

# IT

Information Technology News for the UC Davis Community

# T I M E S

Summer 2006

# SMARTSITE

SPECIAL EDITION

## MEET SmartSite: UC DAVIS' NEW PLACE TO TEACH, LEARN AND WORK ONLINE

*Editor's note: Instead of covering our usual variety of information technology topics, this special edition of the IT Times focuses on SmartSite, a new set of course management and collaboration tools available to the campus starting this fall.*

Did our ancestors carve their students' grades into slabs? Do you suppose high-tech villagers used smoke signals as a tool for distance learning? Perhaps nobody knows, but this much is certain: technology is revolutionizing the face of education today. To keep up, UC Davis is introducing a new course management and online collaboration toolkit called SmartSite.

Instructors can use SmartSite to organize their courses—and to interact and collaborate with students, colleagues, and researchers—by using discussion boards, chat rooms, virtual office hours, wikis and more.

By adopting SmartSite, the campus hopes to make it easier for instructors to teach, for researchers to work together, and for students to tap the benefits of online collaboration. Instructors should find ways in SmartSite to teach more effectively, and to do things they couldn't do before.

The new system will replace the more limited course management tools now available on MyUCDavis.

SmartSite is designed to grow and evolve. It uses the Sakai system, an open-source software application with roots at the University of Michigan, Indiana University, Stanford University

and MIT. About 100 institutions of higher education are working together on Sakai with the goal of designing the most intuitive, feature-rich course management and collaboration tools available.

Another goal is to create a system that's easy to adapt as the needs of higher education change.

The core campus is working with the UC Davis Schools of Medicine and Veterinary Medicine to develop SmartSite (known as CERE in Vet Med). Instructors all over campus have volunteered to try the tools, use them in their classes, and suggest improvements.

SmartSite will be available for all Davis courses next year. For another year or two after that, the existing MyUCDavis course management tools will run in tandem with the SmartSite tools. That allows time to switch from the old system to the new.

After organizers conclude that SmartSite has all the MyUCDavis features that current users expect, the MyUCDavis course management tools will be retired.

For now, SmartSite does not have Gradebook and QuizBuilder tools that can fully meet instructors' needs. Those features should be available next year.

But SmartSite has plenty of other tools ready for use—making this summer and fall a good time, organizers say, for the campus community to start playing with SmartSite and learning what it can do. ■

**TECHNOLOGY is  
REVOLUTIONIZING  
the face of education**

## THE first WAVE

D. Kern Holoman, Joe Kiskis and Birgit Puschner work in widely different disciplines—music, physics and veterinary science. Although each knows tech, none is a high-tech wizard.

Still, the three UC Davis instructors have found it fairly easy to use SmartSite to help manage their classes this year, and each sees potential for using the online system to do their work better, more easily, or both.

SmartSite is based on Sakai, a course management system started in 2003 by a partnership of universities in the United States. They set out to create a better way for instructors, researchers, students and university employees to use online communication technology to collaborate, teach, learn and research.

Let's be honest, though, that description is a little too stiff to tell you what the system can *really* do. SmartSite becomes engaging when an educator finds a way to use one of its tools to do something useful—maybe surprisingly useful—with less tedium than it takes to do the same task in a traditional way.

That moment might arrive for some users when instructors add the "virtual office hours" feature, which lets students get face time with a TA or professor from home. For others, the tipping point might come when students fire up an instant-message chat room some evening to discuss an upcoming exam, and the SmartSite Web site for the course preserves the collaborative online discussion as a resource for other students.

But we're getting ahead of the story. The first wave of about 12 UC Davis faculty members road-tested SmartSite this winter and spring, before it was even christened SmartSite, using tools that any instructor in the university can now sign up for as the campus starts rolling out the system for wider use. (It will eventually replace the course management tools now available in MyUCDavis, the campus Web portal.)

Here's what a few of them found.

### Fine for communication, but the wiki editor needs Greek letters

Puschner, an associate professor in the molecular biosciences department of the UC Davis School of Veterinary Medicine, used CERE (short for "Collaborative Educational Research Environment," the vet school's version of SmartSite) as the main

*(Continued on page 3)*

**Boohyun Lee, a Ph.D. student in the UC Davis School of Education, explores SmartSite (Sakai) at a workshop on May 5 in Hutchison—one of the first campus events introducing the new system to general Davis students.**



## SmartSite at a glance

### WHERE DO I FIND IT?

At [smartsite.ucdavis.edu](http://smartsite.ucdavis.edu).

### WHAT IS IT?

An easy-to-use, extendable set of course management tools that help academics organize their work—and collaborate with students, colleagues and others—from anyplace with a Web link. It can make tasks more efficient, and can grow, evolve and change; hence the name, SmartSite.

### WHO CREATED IT?

SmartSite uses Sakai open-source software. Sakai originated at the University of Michigan and Indiana University several years ago after each began independently to develop open-source course management and collaboration systems. They teamed up, MIT and Stanford soon joined in, and today about 100 institutions of higher education are part of the Sakai Project.

### WHY DID THEY CREATE IT?

To get better results by cooperating on open-source software. Previously, institutions either developed their own course management and collaboration tools, or used commercial software. Neither provided an ideal solution that could grow with technology, and users often had to learn new systems. Being easy to customize should help Sakai keep up with changes in educational technology.

### WHY IS UC DAVIS ADOPTING IT?

The course management tools in MyUCDavis have become increasingly difficult to extend and scale. Using SmartSite helps the campus trade up, and integrate its course management features with other emerging instructional technology and communication tools.

### WILL SMARTSITE REPLACE MYUCDAVIS?

The course management side of MyUCDavis, yes. The MyUCDavis course tools will be retired within a couple of years, although the push to switch to SmartSite starts this fall.

### HAS ANYONE TRIED IT AT UC DAVIS?

Several faculty members have tried pilot versions this year. Vet Med will use that school's version, known as CERE, to manage all of its coursework starting this fall.

### WHAT'S IN IT FOR ME?

**INSTRUCTORS:** SmartSite helps with administrative chores and creates a collaborative learning place for students. It distributes documents, schedules and assignments; it encourages cooperative learning by allowing students to build publicly editable wikis. It fosters critical discourse on discussion boards, keeps track of courses, and hosts virtual office hours ... features like these. **RESEARCHERS:** The system helps researchers network with colleagues, organize data, work together on projects, chat in real time, brainstorm solutions on discussion boards, and host video conferences, to name a few. **STUDENTS:** They can use SmartSite to host Web sites, plan events, share files, form UC Davis-related social networks, organize student groups, host study sessions, work on projects, create research groups, and more. ■

# 'In many ways, it is ushering in THE FUTURE OF EDUCATION'

Dear Colleagues:

I am delighted to introduce SmartSite, the new UC Davis collaborative learning management system.

To understand what is so special about SmartSite, it might help to think of it as a single place from which you can create and access Web sites for pretty much everything you might need in the course of your career—sites for classes, research, work and projects.

You can use SmartSite to supplement your teaching, communicate with your students, hold virtual office hours, organize information, manage your classes, collaborate on research projects, participate in review groups, and much more. In other words, it's a place smart enough to become, over time, what many faculty and students want: a single location where their academic IT needs can be met.

SmartSite's potential to continually grow, adapt, and innovate is terrific. In many ways, it is ushering in the future of education—virtual classrooms, laboratories, and museums, accessible to all.

The technology platform at the core of SmartSite is the open-source product called Sakai, which has been created by a rapidly enlarging community of

about 100 universities and colleges around the nation and the world. I am proud to say that a UC Davis team from IET-Mediaworks, the School of Veterinary Medicine, and the School of Medicine, has been one of the core Sakai development groups since early 2004. This talented open-source community is already hard at work on innovative tools to support teaching, learning, and collaboration—tools that will allow us to continually improve and extend the range of options for you on SmartSite.

Right here on campus, some other exciting things are happening too. One is the development of a "one-stop shop" of major instructional applications for faculty and students. These are already available as stand-alone tools, but in the next year or two they will also be accessible directly from SmartSite. These are applications like Breeze Meeting (for online communications and collaborations), Breeze Presenter (for quickly creating content using PowerPoint), Almagest (for developing content with digital media), and also webcasting and the extremely popular podcasting.

What an exciting time for UC Davis! I hope you

will take a moment to see what SmartSite offers. There are plenty of features ready to go, and we expect the Gradebook and QuizBuilder to be available in 2007.

Before you jump in and start practicing, I encourage you to contact our pedagogy and technology consultants at the Teaching Resources Center and IET-Mediaworks. These are highly skilled people who are trained to help faculty deliver exciting teaching programs for all ranges of student groups. They can help move your course materials to SmartSite and deliver the tools to greatly assist collaborative research across our many distributed research groups and programs.

They will help you prepare for what promises to be another milestone in the delivery of education and research at UC Davis.



Peter Yellowlees, MBBS, MD  
Interim Vice Provost-IET

## WHEN SHOULD I to Smart



BIRGIT  
PUSCHNER

### Why did you join the pilot?

Because everyone will use it, and I thought I would get in while I could help shape it. I was never fond of MyUCDavis; it's too limited.

### What did you use SmartSite\* for?

I used it as my main communication tool with my class. I used it to assign take-home exams, other assignments, and to post my syllabus, so they have it available right in front of them. The assignment tool is excellent, because you communicate with students on a one-on-one basis without plugging up their email.

### What's your advice to faculty who haven't used SmartSite?

It's really simple to learn. After one hour, you have the basics down. You have a lot more tools compared to MyUCDavis. It allows you to communicate easily with your class without using email, and you can upgrade easily.

\*Puschner teaches in Vet Med, which calls its version CERE

### CONSIDER SWITCHING SOONER IF YOU ...

- ... already use online course management tools in MyUCDavis.
- ... want to explore ways of enriching your class Web site yourself.
- ... are interested in using interactive and collaborative learning tools in your classes.
- ... teach classes without multiple sections.
- ... consider yourself a self-starter and are comfortable with technology.

### CONSIDER SWITCHING LATER IF YOU ...

- ... use GradeBook to record or submit final grades.
- ... want to build a large question pool or transfer an existing one from MyUCDavis QuizBuilder.

## STUDENTS HONOR ANDY JONES AS TOP EDUCATOR

UC Davis students have named University Writing Program lecturer Andy Jones, who doubles as a champion of technology in education, as the top educator on campus this year.

The annual ASUCD Excellence in Education Award, presented by the Associated Students of the University of California, Davis, honors faculty nominated by students for superior undergraduate teaching.

The students hand out seven awards—six to instructors in different colleges and divisions, and one Educator of the Year. Jones was named Educator of the Year, as well as the top educator in the College of Letters and Science, Division of Humanities, Arts, and Cultural Studies.

"We judge nominees on their connections with students, the way they relate academic material to real-world experiences, their teaching philosophies, their approachability, etc.," said Katherine Johnson, chair of the ASUCD Academic Affairs Commission.

The students prize Jones' commitment to helping students learn better, she said. The evidence includes his extra seminars for students, well-attended office hours, and his efforts to teach faculty how to use technology in the classroom.

"We were particularly impressed by his willingness to meet with students outside class and office hours," Johnson said. "We also thought it was incredible that he takes the time to teach others how to teach; it is important to share his amazing methods with other faculty, thus influencing all the more students."

(The First Wave, continued from page 1)

communications tool for her class.

"I used it to assign take-home exams, other assignments and to post all of my syllabus, so they have it available right in front of them," she said early last month.

"It's really simple to learn," she added. "After one hour, you have the basics down."

Physics professor Kiskis has used SmartSite mostly in two ways. In the winter quarter, as the pilot tryouts began, he encouraged students in a small class to write a wiki, an online document that any collaborator can add to or revise. "They were already writing journals, on paper or by email," Kiskis said. "So we moved them to a common journal. And that worked pretty well."

In spring quarter, he moved a lower division class to SmartSite. Previously he would have built a Web site on his own for that course.

"The Sakai wiki, message areas are good things," Kiskis summarized. "Same with chat. The resource area works fine, is quite convenient. Same with the assignment, announcement tool."

Kiskis would like to see a more powerful editor in the wiki or discussion area, so that he could write math symbols or Greek letters for equations.

That more powerful editor is due to be installed this summer—one of dozens of improvements that the SmartSite crew intends to make starting now and during the 2006-07 school year.

### Let's go see Mona

Kiskis was already using Web sites to help run his classes, so switching to SmartSite hasn't altered his manner of teaching much. Not yet. "When some of the more powerful tools are inserted into [it], that could change," he said.

Puschner also said using CERE didn't change the way she taught this year. "It has not directly affected my teaching," she said.

"However, when I am running short during a lecture, CERE provides an easy opportunity to create a problem set and post it for students to go over in detail and get back to me with questions," Puschner added.

"For the eager student, it is an easy access to additional information and learning opportunities."

Music professor Holoman, like Kiskis, has been using online tech to manage his courses for years. He has used the course tools in MyUCDavis from the start. Half of his work with SmartSite so far has involved adapting pre-existing Web material to fit the new system, he said. The other half is taking advantage of new features.

SmartSite represents a continuing evolution in higher education. Holoman, conductor of the UC Davis Symphony Orchestra, has taught at UC Davis for 33 years. He has watched technology change pedagogy.

"There's a way it's more real world," he said. "The way you can branch out from a particular point in your linear lecture. ... You can be talking about the Mona Lisa, and suddenly you can be looking at it right that second."

One disadvantage is that "little by little, people are learning to not read more than one screen at a time," he said. "The cyberworld is so constrained by what fits on one screen."

Going forward, Holoman intends to try the virtual office feature (technically a parallel feature using Macromedia Breeze, offered in conjunction with SmartSite). For several hours each week,

a teaching assistant will work at a computer "with a camera in his face, and students can log in and chat by voice, video, IM."

The virtual visit will "leave the 'schlep-across-campus' part out of it," Holoman said, adding that he will introduce the online office hours without reducing any of the traditional come-in-person kind.

He also plans to see how the music-streaming audio service works in SmartSite.

Students' expectations are changing. You'd expect that from a generation growing up with iPods, blogs, instant messaging, online social networks and wi-fi.

"Five years ago, during the first two weeks of a course, TAs worked (with students) on how to access Web pages, and dealt with hand-me-down computers brought from home," Holoman said. "Now we rush to keep up with students."

### Hunting the elusive dissertation panelist

Students who have tried SmartSite at Davis are starting to get a sense of how the system works and what it can do here.

"I use CERE primarily to access assignments, quizzes, etc.," wrote one of Puschner's students, Gabé McKeon, in an email. "It is fairly user-friendly. I am not too much of a techie, but I am easily able to negotiate around the site."

A light user, McKeon said he hadn't seen much difference from the tools offered through MyUCDavis.

"The most important part, to me, is the calendar feature. It's all in one place," said Jesse Davis, a senior in music/art studio. He's one of the students in ET Partners, a campus office of tech-savvy students who help faculty adopt new educational technology.

The calendar can automatically keep track of every test, assignment and other scheduling update generated by a student's classes, and post it all in the student's one online calendar.

For that to happen consistently, of course, all UC Davis instructors will have to use the feature.

Ecology graduate student Quenby Lum, writing comments after a Sakai dissertation workshop May 5 in Hutchison, said she'll use the system to help write her dissertation and communicate with members of her committee—"instead of having to hunt them down, which can be difficult!"

"This will be great," Lum wrote, "for people who are not in the same location as their committee members." ■

**You can be talking about the Mona Lisa, and suddenly you can be looking at it right that second.**

# SWITCH SmartSite

## AND MAKE A NOTE THAT...

SmartSite will look different (simpler, less busy), but will have the same features (some not right away).

You can link to outside articles from your site, post and update class materials, etc.

SmartSite offers several interactive tools that can be used in support of teaching and learning (e.g., discussion board, wiki, chat room).

Large classes with multiple sections will be supported starting in 2007. Check [smartsite.ucdavis.edu](http://smartsite.ucdavis.edu) for updates.

You can jump in now! Access the support and training section at [smartsite.ucdavis.edu](http://smartsite.ucdavis.edu) for an overview of the system, ways to access online documentation, etc.

GradeBook will be available from within SmartSite in 2007.

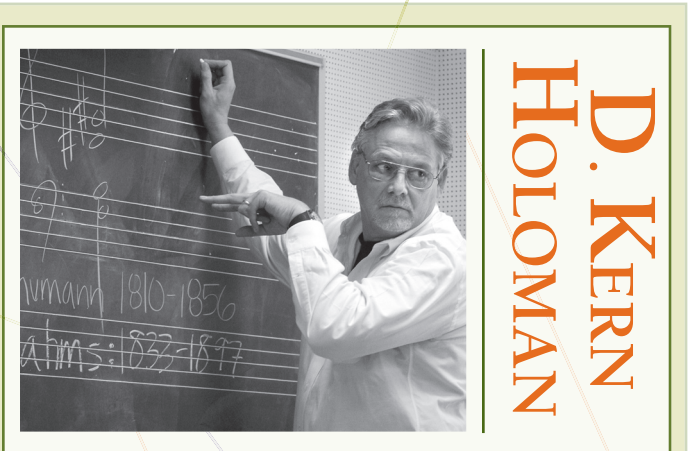
Starting in 2007, you will be able to export question pools from MyUCDavis to SmartSite using a specially developed tool. Note also that certain quiz functions will not be supported immediately (see "Tools" at [smartsite.ucdavis.edu](http://smartsite.ucdavis.edu)).

## STUDENTS!

Even if your instructor won't be using SmartSite yet, you can still use it for other reasons; explore at [smartsite.ucdavis.edu](http://smartsite.ucdavis.edu). (One potential reason, for instance, is to help organize a student organization using SmartSite; apply for a site by emailing [smartsite-info@ucdavis.edu](mailto:smartsite-info@ucdavis.edu).)

## RESEARCHERS!

Some instructors will want to wait for some tools before leaping into SmartSite—but you don't necessarily have to wait. Explore at [smartsite.ucdavis.edu](http://smartsite.ucdavis.edu), or apply for a custom worksite by emailing [smartsite-info@ucdavis.edu](mailto:smartsite-info@ucdavis.edu).



**D. KERN  
HOLOMAN**

### Why did you join the pilot?

The pilot was used in Music 10, a very large, extremely popular class in music appreciation. It has been heavily multimedia for 15 years, and has a very high-end, pre-developed existing Web site. It seemed that if the university was going to make this big shift, we needed to be in on the cusp of it.

### What did you use SmartSite for?

Half involved adapting pre-existing Web material to fit the Sakai site, and half involved taking advantage of new features. We will try the virtual office hours, and [see] how the music streaming works.

### What's your advice to faculty who haven't used SmartSite?

Get involved, one way or another ... [and] with one thing at a time. Don't miss the boat. Don't get overwhelmed, because it offers so much.

Jones said he's "honored and moved" to win the prize, which he received in a campus ceremony May 23.

Jones, the faculty liaison to Mediaworks and the Teaching Resources Center, also heads the Faculty Mentoring Faculty Program—whose primary focus at the moment is helping Davis instructors adopt SmartSite. ■

**Andy Jones chats with R. Paul Singh, a professor of food engineering, at the awards ceremony May 23.**



# WHAT NEXT

Adding online grading is a sure thing. A plagiarism catcher? That's a maybe.

Assuming that SmartSite evolves as planned, the new course management system based on Sakai software will soon offer several tools that it doesn't offer now, and the lineup will keep evolving in the years to come. That's by design.

**"The whole idea is to architect a new system that can keep up with the times,"**

said Kirk Alexander, program manager for SmartSite. He works in IET-Mediaworks, which helps support SmartSite.

Some early additions will simply complete the initial system. In 2007, UC Davis intends for SmartSite to add two important tools that it doesn't yet have this summer—Gradebook (online grading) and QuizBuilder (quizzes and tests).

(It doesn't offer those two features yet because the Sakai versions aren't ready. The campus is introducing SmartSite anyway because the tools it already offers are useful enough to get some sites started.)

Further out, the roster of potential features turns more speculative. A tool to catch plagiarism, suggested in a posting on a Sakai collaborative Web site, isn't necessarily something UC Davis will add to SmartSite.

**But SmartSite's basic goals include creating a system that's easy to extend and revise, so that it can keep up with changes in education. The intent, as the years pass, is to retain and update this system, rather than require instructors and other campus employees to learn whole new systems every time the features of an old one hit a dead end.**

Ideas for future tools can come from any of the institutions of higher education that are partners on the Sakai project—a group that numbered about 100 as of May. Features that UC Davis will add, Alexander said, include a library interface (Twin Peaks) that people would use to retrieve search results from a library, and eventually an integrated image repository.

**New tools, he said, will basically be inspired by whatever the universities decide they need.**

"Any user or school, as they respond to their local users' need, can say, 'ah, that's [a feature] we can work on,'" Alexander said. "And others might want it too."

Operationally, the program remains in the early stages at UC Davis, but it's reaching some milestones. This autumn, the School of Veterinary Medicine will be the first school at Davis to use a core version of Sakai—known at Vet Med as CERE, or Collaborative Educational Research Environment—for all of the courses the school teaches.

## COMPARATIVE OVERVIEW OF TOOLS

TOOLS	MyUCDavis CURRENT	SmartSite (Sakai)	
		FALL 2006	2007
<b>ANNOUNCEMENTS</b> Inform site participants of current items of interest	✓	✓	✓
<b>ASSIGNMENTS</b> Create, distribute, collect, and grade online assignments	✓	✓*	✓
<b>CHAT ROOM</b> Carry on real-time conversations with worksite participants	✓	✓	✓
<b>DISCUSSION BOARD</b> Discuss topics in structured public forums and conduct private messaging	✓	✓	✓
<b>DROP BOX</b> Share documents within private folders between instructors and students		✓	✓
<b>EMAIL ARCHIVE</b> Keep track of course or project site email correspondence	✓	✓	✓
<b>GRADEBOOK</b> Manage grades + submit as final grades	✓		✓
<b>MODULES</b> Create ordered content for student review		✓	✓
<b>NEWS</b> Add RSS feeds to your worksite	✓	✓	✓
<b>PROJECT SITES</b> Use SmartSite for other purposes besides teaching (e.g., research collaboration)		✓	✓
<b>QUIZ AND SURVEY</b> Create online assessments and surveys	✓		✓
<b>RESOURCES</b> Make any kind of materials available online	✓	✓**	✓**
<b>SCHEDULE/CALENDAR</b> Organize and post items in a calendar format	✓	✓	✓
<b>SYLLABUS</b> Post and maintain your official course outline	✓	✓	✓
<b>WEB CONTENT</b> Choose external Web sites to display within your worksite or point to sites hosted within SmartSite		✓	✓
<b>WIKI</b> Create/contribute to a collaborative editable Web site		✓	✓

\*Support for multiple class sections available in 2007 \*\*SmartSite actually improves this quite a bit over MyUCDavis



JOE KISKIS

### Why did you join the pilot?

It just seemed appealing to get my hands on some software that will be better than MyUCDavis. I would also be giving feedback, so I could feel good about helping shape it for other faculty. Basically, I like computer stuff. I've been using computers since I was an undergraduate [in the 1960s], in physics. But I wouldn't classify myself as a particularly geeky guy, compared to those who are.

### What did you use SmartSite for?

I used it last quarter in a graduate class in a limited way. The main thing I encouraged students to use is wiki. I already had them writing journals, on paper or by email. So I moved them to a common journal [on the site]. And that worked pretty well. They wrote quite a bit. This quarter, I've got a lower division class using it [Introduction to Physics, honors version, about 25 students]. In the past I would've used personal Web sites I built. Now that's over on Sakai. There have been no complaints or unexpected problems [from the students]. Nothing broke. No surprises.

### What's your advice to faculty who haven't used SmartSite?

That tutorial [pilot users had training during two Fridays in February] helped a lot... And then, to not get overwhelmed by the possibilities. Limit yourself to some tools you and the students can deal with; this makes it much easier to think of other possibilities, once you've got one or two tools working OK. Focus on what will help your students learn. If there's a tool in Sakai that'll help, use it. If not, don't use a tool just to use it.

## Want to learn more? Explore? Sign up?

For answers to technical questions; general information; to talk to a faculty member who has used Sakai at UC Davis; or to sign up:

Email [smartsite-info@ucdavis.edu](mailto:smartsite-info@ucdavis.edu). They'll help you from there.

You can also check out SmartSite Tech Tips in the support training section of [smartsite.ucdavis.edu](http://smartsite.ucdavis.edu).

To get some training:

The Summer Institute on Teaching and Technology has scheduled these SmartSite classes on campus this summer: overview, create a site, assignments, resources, tests and quizzes, message center, wikis, and transitioning from MyUCDavis to SmartSite. For details, go to [trc.ucdavis.edu/trc](http://trc.ucdavis.edu/trc).

More workshops are planned this fall. Subjects include organizing your research projects using SmartSite, teaching with SmartSite, and organizing your dissertation using SmartSite. For times and an updated list, go to [trc.ucdavis.edu/trc](http://trc.ucdavis.edu/trc).

To start exploring SmartSite, go to [smartsite.ucdavis.edu](http://smartsite.ucdavis.edu)

## IT Times

[technews.ucdavis.edu](http://technews.ucdavis.edu)

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