Our Growing Family Tree
The merger with the School of Library and Information Science [p. 10]
IU FAMILY

"My kids see the love I have for IU, and they see the love IU gives back. Every IU visit—and we make a lot of them—is another positive influence on what they do now and in the future.

I’m an IU alum. I’m an IU Alumni Association member. I’m deeply rooted in IU."

Srontrai Irving, BA’97, MA/Jo’03
Attorney / Foster Parent / Member

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in this issue

[FEATURED]

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This feels almost like a wedding reception speech. In this issue of Indiana Informatics, we celebrate the union of two lovely schools (each located both on the Bloomington and Indianapolis campuses of IU) – the School of Informatics and the School of Library and Information Science – to become a new two-campus school called the School of Informatics and Computing.

The merger becomes effective July 1, 2013, although like many modern couples we have been spending more and more time together for the past year. Also like many modern couples, we thought a lot about what name we would take after our union. I’ll comment on that at the end of this column but discuss first the most important topics: why are we merging, and what are some of the leading opportunities that this union provides?

As the School of Informatics matured (13 years old is mature in dog and school years) and the Library and Information Science world evolved in the digital age, it became clear that it made sense to join the two schools. The merger brings advantages of efficiency and adaptability, but most of all, it brings opportunities for collaboration.

By combining the highly ranked programs in library and information science, the nation’s first school of informatics with some of the premier programs in that field, and an excellent and long-standing computer science program, we form the broadest and perhaps the largest computing and information school at any university in the U.S. Indeed, IU is the only university in the nation with full schools/colleges in both of computing/informatics and library and information science, and now we will be even more special. Our faculties already collaborate in areas of great importance including social informatics, network science, and health informatics, and we are seeing increased activity in these collaborations including fresh leadership and vision from both schools for the renowned Rob Kling Center for Social Informatics.

Even more importantly, the merger opens up new opportunities, both now and in the future, and places all of our faculty in an environment where change is the norm. As an important example, since last summer faculty from all areas of our school have been formulating new graduate degree and certificate programs in the burgeoning area of big data science. This is an area of great national need that draws upon all parts of our heritage: computer science, informatics, information science, and library science.

Now back to the name. As we thought about our new name, ideally we wanted it to do four things:
1) Incorporate the words “information” and “computing” which are the key words that define us;
2) smoothly bridge to our history, which particularly meant including the word “informatics”; 3) be brief;
4) be general enough so that it wouldn’t need to change again if the school evolved further. It became clear that we couldn’t achieve all four perfectly (especially if you add rule five: “don’t sound stupid,” which ruled out using “informatics” and “information” together). So after considering more options than you might think are possible, we decided that “School of Informatics and Computing” (which has been the name of the Bloomington portion of the School of Informatics since 2009) does a nice job of conveying what we were, are, and will be and allows the world to recognize and remember a nationally and internationally leading school.
BEST awards $200,000 to two businesses

Two technology-based businesses created by Indiana University Bloomington students will receive funding from the second-annual Building Entrepreneurs in Software and Technology (BEST) competition.

Approximately 40 submissions were received in the fall. The talented pool was narrowed down to 10 finalists, who presented to a panel of investor judges in February. Two companies were selected winners, and each will receive $100,000 investments to launch their businesses.

Fandio.fm allows users to utilize web, mobile devices, and television to broadcast and stream alternative audio commentaries or discussions for live sporting events and other events. Led by School of Informatics and Computing student Devin Powell and Kelley School of Business student Eric Wertenberger, the company aims to capitalize on the increased engagement of social media during sporting events, allowing users to interact via web, mobile, and tablet apps.

Menguin is an internet-based tuxedo rental company that will utilize technology to streamline the rental process. Menguin, spearheaded by Kelley School of Business MBA students Justin Delaney, Michael Gassman, and Kurt Sutton, will use an online fitting process to obtain tailor measurements, thus eliminating the trip to the rental shop.

“The BEST competition, which is the largest student start-up pool in the nation for students of a single university, offers wonderful opportunities to IU students,” said Dennis Groth, associate dean of undergraduate education.

Mark Cuban returns to Bloomington

Billionaire entrepreneur and 1981 Indiana University alumnus Mark Cuban addressed a packed Whittenberger Auditorium at “A Conversation with Mark Cuban” on Friday, Nov. 16. Cuban provided insightful opening remarks and fielded questions from the crowd during the free, public event.

“Mark’s energy and straightforward advice to the students was very refreshing. Students really appreciated the opportunity to interact with Mark and learn from his deep experience in entrepreneurship,” said Dennis Groth, associate dean of undergraduate education.

Cuban’s visit was sponsored by SoIC in conjunction with the school’s Building Entrepreneurs in Software and Technology (BEST) competition. The competition was created when 10 Indiana entrepreneurs and IU’s Research and Technology Corp. together invested $1.1 million to fund the annual event. Cuban joined the group of BEST investors.

SoIC featured on “BTN LiveB1G”

The Building Entrepreneurs in Software and Technology (BEST) program was highlighted as one of IU’s innovative programs on a new series from the Big Ten Network. The series, “BTN LiveB1G,” explores how Big Ten universities are improving lives and giving back through advancements in research, education, and community service. See the segment at http://bit.ly/LiveBig-BEST.
IUPUI hosts Girls Inc. to promote STEM careers

The School hosted 104 girls from Girls Inc. of Greater Indianapolis on April 27 as they explored the power and possibility of technology and the impact it has on their lives and the world around them.

Sponsored by the ExactTarget Foundation, Girls Inc. partnered with the School to provide the girls, ages 9 to 14, with a day of technology and career exploration. The IUPUI STARS Computing Corps spent the day teaching the girls about web design, HTML, and CSS coding.

STARS students as well as volunteers from ExactTarget, G3 Technology, American Association of Blacks in Energy, Society of Women Engineers, Junior League of Indianapolis, and Microsoft engaged the girls in conversation about cyber safety and careers in technology during lunch.

At the end of the day, the girls completed their websites and took their designs home on flash drive bracelets. “I’m going to keep working on mine at home,” said one of the participants. A parent shared, “My daughter came home with a big sense of achievement.”

IUPUI Ph.D. candidates participate in Diversity in Computing

Two doctoral candidates from IUPUI, Romisa Rohani Ghahari and Afarin Pirzadeh, participated in the renowned Doctoral Consortium at the Richard Tapia Celebration of Diversity in Computing 2013 in February in Washington, DC.

The Richard Tapia Celebration of Diversity in Computing brings together leading and diverse researchers to discuss the latest developments and advances impacting the field of computing.

Both Ghahari and Pirzadeh were selected as a result of the strength of their research. Gharani’s work focuses on eyes-free mobile navigation of technology using aural user interfaces. It allows users to access and listen to web content while engaged in other tasks through the use of auditory cues and vocal commands.

Pirzadeh’s research centers on improving emotion expression and comprehension within text-based, computer-mediated communication, such as instant message chats, through improved conceptual design and realization.

High school women named winners of Indiana NCWIT Award for Aspirations in Computing

The National Center for Women & Information Technology (NCWIT), a consortium of schools in Indiana led by IU, and a group of corporate sponsors announced and honored the winners of the third-annual Indiana Aspirations in Computing awards in January.

The recipients were selected for their computing aptitude, leadership ability, academic history, and plans for post-secondary education. Each winner was recognized with $250, a gift bag, and scholarship offers from participating universities in Indiana.

Dr. Donald Brown receives Trailblazer in Technology award

SoIC alumnus and Interactive Intelligence Group Inc. founder and CEO Dr. Donald Brown was a recipient of the Trailblazer in Technology award at TechPoint’s 14th Annual Mira Awards for Technology Excellence and Innovation. The award recognizes individuals whose vision and efforts in advancing technology have made a lasting and significant impact on Indiana.

Past Trailblazer award winners include SoIC alumnus Scott Jones; Dean’s Advisory Council members David Becker, Scott Dorsey, and Mark Hill; and IU president and SoIC faculty member Michael McRobbie.

Interactive Intelligence also won the Tech Company of the Year award, and Dean’s Advisory Council member and Hill-Rom CIO Barb Kew received the Corporate IT Excellence and Innovation award.

Dr. Brown also received the 2012 Sagamore of the Wabash award, which pays tribute to someone who has made a significant contribution to life in the Hoosier state.

Dr. Brown founded Interactive Intelligence, a provider of unified IP business communications software and services, in 1994. He has grown it from a dozen-person start-up to a publicly traded global company with approximately 1,500 employees worldwide.
**Spinning door for students in IU’s security informatics program powered by jobs**

Professor L. Jean Camp can't keep her security informatics students in class. They keep finding jobs before they finish the master's degree program.

According to Camp, director of the Master of Science in Security Informatics program, about one-fourth of her students leave for jobs before completing the program. And the remaining students have jobs waiting.

With Internet technology-related occupations among the fastest growing occupations, the need for security and privacy are in high demand. And the jobs pay well. Camp's students are entering the job market averaging about 50 percent more than the average new employee with a master's degree, at over $68,000 annually.

Since the first MSSI graduates began hitting the workforce less than two years ago, they've been gobbled up by the likes of General Motors, the U.S. government’s National Security Administration, Cigital, InCNTR, Wellpoint, and Wireless Generation.

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**Shaw to chair the Department of Information and Library Science in Bloomington**

With the merger of SoIC and SLIS, Debora (Ralf) Shaw has been appointed chair of the Department of Information and Library Science (ILS) in Bloomington. She and Dean Schnabel have worked closely in planning how best to combine these two strong schools.

Shaw has been dean of SLIS since 2011, but her service and contributions to the School extend beyond three decades. As a faculty member, mentor, and administrator, she has touched the lives of many faculty and students at SLIS since her days as a visiting lecturer in 1980.

Her research focuses on information seeking and use by humanities scholars. She has also served as president of the American Society for Information Science. She holds a Ph.D. in information science from IU.

Thank you Ralf for your service and dedication to the School!

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**Palakal named Executive Associate Dean at IUPUI**

Mathew J. Palakal has been appointed executive associate dean of what will become the IU School of Informatics and Computing at IUPUI, both effective July 1, 2013.

At the school, Palakal has served as associate dean of research and graduate programs since 2006 and has been director of the Informatics Research Institute and professor of computer and informational science since 2001.

As executive associate dean for the School of Informatics and Computing at IUPUI, Palakal will be responsible for determining the strategic vision for the school, advancing the school's education and research, and providing oversight and management of the school's fiscal and personnel matters.

Before joining the School of Informatics in 2006, Palakal was a professor in the Department of Computer and Information Science at the School of Science and served as the department chair for nine years. Before arriving at IUPUI in 1988, Palakal was a research and teaching assistant in the Department of Computer Science at Concordia University in Montreal, Canada, where he earned his B.S., M.S., and Ph.D. in computer science. His research interests include biomedical and clinical text mining and intelligent information management systems.

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**[OF NOTE]**

**IUB senior Matthew Vukas receives Krane Scholarship**

Senior Matthew Vukas has been named the recipient of the Krane Scholars Award, an award recognizing an outstanding student in the School of Informatics and Computing or the School of Journalism whose interests combine both fields.

Matt studies programming in his free time, has started a blog, and developed a news aggregator website, which was instrumental in helping him win the Krane Scholarship. He expects to graduate in May 2014 and hopes to secure a job as a software developer.

The award, established in 2010 by School of Journalism alumnus and School of Informatics and Computing Dean’s Advisory Council member David Krane, was created to benefit both Schools. Krane is a partner at Google Ventures, and was a part of the senior leadership that grew Google from a small start-up to a multi-billion dollar global enterprise.

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Jean Camp with security doctoral graduate Vaibhav Garg, who is doing a postdoc at Drexel University.
Each year, the IU School of Informatics, the Dean’s Advisory Council, and the IU Informatics Alumni Association honor individuals for outstanding career achievement, service to IU, and contributions to the field of informatics. The following awardees were honored on April 18 in Indianapolis.

**Career Achievement Award**

**Gary E. McGraw, MS’90, PhD’95**

Gary McGraw has parlayed his knowledge of philosophy, computer science, and cognitive science into a mastery of software security.

After Gary received a Bachelor of Arts in philosophy at University of Virginia, he came to IU to study computer science (MS’90) and complete his Ph.D. in computer science and cognitive science in 1995. Following research stints at the Krasnow Institute for Advanced Study at George Mason University in Fairfax, VA, and the Istituto per la Ricerca Scientifica e Tecnologica in Trento, Italy, Gary joined Cigital, Inc., the world’s largest software security firm.

As chief technology officer for Cigital, Gary counsels professionals in a variety of industries about software security. He also writes extensively on the topic of security, including six best sellers – such as *Building Secure Software*, with John Viega – and edits the Addison-Wesley Software Security series. He is in international demand as a speaker at conferences and hosts a monthly podcast, the *Silver Bullet*, for the Institute of Electrical and Electronics Engineers (IEEE) *Security and Privacy Magazine*.

He has served in advisory capacities to numerous companies and academic institutions, including the IEEE Computer Society Board of Governors in Washington, DC, Fortify Software in Menlo Park, CA, and, since 2005, the Dean’s Advisory Council for the School of Informatics.

Cigital, headquartered in the Washington, DC area, has offices in Europe, Asia, and Bloomington, IN. Gary lives in rural Virginia, where he’s also an accomplished fiddler and mandolin player in Where’s Aubrey, a roots- and jazz-influenced duo performing and recording original music.
Carol A. Lewis, BS’53

Medicine’s loss was medical records administration’s very fortunate gain: Carol Lewis began her university career as a pre-med student but was diverted to the new field of Medical Record Science. In 1953, she received her Bachelor of Science in Medical Record Library Science, and began her career as a medical record librarian at Larue D. Carter Memorial Hospital in Indianapolis. She quickly relocated to Baltimore where she was commissioned as an officer in the U.S. Public Health Service. Her fluency in Spanish – she spent her early childhood in Guatemala – led Carol to a position in the Pan American Health Organization (PAHO), where she planned and organized medical records departments and organized and conducted training programs for health professionals. After receiving a Masters of Public Health at Johns Hopkins, Carol worked internationally as a consultant in medical records for PAHO and the World Health Organization, among others.

In 1980, Carol was appointed director of what is now known as the International Federation of Health Information Management Associations (IFHIMA), where she served in executive positions for many years. Throughout her career, she was instrumental in establishing policy and training programs in medical records around the world. She has been recognized for her achievements by the U.S. Public Health Service, IFHIMA, and the American Health Information Management Association.

As a consultant, Carol has advised on the design of the medical record component of the national health information system and on numerous national disease registries. As a retiree, she offers health information management advice internationally through her work with the World Health Organization and the Pan American Health Organization and addressed the IFHIMA Congress in Montreal in May.

In making that fateful diversion to medical records, Carol became a dedicated advocate of what is now the Health Information Administration program at IUPUI. She is a long-time supporter of the program and has provided leadership-level scholarship support with a legacy gift.

Distinguished Service Awards

Andrew J. Hanson

Andy Hanson received his B.A. from Harvard College and a Ph.D. in theoretical physics from M.I.T. in 1971. He pursued research in physics and artificial intelligence at a number of institutions, including the Institute for Advanced Study in Princeton, the NASA-Ames Research Center, and SRI International in Silicon Valley. He arrived at Indiana University in 1989, his first academic position, and established himself as a teacher and researcher in computer graphics and scientific visualization.

In the Computer Science Department at IU, he taught and supervised many Ph.D. candidates, as well as taking on significant administrative roles. He was the Graduate Program Director for six years and then Department Chair from 2004 through 2009, guiding the Department through its merger in July 2005 with what is now the School of Informatics and Computing.

Throughout his career, Andy was recognized as a researcher: he attracted over $1.3 million in research grants, published often, and designed a successful iPhone application, 4Dice, supporting interactive exploration of 4D space. In retirement, he engages in research in subjects ranging from proteomics and genomics to quantum computing and the creation of mathematical sculptures. He has several books involving computer graphics and mathematics in the planning stage.

While his head is often in lofty abstract concepts, Andy also has his feet solidly on the ground, and may sometimes be seen on local stages pursuing one of his new hobbies: percussive dancing.

“THESE ARE PEOPLE WHO POSITIVELY AFFECT THE FIELD OF COMPUTING AND INFORMATION TECHNOLOGY, INNOVATING IN THEIR RESPECTIVE FIELDS AND BRINGING PRESTIGE AND HONOR TO NOT JUST THEMSELVES BUT TO THE SCHOOL AND ALL AFFILIATED WITH IT.”

– Bobby Schnabel

Young Alumni Awards

Russell Conard, BS’12

If something is “for the birds!” it sounds nutty, but according to Forbes Magazine, it could be worth millions.

Recent Informatics graduate Russell Conard combines his love for birds and data in a novel entrepreneurial approach for pioneering energy developers and other outdoor-based businesses. Replacing time-consuming observation methods with remote systems, his company electronically surveys bird activity and analyzes its impacts on wind farms, airports, and other entities that have negative interactions with identified flying objects.

Russell cites rich experiences pursuing his bachelor’s degree in the School of Informatics and Computing with preparing him for the rigors of a robust new start-up. While at IU he helped found the Undergraduate and Graduate Technology Entrepreneurship Organization, and he was a team leader in Serve IT, providing IT expertise to local nonprofit agencies. His company, Ornicept, received funding in the School’s 2012 inaugural Building Entrepreneurs in Software and Technology (BEST) competition.

Russell also credits scholarships he received, including the Telamon Informatics and School of Informatics and Computing scholarships, with providing the support necessary for him to succeed at IU.

Based in Ann Arbor, MI, Russell was recently recognized by Forbes Magazine as one of “30 Under 30” energy entrepreneurs to watch.

Leon Nowlin, Jr., BS’08

Hollywood called for Leon Nowlin, Jr., when he graduated in 2008 with his B.S. in Media Arts and Sciences from IUPUI, and he answered.

Leon identified film craft as his passion early on, and with the help of a high school mentor, he discovered the M.A.S. program was a perfect fit for him. The wonderful supporting cast, from the Career Services office to personal mentors, provided him with the guidance and flexibility that suited his focus on film. He polished his craft through internships and completed his degree online. He began his career “camera-ready” as a compositing artist at Encore VFX in Los Angeles and has never looked back.

Leon loves the collaborative process of visual storytelling and has worked on movies, television series, commercials, and music videos. Among his credits are House, Person of Interest, Argo, Gangster Squad, The Closer, and The Smurfs: A Christmas Carol. Five years into his career, his reputation is growing and his services are in increasing demand. As he hones his skills, he sees original projects in his future.
It is said that change is the only constant. The fields of information and computing both drive change and thrive in it. Since its creation, the School of Informatics and Computing has been ahead of the curve. The merger with the School of Library and Information Science is another example of our innovation. The combined School – one of the largest of its kind in the U.S. – provides unparalleled breadth of education and research in computing and information.

The research across the merged School is rooted in a search for meaning among complex data sets using a variety of discipline-specific methods. As a result, partnerships between SoIC and SLIS began long before they were united as one school. Among areas of collaboration are social informatics, network science, and health informatics. Learn more about joint endeavors by checking out “SoIC/SLIS research collaboration” on page 14.

We are excited about our future as a new school, and we’re pleased that you, our alumni, are too. Here are some thoughts from the newly-extended SoIC family on the merger.
Today’s librarians are an information source. To become more relevant and remain viable, librarians need to have technical knowledge to grow with and better meet the patrons’ needs. Combining these two areas allows graduates to make people and organizations work smarter, faster, and better. The new School will help navigate the crossover between the two areas.

Susan Robinson  
(M.L.S./M.S. Health Informatics, 2013)

As an Indiana University M.L.S. graduate and the Informatics Librarian at IUPUI, I know libraries today would be nothing without the multitude of technologies that exist to support information retrieval, access, and use. I think libraries provide a perfect lens to view the strength of the new School of Informatics and Computing: knowledge combined with technological innovation empowering people to tackle the most pressing issues of the age. I am honored to be a part of this legacy.

Willie Miller (M.L.S., 2010)  
Assistant Librarian  
Indiana University-Purdue University Indianapolis  
University Library

Indiana University has for many years set itself apart as a place where the interactions among people, information, and computing are taken seriously. The new School of Informatics and Computing will be one of the most active departments in the world to continue to carry this sort of research and teaching forward. My doctoral degree from Indiana has always served me well, and I’m delighted to be associated with a university that is not resting on its laurels, but continues to push forward into fast-changing topics related to informatics.

Eric T. Meyer (Ph.D. Information Science, 2007)  
Research Fellow and DPhil Programme Director  
Oxford Internet Institute, University of Oxford

At a Glance

Faculty
Bloomington: 86 faculty  
(77 tenure track)

Indianapolis: 47 faculty  
(36 tenure track)

Students
1,490 undergraduate majors; 950 in Bloomington and 540 in Indianapolis.

1,281 graduate majors; 851 in Bloomington and 430 in Indianapolis.

878 degrees awarded in 2010–11: 563 in Bloomington and 315 in Indianapolis.

Degrees
Bachelor’s degrees in Computer Science and Informatics (Bloomington); Health Information Administration, Informatics, and Media Arts & Science (Indianapolis).

Master’s degrees in Computer Science, Information Science, and Security Informatics (Bloomington); Health Informatics and Media Arts & Science (Indianapolis); Bioinformatics, Human-Computer Interaction Design, and Library Science (both campuses).

Ph.D. degrees in Computer Science, Informatics*, and Information Science (Bloomington); Bioinformatics, Health Informatics, and Human-Computer Interaction Design (Indianapolis).

*The Ph.D. program in Informatics was the first in the U.S.
The Combined School – one of the largest of its kind in the U.S. – provides unparalleled breadth of education and research in computing and information.

Research Areas
Artificial intelligence, complex networks and systems, computing foundations, cyberinfrastructure and e-science, data and search informatics, digital libraries, high-performance computing, human-computer interaction, information institutions, information organization and retrieval, life sciences informatics (bio, chemical, and health), machine learning, media arts, music informatics, natural language processing, programming languages, robotics, security, social informatics, software and systems.

Strategic Priorities
Excellence in education and research, partnership for economic development and entrepreneurship, participation of women and underrepresented minorities.

As a manager of a diverse research portfolio, my agenda is largely data-driven. Availability of data at scale – being able to process it and build algorithms and systems at scale to make data-driven decisions – is the most exciting part of my job! It is fantastic that the School has realized the importance of data and information, and has taken action by blending the maturity of a field like library and information science with the agility of computer science and informatics. This will lead to well-formed curriculum in information processing and a stronger data-directed research agenda, which will benefit students in preparing them for a diverse range of jobs in the for profit, nonprofit, and education sectors.

Neel Sundaresan, (Ph.D. Computer Science, 1995)
Senior Director, Head of eBay Research Labs, eBay Inc.

Whether it’s a sequence of moving pictures (movies) or the rapid movement of animated stills (animation), even creative fields require extensive research. Technology now offers such a vast amount of data to individuals its even more important to analyze and protect information integrity to maintain efficiency and quality. In the same way we act as liaisons from clients to consumers, the inclusion of Library and Information Sciences can buffer credible content into our hands at an expedited pace.

Leon Nowlin, Jr. (B.S. Media Arts and Sciences, 2008)
Freelance Compositing Artist

As a user research expert at a premiere cross-channel digital marketing company, I know the importance of collaboration between informatics, computer science, and information science. We are in the business of managing overwhelming sets of data and representing it in a way that enables marketers to fully engage one-on-one with their customers. The effort to consolidate SLIS and SoIC gets to the core of what informatics truly stands for. In a world where data governs our perceptions and ultimately, our realities, its critical to become experts in translating data into digestible and useful information; information is what gives every vocation the substance it needs to thrive. Combining these disciplines will lead students to better informed and more knowledgeable decision points, which could shape the way innovation motivates us in the future. This could be the most powerful integration in the history of IU academics!

User Experience Designer, Exact Target
IU receives patent for “The Twitter Predictor”

IUB Associate Professor Johan Bollen’s work on what the media dubbed “The Twitter Predictor” received a rare form of validation: a United States patent.

The network tracking system calculates indicators of the public mood state along a multitude of dimensions.

His original work used six mood categories, but those have since been expanded to provide a more complete picture of changing public and economic conditions.

By tracking the content in real time of what is now up to 500 million tweets per day, the network system can detect subtle changes in public conditions that are correlated to specific entities like the Dow Jones and various other financial and economic indicators. Bollen describes it as a process that is constantly on the lookout for interesting statistical patterns in social media.

Working hand-in-hand with IU’s Research and Technology Corp., Bollen called receiving the patent license “a quantum leap for us” and a “huge milestone.”

“The purpose of us licensing from IURTC is to give back to our school, the university, and the state of Indiana,” Bollen said. “We want to make sure that the community benefits from our work.”

Groth named interim vice provost at IU Bloomington

Associate Dean for Undergraduate Education Dennis Groth has been named interim vice provost for undergraduate education at IUB. He is an associate professor at SoIC and has served as associate vice provost for undergraduate education since 2009.

As associate vice provost for undergraduate education, Groth has been responsible for overseeing general studies, service-learning, administration of placement and high-stakes exams, lifelong learning through non-credit professional and liberal arts classes, community outreach and information technology support.

He has been recognized by students and colleagues as an outstanding teacher and has received the Trustees Award for Teaching Excellence and teaching awards in informatics and computer science. We are thankful for the enormous contributions Dennis has made to our School. You will be missed, Dennis!

IUB’s Plale co-leads U.S. involvement in international data sharing

Professor Beth A. Plale, along with Rensselaer Polytechnic Institute Computer Science Professor Francine Berman, is co-leading U.S. involvement in the new international Research Data Alliance, an interdisciplinary organization that focuses on data-driven innovation through research data sharing and exchange.

Leading computer scientists from around the world met in Sweden in March to discuss methods of removing barriers to sharing research data and develop infrastructure for data sharing.

The National Science Foundation (NSF) is supporting U.S. participation in the RDA as part of a $2.5 million grant to promote coordination and develop infrastructure for data sharing.

IUPUI’s Chen finalist for TechPoint Mira Award

IUPUI’s Jake Chen, associate professor of bioinformatics and computer science, was a finalist for one of the 14th annual TechPoint Mira Award. He was one of five finalists for Technology Educator of the Year.

The TechPoint Mira Awards recognize excellence and innovation in Indiana’s technology industry, focusing on the broader issue of the role technology plays in Indiana’s economy.

[OF NOTE]
IU awarded $1.1 million from DOE

IU's Center for Research in Extreme Scale Technologies (CREST) is the recipient of a three-year, $1.1 million grant from the Department of Energy (DOE) to develop software that improves the speed and programmability of supercomputers. Andrew Lumsdaine and Thomas Sterling, both computer science professors at IUB, lead CREST as director and executive associate director, respectively. Sterling also serves as CREST's chief scientist.

This funding is part of a $7.05 million grant for the XPRESS (eXascale PRogramming Environment and System Software) project, led by Sandia National Laboratories as part of the DOE Office of Science Advanced Scientific Computing Research X-Stack program.

“Our goal is to completely redesign the system software in order to produce a revolutionary class of supercomputers. It is exciting that IU will be at the forefront of such research, setting future directions for exascale computing and programming,” said Sterling.

CS Professor Swany partners with Orange Silicon Valley to improve big data transfer

A recent networking breakthrough from the IUB Associate Professor Martin Swany-led team of researchers, in collaboration with Orange Silicon Valley and DataDirect Networks, showed that data sharing can be faster and more efficient over wide area networks. The team performed the world’s first demonstration of RDMA over Converged Ethernet, or RoCE, across a wide area network using the Lustre file system.

RoCE, pronounced “Rocky,” is a network protocol that enables RDMA (remote direct memory access) over an Ethernet network, a process that speeds up data transfer over networks. RDMA removes layers of protocol and software to transfer data from server memory to client memory in the most efficient way possible. RoCE migrates this approach from specialized networks to the widely deployed Ethernet.

“This kind of university-industry collaboration is an example of the value that the Indiana University Pervasive Technology Institute creates for the United States – new technology developed by computer science and transformed into usable software,” said Swany.

SoIC/SLIS research collaboration

High impact partnerships between SoIC and SLIS go back many years. A good example is a six-year collaboration between SoIC professor David Wild, leader of the Cheminformatics and Chemogenomics Research Group, and SLIS professor Ying Ding, leader of the Web Science Lab. The result is the first large-scale semantic data repository for drug discovery and highly novel semantic prediction tools which are being used to help find new uses for existing drugs. Their work has also fuelled research by many other groups including the multi-million Euro EU OpenPHACTS project.
IUB’s Kris Hauser uses machine learning to reduce health care costs

New research from IU has found that machine learning – the same computer science discipline that helped create voice recognition systems, self-driving cars, and credit card fraud detection systems – can improve both the cost and quality of health care in the United States.

The research suggests that physicians using an artificial intelligence framework that predicts future outcomes would have better patient outcomes while significantly lowering health care costs.

Using an artificial intelligence framework combining Markov Decision Processes and Dynamic Decision Networks, Assistant Professor Kris Hauser’s research shows how simulation modeling that understands and predicts the outcomes of treatment could reduce health care costs by over 50 percent while also improving patient outcomes by nearly 50 percent.

By using a new framework that employs sequential decision making, the previous single-decision research can be expanded into models that simulate numerous alternative treatment paths into the future, maintain beliefs about patient health status over time even when measurements are unavailable or uncertain, and continually plan/re-plan as new information becomes available. In other words, it can “think like a doctor.”

Informatics researchers compete in international robotics challenge

IU is part of an international team taking on the DARPA Robotics Challenge, a $2 million contest funded by the U.S. Defense Advanced Research Projects Agency to develop robots that can execute complex tasks in dangerous, degraded, human-engineered environments.

Kris Hauser, assistant professor of computer science, leads two graduate students in the development of software for a new robot prototype. This group is part of a 10-school team led by Drexel University.

The initial portion of the competition will culminate with a challenge that will test a robot’s ability to complete specific tasks related to disaster mitigation. DARPA will then select teams to advance to another head-to-head competition one year later.

IU will receive $130,000 in funding for the first phase, and that total could increase to $251,152 if the team advances to the second phase.

Börner pioneers visualization MOOC

IUB Professor of Information Science Katy Börner taught a free seven-week massive open online course (MOOC) on information visualization, which enrolled more than 1,600 students. Interest for the course was worldwide, with participants from nearly 90 countries.

The course provided an overview of information visualization and taught how to produce effective visualizations that take user’s needs into consideration. The course also covered data analysis algorithms; major temporal, geospatial, topical, and network visualization techniques; and discussions of systems that drive research and development.

The course was not only innovative in its content, but it was also one of the first MOOCS offered by IU and the first to offer students the opportunity to work with actual clients.

Börner’s research focuses on the development of data analysis and visualization techniques for information access, understanding, and management. She also serves as director of the Cyberinfrastructure for Network Science Center.
Clockwise from top left:

The Chicago Area IT Alumni Networking Event took place in March with a panel discussion on the tech entrepreneur experience moderated by Dennis Groth with panelists Lance Russell, Mike Trotzke, and Russell Conard, BS’12.

Dawn Hiller, BS’06 at the annual OkTECHberfest alumni event at Flat 12 Bierwerks in downtown Indianapolis.

Current IUPUI HIA students, Morgan Mrotek and Morgan Broyles at the Health Information Administration Alumni Event in January.

Jan Ashton, BS’65, new HIA Program Director, Lauri Perry, Alisa Hayes, BS’02, and Tracey Tomak, BS’97 at the IUPUI HIA Alumni Event.
### 1980s
Veteran entrepreneur, inventor, strategist, and venture capitalist, Scott A. Jones, BS’84, DSc’02, spoke at this year’s IU Entrepreneurial Connection Day in April at the Kelley School of Business. He also received the William L. Haerber Legacy Award, which is given to an individual who has made a lasting impact on Indiana entrepreneurship culture. Jones is co-founder of ChaCha, a free, real-time Q&A service, allowing anyone with a mobile phone to ask any question in conversational English. It has been described as “the world’s easiest-to-use and most comprehensive way to access answers and information.” Prior to ChaCha, Jones, at the age of 25, co-founded and led Boston Technology, where he invented an easy-to-use voicemail system. Used by more than two billion people around the world, it was later sold to Converse for $843 million. Subsequently, Jones founded Internet-based music service company Gracenote. The Gracenote database is the largest source of music and video metadata on the planet, receiving more than 500 million queries every day and upwards of 180 billion queries every year. The company was sold to Sony in 2008 for $260 million. Jones lives in Carmel, Ind.

### 1990s
An eBay-funded scholarship program created by computer science alumnus Neelakantan Sundaresan, PhD’95, has awarded $84,000 in scholarships and professional development awards to seven female technology students at IU. The IU/eBay Inspire Scholars program provides scholarship support and a learning community to students in computing fields. Sundaresan is senior director and head of eBay Research Labs in San Jose, Calif. He lives in Mountain View, Calif.

### 2000s
In February, Christopher P. Lausche, BS’07, a senior consultant at Deloitte Consulting, and his wife, Amanda (Johnson), BA’07, a communications manager for Surf Industry Manufacturers, welcomed a child, Audrey May, into their family. They continue to live in Southern California and are planning a trip back to Bloomington in the fall.

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**Upcoming alumni events**

- **July 25** • Informatics Summer Social, Indianapolis
- **Aug. 2** • Informatics Summer Social, Chicago
- **Aug. 16** • Informatics Summer Social, Bloomington
- **Sept. 21** • IUPUI Regatta
- **Sept. 27** • Launch ceremony for the new School of Informatics and Computing, featuring Peter Lee of Microsoft Research
- **Oct. 9** • OkTECHberfest, Indianapolis
- **Oct. 21** • Reception held in conjunction with the Indiana Library Federation meeting in Indianapolis
- **Nov. 2** • IUB Homecoming vs. Minnesota

For details or reservations, e-mail Danny Kibble at djkibble@indiana.edu.

**Katie Toomey, BS’09 (left) and Kylee Wall, BS’09 (right)**

**IUPUI MAS alumni lead post production departments for independent film**

IUPUI School of Informatics alumni Katie Toomey and Kylee (Pena) Wall enjoyed the red carpet premiere of the new independent feature film *Ingénue* which screened to a sold out crowd of over 400 people on March 23 at the Indiana State Museum IMAX theater. Katie served as editor and post-production supervisor. Kylee served as the visual effects artist and title sequence designer. The Indiana-based film was produced by Karmic Courage Productions. It’s now available on DVD from karmiccourage.com.

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Congratulations to the 2013 graduating class! 370 graduates from SoIC Bloomington, 139 from SLIS Bloomington, 170 from SoI IUPUI, and 53 from SLIS IUPUI. Pictured here is a group of HCI/d graduates on the Bloomington campus.