Risky business

John Morton, associate director of the Office of Enterprise Risk Management, has academic and business experience which provide him with a unique perspective on risk management challenges. An international effort has yielded the most comprehensive database of risk owners, which will provide a valuable resource for administrators. Morton regularly shares proven identification and mitigation techniques with campus leaders and can provide the program to any size of organization.

Morton said, “I don’t have the answers but I can help them figure it out. People know what their risks are; this just brings them a structure – a way to identify what to attack first and how to best direct their resources.”

At the core of the risk managers’ efforts is an identification and evaluation of risks. Morton and other employees are asked to identify risks, the costs of which can be measured in monetary costs or threatened academic reputation, and place that information on a database. The impact, which can be measured in monetary costs or threatened academic reputation, can be measured and placed on a mitigation priority list.

Morton also interviews higher-level administrators and those already identified as “risk owners” in past assessments to update their risk profiles. The result is a prioritized university-wide risk assessment document containing current risk considerations and a five-year risk projection. It is presented to the board of trustees every two years, with the latest report due in May 2015.

The detailed assessment helps units and the university minimize risk but also can be used as a planning tool that can lead to better resource allocation.

“It looks globally at the system, but what we want to make this valuable to the unit,” Morton said.

The risk assessment register for the entire university, categorized by risk center, has more than 80 risks and is aided by a special software program employed on a test basis since June 2008. The risk center has a campus or university administration leader who coordinates this data.

“There could be one risk driver that spreads across 10 different areas, so something everyone can be made aware of,” she said. According to Morton, not all risk is bad and a certain amount of exposure is expected. But unchecked risk becomes exponentially more dangerous with time.

The questions that must be asked are, how much risk is too much and how do you limit your exposure when you decide to accept a certain level of risk? Morton reminds people, “We’re in a continuous process that involves people from all across the university. We’re continually identifying and evaluating risk to stay in contact with a lot of different people.”

Morton said Morton is ideal for the job as much for her demeanor and ability to easily work with people as her significant financial background. “Communication is a big part of this,” he said. “This has to be done in a way that helps people. We want to be an ally (to units), and sometimes they need someone to challenge them in a very supportive way.”

Mapping cells

By looking at the dynamics of how an unfolded protein move through a cell, the researchers mapped areas in the cell with different rates of diffusion (B and C). The unfolded protein’s slow-down is not only due to size, however. Researchers did additional experiments to prove that unfolded protein stack to other molecules in the cell. A class of molecules in the cell called chaperones have the job of binding to the unfolded protein, and the researchers found the unfolded protein interacted most with chaperones, and those properly folded protein. However, when high numbers of proteins unfold, the cell’s systems can get overloaded and the chaperones can’t handle them all.

“Looking at something like this can start to give people a handle on why something that seems relatively harmless in vitro sometimes can have such a large effect in the cell,” Gelman said. “A chaperone makes a slightly less effective protein in the test tube can turn into a complete fatal mutation in the cell. First, the protein’s role in the cell can no longer be fulfilled. Second, as more and more unfold, they can disrupt the function of the whole cell.”

The researchers think the unfolded protein is likely to stick to nonchaperone molecules as well, causing other problems in the cell and disrupting the flow within a specific protein folding.
Mentally ill women less likely to receive cancer screenings

By Sharita Forrest

Women with symptoms of serious mental illness are 40 percent less likely to receive routine cancer screenings, according to a new research by Xiang Xiuqiu, a doctoral candidate in social work.

Prior research has suggested that the mentally ill tend to utilize outpatient, inpatient and emergency services at much higher rates than the general population. However, people with serious mental illness are estimated to die an average of 14 to 25 years earlier than the average person,” said Xiang, a doctoral candidate in social work. “There’s a big health disparity there. Their frequent contact with the health care system opens up opportunities for providers to implement targeted interventions and patient education to improve utilization of preventive services.

The higher mortality rates among the mentally ill, despite their greater use of certain types of medical services, may point to a lack of care quality or problem, said Xiang. “If you have to use the emergency room multiple times each year, but you’re not receiving routine screenings and other preventive care, it might be because your health care needs are not being adequately met.”

Xiang’s data analyses on her sample could explain prior research findings that women with symptoms of serious psychological distress have double or triple the rates of chronic conditions, including heart disease and diabetes as the general population.

Severe mental illness also sometimes leads to self-neglect and underreporting of physical symptoms, and can make it difficult for patients to discuss their needs with their physicians. Likewise, bias and stigmatization can make people with mental illness more difficult to treat.

About 17 percent of the women in the study were uninsured, a rate higher than that of the general population. A recent Gallop poll estimated that about 13 percent of Americans have no health insurance.

While the recent expansion of Medicaid under the Affordable Care Act may give some of the mentally ill and previously uninsured greener access to preventive testing, “the problem with this population goes beyond access,” Xiang said. “The fragmentation of care that goes on under the current health care system is a huge barrier for people with comorbid mental and medical conditions, because these patients may have to visit multiple providers to get proper treatment. "Integrated primary and behavioral health care models are popular, and the federal government is devoting a lot of resources to promoting integrated care," Xiang said. “It’s the right path to take. However, more research is needed to test what types of models are best for people with serious mental illness. There also is a need to investigate strategies for successfully implementing evidence-based integrated care models.”

Xiang’s study, published recently in the journal Women’s Health Issues, is one of the few studies that examine disparities and mental illness to use both a national and a state sample of this size. The prevalence of serious psychological distress among the women in Xiang’s study was slightly more than 6 percent, higher than the National Institute of Mental Health’s estimate of about 4.9 percent of U.S. women population.

Samples in prior studies of mental illness and cancer screenings were limited to people receiving inpatient or outpatient psychiatric treatment. To address these limitations and obtain a representative sample of women, Xiang used a global indicator of mental illness, the Kessler Psychological Distress Scale. She then applied the K6 to screen participants for recent mental health problems.

The K6, which has been shown to be strongly predictive of serious mental illness, identifies people with psychological distress symptoms that are severe enough to impair functioning, but who might have been excluded from prior research samples because their mental illnesses were undiagnosed, undertreated or untreated.  

Inside Illinois is an employee publication of the Urbana-Champaign campus of the University of Illinois. It is published on the first and third Thursday of each month by the News Bureau of the campus Office of Public Affairs, administered by the chancellor for public affairs. Distribution is by campus mail. News is solicited from all areas of the campus and should be sent to the editor at least 10 days before publication. All items must be sent to dkdahl@illinois.edu. The campus trial deadline is Inside Illinois, 507 E Green St., Room 345, Champaign, IL 61820. The fax number is 217-344-4008.
It's hard to think of another story like this in wartime, and it happened not in one spot but in many, and independently. So how and why did it happen?

First, let's comprehend the Christmas Truce. Unlike some of the other stories here, this one doesn't even feature fictional characters. It's a true story of more than 100 years ago, something you can read yourself online or in any history text. But let's start with a few details.

On Christmas Day 1914, in the early days of World War I, soldiers on both sides stopped fighting. It was a spontaneous and unacknowledged truce that lasted for a few hours or a day or two. The reasons for it are not clear, but some believe it was due to a desire for a Christmas break, a need to rest, or a desire for a peaceful holiday. Others believe it was due to a lack of ammunition or a shortage of soldiers.

Regardless of the reasons, the truce was observed across the Western Front, from the English Channel to the Swiss border. Soldiers on both sides met in no-man's-land, exchanged gifts, and even played soccer. The truce lasted for a few days or a few weeks, depending on the location.

The Christmas Truce is not just a story of peace and goodwill. It's also a story of sacrifice and loss. The war claimed millions of lives, and the Christmas Truce was just one of the many stories of human suffering and loss. But it's a story that reminds us of the power of the human spirit and the possibility of peace.
NEW faces 2014

Heidi Imker
director of the Research Data Service and associate professor, University Library

Education: Ph.D. (biocchemistry), U. of I.; B.S. (cell and molecular biology), Winona State University

Research Interests: ‘The Research Data Service program will present an opportunity for Imker to contribute to the advancement of the University’s knowledge base as a whole by asking questions important to researchers and actively engaging them in determining the answers,’ said John P. Wilkin, the University Librarian and the Dean of Libraries. “Establishing the Research Data Service was an important step for the U. of I., and hiring a new director meant finding someone with a deep understanding of data generation, data management and digital preservation,” Wilkin said. “Having already dealt with these issues as a successful researcher and executive director of a large-scale project that generated a tremendous amount of data, Imker understands the cultural, technical and organizational hurdles that must be surmounted in order to enable robust data stewardship. The RDS will not only provide a valuable service, but one that is increasingly critical for maintaining Illinois’ position as a world-class research institution. Particularly with new requirements from funding agencies, many campus researchers struggle to manage and disseminate their data due to the sheer scope of the problem. “Through the deep understanding Imker brings – as well as the combined expertise of the University Library, Campus Information Technologies and Educational Services, the National Center for Supercomputing Applications, the Office of the Vice Chancellor for Research, and the Graduate School for Library and Information Science – Illinois will lead by developing an RDS program that serves our research community and establishes a model for other institutions.”

Why Illinois: “Illinois is inspiring.” Imker said. “There’s no better place to take on a challenge. In my position at the University Library, I have the opportunity to address common research roadblocks, in collaboration with stellar colleagues all across campus, and develop a program to address our emerging data needs through combining both research and practice. “Champaign-Urbana also is a terrific place to live, and I love the incredible openness of the Illinois landscape. Mountains inspire some to reach up, but our clear horizon inspires me to reach far.”

Dr. Rebecca Smith
assistant professor of epidemiology, department of pathobiology, College of Veterinary Medicine

Education: Ph.D. (epidemiology), Cornell University; M.S. (biostatistics), Kansas State University College of Veterinary Medicine; D.V.M., Cornell University; B.A. (biology), Gustavus Adolphus College, Minnesota

Courses teaching: Introductory Epidemiology, Advanced Epidemiological Modeling, Biostatistics

Research Interests: Development of mathematical and statistical models of infectious diseases, especially mycobacterial diseases.

“Dr. Rebecca Lee Smith has strong skills in mathematical modeling of disease transmission, with particular strengths in the context of economic and management outcomes,” said Mark S. Kuhnschnitd, a professor and the interim head of the department of pathobiology. “Her expertise melds perfectly with the department of pathobiology’s mission to provide solutions through research and education to fundamental issues in contemporary infectious diseases of global importance to humans and animals. Dr. Smith’s expertise in advanced epidemiological modeling will enhance our department’s ability to address the distribution and determinants of disease at the population level, with an emphasis on emerging infectious and vector-borne disease, outbreak investigations and multihost systems. Her ability to employ biostatistics and mathematical modeling strategies complements our existing spatio-temporal approaches to provide novel solutions to complex infectious disease problems that span scales, from genetics to individuals and populations.

Why Illinois? “The University of Illinois provides so many opportunities for multidisciplinary research,” Smith said. “I love having access to experts in so many fields – from high-powered computing to pathology – to help me develop new approaches. Also, working at the College of Veterinary Medicine helps me to keep an applied, clinical focus to my research. The department of pathobiology, too, has focused a wide range of disciplines on infectious diseases and has so much potential for high-quality research to solve real-world problems.”

NEIGHBORHOODS, CONTINUED FROM PAGE 12

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.

Dr. Carla Smith

Education: Ph.D. (biocchemistry), U. of I.; B.S. (cell and molecular biology), Winona State University

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Why Illinois? “The University of Illinois provides so many opportunities for multidisciplinary research,” Smith said. “I love having access to experts in so many fields – from high-powered computing to pathology – to help me develop new approaches. Also, working at the College of Veterinary Medicine helps me to keep an applied, clinical focus to my research. The department of pathobiology, too, has focused a wide range of disciplines on infectious diseases and has so much potential for high-quality research to solve real-world problems.”

NEIGHBORHOODS, CONTINUED FROM PAGE 12

Research has shown that older Latino adults in the U.S. are at greater risk of depression, but cultural barriers prevent many of them from seeking mental health care.

Moreover, they are more likely to live in neighborhoods with higher crime rates and unsafe parks, discouraging both outdoor recreation and walking to nearby social activities that promote mental health. Many of the people in this demographic group also live in poverty and lack health insurance.

All of the people in the study, who lived in the Greater Los Angeles area, were participants in “¡Caminemos!,” a two-year research trial that promoted exercise and taught participants that being sedentary was not a natural consequence of aging.

Co-authors of the study were: Kiarrri N. Kershaw of Northwestern University, Thomas R. Prohaska of George Mason University, Pin-Chieh Wang of the David Geffen School of Medicine at the University of California at Los Angeles, David X. Marquez of UIC, and Catherine A. Sarkissian of the Veterans Administration Greater Los Angeles Healthcare System. A paper about the study was published online recently by the Journal of Aging and Health. The National Institutes of Health funded the research.
U.S. House rules about much more than housekeeping

When you say ‘rules of procedure,’ it sounds so boring, but these rules basically determine the distribution of power, who can do what. And by determining who can do what, you are determining outcomes.”

–Gisela Sin

Gisela Sin
Separation of Powers and Legislative Organization

The President, the Senate, and Political Parties in the Making of House Rules

Conservative legislation that had been stymied under Roosevelt was now becoming law, and so progressive Republicans aligned with Democrats to change the rules and restrict some of Cannon’s power. Significantly, however, those rule changes were relatively modest and Cannon remained as speaker, Sin said. But the effect was that the legislation passing Congress became more moderate.

In other words, the revolts and the rules changes were not just concerned with a speaker’s dictatorial tendencies, but with larger legislative goals, Sin said. “My explanation is that the change in the president was crucial. Before, they didn’t care about having a dictatorial speaker when that speaker was pushing conservative bills, they really cared about having a dictatorial speaker when that speaker was pushing the bills they wanted. But now that this speaker was pushing very liberal laws, and so progressive Republicans became more moderate.

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Observers of Congress need to consider the same larger picture when looking at House rule-making today, Sin said. Legislators are interested in outcomes, and how they make the rules is a critical part of that.
New method helps map species’ genetic heritage

By Liz Ahlborg
Physical Sciences Editor

Here was the songbird get its song? What branch of the bird family tree is closer to the flamingo – the heron or the sparrow? These questions seem simple, but are actually difficult for geneticists to answer. A new, sophisticated statistical technique developed by University of Illinois at Urbana-Champaign computer scientist Tandy Warnow and University of Texas at Austin graduate student Siavash Mirarab may help researchers construct more accurate species trees detailing the lineage of genes and the relationships between species.

The method, called statistical binning, was used in the Avian Phylogenetics Project, which is the subject of a Dec. 18 special issue of the journal Science.

"A species tree is a way of describing how different species evolved from a common ancestor," said study leader Tandy Warnow, Professor of Bioengineering and Computer Science at the U. of I. "Research on species trees involves sorting out different branches of a family and seeing how those branches relate to one another."

Statistical binning takes all the gene data and uses statistical optimization techniques to sort the genes into sets or "bins." The genes in each bin have traits that don't seem to have statistically significant differences. The data for each bin is combined into a "supergene" tree, and then the supergene trees are combined into an overall species tree.

"You can think of statistical binning as combining the best properties of the two dominant approaches," said Siavash Mirarab, graduate student at the University of Texas at Austin and first author of the pa-per detailing the statistical binning method.

"Without this method, what people had to do was throw away data they didn't like," Warnow said. "We found in this study something that everyone agreed today's birds are the descendants of a common ancestor. So we needed to combine the statistical binning process with other results to create an overall species tree.

"The result is significantly improved estimates of the gene trees, which gave us better estimates of the species tree and branch lengths ..." – Tandy Warnow

This approach allows you to use all the data you have and you don’t have to throw away anything. We have a method that achieves that by grouping things together in a way that makes sense, statistically,” the researchers compared the species trees produced using the coalescent method with statistical binning to trees produced with concatenation or coalescence alone for several biological classes, such as birds, mammals, yeast and others. They found that adding the statistical binning process to the pipeline produced species trees that were better than the trees produced by either of the conventional methods.

"We sort the gene data in a sophisticated statistical way, but having done it we get better trees," Warnow said. "The result is significantly improved estimates of the gene trees, which gave us better estimates of the species tree and branch lengths, which helps you figure out when things happened. Everything was much more accurate.”

Statistical binning allowed the Avian Phylogenetics Project to analyze more than 14,000 genes – one of the largest such projects yet published – and construct a large tree linking many different bird species. Read more about the results in the story above.

Warnow and Mirarab plan to continue to refine the statistical binning method and use it on the remaining species to construct better species trees detailing genetic lineage.

"There’s a large divide in the research community as to whether to use concatenation of a coalescent analyses. What we did was understand why the coalescent method didn’t give good results and came up with a way of improving the input so that it could have good results. It’s a way of bringing these two very divided communities into greater agreement with each other," Warnow said.
Five Illinois scholars awarded NEH Fellowships

By Jodi Heckel
Arts and Humanities Editor

The National Endowment for the Humanities (NEH) announced Dec. 8 by the NEH. The fellowships program has received an average of 1,252 applications per year, and it has made an average of 88 awards – a 7 percent funding ratio, making it one of the most competitive humanities awards in the country.

The grant recipients from the U. of I. are Antoinette Burton, a professor of history; Bastian Professor of Global and Transnational Studies, a professor of gender and women’s studies and interim head of the department of sociology, Robert Morrissey, a professor of history; Timothy Pauketat, a professor of anthropology and of medieval studies; François Proulx, a professor of French; and Valeria Sobol, a professor of Slavic languages and literatures.

“Congratulations to all five of our NEH award recipients,” Chancellor Phyllis M. Wise said. “These scholars are among the most prestigious and competitive scholarly funding opportunities in the nation – in any discipline or field. These scholars stand out both on our campus and across the country for their academic achievements, and it is gratifying to see them recognized for their excellence.”

The U. of I. fellowships were among 233 humanities grants, totaling $17.9 million, announced Dec. 8 by the NEH. The fellowships, one category of NEH grants, are awarded to university and college faculty members and independent scholars for advanced research.

In the past five years, according to the NEH website, the fellowships program has received an average of 1,252 applications per year, and it has made an average of 88 awards – a 7 percent funding ratio, making it one of the most competitive humanities awards in the country.

“Funding opportunities in the nation – in any discipline, at any university, at any level of study – is so competitive that having one faculty member receive one of these awards in a year is a high point for any university,” said Thomas Adams, provost and vice chancellor for academic affairs. “To be home to five such outstanding scholars in a single year is a mark of the highest distinction and a clear message that Illinois truly is a comprehensive public research university. All five of these distinguished scholars deserve the congratulations of the entire campus community.”

The faculty members and their projects:

Burton: “Wars Against Nature? Environmental Fictions of the First Anglo-Afghan Wars.” Burton’s history is the first to argue that representations of Afghanistan’s difficult terrain served as a strategic fiction that allowed the British to blame their limited success in subduing the region in the 19th century on its hostile environment, rather than on Afghan fighters – making it the “graveyard of empires” in the Victorian imagination.

Morrissey: “The Illinois and the Edge Effect Bison Algonquians in the Colonial Mississippi Valley.” Morrissey’s project is the first ethnographic and environmental history of the Illinois Indians and their neighbors from 1200 to 1850. He tells the story of the rise and decline of the Illinois as “bison Algonquians,” who mastered this transportant and contested region at the center of the continent.

Pauketat: “ Spirits, Birds, and Luminous Bodies: Animality at the Fin de Siècle.” Pauketat reimagines the future of urbanism by looking back at some of the world’s most ancient cities, using new theories and even newer archaeological evidence from the ruins of cities and citylike places in Neolithic China, Africa, and the Americas before 1492.

Proulx: “Reading and French Masculinity at the Fin de Siècle.” Proulx investigates young men’s reading habits as a subject of grave social concern in fin-de-siècle France. He examines how excessive reading was blamed for the declining virility of French youth in the late 19th century, and details what was at stake in representations of the young male reader by novelists of the era from Jules Vallès to Marcel Proust.

Sobol: “Visions of Empire in Russian Gothic Literature, 1790-1850.” Sobol investigates the connection between the Gothic elements of many Russian literary works and their imperial context. She argues that the persistent presence of Gothic tropes is not just a tribute to a fashionable Western literary trend, but exposes the Russian empire’s anxieties about its borders, identity and colonial power.

The National Endowment for the Humanities is an independent federal agency, and one of the larges funders of humanities programs in the United States.

Different species share a ‘genetic toolkit’ for behavioral traits

By Diana Yates
Life Sciences Editor

The house mouse, stickleback fish and honey bee appear to have little in common, but at the genetic level these creatures respond in strikingly similar ways to danger. What any of these animals confronts an intruder, the researchers found, many of the same genes and brain gene networks go up or down in response.

This discovery, reported in the Proceedings of the National Academy of Sciences, suggests that distantly related organisms share some key genetic mechanisms that help them respond to threats, said U. of I. cell and developmental biology professor Lisa Stubb, who led the research with animal biology professor Alison Bell and their colleagues.

"One of the striking findings is that elements of the brain gene-expression response to a territorial intrusion were common to all three species, despite vast differences in brain anatomy among the three," Bell said. "This is meaningful because it suggests that molecular similarities run deeper than brain structural similarities." All three species saw changes in the expression of genes that regulate hormones and neurotransmitters that are known to influence behavior. Other shared responses involved genes that contribute to brain developmental processes, metabolic genes, genes related to muscle contraction and blood supply; and genes associated with the formation of synapses, the growth of neurons and the differentiation of glial brain cells.

"To find common sets of activated genes, in species that evolved their behavioral responses to intruders hundreds of millions of years apart from each other, gives hope that scientists will be able to make use of comparative genomics to better understand how the behaviors of different species relate to each other, and to ourselves," Robinson said.

The Simons Foundation supported this research.
According to Complete College America’s report, it’s the standard at U.S. colleges and universities for students to take six years to earn a bachelor’s degree, primarily because students take a number of courses that don’t apply toward graduation or don’t transfer to other institutions. Does the report accurately characterize the problem, or are other factors driving the time to degree?

There’s value in the report and in thinking about containing college costs. Currently, many students don’t graduate on time, and that’s very costly in terms of tuition and forgone earnings.

The report estimates that each additional year a student attends a four-year institution in Illinois but does not graduate costs $71,810, which includes both the costs of attendance and lost wages from not being in the labor market.

Complete College America’s focus is improving graduation rates and shortening the time to degree so more students graduate. However, they don’t fully analyze all of the reasons why time to degree is lengthening—and it’s not the only driver of tuition costs and educational loan debt.

Some of it is just changing demographics. We have more returning adult students, who are working full time, and their life situations make it difficult to be a traditional full-time student and graduate on time.

The report is good at highlighting that taking longer to graduate comes at a greater financial cost. And the longer a student takes to get a degree reduces the odds that they will actually complete it. The authors propose implementing guided academic pathways to constrain students’ choices, so they only take courses whose content toward their degrees.

Many institutions have moved to block scheduling, where tuition is the same for some range of credit hours, such as 12 to 18. Twelve credits a semester is considered full time at many colleges and for many financial aid programs.

If students only take 12 credits a semester and summer courses, they will not complete 120 credits to obtain a bachelor’s degree, or 60 credits for an associate degree, within four or two years, respectively.

Not every student can take 15 credits every semester. Twelve credits may be more realistic for some full-time students, given the other demands of their lives.

Another of Complete College America’s game’s guided pathways is pathways, which are structured programs of study. The pathways restrict student choice and can limit their ability to explore majors, take courses on subjects they’re curious about and perhaps find new paths in life.

The researchers found that the game was effective at identifying classroom bullies, even revealing whether it occurs face to face or online.

A game created at Illinois allows researchers to study natural interactions between children, collect large amounts of data about those interactions and analyze them about youth aggression and victimization.

The game’s behavior analyses effectively identify classroom bullies, even revealing peer aggression that goes undetected by traditional research methods, the researchers say.

The game’s developer says it is an improvement over traditional research methods, such as questionnaires, which do not provide answers for precise or coercive behavior typical of bullies, victims and bystanders.

Understanding peer aggression Players work in teams to answer multiple-choice questions and are rewarded or penalized with virtual coins or points. Chat messages among players are analyzed for prosocial or coercive behavior typical of bullies, victims and bystanders.

Researchers develop social sensing game to detect bullies

By Sharita Forrest

Education Editor

A social computer game designed by researchers in computer science and educational psychology at the U. of I. can identify bullies in elementary school classrooms and help scholars better understand peer aggression, whether it occurs face to face or online.

The game, which was created at ILinois allows researchers to study natural interactions between children, collect large amounts of data about those interactions and analyze them about youth aggression and victimization.

The game’s behavior analyses effectively identify classroom bullies, even revealing peer aggression that goes undetected by traditional research methods, the researchers say.

The game’s developer says it is an improvement over traditional research methods, such as questionnaires, which do not assess interactions between youth in real time.

“What we wanted to have was more real-time information and to include advances in computer science to process the data and get more insights into it so we could understand the problem of bullying better and create interventions,” said co-author F. Mancilla-Caceres, who developed the algorithms for the game while earning a doctorate in computer science at the university.

Espelage and funded by the National Science Foundation.

Working in teams and communicating with each other, students can take turns playing the game at the U of I’s Urbana campus, about 68 percent of undergraduate students and 82 percent of transfer students graduate within four years. Almost 84 percent of all of Complete College America’s “game changers,” what they see as the solutions to too few students getting degrees. They argue that if more students took 15 credits per semester, more of them would graduate on time, and the total costs of their degrees would fall.

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Another of Complete College America’s game’s guided pathways is pathways, which are structured programs of study. The pathways restrict student choice and can limit their ability to explore majors, take courses on subjects they’re curious about and perhaps find new paths in life.

The researchers tested the game with 97 students in six classrooms who were participating in Espelage’s bullying research. The students, all fifth-graders, had been surveyed about various types of bullying, fighting, leadership and dominating behavior as well as their attitudes toward bullying and defending peers.

Based on students’ self-reports, each student was labeled a “bully,” “non-bully” or “victim” prior to playing the game. Analyses of the 7,800 messages that the participants exchanged over the chat interface were compared to the survey data, and the researchers found that the game was effective at identifying player interactions and detecting bullying.

“Bullies played the game very differently than their classmates who were non-bullies or victims,” Espelage said. “Bullies sent more private messages, peeked at the correct answer more often and sent more negative communications.”

The game also revealed bullying behavior that had eluded detection by traditional research methods, said Mancilla-Caceres, currently an applied researcher with Microsoft Corp.

Participants were asked to nominate classmates who they wanted or did not want to be as teammates for the game; however, the researchers actually formed the teams and used the nominations to gain insight into how players interacted.
Units and employees have contacted campus human resources with questions about the Campus Faculty Association’s ongoing efforts to unionize tenure-system faculty members at UIC. Academic Human Resources has provided the following in response to specific questions and issues that have been raised regarding those efforts. This is part two of two of those responses.

7. How would unionization of tenure-system faculty members affect shared governance on campus?

Issues related to educational policy, such as admissions requirements, degree requirements and confirmation, curricular changes and academic program changes, are shared governance issues, not mandatory subjects of bargaining. The University Statutes provide for shared governance of the broad range of educational matters and academic policies.

For example, the contract for tenure-system faculty members at UIC expressly states that “is not intended to expand or limit the faculty role in governance as provided in the University of Illinois Statutes.” Similarly, the UIC contract quotes the academic freedom protections of the University of Illinois Statutes and does not add any greater substantive protections.

The following are facts regarding the contract negotiations for the union representing tenure-system faculty members at UIC:

- At UIC, an election was not held over the question of unionizing tenure-system faculty members; rather, UIC tenure-system faculty members were unionized through a “card check” process.
- Negotiations for the UIC tenure-system contract took 21 months, from August 2012 until April 2014.
- The parties held a total of 40 negotiating sessions, 14 of which were facilitated by a federal mediator.
- Tenure-system faculty members held a two-day strike in February 2014.
- A final contract was executed in May 2014.
- UIC and the union will be back at the bargaining table to begin contract negotiations for the successor contract in spring 2015.

10. What are the salary terms negotiated for tenure-system faculty members at UIC?

The UIC contract for tenure-system faculty achieved nearly identical salary terms as contained in the Campus Salary Programs for the relevant years of the contract (academic years 2013, 2014 and 2015). The differences are as follows:

- Faculty members did not receive the salary increases for academic year 2013 and 2014 until after the contract was settled in May 2014.
- In academic years 2013 and 2014, the contract guaranteed that all represented faculty members would receive no less than a 1 percent adjustment.

For the last two academic years of the contract, 2013 and 2014, each applicable college was allocated 1 percent of the tenure-system faculty base to be used by the deans at their discretion after discussion with department heads, to make equity/compression adjustments.

All UIC tenure-system faculty members in the bargaining unit are required to pay dues or “fair share” fees to the union.

The contract for UIC tenure-system faculty members can be found at go.uic.edu/tenurefacultycontract.

11. Do the universities our campus has identified as peers or aspirational peers have tenure-system faculties that are unionized?

Illinois has identified the following nine public AAU (Association of American Universities) universities as campus peers or aspirational peers: University of California at Berkeley, University of California at Los Angeles, University of California at San Diego, University of Michigan, University of North Carolina, University of Texas at Austin, University of Virginia, University of Washington and the University of Wisconsin at Madison. None of these campus peers or aspirational peers have labor unions representing their tenure-system faculty members.

There are 34 public institutions that are AAU members. Only the following universities have unions representing their tenure-system faculty members:

- Rutgers University
- State University of New York (SUNY) at Buffalo
- State University of New York (SUNY) at Stony Brook
- University of Florida
- University of Oregon

**Game. Continued from Page 8**

Each classroom’s social networks.

One player nominated three individuals to be his/her teammates, while each of these individuals negatively nominated the first child. Analyses of the participants’ chat messages indicated that the three classmates had formed a clique and were bullying the first child, although the self-reports had not captured that.

The researchers plan to refine the game, adding new tasks to increase player engagement and improve the efficiency of the behavior analyses. The game may become available to other scientists and educators in the near future.

**Ads removed for online version**
Technology Entrepreneur Center

Nominations open for Innovation Prize

The Technology Entrepreneur Center is accepting nominations for the 2015 Illinois Innovation Prize. The College of Engineering annually funds the $20,000 award, which is given to the most innovative student on campus. Those nominating should look for students who are passionate in

The university’s Urbana campus was one of the first in

A malicious page is one that either is attempting to com-

“Winter tones” The co-coordinational a cappella singing group Illini Awaaz performed Dec. 11 at the Holiday Open

CITES, OPIA blocking malicious websites

The added security feature will only apply to on-cam-

An app that identifies suspicious domains on the university’s network will be able to reach that content and

Web browsing. People visiting malicious Web pages off

The CITES, OPIA blocking malicious websites

A malicious page is one that either is attempting to com-

The higher education setting.

What is a novel written in English or translated

The award is presented annually for a novel written in English or translated

The award is presented annually for a novel written in English or translated

...publications in major cities throughout the world.

Loew specializes in literary translation, translation pedagogy, translation theory and

A photo by News Bureau photographer L. Brian Stauffer was honored by the

The catalogue also includes a special issue on translation pedagogy, translation theory and

The catalogue also includes a special issue on translation pedagogy, translation theory and

...second place in the Campus Environment category. The association is an international organization of college and university photo-

The award is presented annually for a novel written in English or translated

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The award is presented annually for a novel written in English or translated
A new publication, “Pandemic Disease in the Medieval World: Rethinking the Black Death,” looks at new research into living in those areas. The journal issue is available online, published through Arc Medieval Press. It will be published in book form in January. Symes is organizing a panel discussion, scheduled for 7:30 p.m. Jan. 29 at the Knight Auditorium in the Spurlock Museum on the U. of I. campus. She said the roundtable discussion will include U. of I. scientists who will talk about the implications of the research for their own work.

By Jodi Heckel
Arts and Humanities Editor

It was one of the most famous health issues in history. The Black Death spread from Asia throughout the Mediterranean, North Africa and Europe in the 14th century, and in just a decade it killed between 40 and 60 percent of the people living in those areas.

A new publication, “Pandemic Disease in the Medieval World: Rethinking the Black Death,” looks at new research into the plague and its historical significance. The publication is the inaugural issue of a new journal, “The Medieval Globe,” sponsored by the U. of I. Program in Medieval Studies.

On the Web

Carol Symes, a professor of history and of medieval studies at the U. of I., is the executive editor of the journal. Symes said the issue brings together scholars in the humanities and those in the sciences to consider the significance of the recent discoveries regarding the plague and their relevance to contemporary issues about emerging infectious diseases.

The journal issue looks at scientific breakthroughs of the past few years, including the 2011 sequencing of the genome of the plague pathogen entirely from historical remains, and the theory that a “big bang” of the organism occurred between the 12th and 14th centuries in an area now part of China, ultimately causing the Black Death pandemic. Articles consider how the infection might have spread, why it persisted and why some populations seemed to have immunity while other regions were wiped out.

It also includes an article detailing the excavation of a Jewish cemetery in Catalunya, which provided archaeological evidence of an uprising against Jews, who were being blamed for the outbreak of disease.

“This kind of research can only be done when humanists and scientists can talk to one another,” Symes said, adding the journal issue calls for more cooperation between the two groups of scholars to further the discussion on infectious diseases and how they can spread so quickly and remain active for so long.

Pandemic Disease in the Medieval World: Rethinking the Black Death

Carol Symes, a professor of history and of medieval studies, is the executive editor of the new journal “The Medieval Globe,” sponsored by the U. of I. Program in Medieval Studies.

PANDEMIC DISEASE IN THE MEDIEVAL WORLD
RETHINKING THE BLACK DEATH

Monica H. Green

“The Medieval Globe,” said the global significance of the unfolding affects their diffusion, to see if they can spread so quickly and remain active for so long. “This kind of research can only be done when humanists and scientists can talk to one another,” Symes said, adding the journal issue calls for more cooperation between those two groups of scholars to further discuss the disease. “That’s part of the essence of human disease, that we’re the ones who are spreading it.”

The terror caused by Ebola can be related to the hysteria surrounding the Black Death pandemic. An even better comparison, Green said, can be made with the AIDS epidemic.

“Treating AIDS in the early years, (health care workers) were dealing with a disease that they had no idea what it was, no idea how it was being transmitted,” Green said.

She said the lessons of the Black Death include looking for a cause of a pandemic without placing blame, and looking at the global connections in the world that speed the spread of disease.

Symes said the journal also represents a new way of looking at medieval studies. Rather than focusing solely on Europe and its neighbors, it takes a global view of the Middle Ages and looks at connections to other parts of the world, including sub-Saharan Africa and the Americas.

A new journal, “Pandemic Disease in the Medieval World: Rethinking the Black Death,” looks at new research into living in those areas. The journal issue is available online, published through Arc Medieval Press. It will be published in book form in January. Symes is organizing a panel discussion, scheduled for 7:30 p.m. Jan. 29 at the Knight Auditorium in the Spurlock Museum on the U. of I. campus. She said the roundtable discussion will include U. of I. scientists who will talk about the implications of the research for their own work.
Long-working moms’ preschoolers sleep less, have higher BMI’s

The children, who ranged from 3 to 5 years old, were measured and had their body mass index calculated at the outset of the study and again one year later. At the second weigh-in, 17 percent of the preschoolers were overweight and 12 percent were obese, according to BMI-for-age growth charts.

On average, the children were getting about 9.6 hours of nighttime sleep. Each additional hour of nighttime sleep that a child obtained was associated with a 6.8 percent decrease in their body mass index calculated at the outset of the study and again one year later.

“We looked at nighttime sleep in particular, because studies show that the amount of nighttime sleep matters for regulating weight,” said Liechty, a professor of medicine and of social work.

“We think that it might be the more hours that mothers are working, the less sleep that they have, and there may be some sort of tradeoff going on. ‘Do I spend quality time with my child or do we get to bed early?’” Speirs said. “And then in the morning, when mothers leave for work, their children also wake up early to get to day care.”

Mothers whose children were enrolled in 32 licensed day care centers in Central Illinois were recruited for the study. Sixty-six percent of the women had college degrees, about a third had household incomes under $40,000 a year, and just over half the sample had household incomes under $70,000 a year.

“The challenges of ensuring that children obtain adequate sleep may be even greater for low-income women, who often hold multiple jobs or work rotating shifts or nonstandard hours,” Speirs said.

“There are lots of characteristics about mothers’ employment that are really important to help us better understand the relationship between mothers’ employment status and child obesity, such as whether women are working part time voluntarily or involuntarily, or scheduled or nonscheduled hours,” said Wu, a professor of social work.

The authors are exploring some of these characteristics and possible links with child obesity in a related study, which is under way.

Walkable neighborhoods promote mental health in older Latinos

The majority of preschoolers may not be getting the amount of sleep they need each night, placing them at higher risk of being overweight or obese within a year, according to a new study.

Published online by the journal Sleep Medicine, the study investigated links between mothers’ employment status and their children’s weight over time, exploring the impact of potential mediators such as children’s sleep and dietary habits, the amount of time they spent watching TV and family mealtime routines.

“The only factor of the four that we investigated that mediated the relationship between maternal employment status and child obesity was how much sleep the child was getting each night,” said lead author Katherine E. Speirs, a postdoctoral research associate in human and community development at the U. of I.

Speirs and co-authors Janet M. Liechty and Chi-Fang Wu for one year followed 247 mother-child pairs from the STRONG Kids study. A health awareness initiative for families that focuses on preventing child obesity, the study is coordinated by the University’s Family Resiliency Center.

Sleeping patterns Preschoolers of working moms get less sleep, which may explain why these children are at greater risk of becoming overweight, according to a new study by, from left, Janet M. Liechty, a professor of medicine and of social work; Katherine E. Speirs, a postdoctoral research associate in human and community development; and Chi-Fang Wu, a professor of social work.

The findings suggest that addressing safety concerns within local neighborhoods enhances the psychological well-being and quality of life of elderly residents. And providing interventions at the neighborhood and local government levels may be more cost-effective than individual-level therapies, Hernandez said.

“Latinos are going to be the largest ethnic minority very soon, and the aging population in the U.S. is growing as well,” Hernandez said. “If we can potentially intervene before all these comorbidities and chronic illnesses converge, we can avert a potential health care crisis.

“We know that depression linked with any kind of chronic illness will just make more issues arise, so how can we target a group that is growing and has many challenges in terms of acculturation, language, socioeconomic status, and the stigmas associated with depression?”

The authors are exploring some of these characteristics and possible links with child obesity in a related study, which is under way.

By Sharita Forrest

Social Work Editor

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