Better police surveillance technologies come with a cost, scholar says

By Phil Cllicer
Business and Law Editor

The ever-increasing adoption of digital surveillance technologies by local police departments may dramatically improve the efficiency of criminal investigations, but it also creates the opportunity for abuse, a University of Illinois expert in criminal law and information privacy says.

The widespread use of advanced surveillance technologies such as automatic license plate readers, surveillance cameras, red light cameras and facial recognition software by state and local police departments combined with a lack of oversight and regulation have the potential to develop into a form of widespread police surveillance, with significant privacy concerns to law-abiding citizens, warns Stephen Rushin, a professor of law at Illinois.

“That’s worrisome to me because the technologies could be harnessed to monitor not just one person, but an entire neighborhood, a U of I expert in criminal law and information privacy says.

While technologies that give the state an “extrasensory ability” may violate an individual’s reasonable expectation of privacy, technologies that merely improve the efficiency of otherwise permissible investigation techniques are presumed to be permissible, Rushin said.

“Much of the Supreme Court’s previous treatment of police surveillance has rested on the premise that individuals have no expectation of privacy in public places, and that surveillance technologies merely improve the efficiency of police investigations comport with the Fourth Amendment,” he said. “While officers must obtain a warrant before using some technologies, the courts generally do not regulate efficiency-enhancing technologies.”

Restrictions still apply to campus for new gun laws

By Mike Helenthal
Assistant Editor

The new Illinois law allowing citizens to carry a concealed handgun won’t have much effect on campus.

Joff Christensen, the campus police chief and executive director of public safety, said, all of the rules and regulations governing the possession of weapons on campus will continue to apply.

The difference will be the new exception for those with a concealed-carry permit, which still restricts the actual carrying of a firearm on campus (outside of storing the weapon in a vehicle) – a provision that was pushed by university and state law enforcement officials during Springfield legislative discussions in February.

Statewide, those with a permit can carry a handgun as long as it is hidden. If a weapon is being stored in a vehicle, it must be concealed within a case in a locked vehicle or in a locked container that is not in plain view.

“It really hasn’t changed the unlawful use of weapons statute,” Christensen said. “We’re still the last state in the nation to adopt a concealed-carry law, but it’s still the same rules; there’s just been an exception added.”

Christensen said the university formed a working group to address how the change would affect the campus after state officials were ordered this year to put in place a system allowing citizens to carry concealed weapons.

SEE GUN LAWS, Page 2

Office in China expected to foster new, existing relationships

By Mike Helenthal
Assistant Editor

With hundreds of Chinese students enrolling annually at the U of I, and thousands of Illini alumni already living and working in China, there’s little doubt the university has a strong presence there.

That presence will become more tangible in the coming months as the university prepares to open its first office in China by the end of the year.

Set in a corporate center in the heart of Shanghai, the office is part of a state of Illinois-China office, which was managed by the Illinois Department of Commerce and Economic Opportunity. The office is expected to solidify and expand the university’s relationships in China.

“The main goal we have is to promote higher education,” said Pradeep Khanna, the associate chancellor for corporate and international relations in the Office of Public Engagement at the U of I. “China is a big source of students for us and it’s important to be fully engaged with them. This office will help us better serve our stakeholders in China.”

In addition to providing some support to students, U of I leaders foresee the office as a central point in forging new relationships with Chinese academic and business leaders.

An inauguration ceremony for the office will take place Dec. 9 in China, though the office won’t become fully operational until it is staffed.

“We’re working on hiring people now and hope to have everything ready to go by the end of the year,” said Sarah Zehr, the director of operations for the Office of Public Engagement, who will oversee the new office in China.

Zehr, who will be based in Urbana, will serve as the main campus contact for the new office, which will be staffed by an assistant director and two program specialists.

She said the goals for the new office include bringing together recent U of I graduates and corporate human resources officials to promote employment opportunities; forging academic partnerships with Chinese universities; sharing economic development opportunities in East Central Illinois; and increasing communication for U of I alumni living in China.

“We want to reach out in several directions,” Zehr said. “We’d like to enhance the relationships we already have and build new ones along the way. Having an office there is an important first step in improving communication.

“It will allow us to work more closely with alumni and to make academic and business contacts that may lead to new collaborations,” Khanna said. “We are very excited about the opportunities this office will bring to the university and the state of Illinois.”

The office will be in the Shanghai Centre, a corporate complex. Staffing costs will be shared, using some campus funds as well as investments by the College of Business, the College of Liberal Arts and Sciences, and the College of Agricultural, Consumer and Environmental Sciences.

Privacy in public

The widespread use of advanced surveillance technologies by state and local police departments combined with a lack of oversight and regulation poses significant privacy concerns, warns Stephen Rushin, a professor of law at Illinois.

“I think that’s because it’s most easily local law enforcement undertaking this type of surveillance, and we don’t tend to think of our local police force as being particularly scary, intimidating or wrongdoing,” he said. “There’s no reason to believe that they are going to be particularly scary, intimidating or wrong doing.”

While technologies that give the state an “extrasensory ability” may violate an individual’s reasonable expectation of privacy, technologies that merely improve the efficiency of otherwise permissible investigation techniques are presumed to be permissible, Rushin said.

“Much of the Supreme Court’s previous treatment of police surveillance has rested on the premise that individuals have no expectation of privacy in public places, and that surveillance technologies merely improve the efficiency of police investigations comport with the Fourth Amendment,” he said. “While officers must obtain a warrant before using some technologies, the courts generally do not regulate efficiency-enhancing technologies.”

Those assumptions have been workable in the past because of oversight and practical use and capability of efficiency-enhancing technologies.

But with the advent of automatic license plate readers and surveillance cameras with biometric recognition, the efficiency of the surveillance itself is becoming a constitutional issue, Rushin said.

“This is the first time because of a reasonable expectation of privacy when they’re in public, that means that a police officer can do whatever a normal person can do without any kind of special approval,” he said. “They can observe your license plate and write it down on a piece of paper and run it through a database. But now they could also use an automatic system.”

SEE SURVEILLANCE, Page 10
By Mike Helenthal

The U. of I. Board of Trustees appointed members to the Task Force on Open Access at its Nov. 14 meeting in Springfield in an effort to ensure the university meets the provisions of a new state law to take effect Jan. 1.

The law changes the way researchers disseminate their published work, requiring them to make findings freely accessible to the public on the Internet.

The first step in implementing the law is the formation of the task force, which has the public on the Internet.

The formation of the task force, which has been supported in recent months by the Illinois Open Meetings Act, to consider the need to expand the state’s $450 million fundraising effort through the University of Illinois Foundation, to be expanded to $1 billion over the next seven to 10 years.

The overall goal is $450 million.

Heather Lewis, vice president for health affairs, said the law changes the way researchers disseminate their work, requiring them to make findings freely accessible to the public on the Internet.

The board issued a news release follow- ing the vote that Wozniak would perform his university duties and functions in a manner consonant with professional standards of conduct and responsibility.

The state has directed the task force, which includes faculty leaders and the chancellor, to consider the law changes the way researchers disseminate their work, requiring them to make findings freely accessible to the public on the Internet.

“Ultimately, (we) own that liability,” he said. “We’re going to be walking on egg- shells until the state gets the pension issue solved.”

The university has considered a plan to take some of the pension obligations now “covered” by the state as a way to ensure employee benefit stability. But doing so would mean an additional $19 million in expenditures for every 1 percent of state pension costs shifted to the university.

A bright spot on the funding horizon came Tuesday, when President Thomas Farrell, who talked about the organization’s restructuring efforts set to begin in 2015 and designed to double fundraising in the next seven to 10 years. The overall goal is $450 million.

He said the strategy involves making fundraising requests more specific to target donors and better overall cooperation. There are also efforts to increase the philanthropic and public-service efforts set to begin in 2015 and designed to double fundraising in the next seven to 10 years. The overall goal is $450 million.

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A soon-to-be-released report on the structure of units online course suggests there is a value in the free courses and that the campus should continue to experiment with them.

Charles Tucker, the vice provost for undergraduate education and innovation, provided the overview of the report at the Nov. 11 meeting of the Senate Executive Committee.

"MOOCs are aligned with who we are and what our mission is," said Tucker, calling the U. of I.’s involvement with online course aggregators Coursera “a voyage of exploration and discovery.”

So far, more than 300,000 online learners from around the world have signed up for U. of I. courses offered through the university’s Open Course Library. Tucker said the campus has aggregate data, which allows them to understand how students are using online courses, and to see where they are, “They can see their learning trajectories, which is really important.”

"We’re looking at who is using these courses and where they are in their programs," said Tucker.

He noted that, in order to provide the best possible experience, "it’s important to make sure we’re covering the right material and we’re following the best practices."
Explosion of lawsuits brought by ‘patent trolls’ erroneous

By Phil Ciciora
Business and Law Editor

The number of lawsuits generated by so-called “patent trolls” is wildly exaggerated, says a new paper co-written by U. of I. law professor Jay P. Kesan.

Patently wrong The number of lawsuits generated by “patent trolls” is wildly exaggerated, says a new paper co-written by U. of I. law professor Jay P. Kesan.

According to Kesan, the fascination extends to the White House, which got involved in the debate last summer when the president’s Council of Economic Advisers issued a report titled “Patent Assertion and U.S. Innovation.”

“The report rang all sorts of alarm bells about patent-related lawsuits, the primary claim being that the number of lawsuits brought by patent-assertion entities has tripled in just the last two years,” he said. But based on data assembled by Kesan and co-authors Christopher Anthony Cotrobi, Dorothy L. Espelage, and Philip C. Rodkin, the only real change was in the raw number of lawsuits.

Kesan said. “In other words, the so-called ‘explosion’ of patent-assertion entity litigation between 2010 and 2012 is simply fiction.”

To investigate the litigation, the scholars hand-coded all 7,500-plus patent holder litigants from 2010 to 2012.

In the coding, they classified the nature of the litigants into eight categories. “We coded each patent holder as one of the following: a university; an individual company affiliated with an operating company; an intellectual property holding company; an individual company; or a technology development company,” Kesan said.

To aid the effort in understanding the patent litigation landscape, Kesan and his co-authors have released the underlying data — specifically, the classifications of the litigants in all patent lawsuits filed in both 2010 and 2012 — to the public.

“We believe that releasing this data to the public, which unpacks the definition of a patent-assertion entity, provides better insight to policymakers, researchers and others interested in the patent litigation system,” he said.

Study: Teachers, pupils disagree about who the bullies are

By Sharita Forrest
News Editor

ew research from the U. of I. indicates that elementary school students and their teachers often disagree about who bullies whom in their classrooms. And researchers say that intervention and prevention programs need to both heighten teachers’ awareness of bullying and provide support for victims that mitigate its impact on their academic achievement.

In a study conducted in five elementary schools in the Midwest, U. of I. researchers asked first-, third- and fifth-grade students and their teachers to identify bully-victim dyads in their classrooms according to gender combinations — boy-boy, boy-girl, girl-girl and girl-boy.

The participants, 700 children and 38 teachers, also were provided with a definition of bullying that included physical behaviors such as pushing or hitting, verbal abuse such as saying mean things or calling other people names, and relational aggression, such as excluding a classmate from play.

While bully-victim pairs were found across all the gender combinations and the data were fairly consistent across grade levels, student-teacher agreement on bully-victim dyads was very low. On average, students and teachers agreed on only 8 percent of the bully-victim pairs, although in one classroom student-teacher agreement rose to 39 percent.

Teacher-student agreement was highest on same-gender bully-victim dyads and lowest on dyads that involved girls who bullied boys.

The prominence of victims was the most positive predictor of teacher-student agreement, suggesting that teachers and pupils may pay more attention to the kids who get picked on than to their aggressors, said Philip C. Rodkin, one of the co-authors of the study.

A professor of child development in the College of Education, Rodkin is an expert on youth aggression and peer relationships. Students reported greater numbers of bully-victim pairs than did teachers, perhaps because much of the harassment occurs out of teachers’ sight.

“ Teachers think that greater awareness by teachers of their students’ social relationships can help them make more judicious choices about whom to seat next to whom and whom to engage in collaborative work,” Rodkin said. “More generally, teachers can benefit from training in how to help encourage productive friendships between students, prevent animosities between students from getting out of control, and create classroom cultures that all students feel a part of. This could be especially important in ethnically diverse classrooms and in promoting positive relationships between girls and boys.

“ Teachers play a significant role in creating a school climate that either fosters or inhibits bullying, and a critical part of developing a positive climate is understanding how teachers can structure the environment so that aggression is less likely to occur. Educational psychologist Dorothy L. Espelage wrote in a separate study that reviewed recent findings on bullying’s impact on academic achievement. ‘Teachers’ lack of awareness and knowledge about the serious implications of bullying and how to respond to it effectively can exacerbate bullying situations,’” said Espelage.

SEE BULLYING, PAGE 10

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NEW faces 2013

Among the newcomers to the Urbana campus are faculty members whose appointments began this summer or fall. Inside Illinois continues its tradition of introducing some of the new faculty members on campus and will feature at least two new colleagues in each fall issue.

Cabral A. Bigman-Galimore
an assistant professor of communication in the College of Liberal Arts and Sciences

Education: Ph.D. (communication), M.A. (communication), University of Pennsylvania; B.A. (psychology), Oberlin College
Research interests: Her broad research goals center on advancing understanding of how communication can reduce health inequalities and advance public health.

“One of the most exciting aspects of professor Bigman-Galimore’s research is the potential benefits for people who have the most to gain from advances in public health,” said John Caughlin, a professor and the acting head of the department of communication.

“Researchers have long documented that there are inequalities in health outcomes, and her work is aimed at making a real difference for those who have not always benefited as much as they could from positive developments in health care. We are very excited about professor Bigman-Galimore’s research agenda because she is taking state-of-the-art research and theory about communication and audiences, and she is using it to address one of the most socially significant issues of our time.”

Courses teaching: CMN 496, Communication and Health Inequalities.

Why Illinois?

“The department of communication’s collegiality, scholarship and emphasis on teaching and research excellence drew me to Illinois,” Bigman-Galimore said. “As a communication scholar with an interest in interdisciplinary research, I’ve found Illinois to be a great fit. The university’s reputation as a world-class research institution means there are exciting opportunities for collaboration both within my department and across the campus.”

James Patrick O’Dwyer
an assistant professor of plant biology, School of Integrative Biology in the College of Liberal Arts and Sciences

Education: Ph.D. (theoretical physics), University of Cambridge; M.A.Str. (mathematics), University of Cambridge; M.S. (physics), University of Durham
Research interests: As a quantitative ecologist, he has a vision to develop a broad and integrative body of theory to inform the understanding of the processes driving ecological systems.

“Researchers have long documented that there are inequalities in health outcomes, and her work is aimed at making a real difference for those who have not always benefited as much as they could from positive developments in health care. We are very excited about professor Bigman-Galimore’s research agenda because she is taking state-of-the-art research and theory about communication and audiences, and she is using it to address one of the most socially significant issues of our time.”

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Why Illinois?

“The primary reason I chose Illinois is the vibrant and unique intellectual community,” O’Dwyer said. “I draw from multiple disciplines in my research and teaching, and I’m excited about the opportunities for and encouragement of interdisciplinary work here. Second, Illinois is more than just an institution - it feels like I’m a member of a family.”

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Private schools not as effective as some advocates suggest

A new book challenges popular assumptions about the superiority of private-school education and policy imperatives behind current school-reform and policy initiatives that are based on market theory.

While market theorists promote consumer choice, school autonomy and privatization as the panacea for the problems in America’s public schools, many of their policy and reform initiatives are “mis-guided” and not supported by the evidence, say the authors of “The Public School Advantage: Why Public Schools Outperform Private Schools” (University of Chicago Press).

In the book, education researchers Christopher and Sarah Lubienski present exhaustive analyses of data related to student achievement in the public, private and charter school sectors and examine a variety of student, school and teacher characteristics to determine which of them may affect student achievement. Their study is believed to be the largest and most comprehensive to date on the topic.

The authors, who are married, are professors in the U. of I. College of Education. Christopher Lubienski is a professor of education policy, organization and leadership and is the director of the Forum on the Future of Public Education in the college. Sarah Lubienski, who is a professor of curriculum and instruction, also holds an appointment as associate dean of the university’s Graduate College.

Despite claims by policymakers and some members of the news media indicating that public schools are by and large failing at the task of educating the nation’s children, the authors say that their analyses suggest that public schools are “actually providing a more effective education service relative to schools in the independent sector.”

Using two nationally representative data sets, the authors cross-sectional as well as longitudinal data, the authors evaluated a variety of student, teacher and school characteristics and compared children’s test scores in mathematics by school sector.

Achievement differences among different types of schools are much more closely related to student demographics than to school sector, the researchers found.

“The higher test scores of private and independent schools are the result of the fact that they serve more affluent students, and those achievement advantages disappear once the schools’ demographic advantages are factored in,” Christopher Lubienski said. “In fact, when the background advantages of students are considered, most private and independent schools are actually underperforming relative to public schools.”

To test the possibility that their findings might reflect a selection bias – with more able students attending public schools and less able children attending private schools – the researchers used a different data set to examine the initial academic readiness and academic progress of more than 9,700 kindergartners and fifth graders.

Their analysis focused particularly on Catholic schools, which compose the Stix SCHOOLS, Page 7

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**Deaths**

**Doris “Marilyn” Garves**, 82, died Nov. 3 at Presence Covenant Medical Center, Urbana. Garves worked at the U. of I. for 12 years, retiring in 1986 as a secretary III for the Graduate College. Memorials: American Heart Association, diabe.org; or the Susan G. Komen Memorial for the Graduate College. Memorials: American Diabetes Association, diabe.org; or the Ashley’s Angels Foundation, teacres.org.

**Eugene Bryson Himelick**, 87, died Nov. 11 at Presence Covenant Medical Center, Urbana. Himelick was a research plant pathologist at the Illinois Natural History Survey for 36 years where he specialized in forest and urban tree diseases. He was a U. of I. professor emeritus. Memorials: University of Illinois Foundation Fund, 101 W. Windsor Road, Urbana, IL 61802-6697; clark-lindsey.com; or the First United Methodist Church, 304 S. Race St., Urbana, IL 61801, www.fumc-urbana.org.

**Carolyn A. Horsman**, 63, died Nov. 13 at Carle Foundation Hospital, Urbana. She worked at the U. of I. for 10 years, retiring in 2007 as an academic adviser for Student Affairs. Memorials: Sullivan First Christian Church, 1357 CR 1200 E, Sullivan, IL 61951; or the Susan G. Komen Memorial for the Graduate College.

**Charlie Johnson**, 77, died Nov. 9 at Champaign Urbana Regional Rehab Center. Sa-voy. Johnson worked as a personnel officer IV, labor relations specialist II and deputy director of staff human resources during his 20 years at the U. of I. He retired in 1999. Memorials: Urb. “U” Kruska, 86, died Nov. 17 in Urbana. Kruska was a professor of physics for 31 years, retiring in 1990. Memorials: Earth Justice, earthjustice.org; or the Center for Constitutional Rights, ccrjustice.org.

**Phyllis “Billie” Jean Ruggles**, 82, died Nov. 6 at 210 W. Vermont Ave., Urbana. Weingart. A open house for Alison Fong Weingart- ner will take place from 2-5 p.m. Nov. 29 at 210 W. Vermont Ave., Urbana. Weingartner, who died April 27, had worked at the U. of I. for 14 years, most recently as a communications specialist and editor for the Office of Online and Continuing Education. Memorials: H.M.D. Academy, hmadcademy. com; or Champaign Urbana Ballet, cuballet.com/donate.php. A service for Walter H. Lewis will take place from 12:30-4 p.m. Dec. 1 at the Lewis Center, with a ceremony at 2 p.m. Lewis, 85, died Nov. 8 at Carle Foundation Hos-pital, Urbana. He was a U. of I. professor of architecture for 54 years, retiring in 2012. Memorials: Cunningham Children’s Home, 1301 N. Cunningham Ave., Urbana, IL 61801; cunninghamhome.org. Central Illinois Small Animal Rescue and Care Center, 29178 E. 1400 N. Road, Colfax, IL 61728, cisarshelter.com; and Three Wet Dogs, 1948 Illinois St., Urbana, IL 61802, dogsinc.com.

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Method controls disease in deer with little effect on hunting

C

hronic wasting disease, the deer-equivalent of mad cow disease, crept across the U.S. landscape from west to east. It appeared first in captive mule deer in Colorado in the late 1960s. By 1981, it had escaped to the wild. It reached the Midwest by 2002. Little is known about its potential to infect humans.

Now researchers at the U. of I. offer a first look at the long-term effectiveness of the practice of culling deer in areas affected by CWD to keep the disease in check. That study appears in the journal Preventive Veterinary Medicine.

Each year, the Illinois Department of Natural Resources tests 7,000 (hunted, culled or incidentally killed) deer for CWD infection, conducts aerial surveillance to see where deer congregate and sends in sharpshooters to cull deer at the sites with disease, said Jan Novakofski, a professor of animal sciences at the U. of I. and an author of the study.

He and his colleagues at the Illinois Natural History Survey; U. of I. animal sciences professor Jan Novakofski; and postdoctoral researcher Michelle Pinilla, a wildlife veterinary epidemiologist with the Illinois Natural History Survey; and Nohra Mateus-Pinilla, a wildlife veterinary epidemiologist at the INHS who led the study with postdoctoral researcher Mary Beth Manjerovic.

“We found that hunter harvest has increased, and the prevalence of CWD has been maintained at low levels for 10 years in Illinois,” Pinilla, a wildlife veterinary epidemiologist at the INHS who led the study with postdoctoral researcher Mary Beth Manjerovic.

“This finding answers a long-time complaint by some hunters that the culling of deer makes it harder for them to find deer to shoot, Novakofski said.

“Since 2001, hunter harvest of deer has increased similarly in the northern region of Illinois, where CWD occurs, and the rest of the state, where there is no disease or sharpshooting,” he said.

In the two Illinois counties with fewer deer, “the reductions were 11 to 20 percent,” Manjerovic said.

The team compared the Illinois experience with that of Wisconsin, which changed its CWD-management strategy from one that relied on culling to one that consisted primarily of allowing hunters to thin deer herds, the researchers said.

“We can’t find an environmental or other variable that explains the increase in prevalence except a change in management,” Novakofski said.

The numbers may not seem alarming to some, said postdoctoral researcher and co-author Michelle Green. But the trend is of concern, she said.

“CWD is a prion disease (like mad cow disease) and it’s 100 percent fatal. There’s no current way that we can actually make the deer better, so it’s important that we keep it from spreading too far throughout the population,” she said.

“Then there’s also the connection to mad cow disease. We don’t have enough information yet to really understand what the impact to human health could be."

“We all hope that there is never a case of chronic wasting disease in humans. We all hope that it never spreads to people or agricultural animals,” Novakofski said. “If it ever does, the investment in maintaining prevalence at a low level in Illinois will be repaid a thousandfold.”

Healthy herds

The effort to keep chronic wasting disease in check in Illinois is a success, report researchers Nohra Mateus-Pinilla, left, a wildlife veterinary epidemiologist with the Illinois Natural History Survey; U. of I. animal sciences professor Jan Novakofski; and postdoctoral researcher Michelle Green.

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Growing up in Chicago’s Hyde Park-Kenwood neighborhood, Audrey Petty lived about two miles from the Chicago Housing Authority’s Robert Taylor Homes. Those 28 high-rises, arranged in horseshoe clusters along the Dan Ryan Expressway, contained more than 4,400 apartments, giving the complex the dubious title of largest public housing development in the nation. But though she could practically see the drab concrete towers from her doorstep, Petty regarded the Robert Taylor Homes as a foreign, mysterious and impenetrable enclave.

“For years, I would pass by going to piano lessons, but I felt like they were places that were apart – that I would never get in there,” she said. “I was aware, through headline news, of tragic events and difficult conditions at Robert Taylor and other large high-rise developments – crime, drug sales, an underground economy – but they were places that I was really curious about.”

In 1999, the federal Department of Housing and Urban Development required the Chicago Housing Authority to conduct an inventory and inspection of its projects. When most were labeled uninhabitable and scheduled for demolition, the city formulated a “Plan for Transformation” that promised the residents would be relocated to better housing in nicer neighborhoods. Petty – by this time a U. of I. English professor living in Urbana – immediately decided to chronicle the stories of the high-rise diaspora.

“It was the PFT that made me feel this urgent desire to become better informed about this plan and what was happening to people,” Petty said.

That curiosity resulted in her book, “High-Rise Stories: Voices From Chicago Public Housing,” recently published by McSweeney’s as part of its oral history series, Voice of Witness. The book contains the personal narratives of a dozen former residents whom Petty and a team of U. of I. graduate students (Michael Burns, Eric Tanyavutti and Crystal Thomas) found by posting fliers in schools, libraries and social service agencies. The subjects range from a former gang member who could clean and reassemble guns by the age of 5 to the president of the Cabrini Green resident council, described by President George H.W. Bush as “a model for the nation.” They tell their stories in intimate, conversational tones – the result of Petty and her team conducting as many as 10 interviews with each person over a period of two years and distilling the transcripts into a 250-page volume.

“Each of these people could have their own book,” Petty said. “I’m just able to present the tip of the iceberg.”

Their stories include a complete inventory of horrors: elevators that didn’t work; stairwells with no lights; infestations of vermin, drug dealers and gangsters; abusive police; indifferent paramedics; the violent deaths of neighbors, friends and family members.

“One of the things that holds the whole book together is that people share stories of some sort of crisis – a human rights crisis they experienced while they lived in high-rise public housing,” Petty said.

But these same memories are commingled with recollections of roller skating, basketball, a drum and bugle corps and, for a while at least, an on-site library at Robert Taylor Homes. Neighbors often functioned as extended family members, babysitting for each other’s children and sharing holiday cooking. One narrator, “Dawn,” recalls creating stereo systems from discarded electronics found in the Cabrini-Green incinerator. She is now a professional disc jockey.

As Alex Kotlowitz, the author of the 1992 bestseller “There Are No Children Here” writes in the forward to Petty’s book: “Here were places marked by at times utterly inhuman conditions, and yet residents considered these buildings home. Tenants in the high-rises often felt they belonged to something – they were among family and friends, and they had neighbors to lean on.”

Ads removed for online version
New reports from The Associated Press and elsewhere point to a host of environmental problems associated with federal mandates for ethanol in gasoline. Is it time to give up on the idea of substituting plant-based ethanol for gasoline?

A number of people have been beating up on bioenergy production for a lot of different reasons. And one thing I find a little bit perplexing is I think folks are missing the big problem – the rapid acceleration of global climate change caused by the ever-increasing levels of carbon dioxide in the atmosphere, fueled by our insatiable consumption of fossil fuels. This is where we need to find solutions.

It’s quite reasonable to say that corn ethanol has a number of very serious environmental consequences. However, corn ethanol is not the only source of ethanol. Many people are working very hard to develop sustainable, second-generation biofuels made from perennial plants or forest waste that will carry with them ecological benefits as well as displacing fossil fuels. So I worry that when people read these articles, they see “ethanol,” and they lump it all into one category.

The 2007 Renewable Fuel Standard set a target for corn-ethanol production and we’ve hit that target. This means that the remainder of our renewable fuel supply must come from biodiesel and from second-generation feedstocks such as perennial grasses. And so the argument that the rapid expansion of additional corn acres is dangerous for us is probably not accurate because the yield of these other grasses is so much higher than the yield of corn. So many of people are working very hard to develop second-generation biofuels.

U. of I. expert Evan DeLucia on ethanol and the environment

Editor’s note: Some recent prominent news stories focused on the negative environmental effects of federal mandates requiring the use of billions of gallons of ethanol in transporting fuels. U. of I. plant biology professor Evan DeLucia, the director of the Center for a Sustainable Environment and an expert on how land use changes influence greenhouse gas emissions, spoke to News Bureau life sciences editor Diana Yates about the pros and cons of producing biofuels.

Yes, there are a number of test plants around the country that use various types of chemical decomposition processes. You can break cellulose apart chemically. It’s just not gotten to the point where it’s economically feasible at a large scale.

Are there still years of development before we get to production on a large scale?

Everybody’s hoping it’s just around the corner. That’s the holy grail of this whole thing. The challenge is cost. The folks who work in this field knew it was a tough problem from a biochemical perspective. They just didn’t realize how tough a problem it was. So that cost point is still pretty high, and when that cost point comes down then there’s more incentive for second-gen biofuels.

So what do you say to people who are worried about the damaging environmental impacts of corn-based ethanol? Why not just suspend corn ethanol production until cellulosic sources are proven to be economical?

Well, because corn ethanol is displacing fossil fuel, so there’s still a benefit from a greenhouse gas perspective. Remember, ethanol has also been used as a fuel additive and has displaced the use of lead in fuels, and so we don’t want to go back to leaded fuels. The Energy Independence and Security Act of 2007 also talked about revitalizing and maintaining agricultural economies in rural America, and it has done that. I wouldn’t advocate expanding it, but there are a number of reasons why I think we should hold onto it while we’re in the development phase for these other crops.

We’ve got to keep our eye on the big picture, which is climate change. We can’t lose sight of that.

What are the environmental downsides of corn ethanol?

Any time you convert Conservation Reserve Program lands to row-crop agriculture, you’re going to take a big ecological hit. These lands tend to be covered in native grasses or woody plants. You’re not tilling them every year, you’re not harvesting grain from them, so you’re not dumping a lot of nitrate on that landscape. These kinds of systems tend to build soil organic carbon. And because they’re perennial and often more diverse than the surrounding intensive agricultural land, biodiversity tends to be higher. There is no question in my mind that if you go from that kind of system to a system where you’re annually tilling and putting high nitrogen inputs in, you’re going to see a big environmental hit. You’re going to see it in increased nitrate losses to groundwater. You’re going to see it in lost carbon from soil to the atmosphere. And you’re going to see it in terms of a reduction of biodiversity. There’s no question about that.

What I’m questioning is, going forward, is it reasonable to expect more of that to happen? And the answer is I don’t think that is what we’re going to see. You said that corn ethanol isn’t the only kind of ethanol. What else is available to meet the federal mandates?

So-called second-generation biofuels are where the future lies. Making biofuels from the non-edible parts of plants, the leaves and stems, will make biofuels much more ecologically sustainable. If you were going to take that 35 percent of the corn crop and replace that with high-yielding grasses like switchgrass or Miscanthus, you would convert the rain-fed Midwest from a net source of greenhouse gases to a net sink of greenhouse gases, plus you would greatly increase ethanol production because the yield of these other grasses is so much higher than the yield of corn. So there would be a huge benefit. The big “if” is whether we can do this affordably. That’s the holy grail of this whole development phase for these other crops.

Is anybody making cellulosic biofuels now?

There’s no question that corn ethanol is still a benefit from a greenhouse gas perspective. Remember, ethanol has also been used as a fuel additive and has displaced the use of lead in fuels, and so we don’t want to go back to leaded fuels. The Energy Independence and Security Act of 2007 also talked about revitalizing and maintaining agricultural economies in rural America, and it has done that. I wouldn’t advocate expanding it, but there are a number of reasons why I think we should hold onto it while we’re in the development phase for these other crops. We’ve got to keep our eye on the big picture, which is climate change. We can’t lose sight of that.

A Minute With … is provided by the U. of I. News Bureau. To view archived interviews, visit go.illinois.edu/amw.
Ceremony to mark establishment of Confucius Institute

By Sharita Forrest

Officials from Jiangxi Normal University in Nanching, China, and the University of Illinois will sign an agreement establishing a Confucius Institute at the Urbana campus during an event Nov. 21.

The institute will be a unit within the University of Illinois’ College of Education, which will operate the institute in close collaboration with the International Programs and Studies, the Center for East Asian and Pacific Studies, and the Chinese language program, which is a unit within the department of East Asian languages and cultures.

SURVEILLANCE, CONTINUED FROM PAGE 1

Fact: That will invariably vacuum up enormous amounts of data on innocent people, too.

“...So you have technology that might replace the efforts of dozens, even hundreds, of individual law enforcement officers.”

In the absence of regulation, police departments across the country have developed dramatically different policies on the use of public surveillance technologies.

“Data retention policies vary dramatically from one place to the other, and many local departments don’t have any policies whatsoever,” Rushin said. “In fairness to law enforcement, part of that is because many smaller departments don’t have many surveillance cameras or other devices. But the changing. The rate at which they’re adopting and utilizing these technologies isn’t matching the rate at which they’re adopting retention policies to regulate those new technological devices.

“What that means is that local police departments have been using surveillance technologies to retain more and more local data without establishing policies on retention and data integrity.”

According to Rushin, legislative bodies must take the lead and limit the retention, identification, access and sharing of data acquired by digitally efficient public surveillance technologies.

The paper also makes recommendations for ways that states could start to regulate the retention and integrity of surveillance data obtained by law enforcement surveillance technology. It proposes a model statute that would be a “substantial step in reigning in the unregulated efficiency of emerging investigative and surveillance technologies,” Rushin said.

“The model statute addresses some very core information privacy issues, so it’s no different than in any other field where you’re concerned about the second-hand use of data, or the abuse of data,” he said. “It means establishing basic conditions on who can access the data. It would also give a police department discretion to craft unique data policies tailored to its community’s specific needs, while also encouraging some level of statewide consistency.”

BULLYING, CONTINUED FROM PAGE 4

Espelage, who is a professor of child development at Illinois and an expert on bullying and youth violence,

Victimized children often blame themselves; experience social anxiety, depression and low self-esteem; and have difficulty concentrating on their schoolwork, which lead to lower grades and poor performance on standardized tests.

Quality friendships and initiatives that help students develop social competence and promote peer acceptance are critical to mitigating the impact of peer victimization, and school professionals should consider counseling services that reinforce bullying victims’ coping skills and help them improve their academic performance. Espelage and her co-authors recommended.

Espelage’s co-authors: Jun Sung Hong, a professor of social work at Wayne State University; Sabina Low, a professor of psychology at Arizona State University; and Meinamul A. Rao, a research assistant in counseling psychology at Illinois. The Centers for Disease Control and Prevention’s National Center for Injury Prevention and Control funded the research.

Rodkins’ co-authors: Hui-Jeong Ahn, who is a research fellow at the Korean Educational Development Institute in Seoul, and Scott Gist, a professor of human development at Pennsylvania State University. Their research was funded by an Education Research Grant (Social and Behavioral Contexts for Academic Learning) from the Institute of Education Sciences.

Both studies were published recently in a special issue of the journal Theory Into Practice, which Espelage guest-edited.
**brief notes**

**Great American Smokeyout**

‘Quit kits’ available Nov. 21

Are you thinking about giving up smoking, but not sure if you’re ready to quit for good? The Great American Smokeyout can help people quit, plan to quit or learn about quitting.

From 11 a.m. to 1 p.m. Nov. 21 during the Great American Smokeyout, the U. of I. Wellness Center will provide resources for smokers at four locations: the Quad, the Beckman Institute atrium, Campus Recreation Center East and Ikenberry Dining Hall.

Each location will offer helpful resources and activities, including a free quit kit, access to a cessation expert (except on the Quad), tips on how to conquer cravings, as well as more information on campus resources and the smoke-free campus policy.

People who cannot visit one of the locations can receive a quit kit by contacting the Wellness Center at 217-265-9200 or ui-wellness@illinois.edu.

**Innovation Celebration 2014**

Nominate innovators for award

Nominations are being accepted for the Innovation Transfer award to be presented during Innovation Celebration 2014. The award recognizes the entrepreneurial spirit in the community and on campus, with awards given for contributions in several categories, including economic impact, social entrepreneurship, and start-up.

The Office of Technology Management works with event organizers to sponsor the Innovation Transfer award, which is open to a group or organization within the U. of I. whose research has resulted in either a discovery or product with potential for significant societal impact.

Nominations will be accepted through Dec. 18. Nominate yourself or a colleague by filling out a brief form at www.innovationcelebration.com. This year’s event will take place from 5-8 p.m. Feb. 27 at the National Center for Supercomputing Applications.

**Illinois Public Media**

Film, discussion focuses on immigration

December’s Community Cinema screening and discussion focuses on “The State of Arizona,” a documentary about the divisive battle over illegal immigration in Arizona. The screening focuses on “The State of Arizona,” a documentary about the divisive battle over illegal immigration in Arizona. The film tracks multiple perspectives, including activists, politicians, Latino immigrants, law enforcement, Arizona. The film follows the journey of the law all the way to the Supreme Court through the voices of those who wrote and support it and of the many who dread its power.

“The State of Arizona” premiers on the PBS series “Independent Lens” at 9 p.m. Jan. 27 on WILL-TV.

**Beckman Director’s Seminar series**

Beckman postdocs featured Dec. 5

Thomas van Dijk and Jie Sun, both Beckman Institute Postdoctoral Fellows, will speak at noon Dec. 5 in Room 1005 of the Beckman Institute for Advanced Science and Technology. The lecture is the last one for the semester in the Beckman Institute Director’s Seminar series. Lunch will be provided.

Van Dijk’s talk is titled “Optimization in Enhanced Ram Spectroscopy.” He completed his Ph.D. in physics at Vrije University in Amsterdam; his main areas of research include computed imaging, inverse problems, statistical optics and plasmonics.

Sun will discuss “Biosensors, Protocols and Beyond.” She earned her Ph.D. in molecular and integrative physiology from the U. of I. In her postdoctoral studies she is working on bottom-up synthesis biology using protocells as a synthetic platform to reconstitute cellular functions.

The Director’s Seminars will continue next semester, with the first on Feb. 6. Tim Bretl, a professor of aerospace engineering who is a part-time faculty member at Beckman, will discuss “Principles of Optimality in Robotics and Neuroscience.”

**Social network analysis to be discussed**

Social network analysis to be discussed

Jana Dienzer, a professor in the Graduate School of Library and Information Science, will speak as part of the Chambana Science Café lecture series. She will talk about social network analysis and studying the data traces that users leave behind. She will speak at 5:30 p.m. Dec. 4 in the Robeson Pavilon Room C at the Champaign Public Library, 200 W. Green St., Champaign.

The series, sponsored in part by the Beckman Institute for Advanced Science and Technology, offers informal gatherings that bring scientists before the public to talk about their work and answer questions. The talks are free and open to the public.

**Prairie Research Institute**

Film, discussion focuses on energy

A film screening, discussion and seminar will provide answers to controversial energy topics.

Beginning at 7 p.m. Dec. 3 in the Lincoln Hall Theater, the documentary film “SWITCH” will be shown. Scott W. Tinker, who co-produced, wrote and is featured in the film, will introduce the documentary and be available to answer questions afterward. The screening is part of the Prairie Research Institute Anniversary Lecture Series.

Tinker is the director of the Bureau of Economic Geology, the state geologist of Texas, a professor holding the Allday endowed Chair and acting associate dean of research in the Jackson School of Geosciences at the University of Texas at Austin, and the director of the Advanced Energy Consortium. He spent 17 years in the oil and gas industry prior to joining UT in 2000. He is past president of the American Association of Petroleum Geologists, the Association of American State Geologists, and the Gulf Coast Association of Geological Societies.

In “SWITCH,” Tinker provides straight answers to today’s most controversial energy questions. He explores the world’s premier sites for all energies – coal to solar, oil to biofuels – talking to the people driving energy today, including international leaders of government, industry and academia.

In the end, he cuts through the confusion to discover a path to our energy future as surprising as it is practical.

Tinker also will be featured at 2 p.m. that same day at the Illinois State Geological Survey Seminar, “The Role of Shale in the U.S. Energy Future,” in Room 103 Mumford Hall.

In addition, Tinker will be interviewed at 10 a.m. Dec. 2 on “Focus,” on WILL-AM (580). He will be rebroadcast at 8 p.m. that same day.

The Prairie Research Institute Anniversary Lecture Series commemorates the Illinois state scientific surveys becoming part of the U. of I. in 2008.
Tiny laser gives big boost to high-speed data transmission

By Liz Ahlberg
Physical Sciences Editor

High-speed communication just got a turbo boost, thanks to a new laser technology developed at the U. of I. that transmits error-free data over fiber optic networks at a blazing fast 40 gigabits per second — the fastest in the United States.

Milton Feng, the Nick Holonyak Jr. Chair in Electrical and Computer Engineering, demonstrated the tiny, fast device along with postdoctoral researcher Fei Tan, graduate students Mong-Kai Wu and Michael Liu, and Holonyak, who is an emeritus professor. The team published its results in the journal IEEE Photonics Technology Letters.

As computation shifts into the petascale and beyond, processor speeds have outstripped transfer speeds, creating a bottleneck and hindering applications. Anyone who has tried to stream video over a dial-up Internet connection knows that the fastest processor won’t help the file load quicker. And in the age of “big data” and cloud computing, there’s a lot of information swirling among servers.

Laser devices called oxide VCSELs are used to transmit data over fiber optic cables at high speed. They can carry data faster and in greater quantities than traditional electrical cables. (VCSEL stands for vertical cavity surface emitting laser.)

“The oxide VCSEL is the standard right now for industry,” Feng said. “Today, all the optical interconnects use this technology. The world is in a competition on how to make it fast and efficient, and that’s what this technology is. At the U. of I., we were able to make this technology the fastest in the U.S.”

How fast is it? As a comparison, home high-speed Internet connections can reach speeds of about 100 megabits per second. At 40 gigabits per second, this technology is 400 times faster. Thanks to its small size, the new oxide VCSEL also has excellent energy efficiency — using 100 times less energy than electrical wires — and transmits data very accurately, with no defects detected in an hour of operation.

Fast and accurate data transfer is crucial for personalized medicine, cloud computing and many other applications. For example, in order to harness the power of supercomputing for personalized medicine, an enormous amount of biometric data must be collected from a patient. But the data on their own are not useful without analysis. The data have to be sent from the lab to a computing facility, where they’re analyzed and sent to the patient’s physician to help make a diagnosis or a tailored treatment plan.

“Information is not useful if you cannot transmit it,” Feng said. “If you cannot transfer data, you just generate garbage. So the transfer technology is very important. High-speed data transfer will allow tele-computation, tele-medicine, tele-instruction. It all depends on how fast you can transfer the information.”

The Illinois team’s oxide VCSEL technology, because in 2004 he and Holonyak developed a new technology ready to step in where VCSEL leaves off: the transistor laser.

Feng believes that researchers could push oxide VCSELs to about 60 gigabits per second, but not far beyond that because of the inherent limitations in the materials. But he’s not worried about reaching the limits of VCSEL technology, because in 2004 he and Holonyak developed a new technology ready to step in where VCSEL leaves off: the transistor laser.

Feng is associated with the Micro and Nano Technology Laboratory and the Coordinated Science Laboratory at the U. of I. (Continued)

ON THE WEB
2004 news release on the transistor laser
news.illinois.edu/news/2004/1115transistor.html

Record speed
U. of I. engineers — from left, postdoctoral researcher Fei Tan, graduate students Mong-Kai Wu and Michael Liu, led by Milton Feng, front — developed a laser that can transmit data at a blazing fast 40 gigabits per second, without errors — the fastest in the United States.

To view job postings, apply for civil service or academic jobs, or to update your application information: jobs.illinois.edu