Information Technology News for the UC Davis Community



The campus now offers an expanded email forwarding service, which allows you to have your @ucdavis.edu incoming mail automatically sent on to a new address for as long as you like. Graduates, retirees, and others leaving the campus since the end of the 2004-2005 academic year can take advantage of this optional and complimentary service by registering at emailforwarding.ucdavis.edu. Click the "Begin" button on the left and off you go...

Not So Fast!

Before signing up for email forwarding, do yourself the favor of signing up for the Online Password Reset Service. This way, if you forget your password after having left UC Davis, you'll be able to change it, because you will need it to renew the Email Forwarding Service every other year.

Visit computingaccounts.ucdavis.edu, select the "Change Your Password" button, and click on "Begin." Note: You must change your password (or go through the motions of changing it by entering the same password as your "new" password) prior to setting up the identity verification questions.





Drew Talley's Rural Scientific Research

Drew Talley is one busy man. In any given week, he can be found researching in the labs of Davis, kneedeep in the estuaries of San Francisco, or collecting specimens on Mexican beaches. A marine ecologist, Talley is always on the move and often in the field.

The nomadic researcher is and has been associated with a number of universities and organizations, among them UC Davis, the San Francisco Bay National Estuarine Research Reserve, the Centro de Investigación Científica y Educación Superior de Ensenada, and New Zealand's National Institute of Water & Atmospheric Research. As a UC Davis Associate Ecologist, Talley furthers this university's studies on ecosystem interactions and habitat conservation. To that end, Talley's work, which—ironically—relies heavily on modern technology, often takes him to remote and uninhabited locations.

Bringing Science & Technology to Untamed Areas

Talley's studies focus on marine habitats and their interactions with surrounding ecosystems; one of Talley's southern California projects, for example, examines the impact of a salt cedar tree (terrestrial ecosystem) encroaching on the neighboring salt marsh (aquatic ecosystem). Talley hopes that this research will yield insights on the ways environments interact with each other and, in turn, reveal steps that could be taken to preserve habitats that are or might become endangered.

VITO, VIDI, VICI

UC Davis' Hilgard Project Poised to Conquer the Mysteries of Winemaking

> The sign on Roger Boulton's door reads, "Where there is chaos, there is opportunity." It's small and not really part of the Hilgard Project, but it explains it succinctly. Dreamed up in August 2001, the project is tackling some of the existing chaos within winemaking and turning it into worldwide research possibilities— with the help of Professor Boulton, whose life passion resides within a small acre of north campus, some of it underground.

Winter 2006

Keeping the Baseline

Boulton is Professor of Enology and Chemical Engineering, the Hilgard Project's administrator, and, today, a tour guide, explaining how the various project parts fit together. At the heart of the project, in a nondescript part of Wickson Hall, is a simple Dell computer.

Although not impressive technologically, the computer serves an important purpose. It houses a growing stockpile of information from UC Davis and around California: experimental values from the department's many research projects, such as how cover crops affect carbon levels below the ground and how vine roots behave under different irrigation regimes (and, soon, weather data amassed over the years by the California Irrigation Management Information System).

Large Tanks, Rubber Boots, and a Wire to the World

Though just a few steps from Wickson Hall, the teaching winery is a decidedly different place. More industrial than academic, it houses large stainless steel tanks, a concrete floor with center drain, and a large jumble of rubber boots for winemaking students to wear in the winery. Boulton is clearly at home here, sprinting up the metal stairway

See" Hilgard" Back Page

Brainwaves of the Future Podcasting MP3s for the Education Generation

Instructors have long recorded lectures onto audiocassettes, which students could then take home and listen to. This year, however, a team from Information and Educational Technology (IET) is working to improve how that's done.

Building on the success of the Fall Convocation podcast, the team has developed an MP3 pilot project for class lectures, hoping that the popularity of MP3 players will make the lectures available to more students.

What's an MP3?

MP3s are computer files that can be downloaded and listened to on a computer or other electronic device. Invented in 1991, this type of file was designed to reduce the amount of data required to represent audio, while maintaining its sound quality. MP3s are the type of files downloaded to iPods. "Podcasting," a term derived from iPods, involves subscribing to a series of MP3 files, which are then automatically delivered to the subscriber.

A similar project, in which he works with beetles, plants, and other living beings, is one that Talley and his colleagues have continued since its leader, Professor Gary Polis, died in 2000.

Dr. Polis, former UC Davis Environmental Studies department chair, was killed in a boating accident while studying natural habitats on Mexican desert islands and wetlands. Talley and his colleagues have committed themselves to continuing the late professor's research, despite the dangers of working in a remote clime populated with cacti, poisonous snakes, and scorpions.

Talley explains that "Gary reveled in educating people as much as he did being out in and learning about the environment," a fact that led to the application of Polis' research in the form of an educational outreach program. The 20-week program, operated as a partnership between Aquatic Adventures (a non-profit educational organization) and San Diego's Hoover High School, brings kids to Bahía de los Angeles—the site of Polis' work—for five weeks each summer. The students act as research assistants, working to move science forward while simultaneously improving their own skills.

This rural town features few staples of modern life. Amenities like running water, air conditioning, and mail service are nonexistent. The students and researchers stay in the same rustic field station Professor Polis once used. Showers are limited to twice weekly, and clothing is

See "Talley," Back Page

The Pilot Project

The pilot team helped four Davis instructors record and post their Fall quarter lectures, a process that became easier for the instructors to do themselves as the quarter went on. Victoria Cross, a pilot participant, posted her Psychology lectures weekly in a process that "took about five minutes and seldom failed."

The goal, says Tim Leamy, one of the pilot team members, is to "make uploading and downloading the files both simple and reliable," and it seems to be working: early surveys show that 10 to 25% of students downloaded recorded lectures each time they were offered.

Cross points out the usefulness of such lectures: one student, whose attendance was otherwise perfect, had to miss class for a funeral and found the podcast lectures "meant one less concern while he was out of town."

Want to Get Your Lectures Online?

Based on the success of the pilot, the IET podcasting team is expanding its MP3 program. For details, call Rodd Kleinschmidt at 752-8121.



Keeping Data Safe on Your Home Computer

You know you should back up our computer data, so why wait until the emergency situation makes it too late? Start the year right by following this guide to backing up data.

Backing Up Data: Explore Your Options

Floppy Disc: Floppies are rarely used anymore: the discs are unreliable, have minimal storage capacity, and newer computers no longer have floppy drives for reading such discs. Having said that, if they're all you

CD, **DVD**: These are safe, take up very little space, and are portable. This backup solution is considhave, take advantage of them. ered best for most home computer users. What's more, you can buy rewritable discs and reuse them as

you save new data, thus cutting back on the amount of plastic you use.

Zip Disc: These can fail without warning and, with the advent of DVDs and CDs, are no longer commonly used, so you're better off making the jump to a different form of data storage. Note: "Zip" is

a brand name, but has become the generic term for these "superfloppy" disc storage units. Data Storage Software: Many newer model computers come outfitted with backup software.

What the software won't do, of course, is protect your data should something happen to the computer itself (e.g., theft, fire, water damage). For this reason, you should also back up your data to an

If you want to run scheduled backups or have critical data to back up, you might want to look offsite location (i.e., off and away from your computer). at specialized backup software. Some of the more popular choices are Retrospect by EMC2 Danz (www.dantz.com), designed for individual users (both PCs and Macs); and Yosemite Backup

Desktop (Visit yosemitetech.com and click on "Backup Desktop").

Internet-Based Storage: These services keep your data safe from disasters that might strike data stored near your computer (e.g., fire, earthquake) and they're automated, so you can set them to store data automatically. Note that your computer must be on and connected to the Internet while backing up data. Moreover, for an online service to be effective, you should have a high-speed Internet connection; without it, backing up time is multiplied expo-

Smart Computing Magazine (April, 2005) offers the following Internet-based backup options: Data Deposit Box (www.datadepositbox.com), BackUp Solutions (www.backupsonentially. Iutions.com), and Professional Offsite Data Backup (www.backmeupoffsite.net).



It varies depending on your computing practices. If you work with sensitive data, back it up as often as nightly, but at least weekly. Less critical information can be backed up monthly.

Hint: if you're backing up your data manually (as opposed to automatically, as with an online service), you might link the task to some other regular event, such as payday or a regularlyscheduled meeting; you'll be far more likely to stick with your new backup

PARTNERS E RESCUE One-on-One Educational Technology Help for Faculty—In Your Office!

In addition to the quarters-long service the Educational Technology Partners have provided to campus departments and faculty, the Partners now offer ad hoc, one-on-one assistance for instructors needing help with educational technology matters. If you're having difficulty using the Website Builder in MyUCDavis, setting up a chatroom for teaching purposes, or importing a video clip into a PowerPoint presentation, for example, ET Partners can help you through your bind.

Instead of applying for a partnership, you can now receive aid from a student on an as-needed basis, and in the comfort of your office! This allows you to learn on your own computer so that when the Partner leaves, you can keep working, rather than recreating the work you learned elsewhere. Alternatively, as in the past, the Partners can assist you at 161 Everson Hall.

The Campus Computing Help Desk

DROP IN 182 Shields Library M to F, 8 am to 6 pm Weekends, 1 pm to 4 pm

> CALL IN 754-HELP

To make an appointment, call or email the Partners. Sessions can be from five minutes to one hour, and after the session you may make another appointment if you continue to have difficulty or should another problem arise.

Note: As always, you should contact the IT Express Computing Help Desk for quick assistance with software and hardware questions. If your particular query is best addressed by one-on-one personal assistance, they will forward you to the ET Partners.

Phone: 530-754-2115 Email: etpartners@ucdavis.edu Web: etpartners.ucdavis.edu Walk-In: 161 Everson Hall

SEND IN ithelp@ucdavis.edu

What about My Office Computer? support staff for your department or unit should have in place a backup system for all computers under their supervision. If you're not sure who your IT support staff is, call IT Express at 530-754-HELP to find out.

Foreign Media Broadcasts Free to UC Davis Affiliates via SCOLA



- Live online broadcasts of 70 foreign programs
- Programming available 24/7
- Downloadable audio/video clips with transcripts and English translations
- Instant-Lessons: ready-made multimedia classroom lessons

Satellite Communications for Learning (SCOLA) uses are endless: enhance your students' or your own education in any number of fields: Political Science, Cultural Diversity, Media, Communications, Business, History, Sociology/Anthropology, Geography, Health, Government and Law, Religious Studies, Counseling, Literature, and Foreign Language. SCOLA is used by hundreds of schools, including Harvard, Yale, and several UCs.

Thanks to a partnership between IET-Classroom Technology Services and the Language Learning Center (LLC), and a grant from the Teaching Resources Center, faculty, staff, and students may access this service free by contacting LLC Office Manager, Kevin Waterson (kbwaterson@ucdavis.edu) for a login ID and password.

The university has a one year subscription to the service, which is renewed yearly based on popularity and usage by educators and staff such as you.



If you can't seem to escape the nasty grip of unsolicited commercial email, also known as spam, make sure you're taking full advantage of the campus spam filtering system. Begin to regain control of your email inbox by following these four steps.

Note: If your mail goes through a departmental server, you won't be able to set up.the campus spam filtering service. Contact your department tech support if unsure.

1. Set up campus spam filtering. email.ucdavis.edu/secure/spamfilter.pl



Configure your email for campus spam filtering by selecting from four options.

The second option, filtering as much spam as possible and putting it in spam and quarantine folders, will give you a weekly spam digest, and peace of mind if you're concerned about desired emails being tagged as spam.

> If you've set up spam filtering, but can't recall your selections, click on "Check My Current Settings."

2. Check your campus spam and quarantine folders.



New folders are posted weekly in MyUCDavis and Geckomail and are deleted after 28 days. Check them periodically to move any desired email to other folders.

UCD-quarantine folders contain messages with a very high spam content score. About 10% of all incoming spam is automatically filtered into these folders. You may opt out at Step 1.

UCD-spam folders (generated if you choose the second option in Step 1) contain additional messages with a high spam content score. Some desired email may be identified as spam and filtered into these folders.

3. Filter spam with your non-UC Davis email program. security.ucdavis.edu/spam.cfm



Total Spennification
Instructions for:

Total Spennification
Instructions for:

Spennification

If you use Outlook, Eudora, Mozilla, or another non-UC Davis email program, you might be able to set up spam filtering there as well or, if the filtering is automatic, train it to recognize what you consider to be spam.

3

Data Storage: It's Not Just for Word Docs Anymore

There is likely information on your computer—other than documents— that you'd want to protect: your email address book, for instance, or the emails themselves; and what about your Web site bookmarks? IT Express has developed a how-to guide for taking care of just these items. Visit email.ucdavis.edu/backup for directions.

As for software programs (e.g., Microsoft Word, Adobe Acrobat), you should keep the original installation discs and licensing keys (i.e., the serial numbers) in a handy location. In the event that something happens to the programs on your computer, or should you buy a new computer and want to use those old programs, you'll have them close at hand and ready to re/install.

Now To Safeguard the Backups

The physical safety of your backedup data must now be ensured. To that end, you might want to store your CDs, DVDs, or floppy discs in a safe deposit box, a home safe, or some other invulnerable location.

Need Help?

Is That It? Well, Nearly...

Don't forget to get out your data backup device from time to time and check to see that it actually works. Again, you might tie this task to some other, such as the end of each quarter. This way, when you actually need the data, you know it will be there for you, and this new year *will* be a happy one.

4. Create your own Allow/Deny list.
email.ucdavis.edu/secure/adlist.pl



Specify email addresses from which you always wish to receive email (Allow) or never wish to receive email (Deny).

> If a message is tagged as spam, but the address is on your Allow list, it will arrive in your inbox, and if it's not seen as spam by the filter, but is on your Deny list, it will be sent to a spam folder. An Allow list may be especially useful if you subscribe to mailing lists, magazine, or news services.

If you're having trouble with any aspect of the spam filtering system, call IT Express at 530-754-HELP or email them at ithelp@ucdavis.edu. Note that you must first sign up for the spam filter to establish an Allow/Deny list.

The Hilgard Project

Continued from Front Page

between the six 2000L fermentation tanks, and pointing out the grape skins floating in a slightly-stinky aqueous substance that will someday soon be wine.

From up here, Boulton points to a yellow cord spiraling down one tank, and explains that this simple cord has far-reaching implications: it sends measurements taken inside the tank through cyberspace and onto other scientists' computers. If a scientist anywhere in the world has a similar cord, a computer, and an Internet connection, she will soon be able to monitor conditions within the

tank just as easily as if she were in Davis. For Boulton,

such sharing is about "increasing the number of brains" thinking about winemaking and grape-growing research, and thus



breaking the barrier between researchers who have the vineyards, time, funding, and equipment to create experimental conditions (such as those in the tank) and those who don't.

Tellingly, when Boulton talks of the Hilgard Project, issues of copyright don't come up. Instead of viewing this project strictly in terms of what it can bring to UC Davis research (which is substantial), he has raised his sights to include winemaking worldwide. Once UC Davis posts its research data, other institutions around the globe will follow suit and, in the process, broaden everyone's informational base and hasten the rate of scientific return.

Moreover, Boulton believes this system of information sharing and technological innovation could work in other fields, not just in viticulture: "This type of aggregate research approach could be used to track farming procedures for pears, strawberries, apples, or be used in the field of chemistry..." His voice trails off as he imagines countless possibilities.

The Wired Vine

One of the Hilgard Project's several goals is to create a "wired vine," a reference vine at the Department's Oakville vineyard hooked up to a host of sensors and cameras. As the vine grows, the sensors and cameras will measure how well the vine does in response to its environment, taking in factors such as how a mountain range in the distance affects the plant's water loss, or how the hour of sunset affects its growth. Calculations like these will help take the guesswork out of choosing places to plant, and UC Davis will become the online reference for grapevine measurements. Based on the information from the wired vine, a grower would be able to estimate how a vine would perform at different locations, whether surrounded by hills or in a flat, sun-filled place. Boulton sees this as only the first of a state-wide—and eventually global—network of webbased vines.

Although the wired vine doesn't yet exist, and neither does

the massive compilation of raw data, this doesn't seem to be an overwhelming concern to Boulton. Private companies such as Rosemount Analytical and OSI Software have augmented the university project, and via this combined effort, Hilgard moves slowly forward from vision to reality.

Fine Art and the UC Davis' Wine Cellar

At the tour's conclusion, Boulton heads down into the campus wine cellar. Inside this dimly lit and befittingly musty space are floor-to-ceiling wine shelves. More than wine, however, rests here. The cellar contains a lot of history, explains Boulton, as he motions to where Ansel Adams once stood, aiming his

camera at the cellar's far wall.

The resulting photograph now hangs in a room in Wickson, and beneath it is a painstakinglycarved wooden table bearing the UC Davis campus insignia. Such works of art, while of a different type than the Hilgard Project, reflect that endeavor's features: carefully-crafted, unique, and long-lasting. Completing the project will surely take time, perhaps years—but that's just as long as it takes to make a good bottle of wine.



washed with an old-fashioned scrub board.

And yet, the field station features a satellite on its roof so that researchers can access the Internet and transmit data. What's more, a glimpse inside the station reveals an arsenal of modern technology: seven laptops are available for data entry or—if information about a particular location or animal is needed—retrieval. Many members of the crew carry digital cameras to snap photos of research specimens, and they have the ability to send the photos right on to fellow researchers in the United States, Mexico, and even Spain, where one of Dr. Polis' former colleagues conducts similar research.

Talley and his team arrive at Bahía de los Angeles armed with aerial photos of the research site that have been retrieved and printed from the Internet. If some foul weather should thwart their Internet connection, Talley's iPod, configured to store documents, audio and video files, serves as a backup database of information on research specimens.

This union of technology, science, and research enable Talley and his crew to record information swiftly regarding the Sea of Cortez's aquatic inhabitants, the foodwebs of the islands, and the size of cacti. On many islands, there is no sign of "civilization" or other human beings for miles, yet Talley's band of students, teachers, and researchers have the most modern of equipment at their fingertips.

Lessons in Technology

The teens involved in Talley's Mexico program come from economically-disadvantaged backgrounds; as such, many lack experience in science and technology. They are often using Microsoft Excel and PowerPoint for the very first time.

Talley and his colleagues handle this situation in two ways: before the program, students receive training in necessary skills such as basic computer use. During the program, Talley has "the tech-savvy students help their peers" with the technology. The students strengthen their skills and utilize technology to better understand their data, through using programs such as ArcGIS. Moreover, they return to San Diego with an unexpected benefit to the sciencefocused program: a greater knowledge of computing technology.

Conservation Research in Action

Fittingly, Talley researches in another professor's laboratory while on the Davis campus, as he doesn't have a lab of his own. Today, the ecologist sits slumped on a stool, typing diligently on his Apple laptop while post-doctoral students conduct experiments all around him. He looks up from his work to explain that he hopes Polis' research will shed light on the nature of marine habitats and will eventually be used to restore and protect threatened environments.

Ecology, Technology, and a Committed Scientist For Talley, technology is



just the means to a very satisfying end: "the insights we gain with the help of technology will help us better understand the world around us and also train young scientists at the graduate, undergraduate, and even secondary school level, so we might make strides in environmental public awareness." The quest to learn, teach, and improve ecology is one that takes Talley all over the world, but for this week, he's happy being in Davis, working from the comfort of an insulated building, complete with electricity and running water.



MITEIESS

If you access the campus network through a wireless connection, a.k.a. Moobilenet, you may notice the process of logging in and confirming your UC Davis identity takes a few extra seconds. These additional seconds allow scanning to ensure your computer isn't vulnerable or infected--the same vulnerability scanning that occurs when you log into the campus network using a non-wireless connection. In fact, the login Web page should look familiar because the campus wireless network now uses the same UC Davis Secure Login. This means you won't have to re-enter your password when you access protected campus Web sites like MyUCDavis and Geckomail.

> Wireless access for UC Davis guests will also soon be available. Visit wireless.ucdavis.edu to learn more.

TechNews

technews.ucdavis.edu

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