

Math Lab Key to Course Redesign

For Tristan Denley, doing is better than seeing when it comes to learning mathematics.

“The traditional way of learning, where you sit and watch an instructor do problems on the board, is not very satisfactory,” asserts Denley, who is Chair and Professor of Mathematics. “If you ask any mathematician how they learned mathematics, they’ll tell you they learned by actually doing it.”

This is the philosophy behind the course redesign efforts Denley has led since becoming department chair in 2003.

“I really wanted to see if there was something we could do to enhance student learning in our introductory classes,” Denley explains. “About 2000 students take these courses every semester. I knew we could impact the experience of an enormous number of students very quickly by improving the way these classes are taught.”

The department’s first step was to test two different course software products against each other.

“The first didn’t seem to have much impact on learning,” Denley reports. “But we found in using the Hawkes Learning System that students averaged about half a letter grade higher on their final exams. Those results motivated me to ask the Provost’s Office for money to open a math teaching lab.”

Due to space limitations in Hume Hall where the department resides, the math lab opened in Fall 2003 in Kinard Hall.

“Having the lab allowed us to change the way we teach,” says Denley. “It has taken some tweaking to figure out the right balance, but we think the optimum is two 50 minute lectures in the classroom with students required to work a minimum of 50 minutes in the lab each week, so that’s what we’ve implemented in our elementary statistics, college algebra, and pre-calculus courses.”

The lab has 80 computers and roaming instructors and staff who can assist students.

“Very often in the classroom, the students who need to be asking questions aren’t the ones doing so,” Denley observes. “In this setting it’s literally one on one, and the students who really need help are getting it.”

According to Denley, instructor response to course redesign

efforts has been very favorable.

“This has changed their workloads,” he comments. “Instructors don’t have to grade assignments now, because the software does it for them. Instead they spend the vast majority of time working with students and teaching in the classroom, which is really what most teachers enjoy doing.”

In early 2007, Denley was among 20 scholars chosen by the



Tristan Denley in the Math Department's Computer Lab

National Center for Academic Transformation (NCAT) for its Redesign Scholars Program in mathematics, statistics, and computer science. As part of this three-year national project, Denley visits other universities to share his department’s experiences with course redesign.

“Part of the reasoning behind redesign is to use resources in a more effective way,” states Denley. “If you can teach basic level courses more effectively and efficiently, then you can really transform everything about the department. Our course redesign efforts have not only helped students but have actually strengthened our whole program as well.”

Mark Your Calendars

Upcoming conferences at opposite ends of the state offer opportunities to learn, share, and network.

The 2008 Creating Futures Through Technology Conference and Trade Show will take place February 6-8 at the Beau Rivage Resort in Biloxi. See

<http://sbcjweb.sbcjc.cc.ms.us/conf/> for details.

This year’s annual meeting of the Mississippi Academy of Sciences will be held February 20-22 in Olive Branch. For more information, visit www.msacad.org.

A December to Remember

At 6:00 PM on Thursday, December 13, Telecommunications Center staff and Avaya representatives began a long night of work to migrate 3500 campus phone lines to the Center's new switch.

By the next morning, it was clear the scheduled window for the upgrade would have to be extended due to equipment issues and the nature of the work involved.

"To make the conversion, we had to cut the old cable connections out and reconnect new cables to the new equipment," explains Telecommunications Director David Drewrey. "This required physically reaching inside a very tight frame filled with wires, some of which shocked the technicians as they touched them. It was really difficult work, and in the process some connections were broken inadvertently."

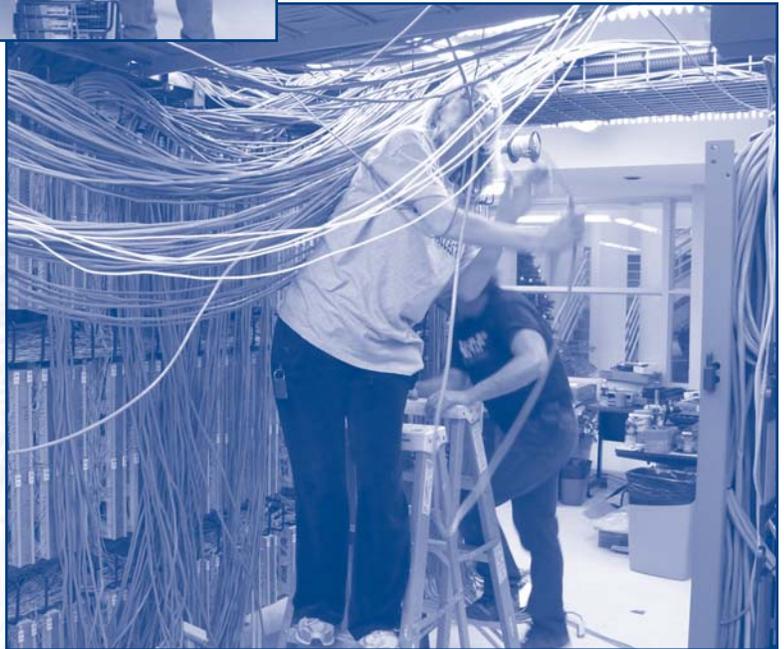


The e-mail and WebMail upgrades, which required the migration of some 25,000 accounts and 90 to 100 million messages, also ran into issues that impacted availability to users.

"Months of planning go into these upgrades but unforeseen problems can arise," notes Chief Information Officer Kathy Gates. "Upgrades can be painful, but they are necessary for security reasons and allow us to provide the levels of hardware and software performance required by the university community."

The challenges of the e-mail upgrade did have an unexpected upside. The developers of the e-mail software were able to identify and resolve an issue that had plagued them for some time.

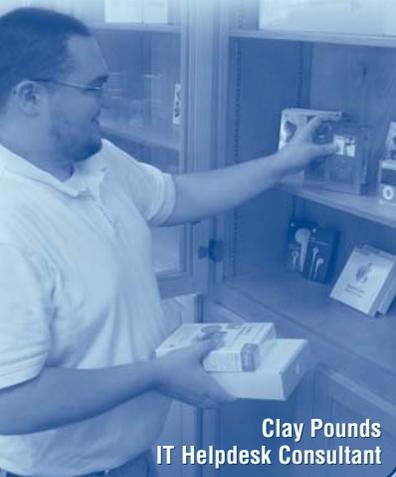
"This bug has been lurking just under the surface for years," wrote NetWin's Chris



Mike Tatum, Michele Mize, and Ronnie Ellis were among the Telecom staff who worked long hours to migrate campus phone lines to the new switch.

Just Gotta Have an iPod?

The Helpdesk Store offers Apple products such as iPods and Macbooks as well as computer services and accessories. Visit the store in Weir 102 from 9:00 to 4:00 Monday through Friday, or shop online at hdstore.olemiss.edu.



Clay Pounds
IT Helpdesk Consultant

Drewrey regrets the disruption to campus service but says replacing the 16-year-old phone switch was definitely the right thing to do.

"The upgrade greatly extends the amount of time we can stay functional without power and gives us full processor redundancy between our two campus switch facilities," Drewrey notes. "We also now have the ability to divide off campus lines between the two facilities which reduces the risk that a failure could take down all those lines."

The migration to the new phone switch was one of several upgrades conducted by the Office of Information Technology in December. Various hardware and software upgrades were also scheduled for e-mail, WebMail, Financial Aid, Blackboard, TouchNet, and the server called sunset which houses individual Web pages.

Pugmire in an e-mail to IT. "Until I saw it on your machine, it never happened frequently enough to track down or even be sure it existed. I'm really delighted to have found it."

It is common for university IT offices to schedule upgrades during the month of December.

"We have to pick a time of year when there will be the least impact to users, certainly when classes are not in session," states Gates. "But it is also necessary to have some users hitting an upgraded system when it goes back online in order to identify and resolve any issues before everyone is back on campus."

Union Offers New Computer Kiosks

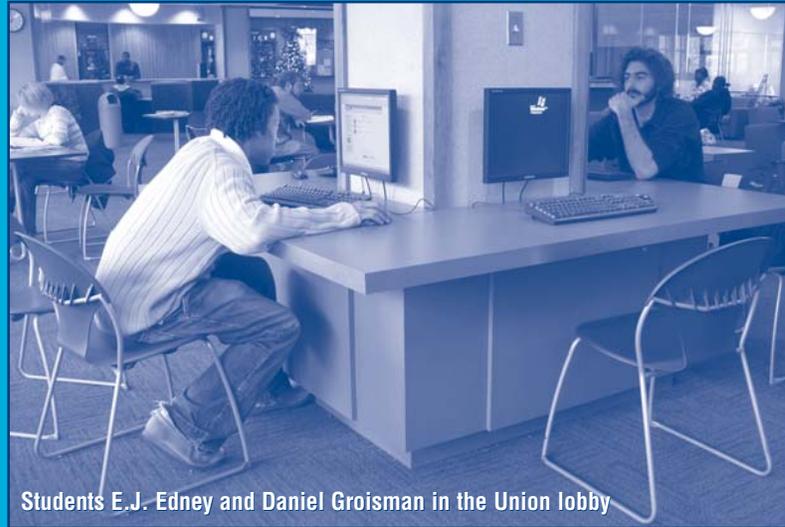
Students and others stopping by the Student Union to grab lunch or shop for books can also check their e-mail thanks to the recent installation of two computer kiosks in the lobby. Each kiosk has eight terminals with Internet access.

"These kiosks are a big step for the Student Union," states Associated Student Body Senator Andrew Edwards. "They provide a quick, easy way for students to keep up with academic work and personal interests on the Internet."

"Every other university I have visited has these types of kiosks in their student centers," notes ASB Vice President Erika Berry. "I am very grateful to see Ole Miss also providing this added service to students. Andrew Edwards did a phenomenal job of lobbying for this on behalf of his peers."

"The students brought forward the idea of computer kiosks, and we were able to work with IT to make it a reality," comments Dean of Students Sparky Reardon. "We did this for a minimal amount of money, and students have been using the kiosks constantly since they were installed."

The Office of Information Technology provided re-purposed computers formerly used in the Weir Hall student lab for the kiosks.



Students E.J. Edney and Daniel Groisman in the Union lobby

Telecom's Circuits Help Stadium Come Alive

Ever wonder how the sights and sounds of game day in Vaught-Hemingway Stadium end up on your television screen? How replays appear on the Jumbotron and flashing ads on the ribbon boards in the stadium? How the referee can speak into a wireless microphone and be heard throughout the stadium?

None of this would be possible without some critical behind-the-scenes work performed by the UM Telecommunications Center.

"We install and maintain the circuits used to transmit the official statistics, game clock, ref's mic, and instant replay from the stadium control room to the television production trucks," explains Gary Smith, Telecom's Inside Plant Supervisor. "We also provide circuits requested by radio and television broadcasters for things such as field cameras and locker room audio."

The workload involved in meeting media requests for circuits depends on who covers each game.

"Lincoln Financial is pretty laid back, ESPN gets a little more complicated, and then it gets really busy when ABC or CBS is in town," says Telecommunications Director David Drewrey. "Even when there is no TV coverage, though, instant replay still requires connections to a production truck."

Telecom's work can get especially interesting when the scheduled game is a big one.

"Sometimes a network will need us to run circuits for things like cameras on the goalposts or a Cablecam that hovers over the

field," Smith notes. "We haven't had that kind of coverage as much lately as we did when Eli was here."

Other types of stadium activities require Telecom's circuits as well.

"We provide a dedicated line for the Sports Information Director to communicate with the production truck and ring-down circuits from the press box to the field," explains Drewrey. "We also support the circuits for the Jumbotron and fiber connections to the ribbon boards that were installed last season."

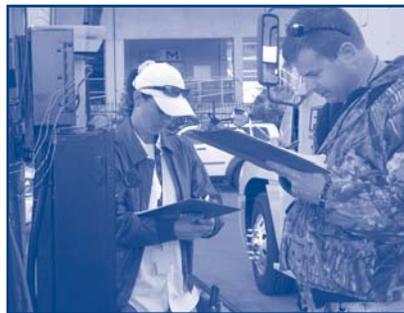
Telecom staff usually spend one to two days before each home game setting up the required circuits.

"A couple of us spend most of game day at the stadium, too, but there isn't much to do if everything is set up right," says Smith. "If those guys in the production trucks have any problems, though, we'll sure hear about it."

Gary Smith takes the excitement of game day in stride.

"I've been doing this so long the newness has pretty much worn off," he observes.

"Still, it's a good feeling, I guess, to know that, win or lose, we play a role in making the game a successful event for Ole Miss."



Telecom's Mary Robinson and Gary Smith work to connect the circuits required by CBS Sports for broadcast of the Ole Miss vs. LSU game on November 17.

Smith and Robinson enjoy the view on game day from the top of Vaught-Hemingway Stadium.