FALL 2008
Vol. 6, No. 1

INDIANA informatics

DREAMS *realized*

NEW DOORS OPEN [P.10]
STUDENTS IMAGINE SUCCESS [P.8]

SCHOOL OF INFORMATICS
INDIANA UNIVERSITY

INDIANA UNIVERSITY

Alumni Spotlight

John Blue

BS'85, MS'92, Informatics

Chief of Community Creation
Truffle Media Networks, TruffleMedia.com
Indianapolis

Trampoline jumper, cyclist, paper folder

President,
IU School of Informatics Alumni Board

Life Member, IU Alumni Association

"The IUAA keeps me connected to IU through events and magazines. It also offers ways to reconnect with people I have not heard from in a while. The IUAA helps me discover new things about the breadth and depth of people that come to IU and then go back out into the world to learn and share their thoughts and experiences."

INDIANA UNIVERSITY ALUMNI ASSOCIATION
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in this issue

Informatics students win Microsoft Imagine Cup, page 8

[FEATURED]

Building a legacy

Informatics opens doors to a state-of-the-art facility in Bloomington.

page 10

[HAPPENINGnow]

School and student news

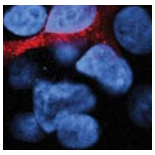
5 • *Incredible* internship

(COVER STORY) A trip to see *The Incredibles* hooked Frank Tai on becoming a 3-D animator. He's living the dream.

9 • Student named NASA fellow 9 • A school to watch!

[CUTTINGedge]

Faculty research and accomplishments



12 • Bioinformatics innovation

Professors receive $2.7 million in grants to uncover answers about epidemics, proteins, and chemical informatics.

13 • Faculty members recognized for teaching excellence
14 • HCI program impresses at 2008 CHI conference

[ALUMNInews]

15 • In Development: Corporate partnerships
19 • Class notes

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Please direct comments and inquiries to Lisa Herrmann. Call (812) 855-4125 or e-mail ljherrma@indiana.edu.

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Informatics travels

DEAN ROBERT B. SCHNABEL

The job of an academic dean, particularly in a technical or professional school, has evolved significantly in recent decades. What once was primarily an internal leadership and management position now also demands a significant external component — in the Midwest, around the nation, and around the world. In the course of my own work, "Informatics travels" in two ways: literally — by automobile, plane, and shoe leather — and in terms of the school's reputation. It may be interesting to give a sense of my travels and interactions, one year into this position.

It all starts in central Indiana. Indeed, it sometimes seems I spend more waking hours on State Road 37 between Bloomington and Indianapolis than in my home in Bloomington. I feel strongly that the success of Indiana's IT economy and the School of Informatics are closely intertwined. The more successful and exciting IT business is in Indiana, the easier it is to attract excellent students and faculty. Conversely, our students and faculty contribute to the growth and success of the Indiana IT economy — with skills once they graduate and enter the workforce, ideas they share with companies, and the businesses that they develop.

In addition to meeting with many IT business leaders and alumni in the area, my service on the boards of the Indiana University Research and Technology Corporation, IU's business incubator, and TechPoint, Indiana's main technology business community organization, helps solidify these ties.

On average, once or twice a month I head somewhere else in the nation. A wonderful part of this traveling is the opportunity to visit our alumni, as well as organizations with which the school is affiliated. Outside of central Indiana, our largest concentrations of graduates are in Chicago and the San Francisco Bay Area. We are developing an ongoing set of programs for alumni in both areas. Ties with these alumni groups are important in attracting and placing students, in solidifying research partnerships, and in fundraising.

I also play a wide range of professional roles including chairing the Association for Computing Machinery Education Policy Committee; serving on the Computing Research Association board of directors; and acting as a co-founder and executive team member of the National Center for Women & Information Technology. I find that there is strong synergy between these roles and the school's goals to be a national leader in new approaches to curriculum, research, and diversity in the field of informatics and computing. These associations bring new perspective to our work at IU and insert our ideas into important national forums.

Finally, we are exploring partnerships around the world that are most strategic for our students' education and our research. Last fall I traveled to China with IU President Michael McRobbie, and this fall will accompany him to Korea. In addition, Associate Dean Mathew Palakal is heading our efforts to explore partnerships in India, his native country.

IN THE COURSE OF MY OWN WORK, 'INFORMATICS TRAVELS' IN TWO WAYS: LITERALLY — BY AUTOMOBILE, PLANE, AND SHOE LEATHER — AND IN TERMS OF THE SCHOOL'S REPUTATION.

All of these endeavors make it as likely for us to run into one another in an airport on the far side of the world or opposite end of the country as crossing paths in Bloomington or Indianapolis; and hopefully, when we do, Informatics will have traveled well, in both senses.

Bobby

[HAPPENINGnow]

Notes and news about Informatics today

A class field trip to see *The Incredibles* hooked Frank Tai on becoming a 3-D animator. Five years later, he's realizing that dream.

An *incredible* internship

Ask **Frank Tai**, MAS'08, if the IU School of Informatics prepared him well for the big stage of computer-generated filmmaking and he'll give an enthusiastic "yes!" The IUPUI graduate is on the field's biggest stage of all, working as a technical director for Pixar Animation Studios. Tai was invited to participate in Pixar's newly established in-resident internship program in Emeryville, Calif.

"When a fellow intern and I arrived at Pixar we agreed it was like entering *Willy Wonka's Chocolate Factory*," Tai said. "Everything we had seen on movie screens was right in front of us. It was amazing!"

Tai confesses that he was too excited to sleep after receiving the call confirming his selection as an animation intern.

"I couldn't believe it at first," he said. "To know that a company like Pixar had such confidence in my talent as an animator was just overwhelming."

Tai, 26, is a member of a team that is in the early stages of set dressing and modeling for *Toy Story 3*. Prohibited from providing detailed information, Tai will only say he's modeling vegetation for sets for the next installment of Pixar's wildly popular *Toy Story* franchise, set for release in 2010. Already an expert user of Autodesk Maya 3-D modeling software, Frank says he is learning new techniques for set dressing, and is fully immersed in Pixar's workflow pipeline.

"I'm also using Linux, which I love," Tai said. "And, the speed of the computer systems and render farm are absolutely amazing."

Tai was born and raised in Taipei, Taiwan, and came to IUPUI in 2003 as an undergraduate art student. A class field trip to a local theater to see *The Incredibles* – another of Pixar's animated film hits – hooked Tai on the notion of becoming a 3-D animator.

"I knew right then that 3-D was what I wanted to do," said Tai. "I later drew inspiration from Professor Clint Koch, who has a passion for animation. Then Professor Albert William turned me on to 3-D stereoscopic techniques."

"Frank has been such a pleasure to work with. He has a tremendous work ethic, a great artistic sense, and is a very humble person," William said. "I am very pleased that he has landed such a great opportunity with Pixar; he truly deserves it, and I hope other students will be inspired to follow in his footsteps."

Tai says everything you've ever heard about Silicon Valley technology companies is largely true, particularly the employee amenities including an always-open cereal and soft drinks bar, free video games, ping-pong, air hockey, pool, a basketball court, beach volleyball, soccer, an exercise gym, free DVDs and an every-Friday dinner and beer bash.

Pixar University provides employees with free classes in subjects such as life drawing, dancing, or Linux.

"I really enjoy working here, doing the things that I love. The time is passing too quickly!" laments Tai. "Pixar is a great learning environment, a place where there are no limits and anything creative is possible. I really see passion here."

Tai, who would like to teach someday, says he feels an obligation to share with others what he has learned, and that IU Informatics is particularly well-suited as a training ground for fledgling animation students."I credit IUPUI's Media Arts and Science program for properly preparing me," Tai said. "I especially want to thank professors Koch and William for their instruction and encouragement."

His immediate goal is to become a supervising technical director. In the meantime, Tai is content modeling 3-D landscapes. When you see *Toy Story 3* in the theater in a couple of years, be sure to study those bushes and trees.

(section continued on p. 6)

Leadership changes

New assistant dean of diversity and education, IUB Informatics chair welcomed

The past several months have brought some fresh faces to the IUB Informatics buildings. Some familiar folks are also in new positions. Most notably, Maureen Biggers joined the school as assistant dean for diversity and education; Professor Geoffrey Fox was selected as chair of the Bloomington department of Informatics.

Biggers

Fox

A prominent figure in diversity and educational innovation, Biggers came to IU from Georgia Tech where she held a similar position. She has extensive experience in research and programs related to the inclusion of women and underrepresented minorities in computing and student services.

Biggers also works extensively on a national level as a member of the leadership team for the National Center for Women & Information Technology, and she currently serves as project manager for the Alliance for the Advancement of African-American Researchers in Computing, a National Science Foundation (NSF) Broadening Participation in Computing intitiative. She will continue to be involved in these endeavors as part of her position at IU.

"Maureen brings deep perspectives and extensive experience in the highly interrelated areas of diversity and educational innovation that will greatly aid the school in attaining its goals," Dean Bobby Schnabel said.

Schnabel believes the school can grow as a national exemplar in the areas of diversity and educational innovation. He is confident that Biggers is the ideal person to help lead that effort.

As the assistant dean for diversity and education, a position that was one of the key recommendations of the school's newly adopted strategic plan, Biggers will focus on increasing the participation and success of women and underrepresented minorities in the school at the undergraduate, graduate, and faculty and staff levels. In addition, she will help develop educational innovations within Informatics.

"I look forward to working with faculty, students, and other partners to ensure that together, we become a national exemplar for the ways we address challenges relating to underrepresented talent in computing and IT," said Biggers.

On a departmental level, Geoffrey Fox succeeded Marty Siegel as chair of the Bloomington department of Informatics. On faculty at IU since 2001, Fox is a professor of informatics and director of the Pervasive Technology Lab. He has received considerable attention for his work on a $1.9 million NSF grant he used to create a cyberinfrastructure that helps scientists better understand the current and future state of polar ice sheets.

"Geoffrey, in addition to being exceptionally talented from a research standpoint, brings a lot of fresh ideas into the department chair position," Schnabel said. "The department has flourished under Marty's leadership, and we can only expect that to continue on Geoffrey's watch."

Fox holds degrees in mathematics and theoretical physics from Cambridge University, and previously taught computer science at the California Institute of Technology and Florida State University.

IUPUI names interim executive associate dean, director of strategic planning and research

The IUPUI School of Informatics made two key appointments this summer, naming professor Tony Faiola interim executive associate dean, and promoting Barbara Hayes to the newly created position of director of strategic planning and research initiatives.

Both appointments were effective July 1. Faiola also serves as the school's director of the Indianapolis Media Arts and Science Program and Human Computer Interaction Program, and he is a long-time member of the faculty.

Hayes has been an informatics faculty member for five years. In her new position, she will be responsible for short- and long-term planning and analysis related to the school's strategic direction and general operation.

Odom receives Fulbright

William T. Odom, BS/BA'06, a recent graduate of the School's HCI program (and winner of Microsoft's 2008 Imagine Cup, see story on page 8), has been awarded a Fulbright Scholarship to undertake 12 months of research at Griffith University's Queensland College of Art in Brisbane, Australia. He will be investigating the role that digital-interactive and other informational tools can play in linking urban farming practices and community development. Upon completion of his Fulbright, Odom plans to begin doctoral studies at Carnegie Mellon University.

[OUTREACH]

Hi-tech summer camp

In June, 27 high school students experienced life as IU students during the annual informatics summer camp. For four days, students from as far away as Oklahoma learned about Informatics programs and brainstormed about solving real world problems. They found time to have fun too!

[A CONVERSATION WITH ...]

Dean's Advisory Council members Dave Becker and Alisa Wright

Becker

Wright

The Dean's Advisory Council is a group of accomplished businessmen and women who serve as a "touchpoint" between the school and the business world. We recently had the opportunity to chat with Dave Becker, president and chief executive officer of First Internet Bank of Indiana, and Alisa Wright, chief executive officer of BioConvergence LLC, both of whom are members of the School of Informatics Dean's Advisory Council. They shared their business philosophies and vision for the IU School of Informatics.

by Lisa Herrmann

Tell us about your background and your connection to IU and the School of Informatics.

Dave: I've always been in the financial services industry, but I started out in data processing. After launching several data services and internet companies in the 1980s and 90s, I founded the country's first state-chartered, completely Internet-based bank. There are no branches, no tellers, no ATMs.

People saw it as a huge risk, but nine years later First Internet Bank of Indiana has $550 million in assets, less than 30 employees, and is rolling out mortgage products as other banks are cutting. I serve as the president, CEO, and chairman. It keeps me busy!

I grew up in Monrovia, Ind. and attended DePauw University, graduating in 1975. My connection to Informatics came about when Mark Hill asked if I would sit on the council. I always had positive experiences with IUPUI students as interns or new hires, so I was excited to be involved with getting those students more visibility and opportunity.

Alisa: I was born and raised in Indiana. After graduation from Purdue with a bachelor's in pharmacy and master's in engineering, I began work in the pharmaceutical industry, holding various positions at Eli Lilly, Cook, and Baxter.

The company I founded and run today, BioConvergence LLC, is one of the many life sciences contract services providers that call Indiana home. We serve more than 100 pharmaceutical, diagnostic, and medical device clients. We have a core competency beyond our scientific experience that is valued by our clients — informatics. As a life sciences firm, BioConvergence is a customer of the School of Informatics. We hire graduates and can benefit from improved applications resulting from research.

Give your definition of "informatics."

Dave: Usually when people ask, I say it is computer science with a liberal arts bend. That covers all bases — the technological aspect coupled with the "well-rounded" education that people still consider to be extremely important.

Alisa: Information engineering. The analogy I use most often is that of chemical engineering. Chemical engineers create facilities, equipment, tools, systems and processes to produce, transform, purify, move, test, and store chemicals. I'm not sure the term "informatics engineer" exists, but if it did, then a bioinformatics engineer would design and develop the same capabilities in relation to biological information and data as opposed to chemical materials. What it is not seems very clear: it is not computer science or information technology, rather it is very dependent upon and connected to these two basic fields.

What are Informatics' challenges and strengths going forward?

Dave: I think the biggest challenge the school faces is explaining all that we are. It's a challenge in today's world to convince students and parents that tech jobs can be found here in the U.S. and in Indiana, not only overseas. That challenge can be overcome with the success stories coming out of Informatics. Our alumni are doing incredible things out there, both at large companies and running their own start-ups. And, when I interact with current students, I'm blown away by their poise, intellect, and creativity.

Alisa: The challenges are ensuring we're able to recruit and retain diversity among the student population and faculty, while fostering collaborations with subject matter experts in the conjunctive disciplines. Doing so will result in graduates, professionals and researchers capable of understanding and creating effective solutions. Leadership, technical talent, teamwork culture, and entrepreneurial spirit are the school's strengths.

What do you hope will be the biggest change the school will see in the near future?

Dave: I'd like to see continued increases in awareness of the school — within IU and in the larger community. In addition, I'd like to see us continue to concentrate on building the school as one cohesive entity. There is such power in unity. Bloomington and IUPUI have strong programs, and we can, hopefully, capitalize on that.

Alisa: I hope we see leaders in the related fields such as medicine, biology, and law understanding, valuing and collaborating with us to achieve shared goals. After one collaboration, I think they will each be clamoring to do more.

What do you hope will be the DAC's biggest contribution to the school?

Dave: I believe that our role is to be the connection between the school and the business community. We need to advocate, educating businesses and government officials about our programs and students. The DAC also needs to be the link between the students and internship opportunities.

Alisa: The DAC started out and continues to be a committed group of individuals who believe in and support the school. We contribute ideas for future strategies and current goals and take the messages beyond the walls of IU to businesses, customers, investors, teachers, and neighbors.

Imagine SUCCESS

Imagine developing a Web site that helped a university campus realize significant energy savings. Imagine submitting that project to a contest and being selected — from among 200,000 student entrants — as a finalist in Microsoft's prestigious international design competition. Imagine qualifying for an all-expenses-paid trip to Paris and then winning your competition category.

Imagine earning a summer internship with Web-portal giant Yahoo! and spending weekends developing software that would earn the top ranking among Yahoo! intern projects. Imagine turning down a job offer from Yahoo! in favor of launching your own start-up business.

Three IU School of Informatics graduates didn't imagine these scenarios. They lived them. **David Roedl**, BS'05, **Will Odom**, BS/BA'06, and **Sandosh Vasudevan**, MS'08, are the latest IU Informatics students making a difference in the ever-changing world of information technology.

No stretch of imagination

In June 2008, Roedl and Odom, both alumni of the Human-Computer Interaction Design Program at IU Bloomington, were named finalists in Microsoft's Imagine Cup Interface Design competition. The duo submitted a Web site they developed to aggregate information about IU's Energy Challenge, a campus-wide energy conservation contest that pitted residential dormitories against one another this past spring semester.

Imagine Cup organizers had their work cut out for them, paring down the more than 200,000 entrants in nine competition categories to just 370 students from 61 countries. Roedl and Odom made the cut.

The duo traveled to Paris in July 2008 for the competition finals, the highlight of which was an on-site design challenge to be completed in 24 hours or less. Roedl and Odom developed the Web architecture for an online air-quality monitoring system, and presented it to a distinguished panel of judges including Surya Vanka, senior manager of user experience at Microsoft; Tom Chi, senior director of user experience at Yahoo; and Neil Churcher, head of design and usability at Orange.

The School of Informatics duo was one of only two U.S. teams to emerge as winners, earning an $8,000 prize.

"The whole experience was fantastic," said Roedl. "One of the best parts, in addition to the challenge of the competition, was the great people we met and were able to network with."

Odom agrees. "Everywhere we went people wanted to know more about IU's program. We were very proud to be representing the School of Informatics at such a prestigious competition."

Following their whirlwind trip to France, it was back to the real world. Odom is now in Australia working on research related to sustainability and urban farming as part of the Fulbright Scholars program. Roedl started a new job in Washington, D.C., as a user-experience designer for NAVTEQ, a digital map data company. NAVTEQ drives the roads, collects map data, and licenses it to companies such as Garmin and Google. Roedl is working in the Location Content Group to create custom, interactive mapping applications for the Web and mobile devices.

Achieving dreams

IUPUI graduate Sandosh Vasudevan is garnering much praise and recognition for his computing work. In the summer of 2007, the 25-year-old completed an internship with Yahoo!, where he created an analytics extension for the Firefox Web browser to be used by the company's programmers and engineers. Not one inclined to sit still, Vasudevan spent weekends developing a movie-selection widget for Yahoo! Widget Engine. It was judged a "must ship widget" — the top ranking given to Yahoo! intern projects.

Vasudevan

"I like to keep busy," he explained. "Whatever you are working on should be fun, and

Finalists from 61 countries gather in Paris to kick off the Imagine Cup Competition (left). David Roedl, BS'05, and Will Odom, BS/BA'06, (below) emerged as one of only two U.S. teams to win.

Courtesy photos

I really enjoy software development."

These accomplishments earned Vasudevan a job offer from the prestigious company, but instead he returned to IUPUI and completed his master's degree in human computer interaction design this past May.

At IUPUI, he developed iPhocal, a tool allowing Apple iPhone users to search for businesses, to see their ratings and reviews, and to navigate to a business location via an online map (http://www.iphocal.com). He also developed MySocial 24x7, a Firefox plug-in; and gDocsBar, a Firefox extension that brings full Google Docs functionality to the browser's sidebar. The iPhocal tool is featured on Apple's Web site, and the gDocsBar has been downloaded more than 40,000 times.

For Vasudevan, these accomplishments are just the beginning. He's launched a startup business called TiseMe, a software and Web tool development company focusing on creating applications that are easy to use and that increase personal and workplace productivity. He may pursue a doctoral degree, but for now Vasudevan is content working on growing his company.

Odom, Roedl, and Vasudevan embody the ideals envisioned by School of Informatics founders eight years ago. And they're hardly alone. For more stories of alumni, students, and faculty members who are raising the bar of excellence for IU and the world of technology visit http://www.informatics.indiana.edu.

PhD student receives NASA Fellowship

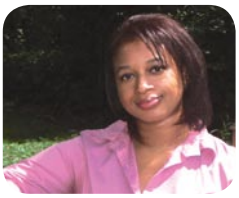
HCI researcher investigates interactive digital environments

Tonya Thompson-Stroman, a PhD student in the IU School of Informatics human computer interaction design program, began a prestigious, yearlong NASA Graduate Student Researchers fellowship in August.

Thompson-Stroman was awarded the fellowship to pursue her proposal, "Technology-Aided Environmental Stress Reduction for Long-Duration Space Missions." She is investigating the use of Immersive Interactive Digital Environments for stress assessment, monitoring, and management.

"Receiving one of these fellowships is quite an accomplishment. We are very proud of Tonya," Professor Erik Stolterman, director of the human computer interaction design program, said. "She will gain valuable experience in her field, and will have the chance to interact with some of the country's leading scientists and researchers."

The NASA Graduate Student Researchers Program awards fellowships for graduate study leading to degrees in the fields of science, math, and engineering related to NASA research and development. The program supports approximately 180 graduate students each year, and can potentially be renewed for two additional years. Congratulations, Tonya!



Thompson-Stroman

340 Informatics grads enter workforce

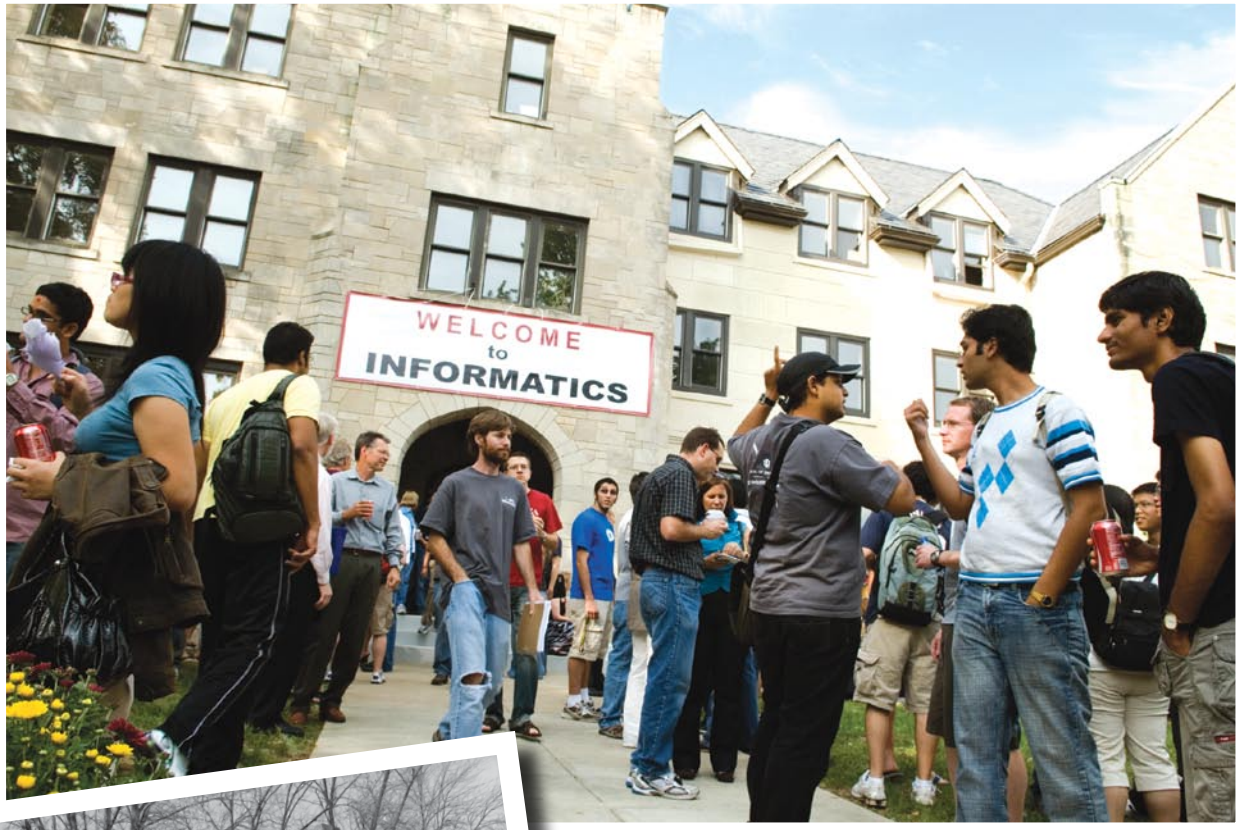
Spring and summer welcomed another round of new Indiana University graduates into the working world. Graduation ceremonies were held in Bloomington and Indianapolis, with the School of Informatics having 340 new alums. Both IUPUI and Bloomington hosted commencement dinners. IUPUI gathered at Meridian Hills Country Club and IUB at the Indiana Memorial Union. Above, Dean Bobby Schnabel congratulates an IUB grad.

Kendall Reeves

[A SCHOOL TO WATCH]

Computerworld magazine named Indiana University as one of **"10 IT Schools to Watch"** in a feature article on graduate programs in its August issue. The list included schools such as Carnegie Mellon, Stanford, and the University of Virginia.

Building a Le



Ann Schertz

An IU Archives photo shows the Beta house as it was in the 1960s. Today, the transformed facility welcomes the Informatics community.

At right (top to bottom) Deans Advisory Council members Mark Hill and Jim Buher talk near the "chip" in the new entry-way; former Dean Mike Dunn cuts the ribbon as Bloomington Mayor Mark Kruzan looks on; and students celebrate inside the new facilty. See page 17 for more photos!

GACY

Blueprints now reality, building transformed, the new IUB headquarters cuts ribbon with a grand celelebration!

by Pete Bucklin, Director of Facilities

Planning began more than two years ago. The goal for this fast-growing school was to renovate and expand into the vacated fraternity house located next to the existing Informatics building. With many challenges overcome, we celebrated the building's grand opening on Sept. 19. And every hurdle now seems worthwhile.

The school set out with an approved funding amount from the IU Trustees, but when the construction bids came back over budget the project was put on hold. Creative efforts to get the project back on track included the support of IU Administrators, a pivotal donation made by Dean's Advisory Council member **Mark Hill**, a major fundraising event hosted by the Cook Group, and a gift from **Dave Becker**. With the project again moving forward, collaboration between the School of Informatics, the IU Architects Office, and CSO Architects took place to provide an overall plan for the 30,000-square-foot facility.

At the project's start, the worst-case scenario was realized. A tremendous amount of mold halted work until a professional abatement took place, digging deep into the budget and into the anticipated time frame for completion of the project. Plumbing issues, structural weaknesses, and many other hidden conditions also had to be remedied. After only two years, we have seen the completion of a successful renovation by Tri-County Builders. Now Informatics faculty, staff, and students occupy the building.

In the spring of 2007, additional planning began to design a vibrant main entrance that would include our donor wall, InformatiCS Chip, a career services center, the Informatics Café, and a student lounge. Overall, a space with "wow-factor."

Denny Sponsel, '76, of RJE Interiors, donated furniture and also led a group of furniture manufacturers and designers to create this incredible space. The group included the amazing efforts of **Jill Willey** and her team of designers from Design Plan Inc.

The support of many major donors was crucial and we prominently acknowledge their support on the donor wall and InformatiCS Chip that are the focal point of the main entrance lobby. The wall pays special tribute to corporate partners, building donors, and Informatics donors whose support made this and other tremendous steps for our school possible. The "chip" is an ever-growing wall of tiles bearing the names of Informatics and Computer Science alumni and friends. For more information on how to be a part of the "chip", visit: http://www.informatics.indiana.edu/chip.

Another noteworthy part of this project is the work accomplished by IU Physical Plant. With summer emergencies, including some of the worst flooding in IU history, as well as large scale high-priority projects and other routine maintenance, the efforts made by the IU Physical Plant to complete our Phase II project deserve special recognition and appreciation.

With these projects complete, Informatics looks to January 2009. This is when the Informatics Learn Lab opens as one of the most innovative spaces in modern classroom technology. The classroom, which is a joint venture between the School of Informatics, Steelcase Inc., Business Furniture Corp., and IU Classroom Technology Services, will result in a space for interactive and collaborative learning, setting the bar for future advanced classroom spaces. ■

[CUTTINGedge]

News on faculty research and publishing

EpiC project awarded $1.2 million

Informatics researcher developing cyber infrastructure for epidemics research

Have you ever shared photos or videos using Flickr or YouTube? Professor Alessandro Vespignani says these content-sharing sites are, in some sense, similar to a cutting-edge research toolset that he and two IU colleagues are developing.

EpiC, or Epidemics Cyber infrastructure, is a computational infrastructure supporting plug-and-play datasets, algorithms, and visualization components used in biological and social contagion research.

Vespignani

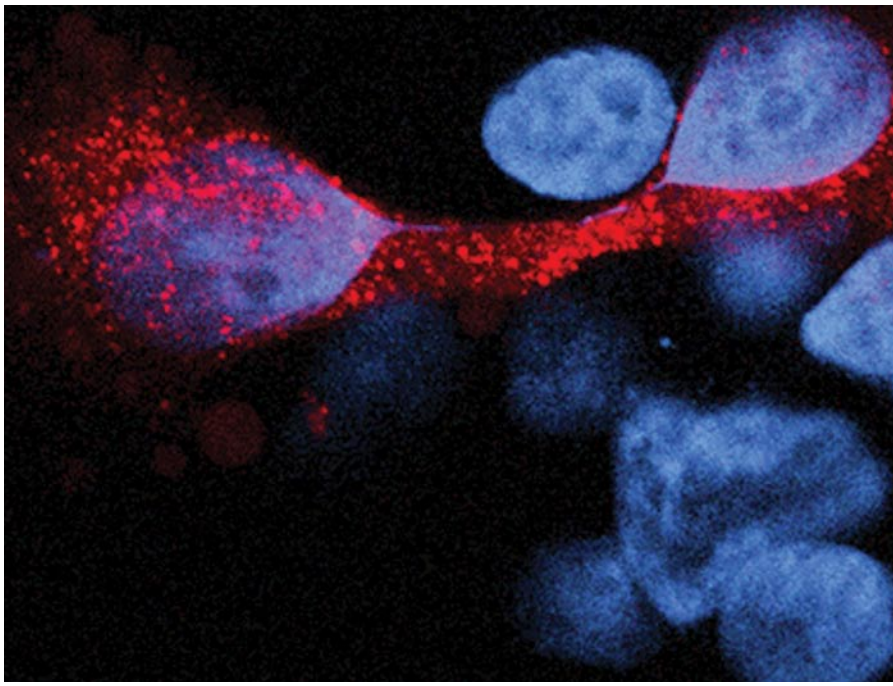
Vespignani — along with co-principal investigators Katy Börner, IU School of Library and Information Science associate professor and informatics adjunct professor, and Steven J. Sherman, chancellor's professor of psychological and brain sciences — has been awarded $1.2 million by the National Institutes of Health to design, deploy, and maintain EpiC.

"The study of epidemics is crucial for the understanding, prediction, and prevention of many phenomena affecting public health, such as infectious diseases, alcohol use, and smoking habits," said Prof. Vespignani. "EpiC will provide improvement and facilitation of the multi-scale analysis of social data and their integration in systems dynamic modeling, agent-based modeling, and other simulation techniques for epidemic processes."

EpiC, an open-source toolset, will allow for the easy exchange, combination, and application of data analysis capabilities originating from very different areas of research. In other words, a kind of 'scholarly marketplace' for information sharing, said Vespignani.

About EpiC

EpiC stands for Epidemics Cyber infrastructure, a computational infrastructure supporting components used in biological and social contagion research.



NIH supports bioinformatics research on proteins

Yaoqi Zhou, professor, and director of the IUPUI bioinformatics graduate program, received a four-year, $1.1 million grant from the National Institutes of Health (NIH) for his research on "Statistical Energy Functions: a Fragment-based Approach."

Many chronic and fatal illnesses including Alzheimer's disease, Cystic Fibrosis, and Bovine Spongiform Encephalopathy (Mad Cow Disease) are caused by malfunctions of the "nanomachines" that we call proteins. Researchers have yet to discover the energy function that governs these proteins.

Zhou's research proposes to uncover this energy function by developing a fragment-based statistical approach. To do that, he'll develop an innovative method that extracts the interaction energy function from fragments of experimentally solved protein structures.

> ZHOU'S FINDINGS COULD CHANGE THE WAY THE WORLD APPROACHES CHRONIC DISEASE.

"Successful completion of this project should allow us to more accurately describe how proteins interact within themselves, between each other and with other biologically active molecules," said Zhou.

This general inability to describe the interaction between proteins and potential drug candidates has led to higher costs and a low success rate for drug development. The NIH-funded energy function research promises to change that, explained Zhou.

Computer Science faculty member and student win award for paper

Professor Andrew Lumsdaine and CS student Joseph Cottam were selected as winners of the International Network of Social Network Analysis's Microsoft Prize for their paper entitled, "Extended Assortivity and the Structure in the Open Source Development Community." The pair received a $1,000 cash prize.

Eli Lilly & Co. funds IUB informatics professor's pharma-related research

Wild

Eli Lilly & Co. awarded a one-year, $120,000 grant to Professor David Wild to research ways of mining the ever-increasing amount of publicly available data about chemical compounds and their biological activities.

Wild, assistant professor and associate director of the Chemical Informatics Program, is developing a software tool that will aggregate data from a multitude of online databases and computation tools using a Web service infrastructure developed with funding from the National Institutes of Health. The tool will be a "one-stop-shop" for understanding the properties and behavior of chemical compounds, in particular existing and potential drug molecules.

"The creation of this software is significant because it will enable a comprehensive picture of a potential drug's behavior to be assessed, not just using static information from databases, but also using active, on-the-fly predictions and calculations from state-of-the-art tools," said Wild. "Drug researchers will have a single tool that can give them needed information from the public arena, and we hope it will help to speed up the drug discovery pipeline."

Informatics professor featured on Discovery Channel program

A Discovery Channel film crew visited Bloomington this summer to shoot footage of Professor Larry Yaeger, creator of Polyworld software. Polyworld is one of the most sophisticated artificial worlds yet developed to study how neural architectures evolve.

Yaeger was interviewed on camera in the WonderLab Museum's grapevine climber (see photo below) to demonstrate that organisms in Polyworld make decisions and adaptations affecting their survival much like the museum's visitors, who find alternate pathways in the two-story grapevine maze.

The episode aired in late summer on NextWorld, a new Discovery Channel series showcasing science and technology that are pointing the way to the future.

Informatics faculty members earn IU trustees teaching awards

Four School of Informatics faculty members received the distinguished IU Trustees Teaching Award for 2007-08. Computer science professors Adrian German and Minaxi Gupta and informatics faculty members Matt Hottell and Erik Stolterman were recognized as teachers who display a steadfast commitment to quality teaching and to individual students.

Gupta

German

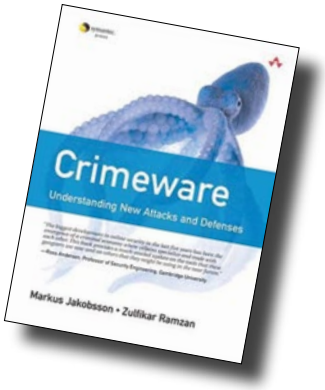
Hottell

Stolterman

[BOOKSHELF]

An emerging Internet threat

Adjunct Associate Professor Markus Jakobsson co-authored a new book, *Crimeware: Understanding New Attacks and Defenses*. Jakobsson, principal scientist at the Palo Alto Research Center in California, partnered with Zulfikar Ramzan, of Symantec Security Response, in writing the book, which examines the emerging Internet security threat called crimeware.



[CUTTINGedge]

Computer Science study uncovers vulnerabilities on popular Web sites

Most Web users don't think twice about "Googling" something, or hopping onto eBay to track online bidding for their favorite hard-to-find item. But the results of a study conducted by researchers in the Department of Computer Science may make you think twice at your next login. And that's a very good thing.

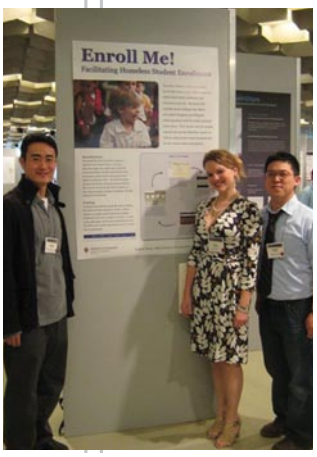
The CS researchers found that nearly 2.5 million pages on some of the Web's most recognizable and trusted sites include 128,000 links that could be easily manipulated by "phishers" making them vulnerable to online scams. Phishing is a favorite ploy of cyber thieves who create fake Web sites that look like the real thing. The scammers then steal personal and often financial information like account numbers and passwords from unsuspecting users who have unwittingly provided it via these fake sites.

PhD students **Craig Shue**, MS'06, and **Andrew Kalafut**, MS'06, along with their advisor, Assistant Professor Minaxi Gupta, developed a computer program capable of crawling tens of thousands of Web sites, searching for and identifying "open redirects" within popular sites such as Google and eBay. While such redirects do serve a legitimate purpose, they often lack security controls, and can be manipulated by phishers to send visitors to any site on the Internet.

"We were surprised by the number of these open redirects on sites that people trust implicitly," said Craig Shue, who led the study. "From a business perspective, companies have to consider how having this type of vulnerability on their Web site could impact their overall brand."

The researchers noted that when considering whether to click on links in email messages, users often look at whether the link goes to a trusted site. However, with redirects, phishers can manipulate such links to defraud these users.

Informatics' HCI program flexes muscle at Italy's CHI event



Once again, IU Informatics made a big impression at the annual Computer Human Interaction (CHI) conference, in Florence, Italy in April 2008. In addition to presenting several papers, students and student teams were successful in several of the conference's highly competitive competitions.

Will Odom, BA/BS'06, one of the HCI/D program's most accomplished students, was invited into the final round of student research papers. Only six people advanced to the finals out of 20 invited to CHI.

In the student design competition, 41 teams from 15 schools in eight countries competed. Five of those teams came from IU. Team *Enroll Me!*, which consisted of Eugene Chang, Hillary Elmore, Jun Youp Kim and Xi (Alex) Zhu (pictured at left), represented IU Informatics in the final round, garnering an impressive third-place finish.

"We are very proud of all the students who participated in, and achieved so highly, at CHI this year," Professor Marty Siegel said. "The accomplishments of our students have everyone in the human computer interaction field talking about the strength of IU's program!"

Wii for seniors

Professors receive grant from Computing Research Association to investigate social networking and gaming for senior citizens

Shankar

Connelly

Assistant professors Kay Connelly and Kalpana Shankar, along with two undergraduate students, received a $15,500 Multidisciplinary Research Opportunity for Women (MROW) grant from the Computing Research Association Committee on the Status of Women in Computing Research.

Their proposal, "Using the Wii and Social Networking to promote Cognitive, Physical and Social Engagement among Seniors," was selected from a wide variety of potential projects to receive the grant.

The researchers will investigate whether or not integrating a social networking component into the Wii gaming platform increases its user acceptance and social connectedness among elders.

"This project integrates human-computer interaction, design research, technical implementation, and information ethics," said Shankar, the project's co-principal investigator. The team will develop a Wii-based game, implement it, and conduct the user study in which they collect and analyze their data set.

"We have one undergraduate working on this who is a computer science major, Claire Alvis, and one who is an informatics major, Katie O'Donnell. They will be working very closely to make sure all aspects of the project gel," Shankar said. The students will be using facilities developed as part of the National Science Foundation-funded ETHOS project (http://ethos.indiana.edu), which is examining privacy and home-based computing for senior citizens.

"We're excited for Kay and Kalpana to receive a grant like this," Dennis Groth, associate dean for undergraduate studies, said. "Not only is it an ambitious project for them to undertake, but it underscores the school's commitment to undergraduate research and advancing opportunities for women in computing."

[ONLINE]

Learn more about Informatics' innovative Human-Computer Interaction Design Program at **http://hcid.informatics.indiana.edu/**

National companies support fellowships

Scientific discoveries by School of Informatics researchers will continue to flourish thanks to fellowships funded by two major players in the life sciences industry.

Eli Lilly & Co. and California-based Symyx Technologies, are donating a combined $170,000 to support three doctoral fellows over the next year.

The Lilly Fellowship, which is part of an ongoing program between the school and the pharmaceutical giant, is awarded to a student whose research focuses on discovery informatics such as bioinformatics or complex systems. This year's recipient is Chris Oldfield, an IUPUI student studying the functions of disordered proteins.

"The IU School of Informatics is a natural partner for us at Lilly," said Robert Oppelt, Lilly director of research information technology. "The life sciences industry is vital to Indiana, and we find tremendous value in supporting the continuing education of professionals who will advance the field in the state."

Symyx Technologies, the leading R&D integration partner with life science, chemical and consumer-product companies, is supporting the remaining two fellowships this year. Students Dazhi (David) Jiao and Jae Hong Shin — both exceptional researchers who have already earned high praise in their fields — were selected as 2008-09 fellows.

David Jiao has degrees in chemistry, computer science, and most recently, a master's in chemical informatics from IU. Jae Hong Shin has a bachelor's and master's degree in chemistry and has worked as a senior researcher at the Bioinformatics and Molecular Design Research Center in Seoul, Korea.

"Symyx is dedicated to ongoing advancements in chemical and biological informatics," Trevor Heritage, senior vice president of science for Symyx, said. "We firmly believe in making the investment in bright young stars dedicated to research and innovation."

These partnerships strengthen the School of Informatics as a life-sciences research organization.

2008-09 CORPORATE FELLOWS

COMPANY	FOCUS	FELLOW
Lilly Fellowship	Discovery informatics such as bioinformatics or complex systems	Chris Oldfield, IUPUI student
Symyx Technologies Fellowship	Resarch and development with life science, chemical, and consumer-product companies	Jae Hong Shin, bachelor's and master's in chemistry, senior researcher at the Bioinformatics and Molecular Design Research Center in Seoul, Korea
Symyx Technologies Fellowship	Resarch and development with life science, chemical, and consumer-product companies	Dazhi (David) Jiao, degrees in chemistry, computer science, and an IU master's in chemical informatics.

New director of development off and running

This fall, Informatics was pleased to welcome new Director of Development Mike Eikenberry, MSEd'99.

Eikenberry was most recently the development director for the College of Sciences and Humanities at Ball State University, and he joined the Informatics team in September. Previously, he spent time at IUPUI in the office of Alumni Relations. He holds a BA in Sociology from Butler University, and an MS in higher education student affairs from IU Bloomington.

Eikenberry

The development director plays the lead role in identifying and helping potential and current donors to the school — including individuals, corporations and foundations — with the goal of raising funds that support our programs, facility, and endowment needs. Eikenberry works intimately with Dean Schnabel, the school's leadership, faculty, and staff, as well as our dean's advisory council.

He divides his time between offices in Bloomington and Indianapolis, although many of his workdays are spent making off-campus visits. Welcome, Mike!

[ALUMNInews]

Accomplishments, events, and life changes

Alumni gather — near and far

This year, the IU School of Informatics Alumni Association hosted events from career networking in the Windy City to tailgating in Hoosier Village. Join us.

Recent months found Informatics alumni reconnecting with one another in cities near and far. The IUIAA continues to grow, exploring development of chapters in markets such as the Bay Area and Chicago. Your continued support of this important organization is vital to its success.

Summer months found alumni shaking hands on at least two occasions. In June, the Chicago chapter of the IUAA held a career enhancement event that was hosted by the School of Informatics. More than 120 people attended the event, which was held at Mayer Brown law firm in downtown Chicago. In late July, Indianapolis-area alumni gathered at the Rathskellar in downtown Indy for a networking social. The event was well attended by both alums and current students.

On Sept. 19, the School of Informatics held a grand opening for the newly renovated Informatics East building, located at 919 E. 10th Street. Alumni, students, community members, and friends enjoyed an open house that featured bands comprised of informatics and computer science faculty and students, games, prizes, and exhibits highlighting the power of informatics.

On Sept. 20, alumni and friends enjoyed catered food, live music, and tailgating for the IU vs. Ball State football game at the new Hoosier Village, behind the DeVault Alumni Center.

Matt Hottell

This football season, alumni enjoyed the "ultimate tailgate destination" at the IUAA DeVault Alumni Center in Bloomington.

At left, **Tyler Weiss**, BS'07, Director of Career Services Jeremy Podany, and **Olvwasheun Animashayn**, BS'06, and **Jordan Martz**, BS'06, mingle at the June 26 IUIAA networking event in Chicago.

We need you.

For more information on how to get involved with the IUIAA, contact Danny Kibble at djkibble@indiana.edu or Rachael Crouch at rlcrouch@indiana.edu.

INFORMATICS scrapbook

Ann Schertz

Dean Bobby Schnabel, John Gibbs, Patrick Callahan, Mark Hill, Bloomington Mayor Mark Kruzan, former dean Mike Dunn, IU Chancellor Ken Gross Louis, IU Provost and Executive Vice President Karen Hanson, and Don Aquilano cut the ribbon for 919 E. Tenth St.

Danny Kibble

Ann Schertz

Lesa Tennant, BS'97, and **Danita Forgey**, BS'81, (top left) enjoyed the Central Indiana Informatics Networking Social, held at the Rathskeller in Indianapolis. Above, IUPUI top student **Christopher Hardin**, BS'08, received special recognition at the IUPUI commencement.

Kendall Reeves

Retiring professor Kristine Ogan, second from left, was honored for her years of service to IU and the school at the May 2008 IUB commencement dinner.

Informatics faculty and staff formed a band (below) to entertain at the grand opening. Alumni, students, and faculty also enjoyed games of cornhole (above), fresh-spun cotton candy, and160 pizzas.

class notes

1980s

Sandra A. Black-Sanders, AA/Cert'82, BGS'88, works for Citizens Network Services Inc. in Georgetown, Ind. She writes that she was married on June 23, 2007. Black-Sanders lives in Georgetown.

Stella Singer Wilson, AS'85, BGS'88, is director of the technology services division for the Indiana Department of Correction in Indianapolis. Her husband, Elbert, Cert'78, BS'80, is retired. The Wilsons live in Indianapolis.

Jeffrey D. Perotti, MS'86, OD'97, is community outreach director for the IU School of Optometry in Bloomington. In 2007 he received the National Rural Health Association's Rural Health Fellowship, which involves a year-long training program intended to teach individuals about the issues and advocacy tactics relevant to rural health. Perotti lives in Bloomington.

2000s

Jacob D. Tomaw, BS'02, is a senior software engineer for the online travel agency Orbitz World Wide. In October 2006, he married Joscelynn R. Gagnon, BA/Cert'04, who is pursuing an MBA degree from Loyola University. Tomaw lives and works in Chicago.

Tristan F. Schmid, BA'04, MS'06, is host and producer of *List-en Up!*, the authorized Angie's List podcast in Indianapolis. Previously, he was a writer and editor for online and print media. Schmid is currently producing a surround-sound album and writes that he is working on his Web site, www.tigersharkproduction.com. He lives in Indianapolis.

Alex D. Baker, BS'07, is CEO of Infinistorm, an Indianapolis-based IT consulting firm he founded with two business partners. In October 2007 the group founded a photo- and video-posting Web site, *www.FileHurricane.com*. Baker lives in Indianapolis.

Mike Eikenberry

Josh Esslinger, BS'03, and wife Renee, BS'02, enjoy the warm late-September weather under a tent in Hoosier Village.

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[WHAT'S NEW WITH YOU?]

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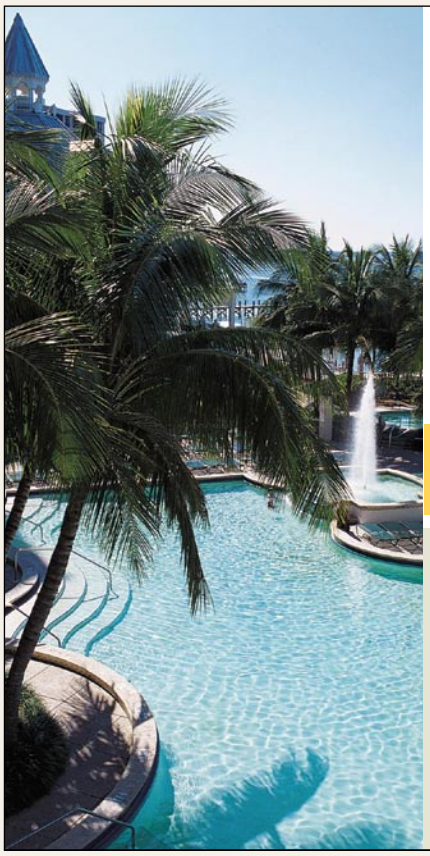

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For additional information email: www.alumni.iupui.edu
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