CYBERCRIME ALERT
Why the bad guys are winning

Understanding the real Internet threats • Hackers raise new security concerns
Kids who commit online felonies • A possible, patented software solution
Exploring our cyber insecurities

Identity theft, pilfered credit card numbers, stock swindles, Ponzi schemes – all kinds of digital dangers lurk in cyberspace. Cybercrime costs the U.S. economy about $100 billion annually and poses escalating threats to personal and national security. It’s on every computer user’s mind.

In this issue, UC Irvine researchers who’ve studied cybercrime from various viewpoints address a number of questions, including: What Internet threats should we be worried about, and what’s just Hollywood hype? Who’s behind illegal online schemes? (Hint: Many masterminds are younger than you might think.) And what can be done to thwart malicious hackers and hooligans?

One thing is certain: Stopping the bad guys from waging increasingly powerful cyber attacks from behind the cloak of digital anonymity will require vastly more research and resources. Until solutions are found and this Wild West of an online world can be successfully regulated, nobody’s safe.
You’ve been hacked:
With computer “break-ins” growing in sophistication and number, UC Irvine researchers work to foil future attacks.

Catch them if you can:
Unhampered by borders and laws, cybercriminals present new security threats.

Portrait of the cybercriminal as a young man:
Computers have given juveniles the ability to engage in the same kind of white-collar offenses as adults, says Henry Pontell.

Fighting off virtual attacks:
Inspired by nature, Michael Franz develops new cybersecurity techniques.
You’ve been hacked

With computer ‘break-ins’ growing in sophistication and number, UC Irvine researchers work to foil future attacks

In March, U.S. intelligence chiefs proclaimed that cyberattacks had become a greater national security concern than terrorism. Not to be outdone, lawmakers in the U.K. announced in July that cybercrime posed a larger threat to their homeland than a nuclear strike.

Even Hollywood has gotten into the act, fueling people’s fears with movies about “cybergeddon” and crazed hackers. Mention this to Gene Tsudik, UC Irvine Chancellor’s Professor of computer science, and it’s obvious that the man does not scare easily.

Tsudik is managing director of the campus’ Secure Computing & Networking Center, which aims to safeguard data and protect computer users’ privacy through advances in areas such as applied cryptography, information assurance and network security. And he has his own ideas about what we should really be worried about and why.

“I think the threats are way overblown. There are a lot of people crying wolf,” Tsudik says. “They’re getting their information from PowerPoint presentations and parroting something about dire threats, but that’s not the case.

“Industrial espionage is a very real thing. There’s a lot of it going on. But these Hollywood scenarios where someone presses a button and your hair dryer scalds you to death or your toaster bites you on the ear — that’s just silliness.”

While hackers might not be able to sic your toaster on you, they can wreak serious havoc in other ways, which does concern Tsudik.

In July, federal authorities indicted five Russians and a Ukrainian in the biggest cybercrime case in U.S. history. Prosecutors accused them of hacking into the computers of major financial institutions and retailers — such as Wet Seal, J.C. Penney Co. and Jet Blue — pilfering at least 160 million credit card numbers and causing more than $300 million in losses.

Bank breaches, intellectual property theft, invasion of privacy, espionage, website takedowns and service disruptions are examples of the real threats that hackers pose to personal and national security.

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Last spring, an Associated Press staffer received an email from a trusted colleague with a legitimate-looking link, so the employee did what many computer users might do and clicked on it. Like a digital Pandora’s box, that one link unleashed all kinds of trouble.

It installed software that allowed a hacker to secretly track the computer user’s keystrokes and obtain the AP’s Twitter password. Next, the hacker posted a false tweet to the news agency’s 2 million followers: “Breaking: Two explosions in the White House and Barack Obama is injured.” Within minutes, panicked investors pulled their money out of the stock market, causing the Standard & Poor’s index value to temporarily nosedive more than $136 billion before the hoax was revealed.

As the faux tweet illustrates, even cautious computer users can be tripped up by increasingly sophisticated cyberschemes and phishing expeditions. While nobody is immune to viruses, trojans, worms and malware, there are steps you can take to make yourself less vulnerable to attack.

Gene Tsudik, UC Irvine Chancellor’s Professor of computer science, offers these tips for “basic computer hygiene.” While they may offer some protection against hackers, heed his warning: “None of what I say is guaranteed to keep you safe.”

>>> “Computer users don’t need to download a program to pick up a virus; they can get one by using their browser,” Tsudik says. That’s because hackers can hijack entire websites. “You can click on a website that looks perfectly innocent, and while you’re looking at vacation spots in Hawaii, it’s downloading malware in the background,” he notes.

One way to defend yourself: Update your browser. “If you’re running an old version, you’re probably opening the door to these kinds of viruses,” Tsudik says. “An old browser can have more holes than Swiss cheese.”
gobbledygook that doesn’t exist – it takes the server a while to search for it. If enough requests for useless information flood the system, it grinds to a halt. You’re hosed.”

DDoS attacks can be carried out by armies of compromised computers, called botnets (short for robot networks). While they sound like something out of a sci-fi flick, botnets already permeate the Internet, generating spam, spreading viruses and shutting down websites.

“It’s like an alien body inside a computer,” Tsudik says of the “soldiers” in these armies. “Somewhere, somehow, you downloaded the wrong software by clicking on something you saw on a website or opening an email. Now your computer is under the control of some remote master.

“Imagine many thousands of these computers – sleeper agents. These botnets are just sitting around, waiting for some James Bond-like villain who controls them to tell them what to do next.”

“That’s how the little Baltic country of Estonia – often described as the most wired country in Europe – got attacked in 2007,” he adds. Hackers, allegedly from Russia, used botnets to launch a massive DDoS attack, swamping Estonia’s government, banking and media websites. It was a computer-driven coup that lasted two weeks.

“You can do it to a bank server, a government agency; anything with an Internet presence can be attacked,” Tsudik says. “If someone hits you with a DDoS, your customers will not be able to communicate with you. Whatever services you offer become incapacitated.”

The hackers reportedly had political reasons for engaging in cyberwarfare against Estonia, but money is often the

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motivation for DDoS attacks. A disreputable company might hire hackers to shut down a competitor’s site.

“If someone says, ‘I’ll pay you to hose them,’ I guarantee you that for the next few days they will not be doing business,” Tsudik says. “That’s a growing industry.” Botnets also can be used to collect — and sell — credit card numbers, passwords and other valuable information.

While companies such as Microsoft and IBM have experts to fend off present-day threats, Tsudik and his colleagues at the Secure Computing & Networking Center strive to stay ahead of the hackers by safeguarding the Internet of tomorrow.

“We try not to deal with problems that are here today — that wouldn’t be proactive research,” he says. “We’re trying to guess what Internet security problems might pop up five to 10 years from now.”

His team is pursuing a range of forward-thinking projects, such as how to protect radio-frequency identification tags, which are turning up in credit cards, hotel room keys, badges, passports and even pets.

RFID tags communicate with readers electronically, and as their popularity increases, so do privacy concerns. Nefarious types can capture information they transmit with a powerful antenna. To thwart eavesdroppers, Tsudik has developed authentication protocols that would eliminate RFID tags’ vulnerability; a patent is pending.

He’s also creating an app, dubbed GenoDroid, that will let people safely store and use their own digitized DNA on a mobile device, so that they can securely share it with a doctor — or a prospective mate. Safeguarding one’s genome is crucial, Tsudik says: “It’s the ultimate identifier. It can tell if you’re predisposed to certain diseases or if you have genetic abnormalities. It’s enough to clone you. You want to make sure you don’t lose or reveal it.”

He’s been studying computer security and applied cryptography (the technique of deciphering and enciphering messages to protect data) for more than two decades, long before cyberattacks became everyday news. Now his services are in great demand.

Tsudik’s group, for instance, works with U.S. government agencies that need to share confidential information — such as lists of suspected terrorists — to ensure that it doesn’t fall into the wrong hands.

“Back in the late ‘80s and early ‘90s, Internet security wasn’t taken seriously,” he says. “It was viewed as rather worthless.”

With the rise of botnets, worms and other woes, nobody’s scoffing anymore.

Kathryn Bold, UC Irvine

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While the U.S. was contemplating military action against the Syrian government for its alleged use of chemical weapons in Damascus, The New York Times found itself under attack. In late August, hackers sympathetic to Syrian President Bashar Assad disrupted service to the newspaper’s website. At one point, the group even redirected users to a page that read “Hacked by the Syrian Electronic Army.”

As this outage demonstrates, hackers can wrest control of powerful organizations without so much as picking up a weapon, entering enemy territory or even leaving their desks.

With cyberattacks on the rise, security experts such as Richard Matthew, UC Irvine professor of planning, policy & design and political science, have become increasingly concerned about the threats they pose to nations and individuals. Matthew, who directs the university’s Center for Unconventional Security Affairs, now views cyberattacks — along with climate change and economic globalization — as having the potential to seriously impact daily life, affecting private industry, government services, travel, power, and other critical infrastructure and operations.

“We have this cyberworld that’s growing extremely fast. We’re moving toward the day when everyone will be able to connect to the Internet,” Matthew says. “It’s accessible,

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inexpensive and fairly easy for users to maintain a high level of anonymity.

“There are all kinds of ways for people to use this technology, some good and some not. Espionage, fraud, theft — all of these are taking place in cyberspace, and we’re scrambling to figure out what to do in response.”

In July, the McAfee security firm reported that malicious online activity — including service disruptions, piracy and loss of sensitive business information — costs the U.S. economy about $100 billion annually and more than 500,000 jobs. The toll on the global economy is estimated to be as high as $500 billion.

Internet crime pays for myriad reasons. Cybercriminals, Matthew notes, operate in a world where borders don’t matter and laws can often be circumvented. They don’t need to set up a phony bricks-and-mortar business to scam customers. They don’t need firearms, fake passports or cash.

Governments and antigovernment groups alike, organized crime cartels, individual profiteers and unethical corporations, teenage malcontents and terrorists — anyone with the tech capability can get in on the action. Many perpetrators, such as the infamous “Mafiaboy” who launched denial-of-service attacks against CNN, Yahoo and eBay, aren’t even old enough to drive.

“It’s hard to know how to respond or even identify where the attacks are coming from,” Matthew says. “Our security apparatus is far more geared to dealing with physical threats.”

In the past, countries like the U.S. were largely protected by their geography, but the Internet has exposed them to intrusions from around the globe. In May, for instance, Bloomberg reported that Chinese bloggers had stolen valuable drone technology from the U.S. military by infiltrating the computers of a key defense contractor.

“For a long time, our borders were easier to control,” Matthew says. “We’re separated on the east and west by two oceans. We have a like-minded country to the north, while to the south we have a neighbor we know well, although there’s always been tension on that border. The Internet has changed geopolitics and made it possible for people to enter our country through thousands and thousands of invisible pathways.”

Cyberattacks can come from virtually anywhere. Hackers can commandeer computers halfway around the globe, masking the origin of an attack and making it harder to catch and convict the perpetrators.

“We also face the problem of how to prosecute cybercriminals, because people can move around cyberspace fairly easily,” Matthew says. “If someone breaks into your house, we know [which agency] has jurisdiction. But if someone breaks into your bank account on the Internet, we have to find out who has the authority to prosecute the crime – and this can be difficult and costly.”

Then there’s proving the case.

“If you shoot someone, there’s a bullet with unique markings; there are fingerprints on the gun. But this is digital evidence,” Matthew notes. “The tracks are there but can be hard to follow and easy to change. This is not the
physical evidence we’re used to using to convict people. As a result, criminals have figured out that they can make a lot of money on the Internet and not get punished.”

Defending computer users against online theft, fraud and abuse presents a conundrum for policymakers, he says. Both the European Union and the United States have taken steps to toughen penalties for cybercrime, but hackers can simply move their operations to countries with more lenient — or nonexistent — laws.

“The entire world doesn’t agree on what constitutes a crime,” Matthew says. What’s illegal in one country might be permissible in another, especially in such areas as intellectual property rights.

In addition, tighter regulations and intrusive policies could reduce access to the Internet and raise costs, undermining some of its most attractive features. They could squelch the free exchange of information, disrupt research and invade people’s privacy as well.

“Right now, we have a very porous, open system,” Matthew says. “How much do we want to regulate it? What will be the threshold to, say, give the government access to your email? Should we require that all interactions on the Internet be made available [to the government]? It’s a real big issue.”

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The auction site eBay illustrates the difficulty of policing cyberspace, he says. It’s become a magnet for those hawking fake designer clothes, pirated CDs, stolen goods and other illegal merchandise. Rare maps and artwork stolen from libraries have turned up on eBay.

“Those with decision-making authority need an in-depth understanding of the Internet to develop the right policies and deal with questions such as jurisdiction and prosecution,” Matthew says. “Until we have better responses, criminals will have it easy.”

Kathryn Bold, UC Irvine
Computers have given juveniles the ability to engage in the same kind of white-collar offenses as adults, says Henry Pontell
According to the SEC, the New Jersey teen used his computer to execute a classic pump-and-dump scheme. He snapped up cheap penny stocks, spread false rumors about them on financial message boards under various aliases, and then sold them for a tidy profit. His investments, ranging from an importer of Italian cheese to a manufacturer of bendable toy figures, netted him hundreds of thousands of dollars — as much as $74,000 in a single day. The SEC dropped the charges against Lebed after he agreed to hand over $285,000 in ill-gotten gains.

Shady stock trades are nothing new to Henry Pontell, UC Irvine professor of criminology, law & society and sociology. An expert on white-collar crime, he’s studied Wall Street rip-offs and other forms of financial fraud for three decades, even testifying on the subject before the U.S. Senate in 2010 (PDF). What’s changed isn’t the scam but the artist: In this digital age, the criminal mastermind is often a mere child.

It’s something Pontell hadn’t seen before the widespread use of the Internet. Elaborate stock swindles, identity thefts and other big-money heists have been orchestrated online by adolescents, some not even old enough to drive. The perps have pimples.

“Fifteen seems to be the magic number. I don’t know why. It’s something about hormones or not getting dates,” Pontell says, half-jokingly. “They’re not really grownups and not really kids, and they probably aren’t dating a lot. They’re stuck in their rooms with their computers. That plays into this. They’re at the peak of their techno-geekiness. And they’re really savvy.”

One of the first in his field to study cybercrime, Pontell once summed up the threat such “geeks” pose this way: “There are kids out there today who can steal your identity, destroy your credit and empty out your bank account without ever leaving their computers. And they can do it as fast as unwrapping their birthday presents.”

In the 2010 edition of Profit Without Honor: White Collar Crime and the Looting of America, an academic text he wrote with Stephen Rosoff and Robert Tillman, Pontell added research on Lebed and other juvenile cybercriminals.

Cases in which adolescents pull off sophisticated swindles are such a new form of deviance that he and Rosoff invented a term for it: white-collar delinquency.

In a 2008 study, Pontell and Rosoff reported that 24 percent of those charged under the federal Computer Fraud and Abuse Act between March 1998 and July 2005 were under age 20. The median financial loss was $59,000 per case – making kids’ weekly allowance look like chump change. Before the Internet, one had to at least pass for an adult to score that kind of money.

“You had to do all kinds of physical things to commit a white-collar crime,” Pontell notes. “A 15-year-old can’t pose as a stockbroker.”

Underage cybercriminals don’t fit the traditional profile of juvenile delinquents, he says. They’re not the typical troublemakers, the ones already on law enforcement’s radar for truancy, drug use and gang behavior.

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In 2000, 15-year-old Jonathan Lebed made headlines — and financial history, of sorts — when he became the first minor ever charged with stock market fraud by the U.S. Securities & Exchange Commission.
Among middle and high school students, those most likely to engage in illegal online acts had friends who did so, according to a 2011 study led by Michigan State University criminologist Thomas Holt. Other determining factors included the amount of time they spent on computers for nonacademic reasons, lack of self-control and having strong tech skills. Higher grades were not an indicator, and girls were highly unlikely to commit cybercrimes.

“It’s a male-dominated activity,” Pontell says.

To his classmates, coaches and friends, Cole Bartiromo appeared to be an ordinary high school student involved in the usual extracurricular activities: playing baseball, working at a local pizza joint and trading sports cards. But that wasn’t all he traded.

From his Mission Viejo home, not far from UC Irvine, Bartiromo bilked at least 1,000 people of more than $1 million through an online Ponzi scheme, according to charges filed by the SEC against the then-17-year-old in 2002. The teen had promised investors returns of up to 2,500 percent for betting on sports events, paying off some but moving most of the money into an account he controlled in Costa Rica.

The SEC also accused Bartiromo of making false claims on the Internet to pump up stock he’d purchased in 15 publicly traded companies, then cashing in his inflated shares.

The government made the young wheeler-dealer pay back investors and fined him nearly $1.3 million, but there was more trouble. In 2004, at age 19, Bartiromo was sent to prison for 33 months for conspiring to defraud a Wells Fargo bank branch out of about $400,000 and for conducting fraudulent auctions on eBay, collecting payments from bidders and not delivering the goods.

Why would teens — or any person — who otherwise might not think of stealing someone’s handbag or holding up a liquor store be lured into fleecing victims online? Pontell attributes it to the anonymity of the Internet.

“Cybercrime is characterized by diffuse victimization and rationalizations by offenders that allow them to maintain a positive self-image while engaging in acts they know are wrong,” he says. “The Internet puts social distance between the perpetrator and the victim, so any guilt, sense of responsibility or appreciation of the harm and injury caused is diminished.”

Lebed, he notes, showed no remorse for his actions, telling “60 Minutes”: “I’m not aware of one investor that exists that I cheated.” His father even told The New York Times, “I’m proud of my son.”

“There’s this idea that there was no injury to the victims, but there was,” Pontell says. “Many investors lost money. Lebed’s gain was someone else’s loss. It’s the fact that they’re faceless victims — that’s why some people don’t see cybercrime as causing real harm.”

In addition, many view it as more acceptable than other forms of deviance because they’re doing it too.

“Some crimes don’t elicit the same kind of response that others do,” Pontell says. “People swap discs and buy pirated DVDs and think, ‘Who am I hurting? I wouldn’t have bought this [legally] anyway.’ That’s why they aren’t up in arms about a lot of these crimes.”

Discouraging cybercriminals calls for more than enacting tougher penalties, he says. It means changing social mores, so people stop seeing piracy and other illegal activity as somehow OK. Parents, in particular, need to do a better job of instilling values in their children and keep closer watch over their computer use.

“We have to solve the problem of white-collar delinquency in terms of producing ethical kids,” Pontell says. “We need to ask, ‘What is my son or daughter doing up there on the computer?’ Many parents have no clue.”

One voice kids might heed is Bartiromo’s. In a bid to reinvent himself, the former teen swindler has visited schools to talk with students about the lure of cybercrime and its real-life repercussions, reports The Orange County Register.

“It’s OK to be different, to exceed and excel over your peers, but only if you do it legally,” Bartiromo, now nearly 30, told one group at California State Polytechnic University, Pomona. “Otherwise, you’ll eventually be paying the price in all the ways I have.”

Kathryn Bold, UC Irvine
Imagine a cyber world in which hackers, identity thieves, spammers, phishers, foreign spies and other miscreants have a much tougher time plying their trade. Thanks to UC Irvine computer science professor Michael Franz and his research group, such a world is closer to a reality.

Franz, director of UC Irvine’s Secure Systems & Software Laboratory, is borrowing the idea of “biodiversity” from nature and applying it to the software that runs on digital devices from smartphones to supercomputers. His promising ideas have already won a U.S. patent and make it much harder for attackers (including those with the resources of a nation state) to compromise their targets.

Here, he describes his revolutionary concept for thwarting cyber attacks:

**Why is our cyber infrastructure so vulnerable to attacks?**

Today, if hackers discover a weakness in one piece of software, they can take over all of the devices that run the software. Unfortunately, the same software — with the exact same bugs — runs on large numbers of digital devices. For example, the vast majority of smartphones use either Android or iOS, and most computers use Windows.

This makes it easy for attackers. They need to find just one way in, and it will work on lots of targets. They can
create viruses that jump from computer to computer while exploiting the same path of entry on each of them. And it enables attackers to practice their attacks before they unleash them, because they can replicate the exact software environment that will later exist on the target.

What’s the solution that you and your research group have developed?
Our solution is to make every software program unique, so that hackers have to find different attacks for different targets. It’s inspired by biology — appropriately so, since biological viruses existed long before the term was applied to computers. The plague wiped out a third of humanity, but it didn’t wipe out everyone because different people have different genetics.

Just as in biology, diversity is strength. Using this concept to diminish the effect of software errors, we have developed mechanisms that can potentially create a unique version of every program for every person in the universe. This won’t eliminate hacking completely, but it will prevent widespread damage, dramatically increase the cost of attempting cyber attacks and make it much more difficult to target a specific person or entity.

How does your work break new ground?
While using multiple versions of software is not new — fly-by-wire controls in airplanes and other high-assurance systems often use “n-version” programming, in which a small number of alternative implementations are built separately from scratch — it has never before been attempted on the scale or at the low price point delivered by our solution. In the traditional n-version approach, you basically multiply the development cost by the redundancy factor n.

In our approach, on the other hand, subtly different versions of the same software are created automatically “in the cloud,” in a matter that is invisible to both the software developers and the end users. The magic of creating the different versions happens inside of the app store from which users download the software. When software is downloaded from our version of the app store, different users automatically get different, but functionally identical, versions.

We have a fully functioning prototype and a few institutions are already experimenting with it. Preliminary benchmarks suggest that the cost of our approach is surprisingly small — not zero, but so low that lots of people will want to be using this. Meanwhile, the cost of not using it keeps rising.

“IF HACKERS DISCOVER A WEAKNESS IN ONE PIECE OF SOFTWARE, THEY CAN TAKE OVER ALL OF THE DEVICES THAT RUN THE SOFTWARE.”

Donald Bren School of Information & Computer Sciences
Best-laid plans
While creating a book on entertaining, three alumnae learn to celebrate every day

Last spring, Ngoc Nguyen Lay ’03 visited UC Irvine’s bookstore, The Hill, to talk about her new book on entertaining, Inspired Celebrations. But what inspired many in the audience was the story she shared about how the book went from concept to coffee table.

She wrote Inspired Celebrations with the help of two fellow alumnae from the class of 2003: Tram Le, who contributed the recipes, and Caroline Tran, who took the sumptuous photos. None of them anticipated the challenges they’d encounter on the way to becoming published authors.

“It’s a party-planning book, but it has greater meaning for the three of us,” Lay says. “It’s about the journey we took.”

That journey began in spring 2010, after she’d staged everything from corporate galas to intimate dinner parties as the owner of a successful event planning business, Skybox Event Productions. “I wanted to share what I’d learned, so I just decided to write a book,” Lay says.

Undaunted by her lack of publishing experience, she outsourced anything she couldn’t do herself. For images of creative centerpieces, themed invitations and candlelit table settings, she enlisted the help of Tran, a Los Angeles-based photographer. The two had met after graduating, when Tran was shooting a mutual friend’s wedding. For recipes, Lay turned to Le, whom she’d met her sophomore year when both worked for UC Irvine’s Student Parent Orientation Program. She knew Le was a registered dietician and followed her blog, Nutrition to Kitchen.

By November 2010, Lay had completed a book proposal and sent it to 22 publishers. A few sent letters back expressing interest in the project. Everything was going according to plan – until she lost contact with Le. Suddenly, her emails and phone calls were going unanswered by her always reliable friend, who was living in Houston at the time. Lay soon discovered the awful reason.

Le and her husband, Phong, had been on their way home one night when another driver slammed into their car. Her husband was OK, but Le, who was seven months pregnant, had sustained a traumatic brain injury. Their daughter, Camille, was born premature two weeks later, weighing just 3 pounds, 7 ounces. Paralyzed, Le couldn’t move or even open her eyes during the baby’s birth.

“I was in the hospital for about six months. I was trying to walk and talk again and get my life together. And I had a new baby,” she recalls. “So the book was the last thing on...
“Phong asked me if I still wanted to do the book,” Le says. “I couldn’t talk, but I nodded my head. I wanted to do it because, at the time, it was one of the few fun things in my life.”

So, throughout her one-year rehabilitation at an outpatient clinic, she developed dozens of recipes for party fare, such as bacon-wrapped dates and Earl Grey tea cookies.

“I would write ideas for recipes on a computer,” Le says. “It was like my therapy. I was learning how to use my hands again. After a couple months, I was able to chop and sauté ingredients. Once I was able to eat food, I could test the recipes.”

Completing the book on time tested Lay’s planning skills as she juggled writing with running a business. “I slept very little,” she says. “At times I wanted to quit, but then I’d ask myself, ‘How can you give up when you see [Le] struggling?’” One by one, the chapters emerged – offering advice on hosting events ranging from a casual outdoor movie night to an elegant engagement party.

To meet the publisher’s deadline, Tran took all of the photographs in just 12 days. *Inspired Celebrations* debuted in July 2012. [See video about the making of the book at http://vimeo.com/44230864.] To the authors’ delight, the first order of 1,500 copies sold out, and a second printing will be released this fall.

Lay says she hopes the story behind the book will encourage others to follow their dreams.

“All three of us are first-generation Asian Americans,” she notes. “We all went to UC Irvine as undergraduates before getting our master’s degrees. Our parents aren’t risk takers, but we all took a chance on nontraditional careers and became businesswomen.”

“A lot of students are in our shoes, trying to figure out what to do with their lives,” Lay adds.

As a student herself, she never intended to become an author – or a professional planner. Instead, she figured on a career in student affairs, earning a bachelor’s degree in social ecology with a minor in education at UC Irvine and a master’s in student affairs at USC.
“If you relish the little successes, then you can accomplish anything.”

“In college, I planned things but never thought it would translate into a career,” Lay says. “It wasn’t until after grad school, when people told me, ‘We’re interested in hiring you for events,’ that I discovered it was a skill not everyone has.”

Tran, who received a bachelor’s degree in physics with minors in education and digital arts from UC Irvine and a master’s in education from UCLA, began taking pictures as a creative outlet, but her hobby evolved into a full-time job. While teaching high school physics in the Los Angeles Unified School District, she started a photography business, specializing in destination weddings.

“In six months, when the venture took off, I knew that it was what I wanted to do,” Tran says. She eventually quit teaching to pursue photography and now shares an office in Pasadena with Lay. Because she still enjoys teaching, Tran mentors other photographers through her website Propel (http://propelworkshops.com/press/).

Her images, which she shoots on film in natural light because she prefers the softer, romantic effect, have appeared in print and online.

Le’s career has taken a surprising turn too. She earned a bachelor’s degree in social ecology at UC Irvine and a master’s in nutrition and dietetics at Central Michigan University. After her recovery from the accident, she went to work as a dietician at the rehabilitation center. Le and her husband recently moved to Annapolis, Md., where she stays home with their toddler and keeps up with her blog. She hopes to continue promoting healthy eating and helping others regain their strength – and their lives.

“If you relish the little successes, then you can accomplish anything,” Le says. “I’m so thankful for every single day that I have.” And that’s something worth celebrating.

Kathryn Bold, UC Irvine

Inspired Celebrations recipe

Earl Grey tea cookies (makes 36)

1¼ cups all-purpose flour
¼ teaspoon salt
1½ teaspoons loose Earl Grey tea leaves
1/3 cup plus 1 tablespoon powdered sugar
7 tablespoons unsalted butter, diced & softened
1 tablespoon Earl Grey tea, brewed and cooled

In a small bowl, mix together the flour and salt and set aside. In a spice grinder, coarsely grind the loose tea leaves. In a food processor, combine the powdered sugar, ground tea leaves and butter.

Pulse the mixture until the sugar and butter are well mixed. Add the flour and salt mixture and process until the dough starts to come together. Then drizzle with the brewed tea and process until all the ingredients are well combined.

Split the dough in half. Roll each half into a log about 1½ inches in diameter. Wrap each log in plastic wrap and place in the refrigerator for about two hours, or until cold.

Preheat the oven to 350 degrees. Slice the dough into ½-inch-thick rounds. Arrange on an ungreased, nonstick cookie sheet. Bake for about 12 minutes, or until slightly browned on the edges.

Useful links:
The Hill: http://book.uci.edu
Skybox Event Productions: www.skyboxeventproductions.com
Nutrition to Kitchen: www.nutritiontokitchen.com
Inspired Celebrations: www.inspiredcelebrationsbook.com
Caroline Tran: www.carolinetran.net
Dance marathon to raise funds for NICU

The 2014 UCI Care-a-thon — to be held from 6 p.m. to midnight Thursday, Feb. 20 — will feature games, music and marathon dancing — all in the name of fun and philanthropy.

Organized by the Student Alumni Association, which is overseen by the UC Irvine Alumni office, the six-hour dance marathon rallies Anteaters in support of UC Irvine Medical Center’s neonatal intensive care unit.

Last year’s event raised more than $11,000; this year’s goal has been elevated to $25,000, with all proceeds going to purchase lifesaving equipment for newborns with a range of serious health issues.

The UCI Care-a-thon is open to all UC Irvine students, faculty, staff and alumni.

Lauds & Laurels to salute amazing Anteaters

The UC Irvine Alumni Association will present the 44th annual Lauds & Laurels ceremony honoring outstanding members of the campus community on Thursday, May 15. The gala will be held in the UC Irvine Student Center’s Pacific Ballroom.

Since 1971, Lauds & Laurels has recognized distinguished alumni, students, faculty, staff and friends for their service to the university, the community or their profession.

The event supports the UCIAA’s scholarship programs, which award more than $95,000 annually to deserving students so they may fulfill their educational goals.

For more information, call 949-824-2586 or visit www.alumni.uci.edu/events/lauds.
Alumni in the news

Katie Ellis [MBA ’10] has turned community service into a career and is executive director of the Opus Community Foundation. Since 2011, the foundation has given more than $1 million to nonprofit organizations in California and Washington, reports The Orange County Register. “My volunteer experience taught me that we take for granted what we have here,” said Ellis, who has worked with poor children in Peru. “There is so much more we can do for people.” Ellis was recently named one of OC Metro’s “40 Under 40” for her community leadership.

John Naviaux [B.A. business economics and B.A. environmental sciences ’12] embarked in August on a 10-month research excursion to the Arctic Circle. The 2013 Fulbright Scholar traveled to Norway to study the impact of atmospheric mercury pollution on the Arctic ecosystem. “It’s important to know where the mercury is in the snow,” he told The Orange County Register. “If it’s all at the top level, intuitively, a little bit of snowmelt will cause a big increase in mercury in the surrounding area, which can cause problems in health or the global environment.”

Jesse Sharp [M.F.A. drama ’11] has been playing the eccentric patriarch Gomez in the 2013-14 national tour of “The Addams Family” musical. “Before I even open my mouth, people already know and love the character,” Sharp told The Detroit News this summer. “So as long as I do the character justice and I give my heart and soul onstage every night, everyone’s happy.”

HAVE NEWS TO SHARE?

Just got a promotion? Changed jobs or published a book? Let your fellow Anteaters know what you are up to with a UC Irvine alumni class note.

Visit: www.alumni.uci.edu/update

CALLING ALL ANTEATERS!

MARK YOUR CALENDAR:
JANUARY 24 & 25

Thousands of Anteaters near and far come back to campus every year to be a part of the tradition. Join us for our family-friendly get-together. Enjoy great food, a variety of fun entertainment and stay for the game!

For more information, visit www.alumni.uci.edu/homecoming

UC Irvine HOMECOMING
With the opening of the Al Irwin Academic Center in October, UC Irvine student-athletes can take advantage of first-class academic support, including expanded study space and technologies.

The 5,100-square-foot center, located in Crawford Hall, is named for UC Irvine’s first water polo and swim coach and was made possible by a lead gift from Martha and Jim Newkirk.

“The Newkirks’ generosity, vision and commitment have been transformative,” said Michael Izzi, director of intercollegiate athletics. “Their continued support has elevated our programs not only athletically but now academically.”

For the 400 student-athletes on UC Irvine’s 18 Division I sports teams, the Al Irwin Academic Center increases access to computers, study areas and offices for private sessions. Among other amenities, it houses 24 computer stations featuring the latest information technology and a study area with a relaxing view of the Anteater pool.

The facility also offers orientation for freshman and transfer student-athletes, consultation services for course selection and scheduling, and classes on academic and life management skills.

“‘The new center provides intellectual and social community support that contributes to the holistic development of student-athletes and stimulates camaraderie among all students who participate in UC Irvine athletics,” Izzi said. “It sends a clear and powerful message to scholar-athletes, coaches, the surrounding community and alumni about UC Irvine’s commitment to transforming the student-athlete experience by providing a quality learning environment.”

Irwin’s impact on athletics has been felt throughout Orange County. He joined UC Irvine’s inaugural intercollegiate athletics staff in 1965, serving as head coach of the men’s swimming & diving team that captured the 1969 NCAA championship and assistant coach of the 1970 men’s water polo squad that won UC Irvine’s first NCAA Division I championship in that sport. In addition to his coaching legacy, Irwin was acting vice chairman of the university’s physical education department and assistant director of athletics until his retirement in 1978.

“The new center provides intellectual and social community support that contributes to the holistic development of student-athletes and stimulates camaraderie among all students who participate in UC Irvine athletics.”
Longtime Anteater coach Vince O’Boyle retires

Vince O’Boyle, the second-longest tenured head coach in UC Irvine Athletics history, retired from the university on Dec. 31.

O’Boyle was head coach of men’s and women’s cross-country for 32 seasons and director of men’s and women’s track & field for 30 years after serving two seasons as an assistant coach. During this time, he earned Big West Conference Coach of the Year honors 20 times in cross-country and track & field.

“I want to thank UC Irvine for letting me be a part of this outstanding university and the Anteater family,” O’Boyle said. “I’ve watched it grow into a beautiful and successful campus. For every man and woman I have coached over the years, it’s been an honor and a privilege. Regardless of how fast they ran, jumped or threw, it was more important to me how they developed over the years.”

O’Boyle led women’s cross-country to 12 Big West titles, including the first conference championship in 1983. He also guided the program to four NCAA Championship meets; in 1990, the Anteaters finished fourth in the nation and had three All-America runners. Under his leadership, men’s cross-country won seven Big West titles — three of them consecutive wins from 1989 to 1991.

Eighteen of O’Boyle’s student-athletes in men’s and women’s cross-country were Big West Conference individual champions. He coached nine All-Americans in cross-country and 16 All-Americans in track & field, among them Charles Jock, who became UC Irvine’s first NCAA individual champion in 34 years when he won the 800 meters at the 2012 NCAA Championships.

His teams also succeeded academically. Women’s cross-country received UC Irvine’s Faculty Athletic Representative Award for the school’s highest team GPA 12 times. He coached nearly 1,000 scholar-athletes.

In 2010, O’Boyle was inducted into the 52nd annual Mt. SAC Relays Hall of Fame. He has participated in the relays for the past 50 years, as a runner for Monrovia High School in 1963, as a student-athlete at Citrus College and Cal Poly Pomona, and as a coach at Citrus College and UC Irvine.

Former associate head coach Jeff Perkins became head coach of the track & field/cross-country programs on Jan. 1.

“For every man and woman I have coached over the years, it’s been an honor and a privilege. Regardless of how fast they ran, jumped or threw, it was more important to me how they developed over the years.”
Men’s volleyball seeks ‘three-peat’

Men’s volleyball is aiming for its third national title in a row as the 2013-14 season heats up.

The Anteaters, led by second-year head coach David Kniffin, opened their season in late December and host four Mountain Pacific Sports Federation matches at the Bren Events Center in February.

UC Irvine faces UCLA on Saturday, Feb. 1; USC on Thursday, Feb. 13; Pepperdine on Friday, Feb. 14; and UC Santa Barbara on Friday, Feb. 28.

Last May, men’s volleyball won its second consecutive national title — and fourth in seven years — with a 3-0 sweep of top-ranked BYU in the NCAA Championship at UCLA’s Pauley Pavilion.

Returning to play for UC Irvine are All-Americans Michael Brinkley and Collin Mehring; All-MPSF honoree Scott Kevorken; NCAA tournament Most Outstanding Player Connor Hughes; seniors Jeremy Dejno and Daniel Stork; junior Zack La Caverna; and sophomore Kyle Russell.

“Our culture remains as strong as ever,” said Kniffin, the second coach in NCAA men’s volleyball history to win a national title his first season. “Talent comes and goes with each incoming and graduating class, and I’m curious to see what we can do this year.”

Last May, men’s volleyball won its second consecutive national title — and fourth in seven years.
Anteaters face a challenging baseball schedule

UC Irvine baseball takes on some tough opponents in upcoming games, including two regular-season conference champions and seven NCAA tournament teams.

Led for the seventh year by head coach Mike Gillespie, the squad begins the 2014 season with eight straight home games at Anteater Ballpark, opening against Fresno State on Friday through Sunday, Feb. 14-16.

After hosting Western Athletic Conference champion CSU Bakersfield on Wednesday, Feb. 19, the Anteaters compete in the Long Beach State Tournament on Friday through Sunday, Feb. 21-23, playing three straight home games. UC Irvine will host Wright State on Friday, Feb. 21; Arizona State, a 2013 NCAA regional participant, on Saturday, Feb. 22; and Long Beach State on Sunday, Feb. 23, in a nonconference game. Loyola Marymount will be the eighth home opponent Tuesday, Feb. 25.

Big West Conference action starts with a series against UC Riverside at home Friday through Sunday, March 28-30.

In the regular season’s final month, UC Irvine faces five consecutive teams that advanced to the 2013 NCAA tournament, starting with a home series against UC Santa Barbara on Friday through Sunday, May 2-4, followed by a single game at San Diego on Tuesday, May 6. The Anteaters travel to Cal Poly on Friday through Sunday, May 9-11, and then return home to face defending national champion UCLA on Tuesday, May 13. The last three-game series at home will be a Big West matchup against Cal State Fullerton on Friday through Sunday, May 16-18.

Like last year, UC Irvine will end the regular season against Long Beach State. The games will be held Thursday through Saturday, May 22-24, on the road.

Ticket information for Anteater baseball is available at www.ucirvinesports.com/buybsb.

For more games, see the online schedule at www.ucirvinesports.com/sports/m-basebl/2013-14/schedule.
Homecoming 2014, Jan. 24 & 25

For the first time, UC Irvine’s homecoming will be held over two fun-filled days. On Friday, Jan. 24, Greek alumni and graduates from the classes of 1969, 1974, 1979, 1984, 1989, 1994, 1999, 2004 and 2009 will celebrate their reunions with a sapphire anniversary dinner honoring the class of 1969, receptions and wine-tastings. Events on Saturday, Jan. 25, include a guided campus tour at 1 p.m., academic talks at 2 p.m. and a street festival at 4 p.m. on Mesa Road outside the Bren Events Center. Sponsored by UC Irvine Alumni, the festival will feature live music, student performances, a Greek village, food, carnival games, and school booths offering campus updates. Afterwards, Anteater fans will cheer the UC Irvine men’s basketball team, which takes on the University of Hawaii at 7 p.m. in the Bren Events Center.

More: www.alumni.uci.edu/homecoming

‘Kei Akagi & Friends’ in concert, Feb. 7 & 8, March 15

The Claire Trevor School of the Arts Faculty Artist Series presents Kei Akagi, Chancellor’s Professor of music and director of jazz studies, in concert with Darek “Oles” Oleszkiewicz, jazz studies lecturer and bassist, and Jason Harnell, music lecturer and drummer. 8 p.m. Friday and Saturday, Feb. 7 & 8. Akagi also will perform with his sister, pianist Mari Akagi of Japan. 8 p.m. Saturday, March 15. Winifred Smith Hall. $11-$15.

More: 949-824-2787 or www.arts.uci.edu/tickets

‘The Trial of Dedan Kimathi,’ March 8-16

The drama department will stage “The Trial of Dedan Kimathi,” written by Ngugi wa Thiong’o, UC Irvine Distinguished Professor of English and comparative literature, in collaboration with Micere Gitae Mugo. The play revisits events surrounding the 1956 trial of Kimathi, leader of the Mau Mau uprising against the British colonial government in Kenya. 8 p.m. Saturday, March 8, and Thursday through Saturday, March 13-15; 7:30 p.m. Sunday, March 9, and Tuesday and Wednesday, March 11 & 12; 2 p.m. Sunday, March 9, and Saturday and Sunday, March 15 & 16. Experimental Media Performance Lab (xMPL), lobby level of the Contemporary Arts Center. $11-$15.

An accompanying seminar — presented by the School of Social Sciences’ International Studies Public Forum — will feature Ngugi, drama professor Ketu Katrak, political science professor Cecelia Lynch, assistant drama professor and play director Jaye Austin Williams, Ph.D. ’13, and special guests. 5-6:20 p.m. Thursday, March 13. Social Science Plaza A, Room 1100. Free.

More: 949-824-2787 or www.arts.uci.edu/calendar

Claire Trevor birthday celebration honoring Joan and Don Beall, March 10

UC Irvine and the Claire Trevor School of the Arts will honor Joan and Don Beall for their contributions to business, art and technology. The evening will include the unveiling of the couple’s star in the Contemporary Arts Center courtyard; a cocktail reception at the Beall Center for Art + Technology; and performances at the Claire Trevor Theatre featuring arts students and faculty as well as The Wooden Floor (formerly the Saint Joseph Ballet), a Santa Ana-based dance company for underserved local youth that’s supported by the Bealls. Monday, March 10.

More: 949-824-2787 or www.arts.uci.edu/event/honoring-joan-and-don-beall-mar-10

MORE CAMPUS EVENTS >>

http://today.uci.edu/calendar/
Going where no fundraiser has gone before
From Trekkies to bike treks around Irvine, campus community joins in Promise for Education

What the heck is going on at UC Irvine?

Respected social sciences dean Bill Maurer and fellow faculty members are trekking around the campus in Captain Kirk attire and Spock ears – and it’s not even Halloween. The distinguished UC Irvine Alumni Association president, Bruce Hallett ’78, is planning a marathon speed-paddling kayak trip around Newport Harbor. And Chancellor Michael Drake is leading more than 50 bikers in a tour of the city of Irvine on Jan. 25.

The stunts, feats, outings and more are all part of the payoff in the Promise for Education campaign. Starting in September, University of California faculty, staff, students and alumni posted promises – some serious, some whimsical – that they would fulfill if supporters helped them reach stated pledge goals. Drake’s promise garnered the most support across 10 campuses, yielding $21,443 toward student scholarships.

In six weeks, the UC system racked up more than 1,000 promises and nearly 4,000 contributions totaling $1.3 million.

The campuses tried the crowdsourcing tactic in response to cuts in state support for higher education, said Melissa Salazar, UC Irvine’s executive director of engagement & annual programs who led the local effort.

“In the last five years, state funding for the University of California system has been cut by nearly $900 million,” she said. “While the state once covered 78 percent of the cost of a UC student’s education, it now covers just 39 percent. Last year, for the first time ever, students and their families shouldered a bigger share of the cost of their public education than the state. And with that shift comes growing recognition of what private giving can mean for a student’s future.”

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“In the last five years, state funding for the University of California system has been cut by nearly $900 million. While the state once covered 78 percent of the cost of a UC student’s education, it now covers just 39 percent.”
The UC’s Blue + Gold Opportunity Plan pays the full cost of tuition for students whose families make less than $80,000 annually. Proceeds from the Promise for Education effort will go to middle-class students whose family incomes make them ineligible for full tuition waivers.

Coordinated out of UC headquarters in Oakland, the campaign had privately collected about $900,000 before it officially launched. Organizers called upon celebrity supporters such as actors David Spade, Jamie Foxx and Sasha Alexander to kick off the public phase. From there, the UC community took up the challenge.

Maurer and other social sciences faculty promised to dress as “Star Trek” characters for a day if their supporters raised $5,000. They exceeded their goal and kept their word in mid-November, parading around Ring Mall in costume. The resulting group photo was used in the school’s “Live long and prosper” holiday card.

Hallett promised to kayak around every island in Newport Harbor in less than three hours and brought in $1,575 in pledges.

“I was delighted to receive over $1,500 in pledges for UC, but I’m starting to wonder if a lot of the pledges aren’t simply bets that I can’t kayak around eight islands in three hours,” Hallett said. “Actually, it’s not as hard as it sounds, since many of the islands are small and clustered in close proximity to one another. If I’m successful this time, next time I’ll take on the Channel Islands. Just kidding!”

And Drake, well known for his bike-riding prowess, sold donors on “cycling the gentle terrain of Irvine on a crisp, bright morning – with views of the ocean to the west and mountains to the east. It’s an invigorating way to enjoy the beautiful Orange County location we are privileged to call home.”

“We know many qualified applicants who would love to take advantage of the outstanding opportunities our campus offers but are unable to for lack of funding.”

Other promises from UC Irvine included:

**John Daly**, assistant vice chancellor for human resources, said he would “switch places with one of our hardworking, dedicated UC Irvine campus custodians or groundskeepers for a day” and earned $1,075 in pledges.

**Rachel Gould**, telephone outreach program manager, vowed to wear a tutu to a hockey game and brought in $1,601.

**Valerie Jenness**, social ecology dean, offered to host an “Anteater Picnic” at the Santa Ana Zoo for her supporters at which they’ll get to meet the real, live Peter the Anteater. She raised $1,500.

**Anteater Ambassadors Network** pledged to volunteer at five Orange County nonprofits before June 2014 and made $655.

**Cathy Lawhon, UC Irvine**
UC Irvine’s “Shaping the Future” campaign reached a major milestone in October, surpassing $850 million in contributions from more than 100,000 people. The campaign is on track to reach its $1 billion goal by 2015.

For more information, visit www.ucifuture.com.

UC Irvine launches new ‘Giving’ website

University Advancement, in partnership with UC Irvine Strategic Communications, has redesigned its website, combining it with the “Shaping the Future” campaign website into UCIrvine | Giving.

The new, more robust website offers improved ease of navigation and usability and conforms to current university communications standards.

The full-service website launched in early November, but additional improvements will be made and user feedback is welcome.

UC president has good news for Graduate Division

In her first major speech as University of California president, Janet Napolitano announced in October three initiatives aimed at supporting postdoctoral fellows, graduate students and undocumented students across the 10-campus UC system.

She told members of San Francisco’s Commonwealth Club that she would immediately allocate $15 million in discretionary non-state funds — split among the three groups — toward easing the unique challenges affecting these UC students and researchers.

Napolitano will add $5 million to the President’s Postdoctoral Fellowship Program, which directly supports recently graduated Ph.D.s who teach and conduct research at UC before beginning their careers in academia or industry.

To allow UC to more effectively compete for the world’s most promising graduate students – and to help fill the “postdoc pipeline” – another $5 million was earmarked for graduate student recruitment.

“Graduate students and postdocs are the essential links between teaching for California and researching for the world,” Napolitano said. “They are our future faculty members. They are our future innovators. They are our future Nobel laureates. They merit our additional support right now.”

That was welcome news at UC Irvine, which has about 5,400 graduate and professional students (law, medicine, business, etc.) and 350 postdoctoral scholars.

“I’m extremely pleased that President Napolitano recognizes the value of postdoc scholars and graduate students,” said Frances Leslie, dean of UC Irvine’s Graduate Division. “Our campus is still in the growth phase for graduate enrollment, so support for recruitment is really important for us. The additional funds will help us attract the best and brightest.”

“Our doctoral students are critical to our research and teaching mission, so we try to support them throughout their education,” she continued. “We need to offer stipends that are competitive with other great research universities. Graduate students are already burdened with significant debt from their undergraduate education. It’s very difficult for them to incur more.”

The funds for postdoctoral fellowships also will benefit UC Irvine, Leslie noted: “It’s a way to recruit the best young research scholars, with the goal of them becoming future faculty in the UC system.”

“I’m extremely pleased that President Napolitano recognizes the value of postdoc scholars and graduate students. Our campus is still in the growth phase for graduate enrollment, so support for recruitment is really important for us. The additional funds will help us attract the best and brightest.”
Napolitano also singled out undocumented students at UC as warranting special help.

“These ‘Dreamers,’ as they’re often called, are students who would have benefited from a federal DREAM Act,” she said. “They are students who deserve the opportunity to succeed and to thrive at UC.”

There are about 900 undocumented students currently enrolled on UC campuses, almost all of them undergraduates. Because they face many bureaucratic and economic issues that other students do not — and often need help navigating the system — Napolitano is setting aside $5 million for resources such as trained advisers, student service centers and financial assistance.

The initiatives will be funded through reserves for one-time uses that the president may allocate at her discretion. No tuition dollars or state money will be used.

Play AnteaterTag@UCI and leave your mark on UCI history

The UCI Libraries invites the campus community, alumni and general public to play AnteaterTag@UCI, a crowdsourcing game in which contestants view and tag digital photographs from the libraries’ Online Archive of UCI History.

Participants will enrich the description of these historical images from the University Archives and contribute to UC Irvine’s 50th anniversary celebration in 2015. Powered by Metadata Games, AnteaterTag@UCI is a pilot project launched by the libraries to gather valuable information, called metadata, about archival pictures of people, places and events at the university from 1963 to 1982. Metadata – the labels that tell researchers and search engines what’s in a photograph or item – will help make these important images more accessible to students and scholars.

Players tag (the act of describing pictures using a keyword or short phrase) and score based on the number and quality of tags assigned. The competition is open through Feb. 28 for registered contestants who want to play against others to win prizes.

Go to the AnteaterTag website at http://anteatertag.lib.uci.edu to access any of the four metadata games: Zen Tag, NexTag, Pyramid Challenge! and MobileTag.

For more information, contact Shu Liu, metadata and digital resources librarian, at shu.liu@uci.edu or 949-824-5854.

90+ Study of ‘oldest old’ gets longer life, thanks to grant

UC Irvine’s trailblazing 90+ Study, launched in 2003 to learn more about the “oldest old” — the fastest-growing age group in the U.S. — will continue for at least another five years, courtesy of a $9.5 million renewal grant from the National Institute on Aging.

Previously funded by two five-year NIA awards totaling $20 million, the 90+ Study is the longest continuing research effort focused exclusively on the distinctive health and lifestyle issues of Americans in their 90s or older.

It’s among the largest studies of the oldest old in the world, with...
clinical, pathological and genetic research being conducted on more than 1,600 participants. Based at the Clinic for Aging Research & Education in Laguna Woods, the project is co-directed by Dr. Claudia Kawas, a geriatric neurologist and professor of neurology and neurobiology & behavior, and Maria Corrada, an epidemiologist and associate adjunct professor of neurology.

“We are fortunate in this time of sequestration that our comprehensive and robust study continues to receive federal funding,” Kawas said. “There truly isn’t anything like the 90+ Study. Results obtained thus far have provided researchers across the globe with valuable information about aging.”

Engineering school gets funding for solar stove
The Henry Samueli School of Engineering has received a $100,000 Grand Challenges Explorations grant from the Bill & Melinda Gates Foundation to refine a solar stove that enables carbon emissions-free cooking. The grants foster outside-the-box solutions to persistent global health and development issues.

The stored energy solar stove was initially designed by a group of senior mechanical engineering students at UC Irvine under the guidance of former research adviser John Garman. It permits carbon emissions-free cooking indoors and at night, which not only reduces deforestation, labor time and safety concerns for women who leave their villages to gather firewood, but also pollutes indoor air far less than the traditional in-home cooking methods currently employed in developing countries.

“What this grant money allows us to do is continue working on an effective thermal mechanical design to create a solution to an important global health and environmental degradation problem.”

“What this grant money allows us to do is continue working on an effective thermal mechanical design to create a solution to an important global health and environmental degradation problem,” said Derek Dunn-Rankin, professor and chair of the Samueli School’s Department of Mechanical & Aerospace Engineering and principal investigator for the project.

Mechanical engineering student Lineker Phuong said that he and his collaborators have still got some work to do on the design. “We cooked up two batches of bacon easily, but by the third, the bacon didn’t fully cook,” he said. “The temperature of our cooking surface decreased gradually even while the temperature inside the box stayed constant throughout the cooking experiment.”
Greg Duncan wins Swiss prize for work on childhood poverty

Greg Duncan, a leading scholar in the field of early childhood education and a member of the National Academy of Sciences, has been awarded the 2013 Klaus J. Jacobs Research Prize for his groundbreaking work on the lasting effects of poverty on child development. Bestowed by the Zurich-based Jacobs Foundation, the honor comes with 1 million Swiss francs ($1.09 million).

“I am deeply honored and excited that this prize will help launch new research initiatives that I’m planning,” said Duncan, Distinguished Professor of education. “Low-income children enter kindergarten far behind high-income children in terms of concrete literacy and math skills, and they have more difficulty paying attention in class. My research seeks a better understanding of why this is the case.”

Duncan will use the funds to support work with neuroscientists, developmental psychologists and economists assessing how poverty-reducing income supplements over a child’s first three years of life affect parenting and the child’s cognitive development. The experimental study will involve 1,000 families and be conducted at several sites around the U.S.

Dr. Tallie Z. Baram honored for children’s brain research

Dr. Tallie Z. Baram received the 2013 Bernard Sachs Award at the Child Neurology Society’s annual meeting in November, joining a roster of such distinguished past honorees as current National Institutes of Health director Dr. Francis Collins.

The award is considered the highest accolade in the field of children’s brain research and the crowning achievement of a scientific career.

Baram, however, views it as something different: a springboard to what may prove to be her greatest contributions to the understanding of early-life factors that affect the developing brain.

“Receiving the Sachs Award is rewarding and humbling, and I’m thankful for the recognition,” said the Danette Shepard Chair in Neurological Sciences at UC Irvine. “But, as Frank Sinatra sings, I believe the best is yet to come.”

In June, Baram got a $10 million Silvio O. Conte Center grant from the National Institute of Mental Health to establish an interdisciplinary program to explore how patterns and rhythms of maternal signals before and after birth may influence an infant’s vulnerability to cognitive and emotional problems during adolescence.

Conte Center grants are rarely bestowed, and only the most promising ideas to improve the diagnosis and treatment of mental health disorders receive funding. The grant awarded to Baram is currently the only one of its kind in the University of California system.

Distinguished Professor of education Greg Duncan has published extensively on issues of income distribution, poverty and child development throughout his 40-year career.

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"We want to help answer the question that’s been a topic of intense investigation for decades," she said. "What happens during childhood that shapes the brain for life? This complex problem requires a multidisciplinary approach that involves both animal and human research."

Etel Solingen appointed to Tierney Chair for world peace efforts

Etel Solingen, Chancellor’s Professor of political science, has been named the Thomas T. & Elizabeth C. Tierney Chair in Global Peace & Conflict Studies.

The endowed chair was established in 1986 by Thomas and Elizabeth Tierney, longtime friends of UC Irvine, as a way to honor a scholar of distinction who’s making contributions to world peace through teaching, research and service.

Solingen is an internationally recognized political scientist and one of the world’s foremost experts on nuclear proliferation, the global political economy and regional orders. Her book Nuclear Logics: Contrasting Paths in East Asia & the Middle East received the American Political Science Association’s 2008 Woodrow Wilson Foundation Award for the best book across all fields of political science, as well as the Robert L. Jervis & Paul W. Schroeder award for the best book on international history and politics.

She has participated in many “track two” meetings with academic and government officials designed to address global conflicts. She also has lectured extensively at academic institutions, association meetings and conferences worldwide, including more than 20 keynote addresses and presentations over the last year alone in Beijing, Moscow, Berlin, Singapore and Madrid, among other sites.

Solingen served as the 2012-13 president of the International Studies Association, the premier organization in the field.

Ron Carlson’s latest book deals with different kind of homecoming

In his newest novel, Return to Oakpine, UC Irvine English professor and award-winning author Ron Carlson returns to familiar terrain – the American West – to explore themes of growing up and growing old, disappointment and hope.

Set in the fictional small town of Oakpine, Wyo., the book concerns four middle-aged men who reunite some 30 years after graduating from high school, when they were living their glory days and playing together in a garage rock band. With Carlson’s characteristic grace, readers learn what has become of them.

Return to Oakpine has received high praise, with the Los Angeles Times calling it an “elegant and moving novel” driven by the tension “between what we want to do and what we need to do, between our dreams and our responsibilities.”

Carlson directs UC Irvine’s acclaimed M.F.A. writing program in fiction. He has published several short-story collections and four other novels, including Five Skies and The Signal.
UC Irvine is fast approaching its 50th Anniversary in 2015. To celebrate the milestone, we will be publishing *UC Irvine: A Portrait*, a beautifully illustrated coffee-table book. It will relive the university’s colorful history; its remarkable roster of distinguished faculty, staff, alumni and students; and its memorable highlights.

But the story can’t be told without your help. We need your stories, memories and memorabilia from your time at UC Irvine. A history of UC Irvine wouldn’t be complete without them! Either contribute online at [http://sites.uci.edu/50th/](http://sites.uci.edu/50th/) or send your correspondence to:

UC Irvine: A Portrait, Attn: Cathy Lawhon,
UC Irvine Media Relations and Community Outreach
100 Theory, Suite 200, Irvine, CA 92697-5615.

For questions about submitting material, please email clawhon@uci.edu

### How to Order

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The UC Irvine Alumni Association leverages the success of the university’s more than 150,000 alumni by providing networking opportunities and a wide range of university resources.

Membership is the best way to keep in touch with other Anteaters and stay up to date on the exciting things happening in the campus community. As a UCIAA member, you’ll receive invitations to exclusive events and programs; valuable discounts on travel, financial services and entertainment; and so much more.

To join, call 949-824-2586 or visit www.alumni.uci.edu.