The technician can re-base a machine and select from a list of applications to be installed with virtually no user interaction. All images are stored centrally on a network server, but can also be stored on a portable drive. This ensures only the latest and approved versions of software are being installed. Because this process only involves one OS image for all users, there is only one OS image for the imaging team to keep patched and up to date. Future developments include the ability to re-image machines remotely without losing user data and settings.

Image, Baby, Image! Making PC Cloning More Efficient

The task of imaging lab computers can be a complicated and manual process. University of Calgary Information Technologies Lab Services (IT Lab Services) has endeavored to streamline this process by developing an in-house system. This system addresses the issues of collecting inventory information, loading an image on to a PC, and configuring the PC after imaging.

A custom version of the Windows Preinstallation Environment by Bart Lagerweij (BartPE) is used to bootstrap the system. BartPE can be loaded from a CD or DVD on older systems and from select USB keys on newer generations. Within the bootstrap, custom scripts are executed to record inventory information, network speed, as well as starting the Ghost process.

Upon image deployment completion, the automated configuration process begins at the first reboot. A custom script which we term Declone names the PC from our inventory information and joins the domain. Other scripts configure the task scheduler and other post-imaging tasks. The post-imaging process is mostly standalone, only requiring network access to join the domain. It has also been modified for the use of pGina by XPA Systems, our LDAP based authentication system.

Another set of scripts are executed to verify proper naming of the newly imaged PC. The naming component is extremely important as many services depend on having the correct computer name.

This in-house imaging system has greatly improved the efficiency of our imaging process and has stood the test of time. We currently use it with Windows 2000 and XP Professional.

The Proper Care and Feeding of Your Help Desk

You are now comfortable with your role as your staff’s leader and they’re comfortable with you. You might even be able to leave for the duration of a lunch break with things under control. Almost all is right with the world, except...why do your staff members keep leaving?

The issues that lead staff members to leave a position are numerous. You yourself don’t want to be one of the problems simply because you aren’t sure how to properly care for your help desk. The question of how and why to show your staff appreciation is one of the most difficult to answer, because it will be different for each institution and may vary based on the type of staff you employ. However, to have a successful help desk, this issue needs to be addressed. Morale, work ethic, and motivation all can be severely impacted when a manager overlooks the importance of training, incentive programs and appreciation of the contributions of his or her workers.

In this paper we will discuss ways to acknowledge and appreciate your employees to keep your turnover rate low, how to use turnover to your advantage, and how to forecast trends in your staff in order to make the proper management adjustments. We will also explore how to make training a part of your incentive program and how proper training affects morale and productivity.
TAG You’re I.T.

With a new CIO on board bringing new methodologies, procedures, and department restructures, Valparaiso University’s Office of Information Technology was presented with the challenge of managing the changing culture of their department. Their answer: develop the TAG (Teamwork Achieving Goals) Team. This team was given the responsibility of providing social events for staff members; providing recognition for jobs well done; and providing seminars and quick training activities to enhance team-building, communication, and work styles. The development of the ABC (Above and Beyond the Call) award has provided only one of many avenues of recognition used by this team. Their first event, a root beer float social, included a prize drawing and a survey that assisted in the development of other events, seminars, and a web page to provide more information about each other and to allow new staff members to identify everyone in the department. This team has helped the IT department keep morale and motivation up through the transitions.

Williams Instructional Technology: Summer Students Working on Faculty Projects

Williams Instructional Technology (WIT) is a summer technology intern program hosted by the Office for Information Technology at Williams College. The WIT program started in 1999 as part of an Andrew W. Mellon Foundation grant. The goals of the program are to develop high quality web, video, multimedia, and other curriculum-related projects, provide an opportunity for faculty/student collaboration, and to provide technical and project development training for students, who can provide support for other campus projects in the future. The program has evolved to a setup where 12 student interns work in teams of 3 on 12 to 16 faculty-proposed technology projects. The projects range in scope from video/audio creation, 3D modeling and may include PHP programming, GIS, web design, animation, QTVR, or data visualization. This paper will present an overview of the program and examine the program’s outcomes.

Video Podcasting Is Not as Hard or as Expensive as You Think

A quick surf around the Internet reveals much in the way of video podcasts these days. The iTunes Store alone lists nearly 150 of these visual snippets with subjects that run the gamut from comedy to marketing, politics to the arts. But video podcasting in academia can seem like a leap of faith or at least suspension of better judgment. Most of us haven’t aspired to be actors or movie directors, lighting technicians or audio engineers. Making an instructional or informational video is something the A/V folks do in their mega-dollar studios, is it not? Our premise is that creating a video podcast to augment or enhance curriculum or IT support efforts can be as useful and usual as authoring a web page or creating a PowerPoint presentation. As a matter of fact, video podcasting is an evolutionary progression from those two tasks specifically, presenting your material in ways that prior methods cannot accomplish as directly or succinctly.

Using Video Podcasts Outside the Classroom

Many institutions are creating both audio and video podcasts of classroom lectures. Here at the University of Delaware, we are using videos in many creative ways. We take the most common consulting questions and create videos that instruct users how to solve those problems. Our videos complement our web pages and show people exactly what they need to do. With rapid changes we knew we needed to take a fresh look at how we kept our user community informed. The traditional methods generated a high volume of calls to our help desk and we hoped to provide an alternative to reduce it considerably. We organized a team of existing staff members and created our own video production unit. Our team consists of technical writers, videographers, and editors, all self-taught over the course of this project.

Over the course of the year, we created podcasts that describe IT department services, promote IT facilities on campus, and build awareness about technology and computing issues via public service announcements. We will give an overview of our production process, how we have used videos up to this point, and ideas we have for the future.
IT Professional Development and Helpdesk Support on a Shoestring Budget or Renewable Resources

Ever tried to find innovative ways of providing professional development opportunities to your support staff with little or no additional budget for the activities? Ever tried to implement a new technology, like a portal, with no additional budget for support staff? Pima Community College developed two different plans to address the needs of the institution and offer training opportunities to IT technicians and specialists.

The Tech Swap program is completely voluntary and provides entry level IT staff with cross training throughout the district. Each technician would spend a day at one of the host campuses to assist in projects, deployments, and troubleshooting. It allows the technician to get to know colleagues, learn how technology is managed at other locations, and in general, learn more about the college.

Pima implemented a portal system in the fall of 2006. We had no idea how many phone calls or email messages we would receive from distressed students or employees. We did know that we would need to provide evening and weekend coverage beyond the normal business hours for the first few weeks of the semester. Once again, there was no budget to expand helpdesk support. Instead, volunteer participants of IT technicians and computer lab managers worked evening and weekend shifts alongside district IT helpdesk staff to provide service.

This presentation will demonstrate how we offered training opportunities to staff and support for a new technology at minimum cost to the institution.

The Two Musketeers: All in One and One for All!

The University of Delaware’s (UD) development of its Student Multimedia Design Center (SMD) provides a unique and innovative computing environment for students. With the installation of new dual-boot Macintosh systems running Mac OS X and Windows XP in the computing site, new maintenance and administration challenges surfaced. Major issues included imaging both platforms and enabling students to use their central University account to log into both operating systems. UD uses UNIX systems for campus accounts, which added a layer of complexity to the problem. Other issues such as creating images and compatibility with our University VendPrint system had to be resolved.

By pioneering solutions, we are able to offer the first of its kind computer lab on campus that is tied into our central systems, providing a truly seamless environment for students.

This paper will explore topics including Xserve server setup and configuration, dual-boot configuration using rEFIt and Deep Freeze, creating images with NetRestore, and the imaging process. We will also explore specific image deployment issues and solutions using different applications including Apple Remote Desktop and Mac HelpMate. Finally, we will review new features implemented in our environment, most notably the ability to incorporate an authentication method on both Mac OS X and Windows XP using our central systems, and emerging issues.

Virtualization, Virtually at the Desktop

We have witnessed low resource utilization of high performance graphics workstations in our instructional computer laboratories. The low utilization statistics indicate that workstation consolidation could achieve great savings in infrastructure, networking, power consumption, and maintenance costs. In addition, we would spend less time in deployment, security, and fault isolation without compromising performance.

The basic enabler for workstation consolidation in our instructional computing environment is the ability to allow multiple separate operating system instances and associated software packages to share a single hardware server. We have successfully utilized existing off the shelf products and developed tools and protocols to migrate processing tasks from the desktop level to the virtual desktop level running on remote hardware and returning the processing results back to the desktop level for display. Since all processing is done at the server level, we no longer need high performance graphics workstation class machines at the desktop. This allows us to offer high performance graphics workstation capabilities to any desktop, including lower-end commodity class desktop machines, notebook computers, or even thin-clients.

While server consolidation through virtualization is not new, desktop workstation virtualization seemed a natural and novel extension of the server virtualization framework. Indeed, the general trend is towards applying virtualization techniques to almost all Information Technology infrastructure machinery, and we should expect to see more virtualization, virtually everywhere in higher education institutions.

In this report, we will present our approach, framework, implementation challenges, lessons learned and next steps.
**Wednesday**

8:30  
Salon 1  
George Fitch, University of New Hampshire  
Jerry Marceau, University of New Hampshire

**The Blackboard Performance Monitor: a Mystery Online**

In late September 2005, the University of New Hampshire’s Blackboard Learning and Community System began to slow down, disrupting the learning experience of UNH’s entire academic community. We assembled an interdepartmental team to ascertain the cause of and ultimately solve this problem of stagnation. This cause itself was elusive, hidden within scores of possibilities, suggestions, and conjecture. Were online assessments overtaxing the servers? Are more servers needed? Was there a cascading effect in the internal processes, one impeding another, impeding another, etc.? As questions, needs, and theories mounted, it became clear to us that comprehensive, objective, and quantifiable information would be essential to lift this fog of ignorance. Such necessity was the mother of the Blackboard Performance Monitor (BBPM), our custom designed, in-house system which collects data from the many facets of Blackboard and transforms that data into useful, web-based, graphical information. Initially, the BBPM provided us with many interesting and unfortunately unexpected answers, merely bringing yet more questions to light. But as the BBPM evolved with the needs of the team, it brought us closer and closer to our goal, until we eventually found the connection we sought, or in truth, the lack thereof.

**Like Technology from an Advanced Alien Culture: Google Apps for Education at ASU**

Last October, Arizona State University (ASU) partnered with technology giant Google to offer Google Apps for Education to ASU’s 65,000 student community. In less than two weeks, ASU was able to transition away from its homegrown IMAP email client to Gmail for ASU, giving students two gigabytes of storage space as well as enhanced spam filtering, calendaring, instant messaging, and the ability to sort, search, and tag email. This paper describes ASU’s ability to implement Google Apps for Education at a massive scale in a small timeframe as well as highlights ASU’s vision of the future in higher education.

**Communications Planning: Defining Levels and Phases of Information Distribution**

Two fundamental components comprise successful communications planning: message creation and message distribution. This paper will focus on the marketing aspect of communication planning, using the general definition of “marketing” as “communicating something of value to the customer.” Planned events—major system enhancements, new system implementations, training sessions, conferences, etc.—relative to informational technology will be the primary focus.

**Looking for the Magic Formula: Evaluating Our IT Communication Mix**

Our communication audit of IT publications used a survey by the Higher Education TechQual+ Study (www.techqual.org) as a first step. The survey results identified engagement as a key principle for changing our communication mix. Both students and faculty indicated a desire for opportunities to make suggestions to IT and be part of the decision-making process. While characteristics of Gen Y include expectations for communicating across a flattened hierarchy, new faculty expressed this same desire. This session describes how department reorganization into teams has facilitated communication changes and how our findings have changed our newsletters, web site, campaigns, and information guides. How we hope new media (podcasts, blogs, wikis, social networking tools, etc.) will help us provide more engagement will also be included.
Integrated Technology Services Publications and Communications Strategy

In September 2006, Integrated Technology Services (ITS) at the University of New Brunswick (UNB) refocused their Publications and Communications position in an effort to better communicate their mission, vision, goals, and values to the UNB community and external audiences. ITS recognized that the UNB community did not understand the importance of what ITS does, how ITS supports UNB’s mission and vision, and where ITS is going. This understanding is critical to ITS’s success. The first step to improve understanding was to develop a communications and publications strategy. The development of this strategy is the focus of this paper.

The ITS Publications and Communications Strategy documents ITS’s current situation, available communication channels, and accessible evaluation methods. The strategy clearly identifies the overall objectives ITS will achieve after the strategy has been implemented. Seven core values or behavior principles of ITS staff were defined. These values drive the strategy. A number of communication attributes were described, and target audiences were identified.

Based on where ITS was and where ITS wanted to be, the department developed a list of recommendations describing how to move ITS forward. They created action plans for reaching each target audience, outlining ITS’s objectives, key messages, required resources, current communication channels, available evaluation techniques, and staff responsibilities. Finally, ITS identified general communication training needs for its staff.

The ITS Publications and Communications Strategy took several months to develop. It will serve as a map to guide ITS in daily communication activities, providing consistency and direction.

Encryption Technologies: Testing and Identifying Campus Needs

Lehigh University is implementing a plan to secure sensitive information across campus through the use of various encryption technologies. Several committees were formed, at all levels of the University, to advise, identify, and direct data security activities at the enterprise level. One of these committees was assigned to take a detailed look at the types of hardware and media that need to be secure, to test various encryption technologies and hardware devices, and to produce a recommendation on which technologies needed to be implemented. The committee began by developing a document listing the types of hardware and media that need to be secured, operating systems that need to be supported, and an estimate of the number of individuals on campus with access to secure information. Special criteria were developed for evaluating the products such as: price/performance, platform compatibility, media compatibility (SD cards, USB keys, handhelds), authentication level (one- or two-factor), user friendliness, key management, and enterprise implementation tools. Next, several whole-disk, file, and volume encryption software packages were selected and evaluated as well as special devices such as USB keys and handheld devices. Performance benchmarks were run on the test systems to compare performance variations. Enterprise encryption key management features were also tested. This session will provide a detailed overview of the various steps involved in the evaluation process mentioned above, discuss the successes and failures encountered, and review the final results.

iS3PACE — Casting the Information Security Spell for Cultural Change

West Virginia University recognizes the vital role that information resources play in the mission critical operations of education, research, service, and administration. The challenge is trying to balance the academic tradition of open information exchange and collaboration with administrative requirements for efficient, proactive, and cost-effective security measures. To create such an environment, WVU charged the Information Security Program with the goal of driving the cultural changes required to integrate security standards and practices into daily operations. One of the key components of this effort is the Information Security, Services, and Systems Promoting Awareness, Communication, and Education (iS3PACE) information security collaborative. Several key operating units contribute to the collaborative to ensure the delivery of consistent, coordinated information security directives, guidelines, and practices. iS3PACE started with building awareness by engaging administrators, staff, and students through various print and formal media. Contests, on-campus symposiums, poster displays, distributing security tips, and an award-winning calendar served to raise security awareness. Formal training began with the delivery of ISO standard Information Security training to students, staff, and faculty. The ultimate goal of iS3PACE is to offer every incoming freshman and all employees orientation and refresher information security training. Instilling information security awareness and establishing everyday security practices is not magical. It is the result of making information security an everyday practice...and that is an “enchanted outcome.”
Desktop Security in an Academic Environment: How to Herd Cats Successfully

This paper describes a successful methodology for achieving more secure computing in an Academic Environment where getting the disparate client populations to accept any desktop computer standards can often seem like herding (or training) cats.

In a highly distributed, highly decentralized computing environment such as the George Washington University, it is exceedingly difficult to ensure compliance with desktop security measures. This is true whether they are the requisite and almost constant patches or the use of properly configured and updated antiviruses and firewall software. Through the use of volume purchasing power, quality service delivery, University wide collaboration and targeted incentives (both tangible and intangible) GWU has moved from knowing very little about the patch and virus/firewall state of its 6000+ desktop computers to being able to remediate vulnerabilities across the enterprise and determine the status of that remediation in realtime.

Multimedia Magic: Moving Beyond Text

Multimedia technology has transformed the way students communicate, learn, and socialize. No longer solely consumers of multimedia, students are multimedia producers, editors, presenters, reviewers, tutors, and mashup creators. Faculty expectations regarding class assignments have also risen, including improved presentation skills, greater collaborative efforts, and more diverse representations of learning. In this paper, we describe how, in response to these needs, the University of Delaware opened the Student Multimedia Design Center (SMDC) in February 2007. The SMDC is the first centrally located UD facility that provides students with access to multimedia one-stop service. With over 70 workstations and a wide variety of software and equipment, students have all the tools they need to create multimedia in one location.

A Campus-wide Solution to Supporting Rich Media Capture, Conversion, & Production: The Media Conversion Lab at the University of Michigan

Increasing numbers of faculty are making assignments involving rich digital media, and the use of audio, video, and digital images is becoming de rigueur in student projects. Although we used to see this as a more individualized approach, and this lab was developed as a resource available to the entire university community.

The lab is open twenty-four hours a day, seven days a week, and makes available video editing workstations, a Virtual Room® (a soundproof audio recording booth with adjustable acoustics), document and slide scanners, and even a large-format printer. The most-used aspect of the lab are the Conversion Racks. These racks hold a multitude of audio and video decks, supporting nearly every format of video (including international formats) and audio. A touch screen interface is used to connect any two devices in the racks, allowing a faculty member to easily convert an old VHS tape to DVD, or allowing a music student to copy the miniDisc recording of a recital to an audio CD, for example.

This paper will provide an overview of the technology, staffing, and support of the lab.