Communicator

Information Technology Division

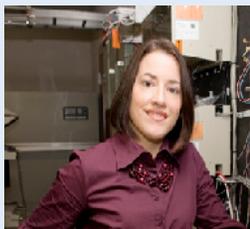**MIDDLE TENNESSEE STATE UNIVERSITY**

Inside This Issue

Dr. Daniel Prather uses a simulation to give his students a realistic taste of the airline business.
Story on page 4.

ITD's Emily Harper serves the voices of MTSU.
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More News

Laptop Computer Hard Drives To be Encrypted

It seems anymore that not a month goes by in which you do not hear about a laptop being lost or stolen somewhere in the country that contains sensitive data. Universities have not been exempt from this trend, including UCLA's 2004 laptop theft that exposed the data of 145,000 people, and more recently the University of Virginia's breach earlier this year exposing the data of 7,000 students, staff, and faculty.

While unfortunate, breaches such as these have highlighted the importance of protecting Personally Identifiable Information (PII) and other sensitive data. Beginning this spring, all new laptop computer purchases at MTSU will have hard drives that are completely encrypted by utilizing a package called PGP Whole Disk Encryption.

Unlike standard encryption technology, whole disk encryption does not rely on the user to place and keep the sensitive documents in encrypted partitions. Instead, the entire drive (including areas such as the boot sector and swap space) is fully encrypted, ensuring that all data is safe. In MTSU's case, the encryption will be based on the Advanced Encryption Standard (AES), using a 256-bit key. This gives a pool of 2,256 possible keys. To date, no one has broken the AES algorithm.

Rollout of PGP Whole Disk Encryption will begin with new laptops. The software will be preinstalled and con-

Security Task Force Creates Information Security Tutorial

It seems that breaches in IT security have become commonplace among businesses and universities lately, resulting in sometimes millions of dollars in damages.

It was because of this threat that Dr. McPhee sent out an e-mail in spring 2008 detailing each person's responsibilities to secure sensitive information such as Personally Identifiable Information (PII). Furthermore, the Information Security Task Force was formed in

2008 to create the University's Information Security Policy.

However, it can become confusing sometimes as to what actually constitutes PII, how it relates to the University's business processes, and how and when it can be used and stored.

This confusion led the Information Security Task Force to create the Information Security Tutorial, hosted at: **http://www.mtsu.edu/itdacad/security/.**

D2L Real-Time Integration Goes Live

As the Fall 2008 semester was about to begin, MTSU successfully went live with Banner real-time integration with Desire-2Learn (D2L).

Since the initial conversion from WebCT to D2L in Fall 2007, batch files containing students, instructors, enrollment, course, and assignment information were created daily and sent to D2L for processing. This process worked fine; however, the information on D2L was only updated once per day.

The Banner database consists of tables and records, and when a record is created or changed on the Banner system, it creates an "event." Examples include a person's name change, a student's enrollment to a course, and an instructor's assignment to a course. The real-time integration allows these events from the Banner system to be transmitted to D2L as they occur during the day. This means the information on D2L is updated almost immediately after the change is processed on Banner.

The successful transition from batch processing to real-time integration occurred after extensive testing between MTSU and D2L. MTSU was the first of the TBR schools to make this transition. The conversion project involved ITD personnel from Administrative Information Systems Services (AISS), Academic & Instructional Technology Services, Systems Administration, as well as users from the Student Records and Scheduling Center offices.

Laptops
Continued from page 1

figured by the time the user receives it. Tests performed by ITD during the evaluation process indicate there is no noticeable performance latency due to encryption overhead when working with documents, because the decryption is performed during the startup process. Plans for installation of the PGP product on existing laptops will be announced at a later date.

While this encryption will protect sensitive information, it does not relieve the user of data protection responsibility; information security is **everyone's** responsibility. If PII does not need to be stored on a laptop, it should be removed. However, if necessary, this layer of security will provide assurance of data confidentiality in the event of a laptop theft or loss. Furthermore, data breach notifications that are costly in terms of dollars and public relations are avoided.

However, it is important to remember that this is just one piece of a multi-layered approach to information security. Laptop encryption helps ease the burden on the user of protecting information, but it is not a cure-all; due diligence on the part of the user (as always) is still required.

Network Services Update

Network Update

• The existing network in the Miller Horse Science building was extended to provide data connectivity for the Annex building.

• The network equipment was upgraded in BAS, JH, WMB, SFA, VIS, AMG, Fairview, WPS, LRC, Peck Hall, and DSB to increase network performance in those areas.

Tutorial
Continued from page 1

The purpose of the Information Security Tutorial is to inform the user about the MTSU Information Security Policy (located at http://mtsu32.mtsu.edu:11251/policies/MTSU_PandP_I-03-06.pdf), to help employees identify PII on their computers, and to inform on how to make data more secure.

Using a Web browser, the Information Security Tutorial is a comprehensive overview of PII and how it should be secured, from running a Spider scan on your own computer to identifying its location to storing the PII in a secure manner (either on a server or on a physically secured removable device).

The tutorial also contains an especially helpful bit of information about securing PII in paper documents, which is an often overlooked aspect of information security.

All-in-all, the tutorial shouldn't take much of your time and will help in making MTSU a less appealing target for malicious users as it reduces the potential benefit of attacking MTSU, which protects us all.

Communicator

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Enterprise Resource Planning (ERP) Update

Student

A review of parts of term was completed and it was determined that a new part of term to span June and July would be helpful to students and processes such as registration, fee adjustment, financial aid, workload, etc.

Work continued throughout the fall on refinements to the CAPP Degree-Evaluation system for student use. Each evaluation built with the "rule within a rule" requirement was re-designed for more stable and consistent output. Degree Evaluation was made available to students via RaiderNet in January.

The Scheduling Center, Records Office, and ITD have had follow-up meetings regarding Resource25 and maintaining optimal support.

Members of the Student Team and ITD staff shared their Banner implementation experiences with UT-Chattanooga.

MTSU provided extensive assistance, procedures, and scripts to TBR Cohort 2 schools.

Several members of the Student Team participated in or presented at the annual TN Summit Conference which is hosted at MTSU each year. MTSU presented a session on CAPP Do's and Don'ts and on D2L Real-Time Integration.

MTSU hosted and participated in two three-day SunGard/TBR Upgrade Regression Testing sessions to prepare for and beta test the Banner Student 7.4/General 7.5 upgrade. Several problems were identified and numerous fixes delivered. The testing was very successful and had the best upgrade delivery and vendor participation thus far.

The Banner Student 7.4/General 7.5 upgrade was successfully installed into MTSU's production environment January 2-4.

Several members of the Banner implementation teams participated in meetings related to a possible ESL program and making the processes work within Banner and related systems. This would help multiple offices by automating processes that would otherwise have been manual all across campus.

The Scheduling Center and ITD worked together to set up a test instance for Resource25 to test with the Banner upgrade during Regression Testing.

Extensive work was completed in preparation for the upcoming spring priority registration. Numerous curriculum changes and course meeting pattern changes were completed. Additional candidacy controls were implemented for programs in Human Sciences, and improvements have been instituted related to Study Abroad.

ITD has developed several new RaiderNet links for advisors. Additionally, triggers are being developed to create audits for the permits entry and registration PIN entry within Banner and job submissions are being created to create reports on demand.

Advancement

Changes were made to the Phonathon calling process that included the ability for MTSU's student callers to reach potential donors by cell telephone. The capability to track pledge fulfillment rates by caller has been added, which will make the process more meaningful and measurable.

Pro*C programs that produce reports are being developed to better serve the end users. Several new Access views have been created and reports using these views are continuing to be written for Development, Alumni, and Advancement staff.

Campus Loan Manager (CLM)

The annual Notes Receivable file was sent to TBR.

The system patches to correct the Rehabilitation Report and the Borrower Services Assignment Form have been installed in a test.

Federal FISAP report was completed using the CLM system utilizing LMS Plus converted data.

LMS Plus scheduled batch cycles have been terminated.

Financial Aid

Dr. McPhee approved MTSU to participate in the Federal Direct Lending program beginning with academic year 2009-10. This program will increase the efficiency of students receiving loan funds. Every loan student will be required to electronically sign a new master promissory note. Once the promissory note is signed, students will have funds applied to their account within two days instead of the 7-10 days with the FFELP program.

Finance

Two members of the Finance Team participated in a panel discussion at the TN Summit Conference. Finance staff presented two sessions.

Workflow

Team meetings resumed. The team reviewed the identity management flow. The Program code was rewritten to modularize some of the components so they can be re-used with future workflows.

Summer Fellowship Proposals Due Feb. 27

The Instructional Technologies Development Committee makes funding recommendations to the Information Technology Division for the award of summer fellowship projects related to the innovative and effective integration of technology into teaching and learning. The Summer Fellowship provides a stipend of $3500 that can be used to foster teaching innovation.

Funding is to be awarded to applicants who adequately demonstrate that such funds will be used to make course instruction better and more

Flying the Virtual Skies

MTSU aerospace professor Dr. Daniel Prather uses an online simulation to give his students a realistic sampling of the highly competitive airline industry.

If you've ever traveled by air, you know the routine.

Put your seats and tray tables in the upright and locked position during landings and takeoffs, bring along a valid ID to check-in your luggage, and keep your seatbelts fastened securely until the aircraft comes to a complete stop at the terminal.

However, there's more than meets the eye when it comes to flying the friendly skies.

Dr. Daniel Prather's students realized that after completing his airline management course at MTSU.

"This class is unique because it's comprised of both management students and pro pilots," said Prather. "I wanted to find a way to make the class fun and interesting for both groups of students."

Prather found his answer in an innovative computer simulation called Airline Online that transformed his

students into virtual airline executives.

"It's more than just coming to class and listening to a lecture," said Prather, an associate professor of aerospace since 2006. "The students can actually discuss issues in class, go to work on this online simulation, and apply the information they learn."

The simulation requires Prather's students to break into teams and create fictional airlines from the ground up.

Teaching, Learning & Technology

PROFILE

"They have to name their airline, come up with a logo, and write a business plan that's designed to help them focus their strategies," Prather explained. "We open the simulation

with a trial period for a couple of weeks to familiarize the students with the program."

The online project, which counts as a major grade in Prather's airline management course, is designed to mirror reality and to give students a hands-on experience of some of the major issues challenging the airline industry today.

"It becomes very competitive," Prather said. "Not only are students required to purchase aircraft, they have to also configure these aircraft as far as how many seats they have, how many classes of service, and how much space there is in between each seat. They have to place aircraft on routes and decide what cities to serve based on demand, plan their fleets, and schedule aircraft for maintenance. It can be a lot of work, but the students really get into it."

Making Directory Assistance Cost Effective

How many times a day do you reach for your telephone directory or call directory assistance? While calling directory assistance is often a quick and painless process, and something that is routine, it usually comes with a price tag. In this day of online telephone directories and free 411 services, there are many cost effective solutions to meet your directory assistance needs.

For local and long distance directory assistance, AT&T's online directory serves as a user-friendly resource. Not only can you acquire personal and business telephone numbers, but you also have the convenience of using quick links to visit a business' Web site, map an address, send directory information to a mobile telephone as a text message, or even e-mail the listing to an e-mail address for future reference. AT&T's online directory can be found by visiting http://www.anywho.com.

Another excellent resource for local, long distance, toll-free, and international online directory assistance is www.callsense.com/resources/directoryassis-tance.htm. With links to directory assistance for over 30 countries, CallSense provides access to hundreds of online directory services, many of which are free, and are organized by country.

There are many free 411 directory assistance alternatives available as well. One of the new services, 1-800-GOOG411, is powered by Google, and is available within the United States and Canada, for business listings in those specific countries. In addition to providing the business telephone number that is requested, the system will also offer to complete your call to the requested number with no connection fee (standard wireless carrier charges or long distance charges will apply). They will also text the number or send a map of the business location to a wireless telephone . While this is an ideal solution for free 411 services, it does not include residential information at this time.

1-800-FREE411 provides free directory assistance services for business and residential listings. Only the phone number requested is provided, and there is no connection option. In addition to providing directory assistance via the telephone, they also provide online directory assistance, which can be found at http://www.free411.com.

For questions about directory assistance, please contact Telecommunication Services at extension 2991.

Summary Fellowships
Continued from page 3

effective in terms of meeting instructional objectives through the use of technology. Each applicant should consult with a member of the ITD Faculty Instructional Technology Center staff prior to submitting a proposal. Call 1-615-904-8189 to make an appointment.

The 2009 Summer Fellowship proposals will due Friday, Feb. 27, 2009.

For guidelines and additional information, visit **http://www.mtsu.edu/it-dacad/itres/fellowship_aits.shtml.**

14th Annual Instructional Technology Conference

Registration

Registration for the 2009 Instructional Technology Conference is free to the first 100 full-time MTSU faculty members who register.

• Registration for the Instructional Technology Conference or the pre-conference workshops must be received by March 13, 2009.

2009
Instructional
Technology Conference
Developing a Participatory
Learning Culture
MIDDLE TENNESSEE STATE UNIVERSITY

Featured Speakers

Michael Wesch
Assistant Professor of Cultural Anthropology, Kansas State University

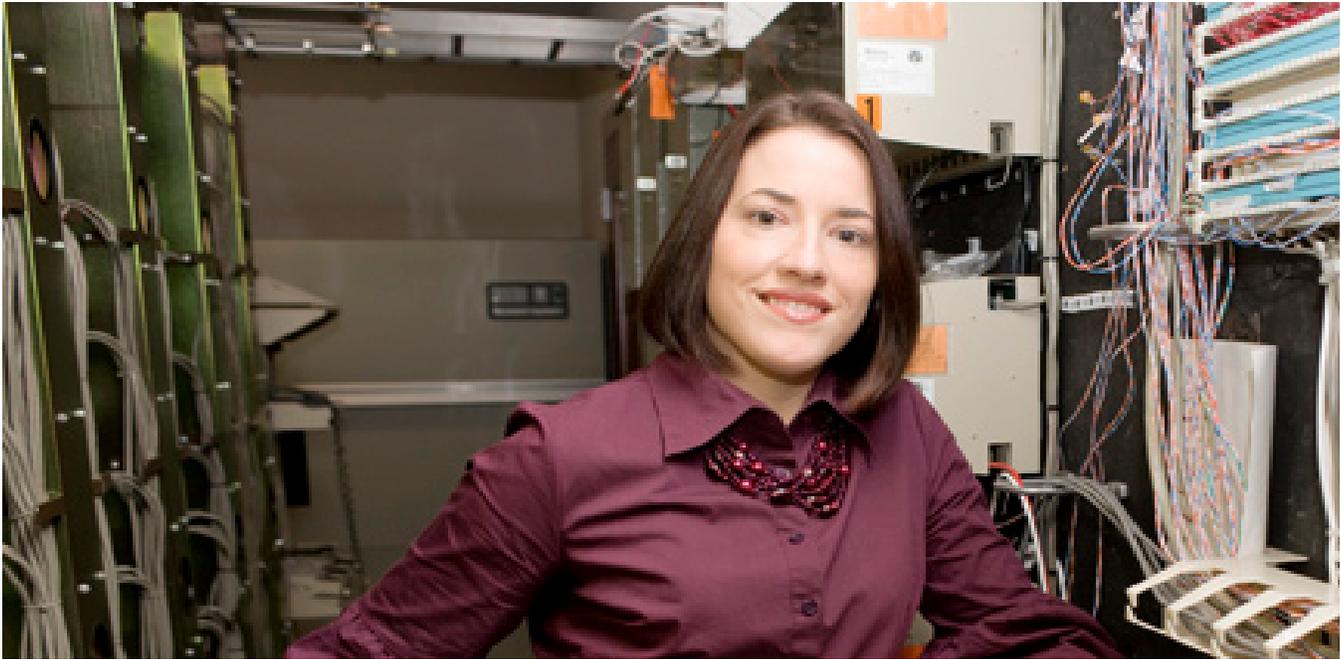**Belle S. Wheelan**
President of the Commission on Colleges of the Southern Association of Colleges and Schools

Sarah Robbins
"Intellagirl"
Director of Emerging Technologies Kelley Executive Partners, Indiana University

For more information, please visit

www.mtsu.edu/itconf/mtsufac

Serving the Voices of MTSU

Emily Harper has been administering the campus voice mail system since 2000.

Telephones should not be taken for granted.

Since being patented by Alexander Graham Bell, the modern telephone has been the world's unifying force, bringing people across continents and oceans together. The telephone has been a constant companion when conveying important messages, conducting business, or just calling someone to say hello.

During this modern age of Web browsers, e-mails, text messages, and wireless technology, these revolutionary devices are more relevant than ever.

Just ask Emily Harper, who's served as ITD's voice mail coordinator since 2000.

In her eight years at MTSU, Harper has helped connect the faculty, students, and staff by administering the campus voice mail system, overseeing the speech recognition directory and pay phones, and providing wireless services and training.

"Every day is different," she said. "There are certain things I do each day, but beyond those I field questions from the University, walk people through call conferencing procedures, and help them use the office phones."

Harper also receives inquiries from students about various services provided to them, including long distance service, caller ID, voice mail, private telephone lines, and wireless telephone discounts. Her other duties include gathering information and reviews for the Campus Directory and assisting customers with issues encompassing

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calling cards and toll-free numbers.

The Murfreesboro native began her journey at MTSU as a student worker in 1994 and graduated with a degree in business administration in 1998.

"Murfreesboro has changed quite a bit," she reflected. "It's not the same city as it once was. It's a bigger place now, and it continues to grow. Just when you think they can't build more, they build more."

Although Harper has witnessed a lot of changes on campus since joining ITD's Telecommunication Services, her philosophy has remained the same: strong customer service.

"I'm here to provide help whenever I can," she said. "I don't like passing people off to others. If they have an issue I can help them with, I'll usually do it. I enjoy working with people, and the people within ITD and throughout the University as a whole are great to work with. Not only are they easy to get along with, they're willing to share their own insight and advice. It's a great place to be. I wouldn't do anything else."

Outside of her daily telecommunication duties, Harper is an avid outdoorsman. When the weather isn't dreary, she's an active camper, hiker, and bicyclist.

Harper lives in Murfreesboro with her husband, Jason. The couple has a 7-year-old daughter, Katelyn, and a 5-year-old son, Colby.

ITD Staff News

ITD's **Curt Curry**, **Barbara Draude**, **Phyllis Kitzler**, **Dave Munson**, **Lisa Rogers**, and **Albert Whittenberg** attended the academic impression Webinar, Technology Options for Supporting Faculty Evaluation, led by Jennifer Franklin of the University of Arizona, on December 4, 2008.

Vice President for Information Technology and CIO **Lucinda Lea,** Director of Database Administration Services **James Foster,** Enterprise Resource Planning Assistant Vice President **Lisa Rogers**, and ITD Associate Vice President **Tom Wallace** attended the annual EDUCAUSE conference from October 28 to October 31, 2008. EDUCAUSE is a nonprofit association whose mission is to advance higher education by promoting the intelligent use of information technology.

Telecommunications Services Director **Steve Prichard** presented "To Text or Not to Text, That is the Question" at the ACUTA (Association for Information Communications Technology Professionals in Higher Education) Winter Seminar in January 2009. The presentation provided information about emergency text message alert systems.

Faculty Evaluation Results Available Online

The Fall faculty evaluation results will be available online January 30, 2009. This is using the new evaluation form developed by a committee of the Faculty Senate. Instructors will be able to view their own class results. Department chairs will be able to view their own classes as well as results for those in their area of responsibility. Deans will be able to look at all results for those within their area of responsibility. Summary results will also be available at the various levels. This service will be available at **www.mtsu.edu/eval-feedback**. Faculty will be required to log in with their usernames/passwords for PipelineMT.

Flying

Continued from page 4

Students are also tasked with developing a marketing strategy for their fictional airline and compiling a stock holder's report that displays their progress in the assignment.

"I make charts in PowerPoint showing students where everybody in the class stands as far as their fares, load factors, revenue per available seat mile, and cost per available seat mile," Prather explained. "In essence you're comparing these teams on a per-seat mile basis, so it really doesn't matter if they're flying the big, wide body aircraft or the small, little regional jets."

Toward the end of the semester, each team critiques and analyzes its progress and reports the findings to the class.

Although the project is labor-intensive and requires many hours of dedication, the simulation gives students an understanding of what it takes to not only run an airline but how to deal with the oftentimes brutal competition as well, Prather said.

"It's one thing to put the student in the simulation by themselves with one airline," he said. "It's another when you start introducing competition, where airlines undercut one another on fares. It's a very realistic simulation. By the end of the semester, it's well worth the effort because students will have a good understanding of how complex it is to manage an airline. That's really my goal. Five years from now, I don't want them to remember me; I want them to remember the simulation. The whole thing is a learning experience."

Before joining the MTSU aerospace faculty over two years ago, Prather served as an assistant director of operations at Tampa International Airport for 10 years. He recently presented the simulation at ShareFair 2008, an annual exhibit of innovative teaching methods.

"Airports are very busy places and are really the core of the aviation industry," Prather said. "Without airports, we have no airlines. The great thing about working in an airport is that you get to deal with so many different airlines as well. I loved the responsibility and the freedom of being able to get in a truck and just go drive out on an airfield."

He recently established an airport consulting firm called Prather Airport Solutions, Inc., and is awaiting the publication of his first textbook entitled *General Aviation Marketing and Management: Operating, Marketing, and Managing an FBO*, which is due out this spring. Prather earne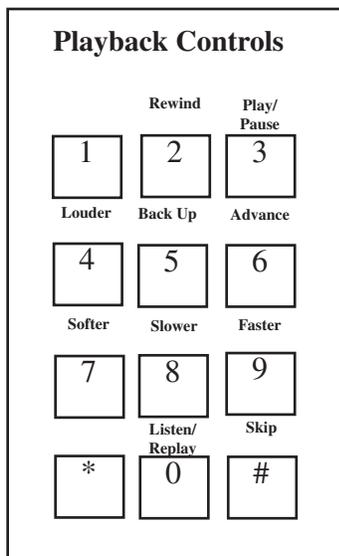d a Ph.D. in educational leadership and higher education, with an emphasis in aviation education, from the University of Nebraska in 2007.

He lives in Woodbury with his wife, Grace, and 3 ½ -year-old daughter, Savannah. He enjoys gardening and playing tunes on his baritone saxophone.

Nominations will be due on January 30, 2009, for the Outstanding Achievement in Instructional Technology Award. Criteria, selection procedures and nomination forms can be found at **http://www.mtsu.edu/itdacad/itres/oaitaward.shtml**

Voice Mail Playback Controls

Have you ever gotten a voice mail message where the caller talked too fast, causing you to miss crucial information? How many times have you found yourself listening to an entire voice mail message again to capture the caller's telephone number? You are not alone and there are controls in voice mail to make your job easier. Below are the options available during message playback:

Playback Controls

	Rewind	Play/Pause
1	**2**	**3**
Louder	Back Up	Advance
4	**5**	**6**
Softer	Slower	Faster
7	**8**	**9**
	Listen/Replay	Skip
*****	**0**	**#**

Software Component Upgrade on Telephone System

Telecommunication Services recently upgraded the Communication Manager software component of the University's telephone system to the latest version, release 5.0. Not only does this software enhance the security of the telephone system, but it also positions the University to provide enhanced services and features, in the future, to users of the telecommunications system.

Immediate benefits recognized from the software upgrade include improved security of the telephone system, as well as enhanced survivability of the system. TFTP servers, which pass information into and out of the telephone system are now Web-based, and can be better protected from malicious invitations, thus enhancing the security of the system. In addition, the Web-based or HTTP servers allow for faster loading of telephone bin files and resolve issues once faced with simultaneous telephone downloads. Additionally, the system is more robust and can automatically recover from network failures.

In addition to the immediate benefits mentioned above, potential cost-saving features were also gained. These include the ability of the telephone system to handle meet-me conferencing, which is currently a service provided through a third party company. The upgrade also provides the foundational support needed to deploy future technologies, such as enhanced unified messaging, integration with speech technologies, and refinement of the extension to wireless components.

Spring 2009 Grant Recipients

Faculty Name	Proposal Title	Department
Corey Teague	**Pseudo Mental Health Clinic**	**Psychology**
Colby Jubenville	**Interactive On-Line Case Study Curriculum: Extending traditional classroom lectures with web-based Flash Animation for the critical analysis of current issues relating to sport, recreation and leisure management**	**Health & Human Performance**