Thank you

These proud graduates of the School of Informatics
are life members of the IU Alumni Association. They deserve recognition for their commitment, which supports important IU programs and services. As a valuable partner, the IUAA strives to keep us connected to the School of Informatics. So, to all of these alumni who have become life members of the IUAA – THANK YOU. To learn about the benefits of life membership visit join.iu.edu or call 800-824-3044.

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[FEATURED]

**IU, ROBOT**

From the “uncanny valley” and its implications for the future, to using robots to perform sophisticated tasks, to exploring the social context of robotics and culture, take a look at how our faculty and students are making an impact in robotics research. [p. 9]

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At a meeting I attended recently, some participants reflected on the shifting nature of research. They asserted that most academic research started out in an “I” shape – very deep and very narrow. Then some research evolved to a “T” shape – deep and narrow in one key aspect coupled with shallower expertise in surrounding areas. More recently, some of the most impactful multi-disciplinary research has the shape of the Greek letter Pi (”π”) – narrow and deep in two fields augmented by shallower surrounding knowledge – or possibly even a pitchfork, narrow and deep in three to four areas with shallower nearby expertise.

The School of Informatics was founded on the premise that multi-disciplinary research – π or pitchfork – would be a major part of the culture and practice of the school, and it definitely is fulfilling this expectation. Given the breadth of the school, such research can occur through collaborations that are solely within the school or that extend outside it. The cover story of this issue, about robotics research, is an excellent example of a multi-disciplinary topic where our faculty collaborate with each other in ways that bridge the technical side of robotics with social issues and also with faculty outside of our school who apply robotics in fields such as elder care.

This example is just the tip of the iceberg in terms of the multi-disciplinary research collaborations that our faculty members are engaged in. The range of those collaborations is staggering. Some of these include novel combinations of research areas within the school, such as award-winning research on the security of genomic data that combines bioinformatics and computer security, or research on independent living for seniors that combines mobile computing with computer security and privacy. Even more collaborative research includes interactions with faculty from other IU schools and around the world in areas including biology, chemistry, fine arts, geology, library science, medicine, music, nursing, political science, public health, and many more. A few examples that illustrate the diversity and impact of these collaborations include: an award-winning evaluation of emergency care between health informatics faculty and researchers at Indianapolis’ Regenstrief Institute, a leading healthcare institute; collaboration between chemical informatics faculty and semantic network research in the School of Library and Information Science on early stage drug discovery techniques; joint research between computer science, fine arts, and industry researchers on plenoptic photography, a technique that is particularly useful for capturing moving objects; and a recent collaboration between bioinformatics and biology researchers that led to the most extensive pictures ever of an organism’s DNA mutation processes.

Now the School is about to embark upon its next, even more multidisciplinary stage – we are growing! In October, the IU Board of Trustees voted to combine the School of Informatics with IU’s long-standing, highly-ranked, and renowned School of Library and Information Science, to form a new school called the School of Informatics and Computing. This merger, effective July 1, 2013 on both our Bloomington and Indianapolis campuses, will form one of the broadest, largest, and highest quality computing and information schools anywhere. The faculty members of the two schools collaborate extensively already, and this is certain to increase. Look for more news on this exciting time in our School’s history in the coming months – and in the next issue of Indiana Informatics!

“IN OCTOBER, THE IU BOARD OF TRUSTEES VOTED TO COMBINE THE SCHOOL OF INFORMATICS WITH IU’S LONG-STANDING, HIGHLY-RANKED, AND RENOWNED SCHOOL OF LIBRARY AND INFORMATION SCIENCE, TO FORM A NEW SCHOOL CALLED THE SCHOOL OF INFORMATICS AND COMPUTING. ”

Bobby Schnabel

Dean Bobby Schnabel
2nd BEST competition underway

While last year’s winners of the Building Entrepreneurs in Science and Technology (BEST) competition are busy working on building their companies, the School of Informatics and Computing and the Kelley School of Business kicked off the second annual contest on October 1. BEST, which boasts the largest prize in the world offered by a university solely to its students in a start-up competition, is open to any IUB senior or graduate student who has an idea for a technology related business. Finalists will be notified in mid-December and winners will be announced in mid-February. For more information on BEST, visit best.indiana.edu.

IUPUI students travel to STARS conference

A group of IUPUI students traveled to Hampton, Va. this summer to attend the annual Students & Technology in Academia, Research, and Service (STARS) Celebration conference. The 10 students, members of STARS Leadership Corps Alliance of the School, joined 31 other schools in attendance. The 2012 Celebration provided an opportunity for students to network and share best practices in areas such as outreach to underrepresented populations and increasing faculty, peer, and mentor support for students.

Students who attended were: Chelsea Bedel (Info), Ariana Casale (Info), Thint T. Cho (MAS MS), Christina Dunbar (MAS MS), Nsikak Inyang (Info), Matt Misner (Info), Michael Noir (MAS), Brittney Parker (MAS), Sarah Parker (Info), and Sonya Waterhouse (MAS).

Tinker grant goes to IUB PhD student

This summer, social informatics Ph.D. student David Nemer travelled to Brazil to perform research on digital inclusion programs thanks to a Tinker Field Research grant he received from the Center of Latin American and Caribbean Studies (CLACS). Tinker grants are made possible by generous support from the Tinker Foundation, the IU College of Arts and Sciences, and the IU School of Public and Environmental Affairs. They are open to any IUB graduate student with interests in Latin America or the Caribbean.

Computing Research Association honors Dean Schnabel

Over the summer, the Computing Research Association awarded Dean Bobby Schnabel the A. Nico Habermann Award for his outstanding work increasing the presence of underrepresented groups in the computing research community. The award is considered the premiere recognition for promoting diversity in the U.S. computing research community.

Schnabel, along with Lucy Sanders and Telle Whitney, received the award for their joint efforts to establish and sustain the National Center for Women & Information Technology, a national resource dedicated to encouraging greater participation of women in the development of computing technology. Sanders is CEO of NCWIT and Whitney is CEO and president of the Anita Borg Institute for Women and Technology.
IUPUI breaks ground as first in nation to participate in Gen Con Educational Partners Program

Gen Con, LLC has entered into a partnership with the School of Informatics at IUPUI that will make the institution the first in the nation to participate in Gen Con’s new Educational Partners Program.

The goal of the program is to give programmatic access to selected academic institutions, allowing students and faculty to interact with key members of the game industry and participate in educational, informative seminars.

“We are proud to collaborate with Gen Con on its Educational Partners program,” said Mathew Powers, assistant professor of informatics. “The School of Informatics uniquely integrates computing, social science, and information systems design to explore how people use computing and technology to live, work, play, and communicate, so it only made sense for us to collaborate with Gen Con, which is known world-wide as the best place for the creation and development of truly original gaming fare.”

IUB’s Matt Hottell honored with distinguished service-learning award

Senior lecturer Matt Hottell was awarded the Beth Wood Distinguished Service-Learning Faculty Award for the 2011-12 school year. The award honors faculty who have demonstrated excellence in three areas – teaching strong and mutually-beneficial service-learning classes, participating in Service-Learning Program events, and raising the visibility of service learning on and off campus. Congratulations, Matt!

SOIC Students Place Third in “Go Viral to Improve Health” Collegiate Challenge

In June, a team of IUB students from the Schools of Informatics and Computing and Public Health won third place and a $3,000 prize in the Institute of Medicine – National Academy of Engineering “Go Viral to Improve Health” Collegiate Challenge. Michele Degges (computer science undergraduate), Mukta Gundi (masters student in the department of applied health science, School of Public Health), Pranav Gupta (masters student in human computer interaction), Matthew Holfelner (masters student in human computer interaction), and Anthony Monaco (computer science undergraduate student) developed Healthy State, a mobile app that was selected from 51 entries in the second annual national competition sponsored by the Institute of Medicine and the National Academy of Engineering. The contest challenges multidisciplinary teams of undergrad and graduate students to design a mobile application that uses existing public health data to empower people to live healthier lives. Healthy State provides images and information about the overall health of the population of each U.S. state which can help people make decisions such as where to look for a job or where to retire.

Bloomington career services welcomes new director

Career services in Bloomington named Kate Caldwell as its new director. Caldwell joined the School in mid-August after spending a year in the Office of Career and Professional Development at the Maurer School of Law. Prior to that she worked in career services at St. Lawrence University in northern New York for nine years. Kate has a Master of Science in Education in student affairs administration from Indiana University and a Bachelor of Arts degree from Hope College in Holland, Mich., where she majored in social work and psychology.

Kate replaces Jeremy Podany who left the School in June to become director of the career center at Colorado State University in Fort Collins, Colo.
IUPUI grad students win Leading Light Awards

Thint Cho and Christina Dunbar, both IUPUI Media Arts & Science graduate students, were nominated for, and won, Women & Hi Tech’s Leading Light Awards in the category of undergraduate or graduate student scholarship. The Leading Light Awards honors women of achievement in science, education, and technology. More than 400 of Indiana’s most influential business and technology leaders gather at an annual gala each year to honor the award recipients. Christina won the Software Engineering Professionals Student Scholarship and Thint won the Ice Miller Student Scholarship.

Fall career fair continues to impress

The annual Fall Informatics and Computing Career Fair was once again an overwhelming success! Held for the first time at the Bloomington Convention Center due to ongoing renovations at IMU’s Alumni Hall, the fair posted record numbers – 83 companies (with more on a waitlist) and 678 students. The spring fair is scheduled for January 30th, once again at the Bloomington Convention Center.

IUB and IUPUI women take Grace Hopper by storm

Indiana University was well represented at the recent Grace Hopper Celebration of Women in Computing held October 2-4 in Baltimore, Md. 17 women students from IUB and 8 from IUPUI attended. Special thanks to corporate sponsor John Deere for a donation that allowed several students to travel to Baltimore to attend.

PhD student awarded Bernbom Fellowship

Dongoh Park, a social informatics PhD student, has received the 2012-13 Bernbom Fellowship given by the School of Library and Information Sciences. The $1,000 award will allow Park to continue his research in the development of the Korean information infrastructure, which emerged extremely rapidly and successfully as part of national efforts to create an information society.

In particular, Park will use the award to support two specific parts of his research – an analysis of information policies and practices in Japan, to be used as a comparison for his work on Korea, and further work on current aspects of Korean national information policy.

The Bernbom Fellowship is awarded annually to a graduate student in either the School of Informatics and Computing or the School of Library and Information Science who has an interest in the concept of information as an ecosystem.
The winding down of the year usually signifies consideration of meaningful things: the people and experiences that meant the most to us in the near and distant past. What milestones have you marked, what accomplishments have you logged?

If this year saw changes in your career, I hope you’ll reflect on the people and experiences that contributed to that. My conversations with alumni across the country echo a common theme of appreciation of the education received here. I hear frequent citations of an inspiring professor who took special interest or ignited an open mind, and stories of memorable ‘aha!’ moments. “That was it,” a computer science graduate told me, “you couldn’t get me out of the computer lab!” “It’s hard not to brag on the School,” said one informatics alumnus.

If you recall such positive influences in your life, please consider making a gift to the School’s Annual Fund by the end of the year.

After raising over $110,000 last year, we’ve set our sights to reach $125,000 for the Bloomington Annual Fund by December 31, 2012. In addition, we aim to significantly increase our alumni participation this year. Doing so helps our national rankings and better positions us to attract more research funding. This enhances the value of everyone’s degree.

Will you help us achieve these important goals? Your gift now is key to our success.

As our enrollment continues to grow – School-wide, 23% in undergraduate and 35% in graduate enrollment since 2010 – we actively seek to attract and retain the very best students and faculty to continue our excellent work.

A successful Annual Fund is vital to attaining that. You can assist computer science or informatics students directly by choosing the Computer Science Student Fund or Informatics Student Fund. You may also select the Informatics and Computing Dean's Fund, which provides unrestricted funds for critical and otherwise unfunded programs and operations. On the www.soic.indiana.edu homepage, hover over Support the School and choose Ways to Give. Or contact me, Mary Beth Roska, at 812-856-0591 or mroska@indiana.edu. (To support Informatics at IUPUI, go to www.informatics.iupui.edu and click on the “Give Now” button in the bottom right corner.)

As you reflect on the past year and contemplate your year-end giving, please consider the School of Informatics and Computing’s Annual Fund. Many thanks.

Leslie Butwin joins IUB’s development staff

A warm welcome goes out to Leslie Butwin who joined the School’s development staff in August as the associate director of development services. In this newly created position, Leslie will be responsible for coordinating the School’s prospect research efforts, supporting campaign and major gift work, and planning special events.

Leslie holds an MPA in nonprofit management from the IU School of Public and Environmental Affairs (SPEA). She received her BA in marketing and communications from Purdue University. Prior to her graduate studies, Leslie worked as a corporate event and meeting planner at a small entrepreneurial marketing and event organization, VMS, in Indianapolis.

We want to know what you think!

Indiana Informatics is YOUR magazine and we want to make it the best it can be!

We’re putting together a survey so that you can tell us what you think of the magazine. It’ll cover everything from design to content, and we’re open for suggestions!

Look for the survey in your e-mail in the coming weeks – and please share your ideas with us!
Robots have been a part of popular culture for decades. Who can’t picture Rosie, the do-it-all robotic housekeeper on The Jetsons; Hal 9000, the dark villain in 2001: A Space Odyssey; WALL-E, the lovesick, likeable trash compacting robot from the Disney movie; Bender, the alcoholic, chain-smoking gambler of a robot on Futurama; and maybe the most well-known robot duo – R2-D2 and C-3PO – of Star Wars fame? Each of these characters, created over the course of the past 50 years, has a distinct “personality,” but still they all possess what our culture has defined as typical robot traits. And those traits can arguably be traced back to Isaac Asimov’s book I, Robot, a collection of short stories written in the early 1940s that is considered one of the most influential books in the history of science fiction, and certainly led to popular interpretation of robots.

While the aforementioned characters exist only in movies, on TV, and in novels, robotics (thanks, Asimov, for that term) is a very real field. There is plenty of high-level, groundbreaking research that goes on in robotics – much of it happening right here at the School of Informatics!

Professor Karl MacDorman at IUPUI and Assistant Professors Kris Hauser and Selma Šabanović at IUB all focus their research on robotics. It’s an incredibly varied field and their projects illustrate that. MacDorman explores the “uncanny valley” and its implications for the future. Hauser studies how robots learn to perform sophisticated tasks and how humans and robots can safely perform cooperative tasks. Šabanović explores the social context of robotics and how robotic technologies are designed and perceived in different cultures. At both IUB and IUPUI, our faculty is hard at work making advancements in robotics that will change our lives, from the way we care for the sick and elderly to the way we drive a car. What follows is a more in-depth look at how our faculty and students are making an impact…
Although robotics technology has so far found the most use in industrial applications and tasks that are “dull, dirty, and dangerous,” robots are expected to become increasingly integrated into everyday life as tools, assistants, entertainers, and even companions. Along with technical issues relating to how robots will be able to operate in constantly changing everyday environments, the introduction of robots into everyday contexts brings social questions to the center of robotics: how users will perceive and make sense of these new technologies, whether they will accept them and how they will adapt them to daily use, and what the broader social consequences of robotic technologies will be. IUB Assistant Professor Selma Šabanović studies these social aspects of robotics by doing research on human-robot interaction, designing and testing robot prototypes, and investigating the social visions behind robotics research.

Professor Šabanović directs the R-House Living Lab for Human-Robot Interaction on the Bloomington campus. Set up in a five-bedroom house, the lab provides a naturalistic environment for studying how people will interact with robots in the home and other everyday spaces. Researchers also use it as a prototyping space, where, using a flexible and exploratory design approach, they build early versions of interactive robotic technologies that they can test with potential users. Recent prototypes include Dewey, a small desktop robot designed to encourage computer users to take regular breaks; a minimalistic face robot for displaying emotion; and MugBot, a social robot prototype designed by visiting researcher Seita Koike from City University of Tokyo. SOIC and UITS staffers recently tested Dewey in their offices, helping professor Šabanović and her students study the effects of embodiment and social cues on user behaviors. Šabanović and her students will soon be testing a new robotic prototype in public spaces in the U.S. and Japan to gauge how people respond to service robots that share their environment and to explore cultural differences in user interactions with robots.

Šabanović also studies how users interact with robots in field studies in their potential contexts of use. In one current project funded by the National Science Foundation (NSF), Šabanović and Lesa Huber from the School of Public Health, are investigating the responses of older adults to PARO, a socially assistive robot resembling a baby seal. PARO was developed in Japan and has been evaluated extensively there, but little research has been conducted in the U.S. since PARO’s commercialization in 2009. Šabanović and Huber are also working with staff at a local nursing home to develop best practices regarding how staff can use the robot in ways that are most helpful to them and beneficial to nursing home residents. This research is part of a continuing cross-cultural study with Shibata Takanori from AIST-Tsukuba, in which the researchers are comparing how users adopt PARO in Japan and the U.S., as well as how they respond to various aspects of the robot’s appearance and behavior.

Finally, in order to develop robots for the future, it is important to look back at the field’s history. Along with Stasa Milojevic from SLIS and Peter Asaro from The New School University, professor Šabanović is working on a project funded by the Institute of Electrical and Electronics Engineers (IEEE) Robotics and Automation Society to collect oral history interviews with pioneering robotics researchers. The team is not only using the interviews for their own research on the development of interdisciplinary fields such as robotics, but building a digital archive for use by the robotics community, educators, and other researchers interested in knowing more about robotics through the years. You can learn more about the project at http://robotichistory.indiana.edu.

Researchers at the R-House Lab develop robotic prototypes for everyday use, such as Dewey – a break management robot.
Kris Hauser’s research studies the motion of complex, high dimensional robotic systems, with the aims of helping robots perform sophisticated tasks and exploring how humans and robots can safely perform cooperative tasks.

One of his projects is developing software that allows robots to move and respond to their environments in an intelligent manner – a problem he likens to playing a “game of chess against nature.”

Like a chess player, a robot has many moves available and must think multiple steps ahead. But, unlike a chess match, in which each player has a fixed number of pieces to move, a robot has the option to move along an infinite number of trajectories, and nature has an infinite number of ways of surprising the robot – a slippery floor, an unexpected obstacle, or a gust of wind. These unexpected variables make this an interesting and challenging research topic, and in fact, Hauser has recently been awarded a three year, $380,000 NSF grant to study methods for tackling these “large motion-planning problems.”

Another project has Hauser developing a humanoid robot that can help humans in disasters – for example the meltdown of the nuclear reactor in Fukushima, Japan – by navigating through hazardous, damaged buildings to perform repairs. This project was chosen by the Defense Advance Research Projects Agency (DARPA) to propel the next generation of robotics as part of the DARPA Robotics Challenge, a multi-million dollar competition involving dozens of top research groups across the world. As part of a team headed by Drexel University, Professor Hauser is working to give the Hubo humanoid robot the intelligence it needs to climb ladders, walk on rubble, and use tools – all with the ultimate goal of making humanoids smarter and more capable than ever before (and hopefully, to win the million-dollar prize).

Lastly, with such public attention on the dangers of distracted and drowsy drivers, it is no surprise that researchers are looking for ways that robotics can play a role in “crash-proofing” cars. Hauser explores ways that a semi-autonomous car could constantly monitor its surroundings and alert a driver to unsafe behaviors, and, in a very dangerous situation, take control and guide itself out of danger. In addition, Professor Hauser is developing techniques for robot cars to track dozens, or even hundreds, of moving vehicles and pedestrians and calculate safe routes in fractions of a second.
In the mid-1990s, Karl MacDorman was at Cambridge researching the problem of symbol grounding and symbol emergence. Robots seemed like an obvious choice for exploring cognitive models of how infants and non-human animals develop internal representations, and that’s how it all began.

Today, Karl MacDorman is a renowned expert in the field of robotics and director of the Android Science Center at IUPUI, the first such center in the United States. MacDorman works on expanding research that was originally conducted in Japan, where a majority of the strides in the field of robotics and android science had first been made. He and his team now explore several different aspects of human/android interaction and perception, from how to develop an android that can support social interaction to examining the point where an android becomes so life-like that it stumbles into "creepiness" to a human.

One of MacDorman’s major initiatives, on which he’s received no small amount of attention from the news media, is the exploration of the “uncanny valley.” A term that dates back to 1970 and Japanese researcher Masahiro Mori, the “uncanny valley” is the phenomenon that an artificial figure can seem more and more likable as it appears or behaves more like a human, but only up to a certain point. At that point, humans become uneasy, finding them creepy.

Identifying that point where humans begin to feel uncomfortable is important to researchers so that they can work to develop robots that are accepted by humans, and not trigger that uncomfortable feeling. This has far-reaching effects, from the medical profession to the entertainment industry. For example, medical students seem to perform better in real-life emergency situations when they’ve been trained with a simulator (robot) that is as close to a real person in appearance and behavior as possible. In that case, not venturing into the “uncanny valley” is essential.

Very recently, MacDorman completed work on an updated translation of Masahiro Mori’s groundbreaking 1970 essay for publishing in the IEEE Robotics and Automation Magazine. This important essay that was given little attention when it was first published in a Japanese journal was translated first in 2005 by MacDorman, but needed a more thorough, concise translation.

“"The ‘uncanny valley’ is the phenomenon that an artificial figure can seem more and more likable as it appears or behaves more like a human, but only up to a certain point. At that point, humans become uneasy, finding them creepy.”

Karl MacDorman, pictured on the right, collaborated with Hiroshi Ishiguro and his research team at Osaka University in the development of control systems for the Repliee Q1Expo, pictured on the left.
QuakeSim, an Indiana University-supported collection of online data and tools from NASA's Jet Propulsion Laboratory and multiple university partners, is a recipient of NASA's 2012 Software of the Year Award. The award recognizes innovative software technologies that significantly improve the agency's space exploration and maximize scientific discovery on Earth.

"Receiving NASA's Software of the Year Award is very exciting," said Geoffrey Fox, who led the development team along with Marlon Pierce, assistant director of IU's Science Gateways Group. "QuakeSim is a proven game changer, addressing big data issues and providing open access to data and tools to confront the societally important challenge of earthquakes and their damaging consequences."

QuakeSim's data is expected to save lives as government and commercial sectors incorporate the software into their earthquake forecasting, mitigation, and response plans.

"QUakesim is a proven game changer, addressing big data issues and providing open access to data and tools to confront the societally important challenge of earthquakes and their damaging consequences."

The School of Informatics and Computing in Bloomington received a school record $18.5 million in grants and awards for research and other sponsored programs during fiscal year 2012. The amount represents a nearly 40 percent jump over the school's previous high and a 70 percent increase over fiscal year 2011.

"This is wonderful news to share at the start of a new school year," Dean Bobby Schnabel said. "Research funding has many benefits: It gives our faculty the resources needed to conduct their research, it supports graduate students, it helps attract high-caliber faculty and students, and it helps our reputation."

Significant to the successful year was the breadth of funding for research groups in both computer science and informatics. The school has historically seen funding strength in high-performance computing and cyber-infrastructure, which continued again in fiscal year 2012, but that was accompanied this year by large-scale funding successes in areas including bioinformatics, complex networks and systems, data science, health informatics, human computer interaction, networks, programming languages, and security.

Twelve faculty members – Jeff Bardzell, Shaowen Bardzell, Johan Bollen, Alessandro Flammini, Geoffrey Fox, Matthew Hahn, Andrew Lumsdaine, Filippo Menczer, Beth Plale, Thomas Sterling, Craig Alan Stewart, and D. Martin Swany – each accumulated more than $1 million in awards during the year, with Fox topping the list, receiving over $5 million from eight separate awards. Another nine researchers earned awards totaling in the $500,000 to $1 million range over the year: Kelly Caine, Kay Connelly, Judy Qiu, Matthias Scheutz, Marty Siegel, Erik Stolterman, Alessandro Vespignani, and XiaoFeng Wang.
IUB’s Kapadia and Crandall part of team to develop PlaceRaider app

Assistant Professors Apu Kapadia and David Crandall were part of the research team that recently received significant media coverage for the malware app, dubbed “PlaceRaider,” that they developed in conjunction with U.S. Navy researchers. PlaceRaider “allows remote hackers to reconstruct rich, three-dimensional models of the smartphone owner’s personal indoor spaces through completely opportunistic use of the camera.” The program uses images from the camera to “spy” on users, potentially stealing sensitive information. Their research illustrates how mobile devices can be used as powerful surveillance and virtual theft tools, and suggests ways several defenses against becoming a victim to this type of criminal activity.

IUB’s David Wild part of $200K NSF Collaborative Grant to Develop Online Cheminformatics Teaching Resources for Undergraduate Chemistry Students

Assistant Professor David Wild, along with Assistant Professor Robert Belford from the University of Arkansas-Little Rock (UALR), has been awarded a three-year, $200,000 grant to develop online cheminformatics open learning teaching modules that will allow undergraduates at leading universities and smaller colleges to learn core competencies in practical cheminformatics including exploiting online resources, semantic technologies, and social networking in science. This will allow schools to offer a fully-integrated experience for students, including a host faculty member to coordinate the classes, semantically-annotated modules created by experts in the field, and a flexible social network that permits sharing between institutions.

School of Informatics, Allegient awarded $844K grant for geriatric caregiving project

The School of Informatics at IUPUI and Indianapolis-based IT consulting firm, Allegient LLC, were awarded an $843,730 grant from the National Institute of Health and the National Institute on Aging to develop new tools for collecting, analyzing, and capturing knowledge from senior caregiving literature. The project will ultimately work toward the advancement of automatic knowledge acquisition from unstructured data – an area of growth and increased focus for Allegient. “The School of Informatics’ text mining laboratory will add key research to the development of the automated knowledge acquisition system,” said Mathew Palakal, associate dean for graduate studies and research at IUPUI. “This technology will mine large, text-based literature databases, giving senior care facilities and providers access to the most current geriatric health research – information that could dramatically influence care decisions made by seniors and their families.”

The tools that are developed will improve the efficiency, consistency, and quality of knowledge available for care planning, which is essential as the country’s senior population grows and challenges the current system.

“THIS TECHNOLOGY WILL MINE LARGE, TEXT-BASED LITERATURE DATABASES, GIVING SENIOR CARE FACILITIES AND PROVIDERS ACCESS TO THE MOST CURRENT GERIATRIC HEALTH RESEARCH – INFORMATION THAT COULD DRAMATICALLY INFLUENCE CARE DECISIONS MADE BY SENIORS AND THEIR FAMILIES.”
IU among five universities selected to collaborate in new social computing center

IUB’s Associate Professor Jeff Bardzell, Assistant Professor Shaowen Bardzell, and Professor Erik Stolterman have received over $1.85 million to create the Intel Science and Technology Center for Social Computing. Intel announced the award in June as part of a $12 million research center composed of faculty from IU and four other universities.

The group will collaborate with fellow researchers from University of California-Irvine, Cornell University, Georgia Tech, and New York University in an exploration of information technology and digital media as social and cultural phenomena.

The work of the center is organized around five overlapping and interlocking themes:

• The Materiality of Information: Re-thinking the nature of information as grounded in materials and physical objects.
• Algorithmic Living: Implications of algorithms moving into social systems and daily life, invited or not.
• Information Ecosystems: How people, values, and systems interact and conflict at different scales.
• Subjectivities of Information: Moving beyond “the user” as the center of user experience and user-centered design.
• Creativity and Collectivity: How group production and patterns of making are changing what it is to be creative.

Erik Stolterman, Shaowen Bardzell, and Jeff Bardzell will represent IUB in the new social computing center hosted at UC-Irvine.

IUB’s Medina authors award-winning book

Associate professor Eden Medina’s new book Cybernetic Revolutionaries: Technology and Politics in Allende’s Chile has been awarded both the Computer History Museum Prize and the Edelstein Prize.

The book examines Project Cybersyn, the early computer network designed in the 1970s to regulate Chile’s economic transition to socialism during the government of Salvador Allende. It illustrates how political innovation can lead to technological innovation and how computers have been used historically to bring about political and economic changes in society.

Clockwise from top left:

IUPUI’s Women in Technology group celebrated the start of the fall semester at the School’s lawn party in Indy in September.

Dennis Groth and his wife Melanie networked with Alex Chambers, BS’12 and Dawn Hillier, BS’06 at the Summer Social at the Rathskeller in Indianapolis.

Alumni enjoy an evening of networking at the Summer Social in Chicago.

Mike Preuss, Doug Heinz, BS’00, Mike Harding, MBA’96, and Brad Wisler, BA’97 at the Bay Area IT Professional Networking Series open mic event in October.

Check out the new Informatics Alumni Association Website! iuinformaticsalumni.org
We Are IU! – IU’s national and international on-the-road tour – gives alumni and friends a chance to connect with IU at an extraordinary event celebrating Indiana University.

Nov. 7, 2011  
Sao Paulo, Brazil

Nov. 9, 2012  
Buenos Aires, Argentina

Nov. 11, 2012  
Santiago, Chile

Mar. 6, 2013  
Louisville

Apr. 18, 2013  
Cincinnati

Visit alumni.indiana.edu/together for more information and to register.

Opportunities abound

Being an IU alum means that no matter where you live, there’s always a networking event nearby. And, the Informatics Alumni Association is bringing more and more technology-related events to a growing number of locations around the country. Join us.

To get involved in alumni leadership and events, contact Danny Kibble at djkibble@iupui.edu. In particular, we’re looking for volunteers in the Bay Area, Chicago, and Washington D.C. We would love to hear from you!

IUPUI alumna lands dream job

This year’s Indy 500 had a little bit of IUPUI Informatics tied to it. Lauren Smith, a 2009 graduate of the media arts and science program, created one of the designs being used by Izod IndyCar this year for a new line of clothing.

Smith is part of the 21 person art department at Lids Team Sports, which is a division of Lids that provides custom jerseys, spirit wear, and uniforms to schools and organizations across the country. The team was responsible for creating the artwork for the Izod IndyCar project. They created more than 60 designs for Izod IndyCar, which eventually were narrowed down to a few, with Smith’s design being one of the final chosen for production.

“I was particularly excited because racing has always been a part of my life,” she said. “My dad used to race cars, so when he was home, the television was always tuned to one or more races.”

Lauren’s shirt is available for purchase on the Izod IndyCar website (http://shop.indycar.com/style/Racing-Mens-Blur-T-Shirt/20396042) and at the Indianapolis Motor Speedway. A dream come true for a lifelong racing fan!
Upcoming alumni events

**Dec. 12** • IUPUI Alumni Holiday Night, Indianapolis Children’s Museum, 6:30–9 p.m. Register online at alumni.iupui.edu

**Jan. 23** • HCID Connect, IUB

**Jan. 30** • IUB Informatics and Computing Spring Career Fair

**Feb. 16** • Weekend U Continuing Education Conference, NCAA headquarters, Indianapolis. More information can be found at alumni.iupui.edu

**Feb. 22–24** • IUAA’s Winter College, San Diego. Details at alumni.iu.edu/wc

**Apr. 18** • IU School of Informatics Annual Spring Awards Program, Skyline Club, Indianapolis

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

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### 1980s

**Frederic Chiu**, BM/BS’85, has completed recording for his latest CD, *Hymns and Dervishes*. He continues to tour around the world, including concerts this year in China and South America. A resident of Westport, Conn., Chiu recently started Beechwood Arts, an arts immersion center where audiences enjoy events that cross and transcend artistic genres in an intimate, salon-style setting. Beechwood Arts is also the permanent headquarters of his Deeper Piano Studies workshop series, where musicians of all levels work in a group setting on integrating a body/mind/heart approach to practicing and performing.

### 2000s

**Yung-Lian “Frank” Tai**, BS’06, MS’08, is a set modeler and dresser at Pixar Animation Studios in Emeryville, Calif. Working in Pixar’s sets department, he has helped create the sets for the movie *Brave*, which opened in June. A Disney–Pixar 3-D production set in Scotland, *Brave* tells the story of Merida, a headstrong princess who learns the true meaning of bravery after she inadvertently unleashes chaos and fury in the kingdom. Using a 3-D computer software process called “digital sculpting,” Tai worked on the exterior sets in the movie creating the Scottish forests and castle exteriors. Working from numerous photos and videos taken by the movie’s art directors, producers, and supervisors during visits to Scotland, Tai and Pixar’s other sets workers modeled a lot of trees, bushes, and vegetation to create a digital set that looks like a forest. Tai, who came to the United States specifically to attend the School of Informatics at IUPUI, chose informatics as a career because it allows him to combine his computer skills and artistic abilities. He has been with Pixar for four years, joining the company after earning both a bachelor’s degree and master’s degree in media arts and science from the School of Informatics. He lives in Alameda, Calif.

Indiana University Health Ball Memorial Hospital has named **Cliff W. Sessoms**, BS’08, MPM’10, as its new security director. Sessoms is retired from a distinguished 25-year career with the Marion (Ind.) Police Department, most recently serving as the deputy chief of police from 2004-2012. He began his new duties in June. As security director, Sessoms will also oversee security at offsite IU Health Ball Memorial facilities in addition to IU Health Ball Memorial Hospital and IU Health Blackford Hospital. A graduate of the FBI National Academy in Quantico, Va., Sessoms has been recognized as a two-time Crime Stoppers Officer of the Year, is a recipient of a Meritorious Service Award from the Marion Police Department, and received the 2006 Angel Award for his recovery efforts following Hurricane Katrina from Slidell, La. He lives in Gas City, Ind.

Attendees of this year’s Indianapolis Motor Speedway most likely saw the work of IUPUI School of Informatics media arts and science graduate **Lauren K. Smith**, BS’09. A member of the art department at Indianapolis-based Lids Team Sports — which provides custom jerseys, sportswear, and uniforms to schools and organizations around the country — Smith created one of the designs used by Izod IndyCar as part of its new line of promotional clothing. Her T-shirt design is available for purchase on the Izod IndyCar website. Smith lives in Zionsville, Ind.

**Jacob T. Guinnup**, BS’12, has worked for the IUPUI School of Health and Rehabilitation Sciences as the school’s Webmaster since January. He is also a Web developer at the Deco Studio in Franklin, Ind., where he lives.

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Alumni Association
Informatics major Alexandra Quintano, Sam Parsons, BS’12, and Anthony Davis, BS’12 reconnect at the Informatics and Computing Fall Career Fair held at the Bloomington Convention Center in September.