# Growth in Spam Impacts Campus E-mail

When the university's e-mail system bogged down early last November, it was more than a nuisance for Suzette Henry, it was a crisis.

As Manager of Systems Administration, Henry had been monitoring significant growth in e-mail for several months, from just over 900,000 messages a day in June 2006 to almost 2 million messages daily by late October.

"With the resources we had configured at the time, we could not process the amount of e-mail that was coming in," Henry recalls. "It just started backlogging, and that caused more work for the server, which then just completely slowed down."

As detailed in a December 6th New York Times article, "Spam Doubles, Finding New Ways to Deliver Itself," the problem wasn't limited to the Ole Miss campus. Last fall many organizations across the country found their e-mail systems overwhelmed by a marked increase in spam.

There is general consensus that much of the increase can be traced to botnets, large groups of compromised computers that are banded together and used by spammers to send millions of e-mails.

"Our e-mail volume has increased by more than 80% over the same time last year," notes Robin Miller, Director of Technical Services. "And whether it's spam or a legitimate message, we have to process every single piece of e-mail. Like most universities and businesses, I think we're really struggling with how to handle this huge spike in volume."

> "We continue to look at ways to address this challenge."
>
> —Suzette Henry, *Manager of Systems Administration*

During the early November meltdown, Miller, Henry, and others at the Data Center worked intently to restore service.

"We have a 'War Room' with work stations for each administrator," explains Miller. "There's a projector so we can all see what's happening to the system, and everyone's working on some piece to try and correct the situation."

Though the War Room is purposely isolated, Henry says its occupants knew the lack of e-mail service was impacting a lot of people.

"We try to keep the IT Helpdesk informed because they need to know what to tell callers," she explains. "We're e-mail users, too, and even though we knew what was happening, we were very frustrated by the situation."

"Most of our communications about the health of the system are via e-mail," adds Miller. "Our anti-spam software vendor wanted to e-mail us a suggested fix, but we couldn't get the message."

Eventually e-mail was up and running again, but not without a great deal of time and effort being expended.

"The hours were extremely long for a couple of weeks," says Miller. "It took us a while before we felt like we were making progress."

"That didn't happen until more memory and a new server were installed," states Henry. "There was just no solving it with what we had."

"It's not just a nuisance for the University, it's an expense," comments Miller. "We already have to pay for a

## The Numbers Tell the Story

| Month in 2006 | Total Number of Messages Per Month | Percentage of Messages That Were Spam | Increase in Volume Compared to Same Month in 2005 | Average Number of Messages Per Day |
|---|---|---|---|---|
| June | 17,199,709 | 81% | 66% | 906,657 |
| July | 29,600,386 | 84% | 65% | 954,851 |
| August | 32,475,369 | 82% | 66% | 1,047,593 |
| September | 39,228,644 | 83% | 69% | 1,307,621 |
| October | 56,862,583 | 86% | 77% | 1,834,277 |
| November | 68,572,261 | 79% | 80% | 2,285,742 |
| December | 77,639,053 | 85% | 82% | 2,504,486 |

Ole Miss E-mail Statistics: Can you imagine your inbox if there wasn't a spam filter in place?

# IT Multimedia Makes Improvements

By **Ron Savell**, Manager of Technology Services

The purpose of IT Multimedia is to provide faculty and staff with convenient access to current and well functioning equipment for use in their professional endeavors. As instructors and other presenters increase their use of technology, the demand for our services grows. Last fall, we saw a significant increase in the number of requests for campus deliveries of multimedia equipment.

In order to keep up with demand and provide better service to our clients, we're adding new personnel and equipment. We're also making small modifications to our online request system which will enhance our efficiency.

You may have noticed the bright red signs identifying equipment as belonging to IT Multi-

**IT Multimedia student workers Shanteze Kinkle and Corey Foster prepare for deliveries.**

media and containing information on how you can request your own items. We've had trouble in the past with people moving equipment from one room to another, thinking it was okay to do so. In reality, they were removing equipment that had been requested by someone else and placed there by our staff for specific use in that room. As you can imagine, this causes big problems for the person who requested the equipment and for us.

We're excited to support the teaching and learning that takes place on this campus. If you need multimedia equipment, please visit www.olemiss.edu/itmedia and submit your request. You can also contact us at 915-7908 or itmedia@olemiss.edu.

## TECHNews Updates

■ The University has purchased a one-year license for SafeAssignment, the anti-plagiarism software piloted on campus last fall. Associate Provost Tim Hall reported very positive feedback from participating instructors surveyed at the end of the semester.

■ A new Clicker User Group met January 10 as part of a presentation by Julie Weiss of InterWrite Learning. The group hopes to share ideas and information for teaching with clickers through occasional meetings and a discussion board.

■ UM Webmaster Robby Seitz is hosting monthly meetings for all departmental webmasters. The first meeting was held January 12 and featured a presentation by Wayne Shaw on using CSS to create printable versions of Web pages.

For more information on using SafeAssignment or joining the Clicker User Group, contact the Faculty Technology Development Center at 915-7918 or ftdc@olemiss.edu. To learn more about the webmaster meetings, contact Seitz at 915-7822 or rseitz@olemiss.edu.

## Self Service Offers Payroll, Travel Info

If you've never used the Self Service for Employees feature in Online Services, February 28 will be a good time to start. That's the first payroll date for which the Department of Human Resources will no longer issue paper remuneration statements to employees whose pay is directly deposited to a bank.

In Online Services, when you select the blue University Employees tab, a "Self Service" button appears on the gray bar. Click that, and you'll get three choices: "Employees Earning Record/Payroll Stub," "Travel Advances and Reimbursements," and "Set E-mail to Groups Preferences."

The first lets you view and print the statements for both current and past payroll periods.

The second option allows you to review the detailed information for your university-related travel, including approval and settlement status and advance and total trip amounts.

With the last Self Service link, you can choose whether you want to get all messages sent via E-mail to Groups or only those designated as necessary for all employees to receive.

## Media Lab a Great Resource for Students

Sophomore Kemi Alabi, senior Joshes Tamrakar and freshman Mandy Brocklehurst utilize the equipment in the Galtney Center's Student Media Lab.

Students can reserve the high-end lab for creating group projects and practicing presentations. Equipment includes one Macintosh and five Windows-based computers, a photo scanner, printing services, and an LCD projector and screen. Multimedia software, including PowerPoint and iMovie, is available in the room. With an instructor's permission, students can check out a digital video camera and tripod to use for class projects.

Visit www.olemiss.edu/itlabs/medialab.html for reservations and more information.

# Cool Tech: SchoolPadding Around the Room

By **Amelia Rodgers** in the Faculty Technology Development Center

Have you ever wanted to walk among your students and be interactive but feel tied to a computer at the front of the room to conduct your presentation? Do you wish you could physically circle or highlight something displayed on the screen rather than just pointing or using a laser dot? Would you like to have students interact with the information displayed but find it awkward and time-consuming to have them traipse up to the lectern?

If you answered yes to any of these questions, the InterWrite SchoolPad is definitely a product you should investigate. It's a really ingenious handheld Bluetooth wireless pad which lets you teach or present from anywhere in the room.

An electronic pen on the SchoolPad is used to write, highlight, or draw on the projected image and has full mouse capabilities, including drag and drop and left and right click. A record feature captures movements on the screen as an AVI file that can be used as a tutorial video clip. Your presentations with all notations can be saved, printed, e-mailed, or posted to the Web or in Blackboard.

Doing real time annotations on PowerPoint slides, Web pages, or anything else displayed on the screen keeps the audience engaged. Plus, you can hand over the SchoolPad to students and let them contribute from their seats.

The SchoolPad software includes an image gallery, lesson resources, and multiple page templates. It is totally compatible with the InterWrite PRS RF clicker, the standard for use by UM instructors.

I recommend the SchoolPad as a cool device for adding creativity and flexibility to your presentations. Contact the FTDC at 915-7918 or ftdc@olemiss.edu to arrange a hands-on demonstration of this product. Or you can experiment with the SchoolPad's functionality on your own computer by visiting www.gtcocalcomp.com/interwriteschoolpad.htm and downloading a free trial version of the InterWrite software.

# New Features Available in Blackboard

By **Penny Rice** in the Faculty Technology Development Center

The Blackboard upgrade, which took place in late December, provides several new features that may be of interest to faculty. Instructors can now use a Quick Edit feature to make changes to content from within the course view rather than having to go through the Control Panel. The advanced course menu allows users to toggle between a Quick View (the original menu design) and a Detail View, which displays a clickable link to each item in the course.

An Adaptive Release option lets instructors create custom learning paths through course content and activities. Items may be released to students based on criteria such as date and time, specific users, group membership, grades, attempts, or review status of another item in the course.

When creating online assessments in Blackboard, instructors can choose from ten additional question types: calculated, numeric response, file response, hot spot, multiple fill-in-the-blank, jumbled sentence, opinion scale, short response, either/or, and quiz bowl questions. Instructors also have the ability to randomize multiple-choice answers for each assessment attempt.

Current Bb Gradebook calculations for the Total and Weighted Total columns include items that have not yet been taken or graded. A new option to exclude untaken or ungraded items is now available through the Running Total and Running Weighted Total column displays.

The upgraded Blackboard also includes a spell checking feature, the ability to create a course glossary, and a Bb messaging feature which allows instructors to communicate securely with students within the course.

For any questions or further information about Blackboard, please contact the FTDC at 915-7918 or blackboard@olemiss.edu.

## Are You a Blackboard User?

If so, you may be interested in MSBUG, the Mississippi Blackboard Users Group (cia.rcu.msstate.edu/msbug). The group is comprised of members from schools, colleges, and other institutions who join together to share ideas and best practices, get answers to questions, and collaborate on presentations and projects.

The 2007 MSBUG Conference will be held Sunday, February 25, in Biloxi, just prior to the Creating Futures Through Technology Conference sponsored by the Institutions of Higher Learning and the State Board for Community and Junior Colleges. Registration for both conferences is at www.outreach.olemiss.edu/cfttc.
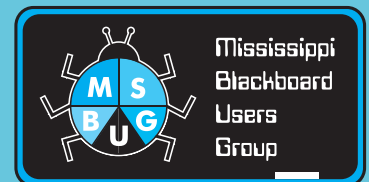
# It's That Time Again!

The Office of Information Technology has negotiated the renewal purchase of Symantec's Norton Corporate Edition anti-virus software. In order to fund this renewal, there will be a fee of $5.25 per license purchased. That's a savings of 25 cents per license compared with last year's renewal price.

Departments will receive memos with specific information related to the renewal of their licenses. Please contact Teresa McCarver at 915-5714 or tmc@olemiss.edu with any questions.

# In the War Room

Suzette Henry's background and experience serve her well when the pressure is on.

A native of New Albany, Suzette obtained BS and MS degrees in computer science from Ole Miss. She joined the staff of the Mississippi Center for Supercomputing Research in 1988 and became Manager of Systems Administration in 1999.

Suzette oversees a system staff that provides operating and hardware support for some 80 servers in the Academic, Administrative, and High Performance Computing (HPC) environments.

At the June 2005 SGI User Group Conference in Germany, Suzette presented a paper on an initiative job control project that she implemented jointly with SGI at Ole Miss.

When she's not behind a computer, Suzette enjoys playing the piano, singing, baking, and doing crafts such as candle making and flower arranging.

## Growth in Spam *continued from front cover*

software package to filter spam and for the underlying infrastructure to manage the volume. Now we've had to spend more because the situation is escalating."

Miller points out it's not just spam that can slow the performance of the system.

"We have university organizations which send large numbers of e-mails to people off campus," he explains. "If those messages are sent all at one time, that can impact the system and slow down e-mail for everyone. It definitely helps if mass e-mails are sent in manageable batches."

E-mail to Groups is the preferred way to send mass communications to Ole Miss recipients. The online service allows users to customize distribution, so a message can be sent to students, faculty and staff, or a list of recipients limited by organization, gender, or classification. Because E-mail to Groups uses plain text and doesn't allow graphics, the size of messages remains relatively small.

"There is growing pressure on our processing resources as even legitimate e-mails get larger and larger," says Henry. "Attachments are commonplace, and those must be processed just like messages."

Miller concurs, "E-mail continues to evolve. It's not just a mode of communication anymore, it's a way to share images and files. In addition to volume of e-mail, it's the size of messages that can impact how efficiently the system works."

"The incredible growth in volume creates the potential for more problems like we had last fall," Henry adds. "We continue to look at ways to address this challenge. We're trying to reduce the number of 'known' spam messages from being received and processed by our system, and recently we've been working to isolate our anti-spam and anti-virus servers so they can't be targeted by spammers."

Users may continue to feel the effects of this ongoing battle.

"When we're receiving a large number of messages, it's a balancing act to maintain the necessary resources for everyone to continue sending e-mail successfully," explains Henry. "As we work to prevent backlogs, some users may not be able to connect temporarily when trying to send. It's our goal to limit these inconveniences as much as possible."

To view messages sent to your Ole Miss e-mail address but filtered by anti-spam software within the past seven days, visit spam.olemiss.edu.

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