# TechNews

for The University of Mississippi Faculty and Staff

## IT Plays Role in Success of Debate '08

The first Presidential Debate of this election year began at 8 p.m. on September 26, 2008, on the campus of the University of Mississippi. For most of the nation, the debate involved sitting down in front of the television set and pressing a button on the remote.

For administrators, faculty, staff, and students of Ole Miss, it was the culminating moment of more than a year of intensive preparation that involved significant resources of organization, equipment, and commitment.

The Office of Information Technology took an active part in nearly every aspect of preparations for Debate '08, as it came to be called on campus.

Telecommunications and Technical Services staff, with the help of AT&T, Cisco, and Business Communications and Integration (BCI), created the communications and networking infrastructure required by the Commission on Presidential Debates (CPD). BCI, a fast-growing regional company based in Ridgeland, MS, provided critical networking infrastructure and support in its role as a Cisco partner.

IT provided the CPD, campaigns, networks, and media with equipment and support, especially in the 10,000 square foot Media Filing Center. The Center contained 800 workstations, of

which about 550 had hookups for phone, high-speed internet, and power.

The IT Webmaster, Robby Seitz, helped design and manage the debate Web site, debate.olemiss.edu, and assisted the Dean of Students office and Publications with publicity for the studentcentered Rock the Debate festival.



Telecommunications and networking staff pause for a photo with CBS's Katie Couric. (L-R: Bobby Jenkins from AT&T, Mary Robinson, Mike Hall, Katie Couric, Michele Mize.)

attraction for students, faculty, and staff.

Enterprise Applications staff created and implemented Web applications to assist with the distribution of highly-coveted debate tickets to students, as well as the Web-based "Make Room for the Debate" program, which helped the university secure needed parking places for Debate Week visitors.

**Enterprise Applications** 

staff also implemented a Rate Sheet with Adobe/SAP interactive PDF form technology for media outlets and campaigns needing equipment and services.

### **The Presidential Debate Index**

Number of computers provided to the Commission
on Presidential Debates and media38
Number of printers installed
Number of telephone lines activated409
Miles of network cable installed in the Media Filing Center $\ldots$ 49
Miles of coaxial cable installed2
Number of network switches installed
Number of wireless access points57
Number of complete networks installed in addition to the existing campus network



Al Ling and Chris Provence at work in the Media Filing Center

IT also contributed to the planning of Rock The Debate as part technological expo, with invited exhibits by Microsoft and Dell, among others. With its demonstration of "Surface" technology, the visiting Microsoft Innovation Truck was certain to be a major

IT's technology partners contributed significantly to the infrastructure, equipment, and staffing needed

to support the debate. For example, the Sharp Corporation made the university a generous loan of fifty 32" HDTV monitors.

On Debate Day, AT&T was called on to make swift repairs after a network outage occurred between Oxford and Jackson. The university purchased a month of service for

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### **Dr. Tony Ammeter studies**

## **Technological Tools for Human Collaboration**

r. Tony Ammeter, now Associate Professor of Management Information Systems, began as an engineer in Canada in the mid-1980s, where he trained other engineers in the use of thenemerging technologies, such as AutoCAD.

After seven years in engineering, he pursued his MBA part-time, and eventually left Canada to study management at the University of Texas in Austin. Though his doctoral degree is in Organizational Science, his research really focuses on human interpersonal behavior, and on the use of technology as a collaboration tool.

In his Systems Analysis class, students study how programmers collaborate via the Internet on developing open source software. "It's about the same as a company where people are paid to program, and in fact some programmers are paid to work on

Our discussions in my online courses are richer than face-to-face classroom interaction. Students feel freer, and have time to consider what they're going to say.

—Tony Ammeter

open source projects for their companies." Open source programming, however, is transparent and documented, he noted, in contrast to companies who program their proprietary software. Observing open source projects gives his students an interesting glimpse into the real life workings of project management.

"Firefox [the Web browser] is a great example of open source collaboration," Ammeter says.

Another area that intrigues him is the difference between digital immigrants and digiafter 1982 were likely to see a computer at home, and lots of computers at school."

Many of Dr. Ammeter's current students are digital natives.

"They are very comfortable with asynchronous communication. Our discussions in my online courses are richer than faceto-face classroom interaction. Students feel freer, and have time to consider what they're going to say."

But are they different learners from the generation before them? "Yes, but the evidence is anecdotal—the research will tell the story."

Dr. Ammeter has been at UM since 2002, and loves the university. "Ole Miss gives me the latitude to do my research, and to use my classes as incubators for things I want to try. Keeping the same syllabus is boring. I've never had any complaints

from students about trying something new."

Dr. Ammeter is the newly appointed Associate Dean for Undergraduate Programs in the business school, charged with finding innovative study abroad opportunities and internships for students. He himself teaches MIS 309 in London for the Office of Study Abroad, where his classes tour financial institutions. In the past his class has

visited Lloyd's of London, the London Stock Exchange, and the London Metals Exchange. His students see firsthand how the companies vary in their levels of computerization.

Speaking of innovation, is there a technological tool he can't live without?

"My iPhone," he says. "My wife gave it to me when I got tenure. She said a guy who worked so much with the latest and greatest technology needed one."

"She was right."



## Green Grow the Servers: UM's Data Center Adopts Sustainable Technologies

cotechnology is a long word with a simple basic definition: sustainable technology with minimal ecological impact. When IT professionals discuss sustainable technology, data centers are a large area of focus. If you don't believe it, try Googling the words "green data center." You'll receive twenty-one million hits.

Rising energy costs are in the news daily, affecting not only individual consumers, but data centers as well.

Data centers can be energy hogs, requiring enormous amounts of electricity, both for powering servers and maintaining their optimal environment by cooling and dehumidifying. High energy consumption is costly, and in the long run also increases carbon emissions.

With regard to these issues, Sun Microsystems has a long history of eco-responsibility. Not only does the company have a commitment to developing sustainable technology, but also to sharing it with its corporate and institutional partners through its Eco Innovation Program.

The Data Center at the University of

According to Sun's Web site, CoolThreads servers deliver up to three times better performance and four times better performance per watt, in half the space and at a quarter of the cost.

CoolThreads' microprocessor and system design feature a low clockspeed, high degree of integration, and high efficiency, and allow the Data Center to virtualize (or "zone") servers so that

> new hardware and software are not required to build them. This also leads to reductions in cost and power consumption.

"We are using this technology to consolidate multiple servers on a single hardware platform," said Robin Miller, Deputy CIO and Director of Technical Services at UM. "The capability to create basic virtual servers or zones is built into the operating system and does not require additional software that would add cost or introduce the requirement to support another application layer."

This past summer the Data Center expanded the use of Niagara technology with

the purchase of Sun Fire T2000 servers. CoolThreads servers now run UM's Enterprise Resource Planning system, along with many of its Web services.

The outcome is friendly both to the university budget and the environment: with the use of these innovative technologies the Data Center saves money, conserves energy, and reduces its carbon footprint.

"There are great synergies between building eco-friendly data centers and reducing computing's energy consumption," said Mark Monroe, Director of Sustainable Computing at Sun Microsystems. "Implementing energy-efficient solutions, such as Sun's energy-efficient CoolThreads servers, enables organizations like the University of Mississippi to increase their available computing capacity while driving significant reductions in energy costs and decreasing their carbon footprint."

Ecotechnology makes good sense for the UM Data Center in terms of both energy and economic issues, and also supports the Ole Miss Green Campus initiative, announced by Chancellor Khayat in April 2008 after signing the American College & University Presidents Climate Commitment (www.presidentsclimatecommitment.org).



CoolThreads servers power UM services while saving energy.

#### Innovate - Act - Share

Sun's Eco Responsibility Initiative is guided by three principles: Innovate—By making products and services that are both good for the environment and good for business.

Act—By operating in an open, eco-conscious way.

**Share**—By making ecotechnology and information available to others so that all can move forward and participate in an increasingly sustainable way.

Mississippi is a Sun Center of Excellence, meaning that Sun considers the Data Center advanced in its use of technology.

As the Sun Web site explains, a Sun Center of Excellence showcases Sun technologies, and demonstrates how they can improve both classroom learning and administrative functions of an institution.

In the case of the UM Data Center, the designation centers around our Sun-SAP partnership, as well as our role as a leader in SAP student system implementations.

As a Sun Center of Excellence, the UM Data Center is also able to take advantage of Sun's green technology innovations.

Two years ago, in 2006, the Data Center adopted Sun's Niagara technology (marketed under the trade name CoolThreads) for a number of its servers.



## New Services Available from IT Security

Security awareness has two major components: being aware of threats, and learning how to protect yourself from them.

In his recent Security Awareness presentation, Director of Telecommunications David Drewrey highlighted three new serv-

### **Security Checklist**

Some to-do items that will help keep your data secure:

- 1. Appoint a data security custodian for your department or unit.
- 2. Update server registry to include any computer that contains sensitive data.
- 3. Update operating system patches on a daily basis.
- 4. Install antivirus software and configure daily updates.
- Enable your personal desktop firewall. (Macs have a configurable firewall built into the OS.)
- 6. Secure all PC user accounts and processes.
- 7. Utilize strong passwords and change them at least every 90 days.
- 8. NEVER use e-mail to transmit confidential data.
- 9. Exercise extreme caution when using peer-to-peer file sharing.
- 10. Be very cautious with e-mail attachments.
- 11. Perform regularly scheduled backups.
- 12. Avoid programs containing spyware.
- 13. Shut down your computer when not in use. (This also contributes to the Ole Miss Green Campus Initiative.)
- 14. Shred hard copies; "dumpster diving" is one of the most popular techniques used for identity theft that must not be overlooked.

For more information, go to itsecurity.olemiss.edu.

ices offered by IT Security, designed to help campus computer users protect themselves and their data from security threats.

The first is a free download of Cornell's open-source forensics software, Spider. Spider identifies security risks by scanning computer hard drives and other attached storage devices for the presence of confidential data, such as Social Security numbers or credit card information. The customizable program produces a log file to direct users to the location of the sensitive

material so that action can be taken to protect it. You can download Spider at http://itsecurity.olemiss.edu/Spider3.htm.

Another service Drewrey introduced in his presentation is security scans of UM desktop systems. If a campus user is concerned that a computer is at risk, he will perform a vulnerability scan of the system upon e-mail request. To ask for a scan, e-mail him your IP address at davidd@olemiss.edu.

An important component of data protection can be the installation of a desktop firewall system. The latest version of the antivirus software Symantec Endpoint Protection, which can be purchased through the IT Helpdesk Web page, includes a built-in personal firewall. As Drewrey reminds us, "Install desktop firewall software on any PC containing sensitive information."

To stay informed of security issues and ways to protect yourself, visit the IT Security Web page at itsecurity.olemiss.edu.

### Almost Famous

When Frank Tuttle bought his Bowflex this past spring, the only thing on his mind was exercise. Tuttle, computer operator supervisor in the UM Data Center, decided to stick to his fitness goals by posting his weekly progress in video form on YouTube. "If I quit, people would know I failed," he said.

Frank Tuttle

When Tuttle started his YouTube video channel, he never imagined that anyone beyond his immediate family or a few fitness enthusiasts would view the weekly episodes. Then, in the eleventh week of his project, something surprising happened.

"I got a call out of the blue at work, and the voice on the other end told me, 'I'm Aaron Corpus, and I work for Bowflex.""

Tuttle didn't believe him at first, but after a few moments' conversation Aaron managed to convince him that he indeed worked for Bowflex. After a second telephone interview, Bowflex invited Tuttle to Portland, Oregon for a commercial shoot, all expenses paid.

"For thirty to forty-five minutes they filmed me answering their questions about my Bowflex. There was no script."

There was also no pay beyond the free trip to Portland, but Tuttle was happy with the experience. After 23 weeks, he's still using the Bowflex and posting videos. In addition to the Bowflex executives who continue to view his progress, Tuttle has a loyal and growing audience. "I get e-mail all the time," said Tuttle. "This YouTube thing has a life of its own!"

Tuttle does not know yet when the footage he filmed will appear in a Bowflex commercial, but will keep us posted. You can view Frank Tuttle's Bowflex videos at www.youtube.com/user/Frankentut.



## Debate '08 continued from front cover

two additional 900 MB connections from Oxford to Jackson—one going down the east side of the state and another going down the west side of the state. These supplemented the university's existing metro Ethernet connection. The plan paid off when fiber was cut at 8:30 a.m. in Forest, MS, causing the east connection to go down. At that point the university switched over from the primary to the secondary (west) connection. AT&T completed repairs by 1:35 in the afternoon, and the primary connection was restored by 2 p.m. Due to the planned redundancy, most people were unaware of any problems.

Such planning and commitment resulted, by all accounts, in an extremely successful Debate Day.

"When the Commission's team arrived on the Sunday before the Friday debate, they found their expectations and specifications fully met," said Dr. Andy Mullins, executive assistant to the Chancellor. "It was noth-

**Special Thanks** 

Charlie Miles, Department of Music

Wayne Shaw, College of Liberal Arts

Chris Thornton, Student Housing



Teresa McCarver and Ron Savell set up equipment in the Media Filing Center.

ing short of an outstanding performance by our technical staff."

"This was a once in a lifetime event for many of us, and we wanted to represent Ole Miss and the state well by providing supe-

The Office of Information Technology would like to extend thanks to the following people for their help in providing technical support for the

Presidential Debate. We would also like to thank student workers who

**Poindexter Barnes**, National Center for Justice and the Rule of Law

Scott Polston, Department of Computer and Information Science

**Graham Green**, National Institute for Undersea Science and Technology

have not been named, but who are very much appreciated.

Jake Jenkins, Office of Research and Sponsored Programs

Errol Sayre, Office of Research and Sponsored Programs

Clay Pounds was the lucky recipient of a last-minute debate ticket.

Clay Pounds

Management and Information Systems major.

The benefits of the debate to the UM campus continue, post-debate.

Classroom Technology is now installing new 46" HDTV computer/video monitors purchased for the event in 24 or more classrooms on campus and other academic spaces. In addition to the enhancement of

classroom equipment, departments and facilities across campus have been able to purchase monitors, printers, and mobile AV units from the debate pool at significant savings.

The campus network will also benefit from components used for the debate. Robin Miller, Deputy CIO and Director of Technical Services, said, "Equipment purchased to support the debate will be redeployed to help the general network infrastructure of the campus. The health of the campus backbone is good but as network services are distributed to diverse areas of campus there often exists more mature equipment that could not be replaced within the scope of previous backbone upgrades."

Miller added that the campus wireless network infrastructure will also be enhanced with wireless access points purchased for the debate.

In addition to the new equipment, the campus, the Oxford community, and IT are left with a sense of tremendous accomplishment after hosting Debate '08 successfully.

rior technology services," said Kathy Gates.

Dixie Smith Horne Wood, School of Education

Eight IT staff and volunteers were also the lucky recipients of last-minute debate tickets: Poindexter Barnes, Network Administrator for the School of Law; Janice Carr, Senior Computer Operator in Technical Services; Clay Pounds, Senior Helpdesk Consultant; Deetra Wiley, Operations Coordinator; Jason Hale, MCSR Manager of Research Support; Jacob Jenkins, Network Administrator for the Office of Research and Sponsored Programs;

Scotty Polston, Network Administrator for the Department of Computer and Information Science; and Sumpter Smartt, senior



Student workers take a break from assembling television stands used for the debate.

Teresa McCarver, manager of the IT Helpdesk, said, "IT employees, along with staff, student, and high school volunteers, teamed up to assemble technical equipment, provide technical support, and disassemble the equipment after the debate. With the cooperation and dedication of each of these individuals we were able to

accomplish our tasks in a timely and efficient manner. We greatly appreciate each one that assisted."



Journalists from all over the world view the Presidential Debate on Sharp HDTV monitors in the Media Filing Center.

### **New Features for the Campus Directory**

This fall, the Campus Directory has a new look. Faculty and staff listings in the directory will now show information from the My Profile section of myOleMiss. Available enhancements include a photo, areas of expertise, a link to your personal Web page, and the date you joined the university.

Another invisible enhancement is the addition of code that helps keep spammers from harvesting e-mail addresses from the online directory.

Photos, areas of expertise, and other information from your profile appear in your directory entry when uploaded or entered in your profile first. In myOleMiss, choose the Faculty or Employee role and then My Profile to add more information to your profile and your directory listing.

Students can also opt to have their ID photos included in their directory listing. If you need technical assistance in uploading information to your profile, contact the IT Helpdesk at 915-5222 or e-mail helpdesk@olemiss.edu.



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Oxford • Jackson • Tupelo • Southaven Information Technology P.O. Box 1848 University, MS 38677-1848