INDIANA informatics

HEALTHY PROSPECTS

A SYNERGY OF ACADEMICS, INDUSTRY, & RESEARCH MAKES HEALTH INFORMATICS A RED HOT FIELD. IU IS READY.

IU SCHOOL OF INFORMATICS
INDIANA UNIVERSITY

Give the gift of membership.

A membership in the IU Alumni Association,
which includes the award-winning *Indiana Alumni Magazine*,
is the perfect gift for new graduates, alumni,
and anyone who loves IU!

To give the gift of membership,
sign up online at *alumni.iu.edu* or call (800) 824-3044.

Your IUAA member dues are 80 percent tax deductible as a charitable contribution.
Join now before dues increase on Sept. 1, 2010.

ALUMNI ASSOCIATION
CONNECTING ALUMNI. SERVING IU.

in this issue

[FEATURED]

Health informatics

What IU students and professors are doing now may offer answers about what to do with paper records like these. [page 10]

[FEATURED]

AMIA recognizes graduate research

Tools developed by IUPUI students and Regenstreif Institute medical informatics fellows may revolutionize prescriptions and medical technology [page 4]
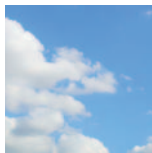
Health informatics: Poised for revolutionary impact

A faculty colleague and physician at the IU School of Medicine commented recently: "I can travel half way around the world to a country I've never visited before, put my ATM card in a machine, and the system immediately knows who I am, what my financial profile is, and whether the machine can give me money. But if I go across the street from my current doctor's office to a different one, they know nothing about me and my medical history."

As many people know, a solution to the latter problem is coming — widely shared electronic medical records. The Obama administration is placing a major emphasis on this area.

Electronic medical records may be the best known aspect of the field called health informatics (or the related terms of clinical informatics, medical informatics, health information technology), but modern information technology is making other, quite different aspects of health informatics possible and important.

The emergence of huge databases of patient information and our burgeoning ability to access and search these data sets and extract patterns from them ("data mining") is opening up groundbreaking possibilities. One example is a much better understanding of the combined effects of taking various medications concurrently and the correlation of this with patient characteristics — such as genetic profile or medical history.

Another important area of health informatics stems from the exploding presence of networked mobile devices that, in many cases, also have image (camera) capabilities. In remote areas of the world, cell phones are already enabling patients to monitor their medical conditions and communicate with far-removed health care providers. Mobile and other computing devices may be able to help seniors to continue to live independently.

The comment at the start of this column came from a recent meeting of IU faculty members and representatives of the Indiana entrepreneurial and business communities. We explored exciting ideas in health informatics, and all of the examples given above are areas in which Indiana University in general — and the School of Informatics in particular — has considerable involvement and expertise.

The Regenstrief Institute (www.regenstrief.org), located on the IUPUI campus and closely affiliated with IU, has been a global leader in electronic medical records for decades and is increasingly focused on the analysis of those data sets. The School of Informatics interacts closely with the Regenstrief Institute, including via shared faculty appointments.

The Bloomington portion of our school is taking a lead in the mobile device side of health informatics. In addition, there are enormous security and privacy concerns present in all of the areas of health informatics.

Researchers from the IU Maurer School of Law and the IU School of Law–Indianapolis, Medicine, and Informatics are working together to help lead the nation's response to these issues. One example of this is the School of Informatics' ETHOS House

---

"THIS IS ONE OF THE MOST EXCITING AREAS FOR TRAINING OUR STUDENTS AND CONTRIBUTING TO THE WORLD THROUGH OUR RESEARCH."

---

that pays special attention to privacy issues inherent in technologies that assist independent senior living. Our groups in bioinformatics, chemical informatics, and complex systems all participate in health-related research as well.

Our society appears to be poised for an explosion in the use of information technology and computing to enhance the quality of health and health care. From the viewpoint of the School of Informatics, this is one of the most exciting areas for training our students and contributing to the world through our research, and we intend to play a leading role.

Bobby

DEAN ROBERT B. SCHNABEL

To read more about our efforts in health informatics, look for this symbol throughout this issue.

INWiC students participated in an e-textiles seminar, where each person sewed her own wearable circuit.

INWiC Conference a success!

Frigid February weather couldn't cool the enthusiasm at the Indiana Celebration of Women in Computing conference. The event was one for the record books. It was the largest regional conference for women in computing in history!

More than 130 women from IU and from schools all over the state, including DePauw University, Purdue University, and St. Mary of the Woods College, participated in the annual event. Held Feb. 5 and 6 at McCormick's Creek State Park near Bloomington, Ind., INWiC featured discussion groups, networking opportunities, and a keynote lecture by IUB professor Kay Connelly.

The goal of the conference is to provide a low cost, regional, small conference for women in computing who do not have the opportunity to attend major conferences such as the Grace Hopper Celebration of Women in Computing that a group of Informatics students traveled to this year (see story on page 6).


Courtesy Indiana University

The INWiC Conference gives students from all over the Midwest a chance to connect with other women in the field — relationships that could impact future careers.

Celebrating women in computing

In late September, a group of 15 faculty, staff, and students (pictured below) attended the Grace Hopper Celebration of Women in Computing Conference in Tucson, Az.

The conference, which featured speakers on women in technology, brought together 1,500 attendees from all over the country, 800 of them students.

Past Grace Hopper Celebrations have resulted in collaborative proposals, networking, mentoring, and increased visibility for the contributions of women in computing.
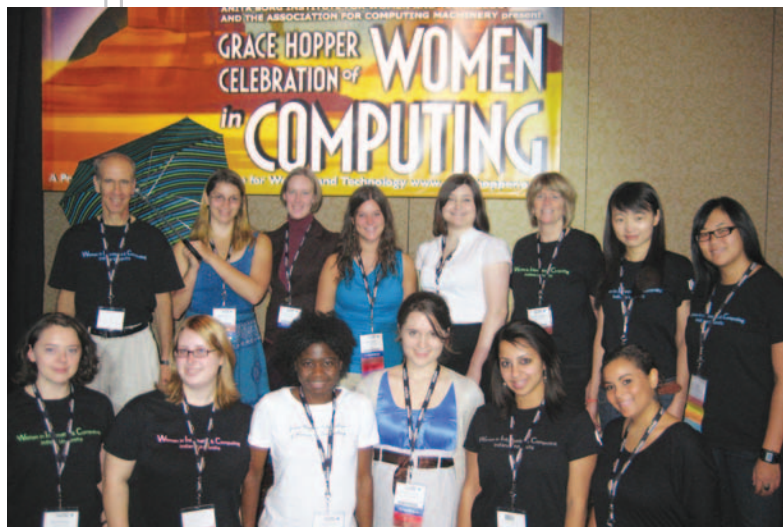
Career events boost job hunt

January and February were busy for the Bloomington campus Career Services office, as it hosted several events:

- **HCI CONNECT,** an exclusive event for HCI Design master's students;
- the **Spring IT Career Fair**, the annual job fair for all students;
- and **Make a Difference with IT**, a career discovery event designed to introduce students to ways technology can play a role in their future careers.

Local and national companies continue to come each year to recruit School of Informatics and Computing students at HCI CONNECT and during the Spring IT Career Fair. Additionally, 175 students participating in the Make a Difference with IT event networked with more than 40 alumni, engaging keynote speakers, and relevant industry professional panels!

"The sense of excitement from our new students, graduating students, and alumni to build a tight-knit community around career advancement is very evident and encouraging," said Jeremy Podany, director of career services. "The future is bright when you have a steady stream of alumni and employers giving back to the school — and that is what we are seeing."

To get involved in our career services efforts, e-mail Jeremy Podany at jpodany@indiana.edu.

Diversity grants

The IU Bloomington School of Informatics and Computing recently received three grants for projects aimed at fostering diversity and broadening participation in computing-related disciplines. The three grants, totaling $555,000, are part of the school's ongoing initiative to become a national exemplar for diversity.

Advocating for African-American students

The first, funded by the National Science Foundation (NSF) CISE division for broadening participation in computing, is a part of the Alliance for the Advancement of African-American Researchers in Computing Program (A4RC). IU's portion of the $1.5 million, two-year extension grant is $427,000, which will be used to continue to increase the number of African Americans pursuing advanced degrees in computing, particularly at the PhD level.

Over the past three years, the A4RC team has laid the groundwork for this by building effective collaborations between historically black colleges and universities and faculty and research teams. This two-year extension grant will enable these institutional alliances to expand considerably even as the schools join forces with the African-American Researchers in Computing group, an effort that supports PhDs already in the pipeline.

IN-STARS Alliance

The second grant, a one-year planning initiative worth $78,000, proposes the creation of the "IN-STARS Alliance" between IU Bloomington, IUPUI, IU Southeast, IPFW, Purdue University, DePauw University, Notre Dame, Ivy Tech Bloomington, Butler University, and Rose-Hulman Institute for Technology. This project will be based on the existing Students and Technology in Academia, Research, and Service model (STARS).

IN-STARS will enhance opportunities for traditionally underrepresented students by creating local networks within each institution. Online social networks and statewide conferences will bridge the local networks. Additional outreach will include pre-college programs, a series of statewide conferences, and programs for exploratory students already attending a participating alliance institution.

A proposal will be submitted to NSF in May 2010 to support a three-year statewide initiative. IUB's Dennis Groth and Maureen Biggers are the project's co-principal investigators.

Minority education

The final grant is part of the new Department of Homeland Security Center of Excellence in Visual Analytics for Command, Control and Interoperability (VACCINE). As part of the $50,000 that is IU's portion of the grant, Assistant Dean for Diversity Maureen Biggers will coordinate a Minority Serving Institution educational piece for the Center.

"An important part of our strategic plan focuses on making the IUB School of Informatics and Computing a leader in diversity—both for our own students and faculty and for the computing and informatics fields nationally," said dean Bobby Schnabel. "These three grants are instrumental in helping us achieve that goal, and will make significant strides to developing programs that will introduce the dynamic computing field to students who otherwise might not have the opportunity."

IUPUI's extreme makeover project

In January 2010, the Indiana University School of Informatics at IUPUI and RefreshIndy, an Indianapolis organization of Web designers, developers and graphic artists, partnered for the "extreme makeover" of three nonprofit organizations' Web sites within 48 hours.

Student volunteers from the school's Informatics and Media Arts and Science programs applied their classroom learning as they teamed with RefreshIndy's professionals to use open-source content management systems (CMS) to setup and manage each Web site. With a CMS, the organizations can easily update and manage their own Web sites as needed. Students also shot, produced, and edited informational videos, installed Web metrics to analyze traffic, and incorporated online donation capability and other interactive content.

The event was the brainchild of Justin Harter, founder of RefreshIndy, president of Web design firm Justify Studios and an undergraduate student at the School of Informatics. "Typically, developing a Web site can be an intensive process. There's a lot of planning and artistic work," said Harter. But Harter's vision threw that process out the window, packing what could otherwise cost these nonprofit organizations a lot of time and thousands of dollars into a single weekend — all in the name of community service.

Indianapolis mayor Greg Ballard was on hand for the event's kickoff, thanking organizers and participants for their time and dedication. Volunteers came equipped with sleeping bags for much-needed rest on the floors of the school's lounges and classrooms. They received meals from both commercial and individual donors, as well as free showers from the National Institute for Fitness and Sport (NIFS) on campus. Those at home could watch the volunteers on live video feeds and follow their activity on Twitter.

[HOW REFRESHING!]

Check out the new looks for these organizations:

- **Progress House** is a residential recovery program for alcohol and/or drug dependent men looking to rebuild their lives.
- **Talbot House** is a residential program for men suffering from addiction.
- **My Sister's Place** provides transitional services and resources to displaced and at-risk women and their families.

See the before-and-after site designs: **refreshindy.com/refreshweekend**.

Courtesy IUPUI

In only 48 hours, student volunteers overhauled the Web sites of three Indianapolis-area nonprofit organizations.

Top honors in BioCreative contest in Madrid

A team of IUB faculty and students received honors for the top two "challenge" submissions at the 2009 BioCreative II.5 Workshop in Madrid in October.

For the workshop's "Article Classification Task," the team submitted its metaserver and online runs four and five. Run five showed the best F-Score and accuracy of the entire competition, and run four was second best for "Area Under the Curve" (AUC). Congratulations to the Biocreative Subteam!

IU's Complex Adaptive Systems and Computational Intelligence (CASCI) research group has been a top performer (among top the top three teams) in all three BioCreative challenges.

Student awarded Goldwater Scholarship

Carlo Angiuli, a junior pursuing a double major in computer science and math, was selected as a winner of the prestigious Barry M. Goldwater Scholarship.

The Goldwater scholarship is given to help "outstanding students pursue careers in mathematics, the natural sciences, or engineering; and to foster excellence in those fields."

Angiuli

Each year, IU nominates up to four students, usually sophomores or juniors, to the national competition, and this year, all four nominees received the scholarship.

Victory! CCSC prize for undergraduates

Nine computer science undergraduates from the IU Bloomington School of Informatics and Computing (below) traveled to Chicago in October to attend the Consortium of Computer Science in Colleges (CCSC) Conference. While there, a team of three won the conference's annual programming competition. Carlo Angiuli, Karys Grundman, and Victor Chernetsky were

Hoosier pride, even on a rainy fall day

In fall 2009, members of the Informatics Student Association (ISA) took on a new challenge – the creation of a float for the annual IU Bloomington Homecoming Parade. The ISA braved cold, rainy weather to pull it all together, and it looked great!

The 2010 IU Bloomington Homecoming game is Oct. 16 vs. Arkansas State. For updates on alumni events and other homecoming activities, search for IU Homecoming on Facebook or visit alumni.indiana.edu/homecoming. This year's theme is "Now and Then: 2010."

the only team to solve seven complex problems — ranging from a game of Mousetrap to calculating the square root of a perfect square — to take first place in the competition.

"This marks the first time a group from IU has participated in a programming competition like this," Suzanne Menzel, team coach and lecturer for the School of Informatics and Computing, said. "This victory is particularly special because the group of students who made up the teams are all early on in their studies. I'm so proud of all of our teams — they made a great showing, and promise to be fierce competitors in future."

In addition to Angiuli, Chernetsky, and Grundman, students attending the conference were Griffin Anderson, Jeanette Booher, Jeff Catania, Dustin Dannenhauer, Shruti Krishnan, and Cassie Or.

[ANOTHER MAKEOVER]

Keep an eye on the **informatics.indiana.edu** Web site, you'll soon see a completely new site for the School of Informatics and Computing in Bloomington. The new site features integrated social media, expanded content for prospective students, and cutting-edge design with multimedia features.

Barbara Hayes, BA'76, MSW'81, MS'01

As associate dean for administration and planning on the IUPUI campus, Barbara Hayes works on strategic planning and teaches social and organizational informatics. She left a long career in health care to join the school in 2003. Hayes sees informatics as "the interdisciplinary study of applied computing, with special attention to its impact on individuals, organizations and society."And, in the midst of a major national effort to utilize computing and information technology to improve health, she sees health informatics as a great illustration of that definition. *by Lisa Herrmann*

How did you end up doing what you're doing?

I did not take a straight path from A to B.

Years ago, while working as a journalist, I volunteered for the Marion County Crisis Intervention Service. I had the privilege of working with some wonderful people who inspired me to go back to school for a master's in social work. I worked at Wishard, Methodist, and St. Vincent hospitals in subsequent years, specializing in crisis intervention (where I learned to manage projects!) and providing mental health consultation for primary and specialty physicians.

As information technology increased in importance, I began to see ways IT could support patients as they coped with various kinds of illness. Approximately 70 percent of healthcare is self-care. We all need support and coaching so that we can do the things we need to do to stay healthy. That may mean a cell phone program that reminds us to exercise or a Web-based portal that connects us to cancer care. I also saw potential for IT to strengthen the working relationship between patients and healthcare providers, increasing the odds of successful treatment. So, I went back for a master's at the School of Informatics.

Understanding the human side of health care has allowed me to assist the school as we develop programs in health information and health information technology.

What do you see are the school's challenges and strengths going forward?

I was drawn to the interdisciplinary nature of the school. That is both its strength and its challenge. Interdisciplinary teams find better solutions, but managing those teams can be a stretch. Health care, my area of interest, has a tradition of interdisciplinary work. Physicians, nurses, and other health care professionals work together on patient care, but are just beginning to understand how information technology can improve that care.

This issue's theme is your specialty – health informatics. How is the field growing and changing, and how do you think informatics (and the school) can impact this area?

The field of health informatics is exploding. It's time has come. Similar to the way in which we built roads and dams during the 1930s, we are now beginning to build a national IT infrastructure for healthcare. The Obama administration is pouring millions of dollars into the adoption of electronic medical records by 2014. It's a very ambitious goal, designed to create new jobs, increase quality, and lower costs. But beyond electronic records, there are countless ways IT can be used to improve the quality of health care we provide in this country. Informatics has much to offer.

How will the school of Informatics participate in this revolution?

Right now, the school offers a range of exciting options for students interested in health care and informatics. We have an undergraduate program in health information administration (HIA) on the Indianapolis campus, and we offer a master of science in health informatics, and a PhD through the informatics doctoral program.

The school has close collaborative ties with the Schools of Medicine, Nursing and Dentistry as well as the Regenstrief Institute, a world-renowned center for medical informatics. On the research side, the School of Informatics is now deep in conversation with the School of Medicine, the Regenstrief Institute, and economic development groups to trial technology-based interventions to improve health care and identify useful products to commercialize.

The school's bioinformatics researchers on both campuses are contributing to the science of personalized medicine. They create tools to help us discover genetic factors that contribute to disease.

Researchers at IUB are studying sensor technology to monitor the health of the elderly to allow them to stay in their own homes. Others are using informatics tools to identify outbreaks of infectious disease. Our researchers partner with medical and nursing faculty in the areas of decision support, data mining, data sharing, and visualization, as well as human-centered interfaces that support understanding in both patients and physicians.

How do you envision the school down the road – 5 years? 10 years?

Growing. The tools and techniques being developed here will continue to be in demand. Every individual and every industry will need tools to manage the mountains of data we're now able to collect and tools with which to extract meaning from that data. Health informatics will remain a core activity; the field of informatics will make significant contributions in disease treatment and prevention.
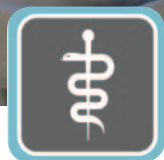
HEALTHY PROSPECTS

A SYNERGY OF ACADEMICS, INDUSTRY, & RESEARCH MAKES HEALTH INFORMATICS A RED HOT FIELD. IU IS READY.

BY STEPHEN MCKINNEY

IUPUI HEALTH INFORMATICS MASTER'S PROGRAM

IUPUI's new Health Informatics Program is a 36-credit hour program that includes 18 credit hours in informatics core courses, three credit hours in seminar courses, and nine to 12 credit hours of electives. Students also take six credit hours toward a thesis project or three credit hours towards a capstone project. For more information: informatics.iupui.edu/health.

A mid heated debate over health care reform, one discipline increasingly finds its star on the rise: health informatics. Dedicated to the acquisition, analysis, and meaningful use of patient data, the field of health informatics is commanding attention with its ability to deliver new information systems and technologies to achieve higher quality health care at lower cost.

What's the value of such promise? It's $19 billion, according to policy makers and health care leaders.

That is the amount signed into law last year by President Barack Obama as part of the *American Reinvestment and Recovery Act (*ARRA), continuing a plan set in motion by former President Bush to digitize every American's health record by 2014. Physicians and hospitals that adopt electronic medical records and participate in related health information technologies (HIT) will receive incentives from that federal funding.

Those physicians and hospitals will need help. So, academic institutions will also receive funding to train and educate the next generation of information-savvy health informaticists. These pros will navigate the privacy and security concerns associated with e-records, help reduce health-care related disparities among demographic groups, and design and develop personalized medicines and treatments.

The Chronicle of Higher Education recently identified health informatics as one of five degrees on the rise, and the Commission on Accreditation for Health Informatics and Information Management Education has accredited nearly 300 academic programs across the nation, including IU's program.

Job prospects in the field are taking off, too, with career reports in publications like U.S. News and World Report and Kiplinger consistently ranking health informatics among the top occupations.

Last year, The Economist cited Indiana as one of the country's most important hubs of activity in the life sciences, an enviable pole position among other states in the union. Indiana boasts five active health information exchanges (HIE) and an HIT-ready network of hospitals and physicians.

Indiana University is well positioned to capitalize on the ARRA investment and the rapid growth of health informatics. The School of Informatics at IUPUI offers the state's only graduate and doctoral programs in health informatics, as well as a new graduate certificate program in clinical informatics designed for licensed, practicing health care professionals.

With nearly a quarter of all Indiana job growth stemming from the life sciences, graduates of IU programs also benefit in the state's strong life sciences industry.

MAJOR INITIATIVES

Research in the discipline is growing by leaps and bounds. A sampling of recent health-related research endeavors on the Indianapolis and Bloomington Indiana University campuses includes at least eight major projects.

- **Informatics supports the Indiana Biobank**, part of the $60 million Physician Scientist grant made by the Lilly Endowment to the IU School of Medicine.
- **The School of Informatics and School of Medicine are collaborating with the Regenstrief Institute** and the business community about "design-build" techniques to solve existing problems in health care and identify products with commercial potential.
- **A strong alliance exists between the School of Informatics and the Advancing Health and Life Science IT (ALHIT) economic development group**, commissioned by BioCrossroads and charged with increasing the number of health and life science IT companies in the state.
- **The Midwestern Conference for Health Games** (www.midwesthealthgames.org), organized by the School of Informatics, will be held on the IUPUI campus this fall. This first-ever event is supported by the Games for Health Project, as sponsored by the Pioneer Portfolio of the Robert Wood Johnson Foundation."
- **A secure Web portal designed for the IU Cancer Center (IUCC) increases quality of life** for patients and families by providing personalized access to accurate, easy-to-interpret information and tools they can use to manage their illness, symptoms, and treatment
- **Low-cost, structure-based prediction techniques** are being devised to better understand the protein function or malfunctions that cause disease and hold important clues to possible cures.
- **An NCI-funded project** is identifying systems-level breast cancer biomarkers.
- **A personalized health information management system** will provide patient-centered information and knowledge utilizing text and data mining techniques.

In addition, researchers in Bloomington are designing an electronic food diary for dialysis patients, investigating the use of text-messaging for encouraging healthy lifestyles, and developing technologies to assist elderly adults maintain independence and teens in managing diabetes.

AMIA recognizes graduate research

TWO STUDENTS' WORK MAY REVOLUTIONIZE PRESCRIPTIONS AND MEDICAL TECHNOLOGY

The American Medical Informatics Association (AMIA) recognized Jon Duke and Jeffrey Klann — both students at the School of Informatics at IUPUI and medical informatics fellows at the Regenstreif Institute — for their development of two computer tools designed to support physicians.

Klaan

Duke was awarded the 2009 outstanding student award by the AMIA for "Rxplore," an innovative graphic visualization tool that helps physicians pinpoint which drugs in a patient's regimen may cause adverse reactions.

Duke

An internist with an interest in the application of computers to his field, Duke is pursuing his master's degree in HCI. He received his MD from Harvard Medical School.

➤ **Duke's "Rxplore," a graphic visualization tool, helps physicians pinpoint potential drug interactions.**

➤ **Klaan's tool generates test orders & medication options based on electronic hospital records.**

Klann was named an award finalist. His work focuses on presenting meaningful medical test and medication options to physicians. Similar to the popular "you might also be interested in" approach used by online retailers, Klann's computer tool generates test orders and medication suggestions based on a year of electronic hospital records.

A graduate of MIT with a master's in computer science, Klann is pursuing a PhD in informatics with a concentration in health informatics.

Cover photo and on page 10: School of Informatics at IUPUI students (left to right) Jon Duke, Nareesa Mohammed-Rajput, and Zorina Ombac are earning master's degrees in (respectively) human computer interaction, bioinformatics, and health informatics. Both Duke and Mohammed-Rajput are physicians and Regenstrief Institute fellows. Ombac is an RN and EMR clinical analyst with the American Health Network.
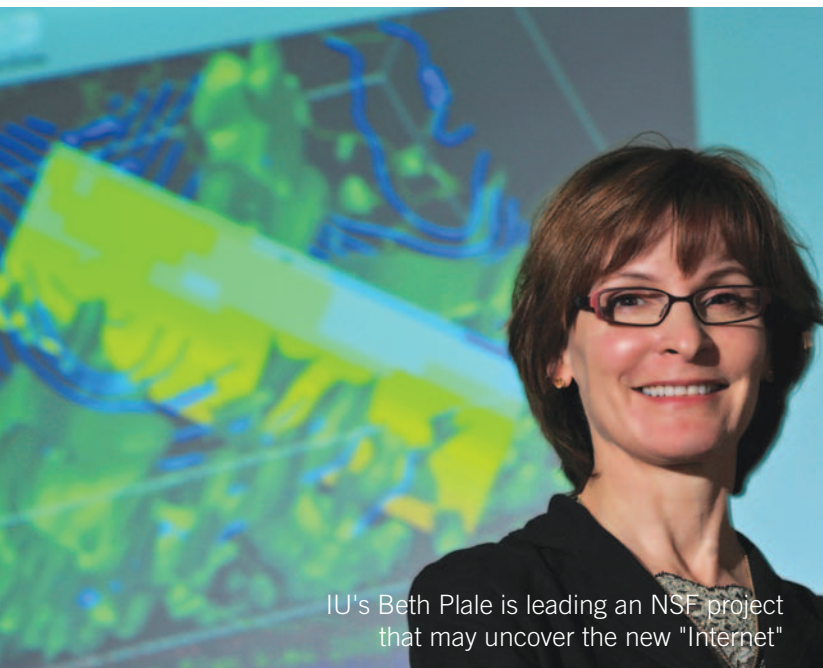
IU's Beth Plale is leading an NSF project that may uncover the new "Internet"

Replace the Internet?
GENI tools could do just that.

Researchers are actively working on new models of computer networks that could replace the Internet, and researchers at IU, led by informatics and computing's Beth Plale, have been awarded a $484,000 grant from the National Science Foundation (NSF) to develop tools to ensure that detailed network conditions can be measured for research.

The collaborative team will work to provide essential tools related to the history and authenticity of an experiment's data set (or provenance) for the Global Environment for Network Innovations (GENI) computer network.

GENI supports the development of a national-scale suite of infrastructure for experimental research in groundbreaking network science and engineering. Provenance information is valuable in that it helps scientists to accurately understand, repeat, and learn from experiments conducted on the network over time.

The provenance collection will be based on the Karma tool, which was developed with funding from the NSF Strategic Data for Cyberinfrastructure (SDCI) program, and applied to collection in an informatics application for pharmaceutical discovery. It will also be applied to a weather-modeling and analysis framework. The GENI Provenance Registry, called NetKarma, will capture the activities of user experiments conducted on a slice of the GENI network by monitoring all layers of the complex network of computers.

IUB's Hahn awarded Sloan fellowship

Assistant Professor Matt Hahn was recently awarded a Sloan Research Fellowship. This prestigious honor is designed to promote research by early-career scientists and scholars. Hahn was recognized for his work in computational and evolutionary molecular biology – one of only 12 fellowships handed out in the field.

Hahn

Receiving of one of these awards is not only an honor, but it seems to hold promise for bigger things to come. According to the Sloan Foundation Web site, "38 Sloan Research Fellows have won Nobel Prizes later in their careers, and hundreds have received other honors." Congratulations, Matt!

Army Research Laboratory project

Informatics and Computing's Alex Vespignani, along with fellow Rudy Professor Stanley Wasserman, chair of the IU Department of Statistics, have been named as collaborators in a $35.5 million Army Research Laboratory project expected to span 10 years and involve 10 additional universities and corporations.

A new center will be formed as part of the Army Research Laboratory's recently formed Collaborative Technology Alliance for Network Science. This center will link top social scientists and statisticians like Wasserman and physicists and computer scientists like Vespignani — in addition to neuroscientists, engineers, and cognitive scientists.

Vespignani and Wasserman will receive $850,000 over five years and, potentially, for an additional five years as their work proceeds.

Their work will focus on dynamic processes in networks and also on the study of organizational networks and how knowledge, particularly in the Army, is spread from peer to peer in the modern military. One objective for the pair will be working toward an understanding of how the properties of multi-scale networks affect diffusion and spreading behavior in biological and social contagion phenomena at individual and population levels.

New Scientist awards Yaeger

To help celebrate the 150th anniversary of Charles Darwin's *On the Origin of Species, New Scientist* magazine asked readers to use Darwin's remarkable concluding sentence in their own works of art. The editors "wanted to see the cleverest and most creative ways that [readers] could incorporate Darwin's words into a song, poem, painting, video or anything else you could imagine." Larry Yaeger submit-

Yaeger

ted "Evolving Darwin: Evolution is not random," a poster that he created to accompany his entry earned him a spot in the top five.

Cloud computing grant supports life science research

Researchers from the Pervasive Technology Institute Digital Science Center at Indiana University have begun work on an innovative project that will use cloud computing techniques to support life science research.

Led by Geoffrey Fox, School of Informatics and Computing associate dean of research and graduate studies, the project is supported by a $1.5 million grant award from the National Institutes of Health and takes advantage of an earlier National Science Foundation grant to IU to construct an experimental supercomputing network called FutureGrid.

"Cloud computing approaches are likely to change the nature of our national research computing infrastructure in the coming years," said Professor Fox. "These technologies hold significant promise in the life sciences and medical sciences as they offer the potential for greater computational power and faster speeds at a lower cost, and in a way that is easier for scientists to use than traditional grid computing approaches."

The project team is developing a software infrastructure that makes use of the substantial hardware and networking investment made by IU and the NSF in FutureGrid, a national experimental testbed, and TeraGrid, a national network of high performance computing resources.

Fox

The project will also harness commercial cloud computing infrastructure such as Amazon Web Services, Microsoft Azure, and other open-source software.

Cloud computing provides a way to outsource computing infrastructure in order to create virtual supercomputers with greater power. Clouds also support new-data parallel technologies used to process massive data sets, such as Google's MapReduce, a software framework to support distributed computing on clusters.

Cloud users access nearly unlimited computational power, created by pooling distributed computational resources using simple and straightforward Web interfaces. This eliminates the need for users to maintain large and expensive equipment. Users can have detailed technical understanding of the computational resources supporting their research.

Cloud techniques may address current medical computing obstacles such as long computation time and large memory requirements.

The team will partner with several IU life sciences research teams to apply and test these techniques in specific areas of life science research.

These include projects related to population genomics, an area of science that improves our understanding of evolution and genetic disorders, as well as projects involved in assembling and sequencing gene fragments.

PNAS publishes findings on global epidemic patterns

The interplay of human mobility patterns like those between local metropolitan commuters and long-range airline travelers during a global epidemic can be modeled in such detail that they could aid in public health emergency decision making, according to new research published by a team led by IUB professor Alex Vespignani.

The findings, published in the December online early edition of the *Proceedings of the National Academy of Sciences*, also note that with these refined computational strategies, new levels of accuracy about the behavior of targeted mobility networks and epidemic progression can be imagined.

Vespignani

Vespignani said the research is important because it helps determine two things — whether or not there may be one mobility scale most relevant to defining a global epidemic pattern, and at which level of resolution of the epidemic's behavior does any given mobility scale become relevant.

Contributing with Vespignani on the paper were research scientists Duygu Balcan and Bruno Goncalves of the IU School of Informatics and Computing and the Pervasive Technology Institute; IU Physics Department graduate student Hao Hu; and scientists Vittoria Colizza and Jose Ramasco of the Institute for Scientific Interchange Foundation in Torino, Italy.

IU instrumental in first international biocomputing symposium in India

A partnership between IUPUI and the National Institute of Technology Calicut (NITC) in India led to the first International Symposium on Biocomputing. With more than 100 people from 10 countries in attendance at the symposium in Calicut, India, the February 2010 event featured lecturers and presenters who spoke on topics relating to bioinformatics and biotechnology.

The symposium is the outcome of a trip by IUPUI Associate Dean for Graduate Studies and Research Mathew Palakal, who in April 2009 went to NITC to present a two-week lecture series on bioinformatics. While there, Palakal and his NITC colleagues devised the framework of the symposium with the hopes that resulting collaborations will impact the international scientific community's understanding of biological systems and improve quality of human life.

Dr. Mathew Palakal (at left) lights the lamp at the symposium's inaguration ceremonies in Calicut, India.

Informatics honors service, accomplishments of alumni and friends

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 15 in Indianapolis.

2010 Career Achievement Award

Donald E. Brown, BS'78, MS'82, MD'85, founded his third software company, Interactive Intelligence, in October 1994, and serves as its chairman of the board, president, and chief executive officer.

In March 1988, Brown co-founded Software Artistry, a developer of customer support software that went public in March 1995 and was subsequently acquired by IBM in early 1998. At Software Artistry, Brown served as chief executive officer and vice president of development. His first software company was acquired by Electronic Data Systems in 1987.

Brown graduated from the Indiana University School of Medicine in 1985. He has two additional IU degrees — a master's degree in computer science and a bachelor's degree in physics (Phi Beta Kappa).

With more than 20 years of experience in the enterprise software industry, Brown is considered a technology innovator and entrepreneurial expert. He was honored by *Computer Telephony Magazine* as its 1997 Star of the Industry, was the first-ever inductee into *Call Center Magazine's* 2000 Hall of Fame, and was Ernst and Young's Indiana Heartland 2000 Entrepreneur of the Year. In 2006 Brown received a Lifetime Achievement Award from *Customer Interaction Solutions Magazine* and was named a "Top Voice of IP Communications" by *Internet Telephony Magazine*.

Brown has been a keynote speaker for the American Association of Artificial Intelligence, Communications Solutions Expo, Internet Telephony Conference & Expo, and numerous other trade shows and conferences.

Brown

2010 Distinguished Service Awards

Ashton

Equipped with an MS in allied health occupational education as well as a BS in medical records administration, both from IUPUI, Jan Ashton, BS'65, MSEd'78, was director of the Indiana University Medical Records Administration Program from 1996 until her retirement in 2000. Prior to that, she was a faculty member in the program beginning in 1969. She was named assistant professor in 1978 and associate professor in 1995.

Ashton has authored educational resource materials on the subject of medical coding instruction and has conducted workshops throughout the country addressing health-care personnel. In 1985 the Indiana Health Information Management Association presented her with its Distinguished Member Award for dedication to teaching and the health information management profession. Ashton was also the recipient of the Health Information Administration (HIA) Program's first Elton T. Ridley Service Award and the IU Trustees' Excellence in Teaching Award.

Although Ashton retired from Indiana University in 2000, she continues to be actively involved with the HIA program as an advisory board member, advocate, generous supporter, and valued resource. In 2003, Ashton was honored with IUPUI's Spirit of Philanthropy award for her volunteer activities on behalf of the HIA Program and the School of Informatics.

Along with her predecessor and former program director, Mary McKenzie, Ashton is a namesake for the McKenzie Ashton Director of Health Information Administration, which is an endowed directorship.

Becker

David Becker occupies many chairs but one rarely finds him seated. He has served as chairman of the board and chief executive officer of First Internet Bank since its inception and has served as president since January 2007.

In 1981, he founded a company that provided software services to financial institutions around the country, and served as its CEO until the company was acquired by Open Solutions Inc. (NASDAQ:OPEN) in 2004. In 1995, he founded VIFI, which provided Internet services to financial institutions and corporations from 1995 until it was acquired by Digital Insight Corporation (NASDAQ:DGIN) in 2002. Becker also founded and remains actively involved as CEO of three other Indianapolis-based companies: OneBridge, a credit and debit card processing firm; DyKnow, a company specializing in educational technology for interactive learning experiences; and RICS, a firm that provides inventory control and POS systems for retailers via the Web.

2010 Young Alumni Awards

IU Bloomington alumna Kay H. Connelly, BS'95, is associate professor in the Indiana University School of Informatics and Computing in Bloomington. Her teaching and research interests are in the intersection of mobile and pervasive computing and healthcare. In particular, she is interested in issues that influence user acceptance of health technologies, such as privacy, integration into one's lifestyle, convenience, and utility.

The human face of this work is seen in Connelly's projects. The ETHOS (Ethical Technology in the Homes of Seniors) project develops devices to help senior citizens remain in their homes living independently while protecting their privacy at the same time.

For instance, a clock may inform a woman in her own home of her father's movement through his house across town. The utility of such research and devices increases in value as the population ages.

Connelly works with a variety of patient groups, including very sick populations who need help in managing their diseases, healthy populations interested in preventative care, and senior citizens looking to remain in their homes for as long as possible. She is the senior associate director for the Center for Applied Cybersecurity Research, and has recently undertaken the challenge to launch IU Bloomington's new Health Informatics Program. This interdisciplinary program will forge new frontiers in the overall management of health by reaching across the boundaries of medicine, technology, security, and real-world application.

In addition to her teaching duties, Connelly is a faculty advisor to the Women in Science program and on the executive committee of IU's Women in Informatics and Computing, a student-driven group to enhance the education of women in computing and information technology at IU.

Connelly earned her IU bachelor's degree in computer science and mathematics, as well as a master's (1999) and PhD (2003) from the University of Illinois.

Connelly

THE YOUNG ALUMNI AWARD RECOGNIZES EARLY CAREER ACHIEVEMENT THAT BRINGS ACCLAIM TO THE FIELD AND HONOR AND DISTINCTION TO IU.

One Informatics degree has given Virginia Richardson, BS'07, many rich applications. A Fort Wayne native, she received her bachelor's degree in media arts and sciences and applied computer science from IUPUI in 2007.

While she was still a student, an internship at Black Entertainment Television (BET) in 2006 blossomed into a full-time position in the BET Creative Services and Marketing Department. She spent her senior year commuting between BET's Washington, D.C., studios and the IUPUI campus in Indianapolis, putting to good use her technical expertise to complete her degree while launching her professional career.

Richardson

In September 2009, Richardson launched a new Viacom network, Centric, which combines BET and VH1. For Centric, her marketing focus will be strategically promoting the network using various elements, including promotional video and graphics.

As the coordinator of on-air promotions Richardson touches many programs, including the Annual BET Awards Show. Michael Jackson's unexpected death just days before the 2009 show meant extensive rewriting and recasting of the segments to accommodate millions of anticipated new viewers.

Mastering one major medium is not enough for Richardson: Even as she works full time at BET she is interning at Sirius XM Satellite Radio. She also gives her time as a special events assistant for the BET Foundation. In this role she supports such efforts as the BET Women's Health Symposium and BET Summer Camp for Girls.

Richardson is also finishing up her master's degree in musical technology from IUPUI. In addition to her goal of having her own multimedia production firm, she dreams of scoring and designing sound for movies.

[ALUMNI SERVICE]

These outstanding alumni generously give of their their time and talents. The school needs your help, too. To get involved in alumni leadership or volunteering with current students, or for information about IUAA membership, contact Danny Kibble at djkibble@iupui.edu or Rachael Jones Crouch at rlcrouch@indiana.edu.

Becker was the first chair and remains on the board of TechPoint, and is chairman of the board for the TechPoint Foundation. He is also a member of the Central Indiana Corporate Partnership and, as of March 2010, is chair of the board of directors of the Central Indiana Community Foundation. Becker has supported a number of Indiana universities. He is currently a member of the School of Informatics Dean's Advisory Council and has served on advisory boards for The Robert C. McDermond Center for Management and Entrepreneurship and the IT Associates Program at DePauw University, where he earned his BA degree in 1975. He is also on the board of trustees at Vincennes University.

Becker is a 2001 recipient of the Ernst & Young Entrepreneur of the Year award and a 2002 recipient of the TechPoint Trailblazer in Technology award. In 2004, then Indiana Governor Joe Kernan honored him with a Sagamore of the Wabash. And in 2008, he was inducted into the Junior Achievement-sponsored Central Indiana Business Hall of Fame.

Stay connected to IU

What's in it for you? Involvement with the Informatics Alumni Association helps IU, but it's also good for you.

Informatics alumni have access to networking events, social gatherings, and opportunities to change the lives of today's students. This year, events ranged from a night out watching hoops in Indianapolis to "Make a Difference with IT," a one-of-a-kind career event for current students hosted by alumni panelists.

Right now, the impact of this network on jobs is apparent. "The future is bright when you have a steady stream of alumni and employers giving back to the school — and that is what we are seeing." said Jeremy Podany, director of career services in Bloomington.

Photos courtesy John Blue

(Photos, counterclockwise from top right): Informatics Alumni Association board member **Colin Koops**, BS'05, right, talks with **David Sheetz**, BA'96, during an event in Chicago.

More than 175 students (and a handful of incoming freshmen) attended "Make a Difference with IT," an event that showed IU students how they can use IT to make a difference in the world. Above, Dean's Advisory Council Member **Jane Neiderberger** and Alumni Board President **John Blue**, BS'85, MS'92, answer career questions in the IMU's Alumni Hall.

IU Informatics students and alumni toured Microsoft in Chicago. At top left, students **Gregory Oppman**, **Michelle Froedge-Method**, and **Shreyas Karnik** watch as Microsoft's Kevin Gates shows off the "surface" prototype.

class notes

1970s

In February, I-Man **Peter T. Wong**, BA'74, MBA'76, MS'79, became chief executive of HSBC Holdings for the Asia-Pacific region. He previously served as the Asia-Pacific executive director of HSBC and general manager of HSBC Group. Wong joined the company in 2005 and previously served in executive level positions with Citibank and the Standard Chartered Bank in Hong Kong.

A former high-school track and basketball athlete, Wong played on the Hoosiers' soccer team during his time at IU. He credits his love of sports as a major contributor to his success in the field of banking. Wong lives in Hong Kong.

1980s

In March the home of **Scott A. Jones**, BS'84, DSc'02, was named "Best Crib" at the *MTV Cribs Awards*. Jones's son, Andrew, had previously appeared in an episode of the MTV series *Teen Cribs*. The Carmel, Ind., home features a spiral mahogany staircase, home theater, and 2,700-gallon fish tank. The elder Jones is co-founder, chairman, and CEO of ChaCha Search Inc. He was the subject of a feature-length article in the September/October 2007 issue of the *Indiana Alumni Magazine*.

Donald J. Lorentz, BA'86, MS'01, works for IUPUI's University Information Technical Services. His wife, **Lisa** (**Koekenberg**), BA'87, is the director of special events and donor relations at the Greater Educational Opportunities Foundation in Indianapolis. They have two sons and live in Indianapolis.

2000s

In August, **James C. Costello**, MS'04, PhD'09, was the first IU student to be officially awarded the PhD degree in Informatics. While in Bloomington, he worked on the design, development, and implementation of integration methods for connecting disparate sources of data on Drosophila, a genus of small flies who members include the "fruit fly." Costello has started postdoctoral work at Boston University with a fellowship from the Howard Hughes Medical Institute. He is working with James J. Collins, who in 2003 became the first bioengineer to receive a MacArthur Foundation "Genius" Award. Collins is considered a pioneer in the field of synthetic biology. As a master's student at IU, Costello received the School of Informatics' outstanding teaching and achievement awards, and the IU Graduate and Professional Student Organization's outstanding graduate student award during the 2003–2004 academic year.

Enter your class note online: **alumni.indiana.edu**. Follow us online: **facebook.com/IUALUMNI** or Twitter **@IUAA**.

William J. Terrell, BS'07, is employed by Science Applications International Corp., a scientific, engineering, and technology applications company, in Bloomfield, Ind. He is also working on a master's degree in information systems at the IU Bloomington Kelley School of Business. In May he married Kelly E. Gillespie, BS'07, who works for Raydar & Associates, a veteran-owned consulting corporation that provides technical, logistical, and project management services for state and federal government, defense, and industrial sectors, in Odon, Ind. The couple lives in Bloomfield.

Christopher M. Horan, BS'09, lives in St. Louis and works as a programmer and analyst for the Boeing Co. He writes, "It's very rewarding knowing the products and services the Boeing Co. provides our military and the security of our nation." Horan began graduate studies in information management at Washington University in St. Louis in January.

[GAME WATCH]

Anthony Faiola, IU School of Informatics at IUPUI executive associate dean, mingles with alumni during the IUB men's basketball viewing party at Kilroy's in downtown Indianapolis on Jan. 30. More than 30 graduates from both the IUPUI and IUB campuses attended the event.

To find game watches and other IU events near you, get involved in IUAA's nationwide alumni chapters. To find one near you, visit: alumni.indiana.edu/chapters.

Thank you, generous supporters.

The Indiana University School of Informatics thanks and honors the alumni, companies, and friends who supported the IU School of Informatics with financial contributions from July 1, 2008 through Dec. 31, 2009. You make the stories in this magazine possible.

$10,000 and above

Don and Lucy Aquilano
David and Christine Becker
Albert and Margaret Chen
Scott and Erin Dorsey
John and Barbara Hayes
Mark and Karen Hill
Robert Schnabel and Edith Stevenson
Hugh and Mary Stull
Chin-Cheng Wu

$5,000 to $9,999

Robert and Danita Forgey
David T. and Suzanne B. Pfenninger

$1,000 to $4,999

Janatha Ashton
Robert and Lisa Baker
Hugh and Victoria Callahan
James Conley and Janis Brown
Michael and Shawna Eikenberry
Lisa J. Franz
Charles W. Franz
John R. Gibbs
Barry N. Guinn
Thomas and Anne-Marie Kendra
James and Barbara Kew
David C. Krane
David and Lisa Lee
Gerald and Charlotte Lefert
Carol A. Lewis
John and Marion Lowrance
Patrick and Jane Martin
Ted and Julie Meek
Mark and Jane Niederberger
Winston T. Shieh
Dennis and Cathy Sponsel

Alan and Alisa Wright
Mary J. Zaborowski

$500 to $999

Stuart and Amy Bailey
John L. Blue
Eugene Byon
Jonathan and Nancy Cluts
Bruce Duba and Mary Czerwinski
Kevin R. Erdman
Michael C. Heim
Dennis and Patricia Jones
Yuh-Mei Jong
Kevin E. King
Luretta M. Knighton
Roberta L. Lindsey
Tedi G. Lojewski
Mac and Nancy Martin
Judith A. Pennington
Neil and Randy Reid
Dirk and Sally Sterley
Harold and Felisa Tennant
John and Linda Van Hook
William A. Versteeg
Jeffrey and Kelly Zaleski

$100 to $499

Anonymous
Jamie Adams and Linda Fetter
John and Sandra Bailey
Stuart and Amy Bailey
Warner and Mary Bailey
Sheldon R. Baird
Jennifer L. Brown Hertel
Travis and Richelle Brown
James H. Buher
Robert and Stacy Burger
Eugene Byon
Michael and Cindy Callahan

Teyao and Hui-Mei Chen
Maria Z. Coggins
Joseph G. Duff
Rex A. Dwyer
Michael and Rebecca Eckerle
Michael and Shawna Eikenberry
Kevin R. Erdman
Betty A. Floyd
Geoffrey C. Fox
Melanie Frazey
Ralf Frieser
Joshua D. Froelich
Ben and Cathy Fulton
Joseph G. Garcia
Michael Gasser and Mara Margolis
Deborah S. Gembala
William S. Gottlieb
Robert D. Green
Andrew J. Hanson
David W. Harrison
James E. Hassee
Jeffrey and Jeanette Hathaway
Michael C. Heim
Dennis and Joy Heller
Thomas and Julia Hirons
Jeff A. Hostetler
Ann Y. Hwu
Dennis and Patricia Jones
Kevin and Josette Jones
Mitchell and Erin Karam
Michael D. Kinerk
Kevin E. King
John Kolts and Anna Battenhouse
Lois E. Kukulewicz
Younghee Lee
Daniel M. Leivant
Roberta L. Lindsey
Ming-Yie Ling
John and Tonya Martin

Jody and Jennifer Maze
Judith A. McCoy
William M. McCreary
Richard L. McGarvey
Gary McGraw and Amy Barley
Leon and Mary McKenzie
Marvin D. Moody
David and Jill Morganwalp
John and Anita Morrison
Gary and Linda Nugent
Kent Orr and Suzanne Menzel
Richard and Sandra Paur
Andrew N. Peter
Brent and Lisa Pieper
Joyce A. Porter
Shanti J. Pruitt
Elizabeth L. Puller
David and Mary Radzialowski
Deborah L. Ramsden
Robert H. Reed
Donald M. Reeser
Neil and Randy Reid
Edward and Claire Robertson
Jeffrey and Jolynn Ryckman
Jami D. Scholl
Ray and Donna Scott
David A. Seaman
Laura L. Shannon
Adam J. Snetiker
Brad and Cynthia Spann
William and Carol Stephan
Harold and Felisa Tennant
Yufeng Tsui and Shu Zhang
Joseph P. Tucker
Linda M. Vance
William A. Versteeg
Ruth A. Walker
John and Amy Warner
Wayne C. Warren

Thomas and Tina Weisman
Ruth E. Whitbeck
Melissa N. Whiting
Gary and Stanislavka Wiggins
Lance and Alisa Wright

$1 to $99

Tracy M. Allen
Tom and Evelyn Alwine
Etsuko Amada
Robert and Dorothy Anderson
David Andrews and Elaine Fetta
Mark T. Armantrout
Joseph and Julie Ashland
Marcia L. Bailey
Charlotte D. Barrett
Jocelyn K. Bauer
Adam and Jamie Baumann
Robert and Martha Beckett
Pradeep N. Bhoj
Timothy and Nancy Blackburn
Gergory L. Bock
John W. Bowker
Vickie S. Bridge
Mark R. Brown
Lisa A. Butt
Thomas M. Cheng
Kenneth Chiu
Michael and Marie Daily
Roland S. Dale
Daniel and Karen Davis
Denise A. Davis
Stephen J. De Crane
Robert and Debora Dillow
James and Reyna Dodds
Zhuan Dong
Allen and Debra Edgerley
Michael and Joan Engels
Lester and Mary Figg
Don and Christine Fitzpatrick
John F. Fox
William and Brenda Frye
Amy L. Gay
James R. Grahn
Natalie L. Griggs
Bernard Gunawan
Claudio Gurrola
Philip and Paula Haffley
Robert and Jeanne Hallam
Leslie K. Harris
Garry D. Hartman
Marcea Hefner
David and Michelle Henderson

Bruce W. Herr
John K. Hightshue
Vince and Michele Hoeser
Scott and Urmi Holz
Grregory and Mary Hormann
Jeff A. Hostetler
Steven and Mary Hott
Kyle and Nicole Hubbard
Deborah A. Hudson
Michael S. Hunsaker
Denise G. Jackson
Felisa B. Javier
Michael A. Jefferson
Kyle R. Jennings
Julia K. Johnson
Leslie and Marlene Johnson
Gregory and Rosemary Jordan
Robert L. Kery
Danial J. Kibble
Janeille Kilgore
DongInn Kim
Stephen B. Kinzler
Clinton T. Koch
Robert Konicek
Terrence and Jodi Kunstek
Gilead A. Kutnick
Lisa A. Lague
Tei H. Laine
Francisco Lara-Dammer
Sarah B. Lasbury
David and Robin Leaf
David R. Lee
Michael and Erica Leeds
Thomas L. Lerdal
Joseph and Caroline Lin
Sarah M. Loos
Felicia L. Magee
Usha C. Marakani
Bryan J. Martin
Rebecca Z. Mauser
Elissa S. McKee
Staci L. McFall
Jewell and Michelle McKinney
Keval Y. Mehta
Chris and Kimberly Melluck
Terrence Mitchem and Diana Orr
Eric and Margaret Montenyohl
Kathleen S. Montgomery
Mary A. Moran
Sheila D. Morris-Watson
Len and Sandra Murray
Joannie L. Murray
James T. Newkirk

Vincent and Judy Noblet
Leon M. Nowlin
C and Cathern Paxton
Narayanan Perumal
Jeffrey S. Pfenninger
Wei Qin
Susan J. Quinn
Leslie A. Quinn
Gloria L. Quiroz
Carolyn J. Richards
Larry and Beverly Riggen
Susie M. Ross
Jeffrey R. Rothschild
Michael G. Sassman
Michael and Marsha Scott
Jerry W. Seward
Todd R. Shelton
Joycelyn D. Shepherd
Katie U. Siegel
James and Jacqueline Singer
Jay Sissom
Mary A. Sitler
Ronald and Dianne Skinner
Marlene J. Smith
Jingjun Sun
Mark and Barbara Tischler
Terry and Linda Wallace
Haijing Wang
Robert G. Weis
Christopher and Sally Welp
Peter and Jodi Wood
William C. Woods
Ripley and Jennifer Worman
Brennon O. York
Jun Zhao

Coporate honor roll

Accenture Foundation
AT&T Foundation
Barnes & Thornburg LLP
Baxter International Foundation
Beckman Coulter Inc.
Bituminous Insurance Companies
Eli Lily & Co.
Eli Lilly & Co. Foundation
The DIRECTV Group, Inc.
Eli Lilly & Company
Eli Lilly & Company Foundation
EMC Corporation
Ernst & Young Foundation
ExxonMobil Foundation
Fannie Mae Foundation

Fidelity Investments Charitable Gift Fund
Georgia Institute of Technology
The Gill Foundation of Texas
GlaxoSmithKline Foundation
Google, Inc.
IBM International Foundation
Indiana Health Information Management Association
Indiana Sports Corporation
Inovative Edit, Inc.
JustGive
Legacy Fund Community Foundation
Lockheed Martin Corporation
MediaSauce LLC
Merrill Lynch and Company Foundation, Inc.
Microsoft Corporation
Morresville Indy Lube, Inc.
National Phuilantrhopic Trust
OfficeWorks, Inc.
PricewaterhouseCoopers LLP
Saint-Gobain Corporation Foundation
Sallie Mae Fund
Science Applications International Corporation
Silicon Valley Community Foundation
State Farm Companies Foundation
Synopsys Foundation
Telamon Corporation
United Way of TriState

Corporate Partners

ArvinMeritor Trust Foundation
Batesville Casket Corp.
CNA Foundation
Crowe Horwath LLP
Eli Lilly & Co.
ExactTarget
John Deere
Kohl's Department Stores
SproutBox
Symyx Solutions Inc.

Every effort has been made to ensure that this information is correct. If your name has been omitted, misspelled, or misplaced, we sincerely apologize. Please call (812) 856-0591 with any questions or concerns or for more information about giving.

[SOIC SNAPSHOT]

Frigid February weather couldn't cool the enthusiasm at the Indiana Celebration of Women in Computing Conference, the largest regional conference for women in computing in history! [page 5]