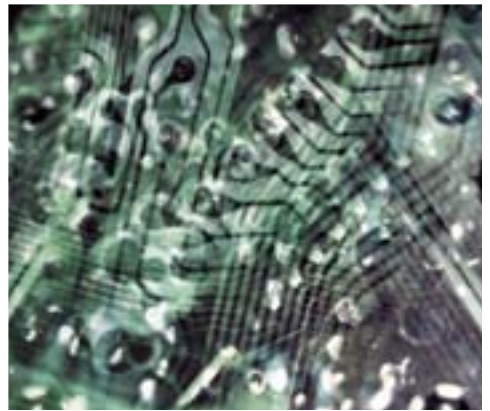
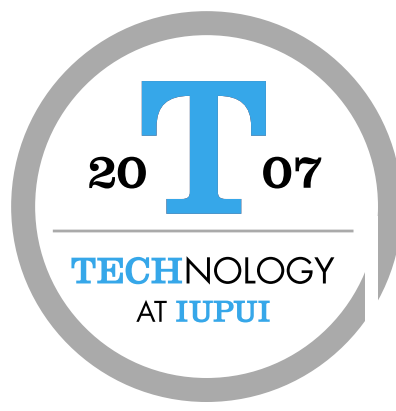


# IUPUI

INDIANA UNIVERSITY  
PURDUE UNIVERSITY  
**INDIANAPOLIS**

## *Magazine*





**TECHNOLOGY** is reshaping higher education, and IUPUI is an integral part of that brave new world. Technology is changing the way students learn and study. It is revamping the way researchers tackle perplexing puzzles. And it is altering the way IUPUI serves its students, alumni, community partners and the cities and states of which it is a vital part.

**6 Point of Contact** | When researchers on college campuses at Bloomington, Indianapolis and West Lafayette were having problems moving the large amounts of data that are the foundation of high-level research, two former IUPUI students came up with the solution: a high-bandwidth network known as I-Light.

**8 Form with Function** | Years ago, J. Marc Overhage spent part of his medical school career under the tutelage of world-renowned medical records guru Clement J. McDonald. Little did Overhage figure that someday he would step into his mentor's footsteps as head of the Regenstrief medical records project.

**12 Making a Difference** | Technology is a familiar tool in classroom teaching and research projects, but IU School of Informatics graduates Chris Podell and Zach Shields earned national acclaim by finding another use: to help people recover from the terrible tsunami and subsequent earthquakes that struck the islands of Indonesia.

**20 Education@Speed** | Mankind's "need for speed" has produced a global industry called motorcar racing, and Indianapolis is at the heart of it all. So it only makes sense that a college program devoted to the science and development of motor sports would find a home on the IUPUI campus.

#### EXPLANATION OF VIP

Recipients of *IUPUI Magazine* have new options with this issue: an online version that includes much of the same material as the printed version, but also video interviews and photo galleries that offer new views of IUPUI's people and programs.

To highlight which stories have video clips and which have photo galleries, look for two symbols — "V" and "P" — as in the graphic above. If a "V" accompanies a story, there is a video presentation that augments the print version of the story. If there is a "P," there are additional photos to go with any in the printed version. And if there are both a "V" and a "P," there will be both a video and a photo gallery connected to that story.

To check out the bonus materials available in this issue of *IUPUI Magazine*, go to the web site: <http://magazine.iupui.edu>.

## IUPUI Magazine

TWO WORLD-RENOWNED UNIVERSITIES.  
ONE DYNAMIC CAMPUS.

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IUPUI is the home of several international network operation centers, the hubs that keep information flowing through the World Wide Web.

20 **T** 07  
TECHNOLOGY  
AT IUPUI



# Touched by Technology

**“Technology, like art, is a soaring exercise of the human imagination: art employs (technology), but for its own ends. (Technology), too, is a form of art that bridges culture and social structure, and in the process reshapes both.” — U.S. sociologist Daniel Bell**

BY RIC BURROUS

The Information and Communication Technology Complex (ICTC) at IUPUI houses numerous technological marvels that support research, classroom instruction and community partnerships, including the advanced visualization laboratory.

The ICTC building is home to the IU Schools of Informatics, Music and Journalism, plus University Information Technology Services.



**T**he “soaring art” of technology is embedded deeply in the fabric that is IUPUI, and affects virtually all aspects of campus life. It has streamlined recruitment and enrollment of students. Technological advances offer new career options for students to pursue, open up new avenues in more traditional degree paths, expand the horizons of existing programs that serve students both here and on the far side of the earth, and even revolutionize the way students study in campus libraries.

Technology plays a crucial role in a wide range of research projects, from global work on technological systems themselves to providing the power that allows researchers to study the smallest building blocks of life.

Technological inspiration has helped turn the notions of students and former students into ideas that change the world (see stories on Dave Jent and Michael Lucas, page 6, and David Mills and Ali Jafari, page 18) and pushed the IUPUI campus into the forefront of the information superhighway, running such

vital high-speed networks as Internet2, TransPac and other international research networks.

Technology affects the way people can reach out to help others, as School of Informatics alumni Zach Shields and Chris Podell learned in their efforts to help earthquake victims on the far side of the world (see story, page 12).

And technology even changes the way IUPUI works with its neighbors, as in this fall’s project to preserve the memorabilia of Hoosier basketball legend Oscar Robertson for future fans.



The IUPUI Solution Center partnered with several university organizations to preserve the historical souvenirs of Hoosier basketball legend Oscar Robertson (right). The talents of those groups transformed old, weathered newspaper clippings into historical documents that will be saved for future generations of Indiana basketball fans and displayed at the Crispus Attucks Museum.



#### PRESERVING HISTORY

The Robertson project was a partnership between the IU School of Informatics at IUPUI, the Indiana Pacers and the renowned Crispus Attucks Museum, all of it supervised by IUPUI's Solution Center.

Informatics professor Steve Mannheimer visited the NBA legend at his home in Cincinnati, and “quickly saw an extraordinary amount of history” in Robertson’s collection of newspapers and magazine articles, other printed items and souvenirs of decades of basketball brilliance. “I knew from experience that we needed to find some expert help to preserve those pieces of history,” says Mannheimer. “I could just envision this picture of a 17-year-old Oscar, painstakingly cutting out articles about that wonderful Attucks championship team and saying ‘hey, Mom, look — I’m in the paper!’ That kind of history needs to be saved for future generations.”

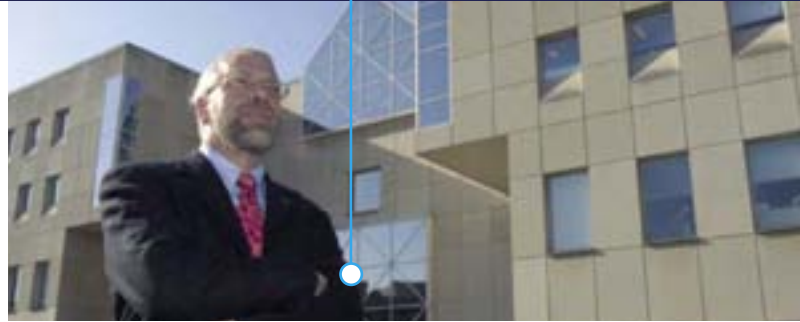
The solution? Combine the resources of the Pacers and the Solution Center, use special paper and document archiving techniques from IUPUI’s University Library to digitize and preserve Oscar’s memories, and finally, collaborate with the Indiana Historical Society to print the newly preserved pages. Once the work was complete, provide them to the Crispus Attucks Museum for future generations of students to share.



Robertson, now a Cincinnati businessman, worked with a Solutions Center team that preserved and presented his clippings to the Crispus Attucks Museum.

“The solution didn’t use a lot of dazzling technology, but it used the right technology to achieve our goal,” says Teresa Bennett, director of the Solutions Center. “By using state-of-the-art preservation techniques, we were able to help future generations stay in touch with a memorable group of young men who broke down color barriers, stereotypes and created some magical memories for all of Indiana’s basketball fans.”

Dean David Lewis heads a group of technology experts based in University Library, part of the technology foundation at IUPUI.



## DISTANCE EDUCATION

One of the most significant changes in the way technology reshapes IUPUI and its academic mission comes in the classroom — or in the case of programs like Kelley Direct, virtual classrooms.

Roger Schmenner, the associate dean of the Kelley School of Business on the IUPUI campus, is one of many instructors who hold “classes” each week online with students in such unusual locales as Chicago, San Francisco, even a B-52 flying from Great Britain to Afghanistan.

“We were looking for a way to avoid having our evening MBA students come to campus,” says Schmenner, a world-renowned expert in manufacturing and logistics. To make the MBA program more convenient, he and others in Kelley’s Indianapolis base “decided to try to develop something online — and it clicked.”

That was merely “toes in the water” for the business faculty, as it turns out. “Rich (Magjuka, a fellow business professor) saw the potential, and asked if we could deliver a whole MBA degree this way.” So 14 Kelley students became guinea pigs in the seven-year-old online program, and the school has never looked back.

“We now have more than 1,000 students (online),” says Schmenner. “Convenience is the key — we take the program to our students; that’s why they’re willing to pay premium prices.”

## UNIVERSITY LIBRARY

When IUPUI’s University Library opened in 1993, it was offered as a cutting-edge example of the future of college libraries. Little did University Library Dean David Lewis know how true that vision would become — or what it would mean!

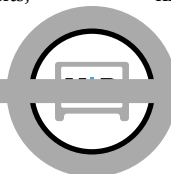
Today, University Library is a very different place than when its doors first opened; fewer books line its shelves, replaced by computer workstations that link IUPUI students with resources around the state, the country, even the world. Reading areas have given way to study clusters armed with linked computer stations, scanners, printers and more. And the days of librarians shushing students whose voices rise above a whisper have long since been replaced by rooms and spaces devoted to group study and team projects — and that’s meant changes for Lewis and his staff.

“Our technology originally was geared for individual use, but now we’re creating spaces where students can interact, discuss their projects, challenge one another,” he says. “We know the level of noise is going to be higher, but learning is a social activity, and we needed to serve that need.”

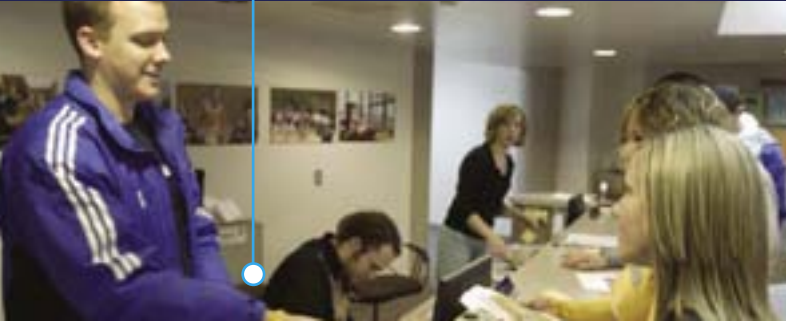
Now, University Library has a more relaxed atmosphere, though the staff foresaw the need to preserve at least some space for a more traditional — and quiet — setting.

“Working in a library is still about teaching students how to critically use information resources. It’s just that those resources are quite a bit different than when I started out,” Lewis says with a grin.

“We used to worry about what would happen to traffic if we replaced the books,” he says. “But at Bloomington, when they swapped technology for books, traffic doubled overnight. And we see the same kind of thing here. Libraries are still centers of information, and that won’t change.”



Technology plays a pivotal role in student recruitment and enrollment at IUPUI, giving significant information about IUPUI before a student arrives on campus and a wider range of choices while they are enrolled.



#### RECRUITMENT, ENROLLMENT

Technology has played a big part in the way IUPUI now recruits students, then helps them enroll in classes. A process once heavy on paper products — 200-page viewbooks, postcards, campus maps and the requisite forms to fill out — has been streamlined by the web, says Jennifer Pease, the director of IUPUI’s Enrollment Center.

IUPUI was one of the first campuses to work with a New York company called GoalQuest, Inc., a recruitment, retention and enrollment firm that helped IUPUI develop technology vehicles to streamline the whole process.

“We were the first in Indiana to use their software, and among the first to develop a series of emails to stay in touch with those students and families that are interested in us,” says Pease. It’s a step the Enrollment Center has never regretted.

“It’s a great way to deliver the just-in-time information that students need,” she says. “We had to recognize that students’ expectations about technology are pretty high.”

In fact, therein lies one of the problems Pease and her staff confront. “We still have older students who are intimidated by computers, while a lot of high school students tell us that ‘email is for old people,’ ” she chuckles. It means that even in a high-tech age, printed materials still have to be part of the mix. “You want to have multiple doors open,” Pease adds.

Once IUPUI is selected, though, technology is a lifesaver for both employees and students.

“Since we’ve gone to online registration, the old, long lines have pretty much disappeared,” says Pease. “Prospects get their info entered into our systems in five or six minutes; and once we’ve gathered that, we can serve them more quickly and effectively at each step along the way.”

“Convenience is the key — we take the program to our students...” { Schmenner }

#### KEEPING IMPACT IN PERSPECTIVE

The impact technology has on higher education is a fact of life at IUPUI, as it is on every other college campus in America.

Whether it’s lectures delivered via iPod, term papers turned in on flash drives, virtual classrooms that have one teacher for simultaneous classes in Indianapolis and in Poland, or the power of IU’s Bloomington-based supercomputer to help researchers throughout Indiana University generate the power they need to solve complex problems, technology is the tool that allows students to thrive.

“You rarely know exactly how things are going to go with technology,” says Schmenner. “When we launched Kelley Direct, we were winging it. There often aren’t any models to follow, which is why we’re always tweaking our program. We always want to make it better, make it stronger, make it more efficient for our students’ sake. In the end, that’s the value of technology: to make learning easier for them to accomplish.”



Dave Jent

BY ANGIE ANTONOPOULOS

# IUPUI alumni help build Indiana's higher education superhighway

**I**ndiana has long been known as “the crossroads of America,” first as a portal for the country’s westward expansion in the 1800s, then as the heart of the interstate highway system in the mid-1900s.

And now, thanks to a pair of IUPUI alumni, the state once again finds itself at the crossroads of a 21st century transportation system: the information superhighway.

The two — Dave Jent and Michael Lucas — were instrumental in helping build I-Light, Indiana’s statewide fiber optic network for research and collaboration among the state’s public and private colleges. Today, the network they helped envision enables the rapid transfer of information to support research in disciplines ranging from medicine and the life sciences to the arts.

Their talents didn’t go unnoticed by IUPUI’s technology gurus: in fact, the two were snapped up by IU’s telecommunications department in the 1980s — a decade when the Internet was in its early stages, and when private high-speed networks for research were gaining momentum.

During the 1990s, Jent, Lucas and other university technology experts were facing an increasing demand for more bandwidth for

research that needed to share large files. The two men began studying ways to improve communications between IUPUI and IU-Bloomington, using their respective academic disciplines: Jent majored in electrical engineering, Lucas in computer technology.

“We were paying a lot of money for data circuits between IUPUI and IUB, and were finding it hard to buy circuits fast enough for the traffic we were starting to see,” Jent says, referring to the university’s old circuit-based network, which had about the same capacity as 10 DSL connections. By comparison, today’s capacity is approximately 10,000 times greater.

Strapped with budget constraints, they were unable to purchase the capacity needed to expand the network further. In March 1998, the two decided to seek input from local vendors.

“We had discussions with Time Warner Telecom about buying fiber services from them, but soon found out there was no existing fiber between the two cities (Indianapolis and Bloomington) — or at least none anyone was willing to sell,” adds Jent, the director of IU’s Telecommunications-Infrastructures and Indiana GigaPOP operations.

“We continued to work with Time Warner to see if they could do the build (of a network),” says Jent, but eventually he asked the key question: “Why don’t we do the build ourselves.”

Once the idea of the university building the network took root, Jacob Levanon (then the director of IU telecommunications) approached IU Bloomington Provost Michael McRobbie, then the IU vice president for information technology and chief information officer. McRobbie sought the support of the late Gov. Frank O’Bannon and other institutional partners. In 1999, with cooperation from Purdue, IntelNet and the state, the Indiana General Assembly provided \$5.3 million in funds to build the high-performance optical fiber network



that ultimately became I-Light. Its job was to connect IU, Purdue and IUPUI to each other and to the Internet2 Abilene Network, which deploys advanced network applications for research and higher education institutions across the country. IU was the purchasing agent for the I-Light project, and Jent was selected the project manager.

I-Light was the first optical fiber installation owned by a public university and helped IU begin to build its reputation in the external research community; when the university put in a bid to manage the Internet2 Abilene Network, it was chosen.

“As we became known for supporting Abilene, we were able to hire some very talented personnel,” Jent says. “Building I-Light showed we had initiative, talented engineers, good management, and maybe most importantly, the support of state government.”

Soon, more organizations wanted the university to manage their networks, providing support, information technology (IT) security, management and engineering not only for Internet2, but for National LambdaRail and several national and international high-speed networks via the university’s Global Research Network Operations Center (Global NOC).

Over time, these networks have increased in capacity and speed, and operate on multiple 10-gigabit and 1-gigabit connections, able to move the equivalent of more than 9.6 billion pages of text from coast to coast in an hour. This capacity, Jent says, is not available via commercial carrier.

Lucas, the director of telecommunications operations and systems for IU, says he enjoys the fact that the university is always pushing the envelope of new technology.

“The skills we have developed in managing large networks put us in a position to continue to lead,” he adds. Lucas, who is responsible for long-range planning and day-to-day management of telecommunications operations for the university, also credits part of the university’s success in telecommunications to his and Jent’s ability to understand each other’s skills and management styles.

Mark Bruhn, IU’s associate vice president for telecommunications, could not agree more.

“If someone needs to know how to get from point A to point B with a network connection, regardless of where those two points are located geographically, Dave knows how, or knows someone who knows how to do it,” Bruhn says. “Mike’s strength is in organizing telecommunications systems and operations. He has tremendous knowledge and a sixth sense about what a campus needs to support core missions.

“The two working together provide excellent coverage of the end-to-end aspects of telecommunications,” Bruhn adds. “Indiana University would not be where it is in advancing campus services and involvement in national networking for higher education research without these two.”



# I-Light

[www.magazine.iupui.edu/i-light](http://www.magazine.iupui.edu/i-light)



Michael Lewis

## SIGNATURE CENTERS WRITE NEW CHAPTER IN RESEARCH

IUPUI-based researchers have been given new tools to tackle the significant challenges in fields ranging from health care to American culture to environmental policy, all part of the campus’s 19 new “signature centers.”

Each signature center will build on the strengths of IUPUI’s schools, sometimes as individual units, but often — and perhaps more intriguingly — as cross-disciplinary collaborators.

“This initiative is intended to take IUPUI’s research effort to a much higher level by helping to create a significant number of signature centers that will stand out like skyscrapers over the surrounding landscape,” says Uday Sukhatme, IUPUI’s executive vice chancellor and dean of the faculties.

The centers are expected to become largely self-sufficient within three to five years, and to bring academic distinction to the campus. They also are expected to take advantage of IUPUI’s connections to the city of Indianapolis and its urban concerns and opportunities, and to focus on work not typically done at other colleges and universities.

A sampling of the health-related topics likely to be tackled by signature center researchers includes: pain management; water quality; health problems unique to women and their unborn children; and tobacco cessation. Among major societal issues on the table: the ties between religion and American culture; the prevention of family violence; renewable energy; and business and community leadership.

# Form with Function



# REGENSTRIEF

BY RIC BURROUS

“My *passion* is, and always has been, to use technology to improve the medical care that we offer people.”

DR. CLEM MCDONALD

*of the IU School of Medicine and creator of the Regenstrief Institute Medical Records System*

J. Marc Overhage can't say he didn't know what he was in for when he came to work for the Regenstrief Institute, Inc., part of the IU School of Medicine and based on the IUPUI campus.

He knew his teacher and mentor, Clement J. McDonald, was the force behind the country's largest and most detailed computerized system of medical records.

And the former School of Medicine student (he graduated in 1988) knew that when the day came that McDonald moved on to new challenges and the torch was passed, he might be the one closest to the flame.

Now, McDonald has been named the new director of the Lister Hill National Center for Biomedical Communications at

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## BIG SHOES TO FILL

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the National Library of Medicine, part of the National Institutes of Health. That leaves Overhage to follow McDonald's path as the director of medical informatics and the head of a groundbreaking system that has been lauded by President George W. Bush as an example for the nation.

Big shoes to fill, indeed.

### GROWING NETWORK

The Regenstrief Institute was born in 1969, and bears the name of philanthropist Sam Regenstrief. Since its inception, it has had

close ties to both the School of Medicine and the Health and Hospital Corporation of Marion County, through Wishard Hospital, also on the IUPUI campus.

Its researchers and medical informatics experts — people like McDonald and Overhage — have built the institute into one of the world's leading centers of knowledge about health services and medical information. The computerized network built by McDonald, which in 2004 was expanded from the Indianapolis area to other parts of Indiana through the formation of the Indiana Health Information Exchange, is just one example of the way Regenstrief supports physicians, hospitals, medical facilities — and most of all, patients in need.

# Form with Function

“He’s like an entrepreneur who has built a successful enterprise,” says Overhage. “Our challenge now is to keep moving it forward, expand its uses, but remain true to his principles.”

The records system has been growing for more than 30 years, and was the first to use computer reminders to improve patient care. McDonald and his staff achieved some other remarkable firsts in the medical profession, including:

- Showing that a computerized system of records could reduce hospital costs, allowing those funds to be utilized elsewhere;
- Developing universal standards for medical information; and
- Building a system that made up-to-date medical information available to physicians — and their patients — throughout Indianapolis.

## PEOPLE ARE THE FOCUS

From the start, creating a computerized system wasn’t about the technology, according to McDonald.

“It’s about the patients,” says the white-haired, distinguished-looking informatics expert. “The system isn’t really important without that focus.”

In fact, he came to the School of Medicine precisely “to put my passion for using technology to improve patient care; the school was really interested in an idea that nobody had tried before,” he says. “I came here to do this — just this kind of thing — and the school and the institute allowed me to do it.”

Thomas Inui, the president and CEO of the institute and a man who came to the IUPUI campus to be part of efforts like McDonald’s system, agrees.

“The fragmentation of patient information is not only costly, but quite dangerous,” he has been quoted as saying. “There’s a critical need for effective information sharing, to monitor potential drug interactions, allergies, all sorts of historical data that might affect a physician’s treatment decisions.”

Consider this, says Overhage.

“As a doctor, each of my decisions for each patient can involve dozens, even hundreds, of variables,” he says. “If you’re really smart, you might be able to handle a percentage of these, but without complete information, it’s an impossible task.”

The Regenstrief system aims to reduce those variables with hard facts.

“I may have a lab result from one hospital, a radiology result from another, and background information from still another,” Overhage says. “With our system, all that information is in a doctor’s hands at a moment’s notice. It replaces guesswork with solid information.”

It’s a system that has drawn admiring gazes from people across the country and around the world, Overhage adds, all envious of what



Regenstrief has achieved with its community partnerships.

“According to a lot of people I talk with, what Clem has been able to create makes us the yardstick,” says Overhage. “Comparing where we are to where they say they are is like comparing the Flintstones to the Jetsons — they can’t believe how far we’ve been able to go!”

## LOTS OF HELP

While the Regenstrief system has become an international model, McDonald is quick to praise the role played by the city’s five major hospital organizations: Clarian Health (including University and Riley hospitals on the IUPUI campus, plus Methodist Hospital), Community Hospitals, Wishard Health Services, St. Francis Hospitals and Health Centers and St. Vincent Health.

“If it weren’t for their willingness to share information, to use the system and help us make it work,” it might never have flourished, McDonald says emphatically.

“Indianapolis is a unique city,” he adds. “When we were starting out, we went to these hospitals — and they were competitors, mind you — and asked if they would participate in a project that had no track record. And they said yes. They always said yes. For them, the welfare of the patient came first. That always struck me as a wonderful example of our profession.”

Overhage believes that Regenstrief’s track record for supporting physicians is the key to the collaboration. Clinical messaging allows for quick turnaround of results. The clinical data contained in the computerized records gives doctors a broader picture of a patient’s health status and needs. The online system also allows qualified medical people to check out alternative drugs that meet a patient’s needs and check for potentially troublesome drug interactions. And the full spectrum of data in the system can help monitor for health trends, potential outbreaks, etc.

“Mostly, we’ve been able to get the right

# “Comparing where we are to where they say they are is like comparing the Flintstones to the Jetsons — they can’t believe how far we’ve been able to go!”

{ Overhage }

information into the right hands at the right time,” adds Overhage. “That’s what has made Clem’s system so valuable.”

## STANDARDS REMAIN

Though technology has changed dramatically since the system was first launched in 1972, the project’s founding principles “remain the same as they always were,” says McDonald.

“First, we need to be able to access patient records in a fast, practical method. Second, the computer looks at the data in the records to help plan long-term, preventive care,” he adds. “And third, the data can help in research” to note health trends in the region, identify population groups facing similar risk factors, geographic concerns, etc.

McDonald considers the research aspects of the records system increasingly important. As information becomes more complete and more accessible, health-care professionals have a more complete picture not only of individual people, but the whole area.

“Just having data like that at your fingertips changes everything for a doctor,” says McDonald. “And the technology helps physicians keep records current for treatments, medications and other observations.

“The technological tools we have available are powerful, and can do more and more,” he

adds. “The information could revolutionize research on the community level.”

There are subtle ironies about McDonald, whose accomplishments long ago made him a distinguished professor of Indiana University and gave him an international reputation in the medical informatics field. Though his system uses technology for delivery into physicians’ hands, “the technology itself is really fairly basic,” McDonald says. And though he had the vision of technology playing an integral role in keeping people healthy, he uses some low-tech tools: he still carries around a stack of 3-by-5 note cards filled with his thoughts, insights, observations, questions and more.

Overhage believes that technological evolution will give the Regenrief records system new outlets and new tasks. For example, technology could offer patients and their doctors new options in the area of home-based care, not just at hospitals or clinics. After all, technology is often just a mouse-click away, and that can be done anywhere.

“What I think we’re seeing is the use of technology not just for medical care, but for health and wellness, too,” Overhage says. “People could do self-administered tests, ship the information to the system, which in turn would make it available to a doctor without an office visit by the patient.”

## LEFT HIS MARK

McDonald’s training left an imprint on young Marc Overhage, one still evident today.

“When I first came here, I wanted to be a theoretical physicist, but I quickly realized that doctors got all the grants,” laughs Overhage. “I’ve always had a strong quantitative bent, and wanted to get into research.

“When I first came here, it didn’t take me long to realize that Clem was onto something important, and that it was really cool,” he adds. “I told him I was interested in working with him, and he told me to come back when I could spend five years here. So I did.” And it’s been more than a decade since Overhage joined his mentor.

How far has McDonald’s vision grown through three-plus decades?

“We thought we could do it in a year for a small subset of patients in the Indianapolis area,” laughs McDonald. “But we’re still adding records: we now have five million records covering about 900,000 patients.”

It’s a project he considers, oddly enough, permanently temporary.

“It is a work in progress, and always will be,” he says. “If we do it right, there is always more we can do to help people.”

# Making a Difference



(L) Zach Shields and (R) Chris Podell

## How the Web can affect lives half a world away

by Ric Burrous

In December 2004, a major earthquake near the island nation of Indonesia launched a disastrous tsunami that swept throughout that country and virtually the entire Indian Ocean. Just over three months later, another major quake in the same locale caused more death and devastation in the islands of the world's fourth most populous country.

And the ripples reached the halls of IUPUI's Informatics & Communications Technology Complex (ICTC) building and the IU School of Informatics, sweeping up a pair of soon-to-be-graduates in search of a capstone project that would complete their college careers with a flourish.

Little did Chris Podell and Zach Shields know how much those earthquakes would shake up their own lives. Since that time, they've built an internationally renowned Web site called Not Seen Not Heard (they call it NSNH, for short), completed their degree work with flying colors, and — oh, by the way — earned a 2006 Webby Award, the online version of an Oscar!



### MORE THAN A GRADE

"Zach and I both are the type of people that fully engage ourselves in our work," says Podell. "We were trying to think of project ideas that would actual mean something to someone besides ourselves, a teacher and our parents. We both figured that if we were going to commit five or six months to build a project, we should do something that would mean something besides a grade."

Fate intervened, Shields adds. The two learned that the three sons of Darrell Bailey, the associate dean of Informatics at IUPUI, were volunteering in the clean-up effort in Indonesia. During their work, the Bailey boys connected with a relief organization called Island Aid, and when Shields and Podell expressed an interest in using their technological skills to support the rebuilding efforts, the Baileys were only too happy to provide the introductions. Before long, Shields was winging his way to Sumatra, video camera in hand, the outline of a vision he shared with Podell in his mind.

## “The whole theme of our documentary is to tell the stories of people whose stories have not been seen or heard”

“Dr. Bailey’s sons, Phil, Adam and Marshall, had given me a lot of good ideas of things to capture on video,” says Shields, who says he was profoundly moved by many of the tales he heard and saw, most notably by the story of two young girls who were badly burned in a fire triggered by the quake.

“At heart, I’m a storyteller, though not always on video,” he adds. “But I’ve always been a visual person, and storytelling is what I’ve always wanted to do, so for me, Not Seen Not Heard was a natural.”

Although the family of the South Bend native is accustomed to his passion for blending technology and storytelling, he admits “they weren’t thrilled” by his decision to visit the disaster-racked region around Sumatra, especially since he’d just turned 21. “They thought I could find some other way to help out,” he laughs. “But now I think they’re happy I went.”

So were the two students.

### PROJECT MORE THAN CLASSWORK

“The project itself became a combination of a labor of love and an exercise in our skill and imagination,” says Podell. “We really wanted to create an experience, to feature stories told by the survivors about the recovery effort, and the need that is still abundant.”

Not Seen Not Heard started out as an awareness-building site, but Podell and Shields quickly decided to use the site as a fund-raising tool to help remote villages rebuild, and to help the two young girls get medical treatment for their burns.

“It was an amazing thing to see, the devastation that was still there months after the second quake hit,” says Shields. “The girls’ village is so remote that you can’t drive there, you can’t fly there in a plane — you can’t even land a helicopter there! You have to walk in, and rebuilding is a difficult task.”

The remoteness, Shields adds, is part of the reason that Podell created the name Not Seen Not Heard. “The whole theme of our documentary is to tell the stories of people whose stories have not been seen or heard,” he adds. “Most of the world’s attention went to the victims of the tsunami, but most people didn’t hear much about the second quake and the people who were affected by both.”

That theme echoed around Podell’s mind.

“I kept hearing that old saying in the back of my mind throughout the project: ‘If a tree falls in a forest and no one is around to see it fall, does it still make a sound?’” says Podell.

### MAKING EXPERIENCE REAL

Their determination to make the experience real for those who live thousands of miles away affected the way Not Seen Not Heard was built.

“We wanted to use video for a couple of reasons,” says Podell. “One, at the time, video online was very much a new thing. We wanted to push ourselves, and the technology. Two, video can make a deeper connection with its viewer. We used the survivors to tell the story using captions to translate what they were saying — it was more real!”

“We didn’t want to put too much text in there,” adds Shields. “We wanted to make it all visual, with little intros. It needed to be visual, so that people can experience just a small piece of what life was like for these islanders whose lives were turned upside down.”

From an academic standpoint, the project was straightforward.

“We each had our distinct roles,” says Shields. “We came up with the overall plan, decided which themes to address, then Chris came up with the architecture of the site, and I plugged in the stories and the video.”

That doesn’t mean the task was easy. Editing forced tough choices, and deadlines were familiar “foes” as they raced to complete the project on time.

“I probably shot 16, maybe 17 hours worth of footage on the islands,” says Shields. “But by the time we got done, we’d had to trim it down to anywhere from 45 minutes to an hour’s worth of stories. Some of the things were difficult to leave out, but once we knew which stories we wanted to tell, everything came together pretty well.”

“Zach knew what he had, and I’d seen the raw, uncut clips,” Podell adds. “But the video hadn’t even finished rendering the morning of the project’s due date.” But the site was ready, and both feel it accomplished its primary goal. “The idea behind the look and feel of the project was a ‘left-behind journal,’ stories that survived the disaster.”

### FACULTY PROVIDED SUPPORT

Both alumni had unabashed praise for several Informatics faculty members who helped keep Not Seen Not Heard moving forward.

“Joe Defazio, Clint Koch and Ricardo Laranja are at the top of my list,” says Podell. “All of them were available to us at ungodly hours, whenever we needed them. I still remember seeing Clint at 3 in the morning at the labs three weeks before the end of the semester, working with students (on their capstone projects). They are all so committed to helping students achieve their full potential.”

Laranja played a key role in the final presentation of Not Seen Not Heard, creating much of the music that gives the Web site an emotional foundation.

# Making a Difference

“He was amazing,” laughs Shields. “We were in his studio one night, showing him what we’d come up with, and he started playing music that he was composing on the spot. Chris and I told him that he’d hit the mood we were looking for, so he wound up putting together the music for Not Seen Not Heard.”

## STAYING IN TOUCH

The two IUPUI graduates have stayed in touch with those who touched their lives.

“Zach and I have been in constant contact with Rick Cameron, the director of Island Aid who was featured in a couple of the videos,” says Podell. “We both want to keep up with what is going on with the people on the island.”

Shields is pleased that Not Seen Not Heard has helped raise awareness of what Island Aid does, and even more about the fact that the village girls they wanted so badly to help have had surgery for their burn injuries. “That is really cool,” he says.

The chance to be part of the Webby awards celebration in New York City also was cool.

“We had a great time,” says Podell. “Just listening to the names of the different companies being called for awards and knowing that we won an award in the same competition was pretty cool.”

Not Seen Not Heard was honored along with some other familiar names: political columnist Thomas Friedman; Dallas Mavericks owner Mark Cuban (an IU grad himself); Google; and MySpace.

“The biggest thing was it got people to look at the site,” adds Shields. “As soon as we got the nomination, people started looking at the site. After that, the site was posted and stories began to come out, and started to spread the word.”

The Web site leaves both firmly committed toward careers in fields not so different from what they already have achieved.

“Working with an interactive medium to tell compelling stories in a new way is really what I want to do,” says Podell. “I think video is going to play a large role in that. Ultimately, I want to run my own interactive shop.”

“Not long after graduation I was at a job interview and they started talking about what it would be like, and I remember thinking ‘wait a minute; I’ve just done this,’” laughs Shields, who wants to use his technological skills to enhance his love of storytelling.

“I know I’m a different person after going through the whole project,” adds Shields. “Getting immersed in the project, hearing people’s stories face to face, it’s changed me, changed the way I do things in my life. It’s helped me be more effective in my work, and in my life. I don’t take things for granted each day; I have a goal when I do things. When you see people like the Indonesians whose stories we featured living their life after such devastation, it’s hard not to feel that way.”

VIP

online

[www.notseennoheard.com](http://www.notseennoheard.com)



## about

Not Seen Not Heard was conceived and produced over a five-month period during the summer and fall of 2005. Zach Shields traveled to Indonesia in July to obtain information and video footage while Chris Podell began developing design and interface plans for a capstone project at the end of their senior year at IUPUI. Their hope, at the least, is to provide a voice for those still in need on the most remote islands of Indonesia nearly a year after the devastation. They would like to lend these stories to any humanitarian organizations in order to raise awareness and possible funding so that rehabilitation programs can continue. Even after the media blitz of a natural disaster such as this is over, there is still a struggle to provide a standard of living in countless communities. They hope this will serve as an example of forgotten survivors, not only of natural disasters, but of poverty, sickness and hunger all around the world.

## help. donate. change a life.

Not Seen Not Heard ([www.notseennoheard.com](http://www.notseennoheard.com)) in conjunction with Island Aid Org. ([www.island-aid.org](http://www.island-aid.org)), University Volunteers ([www.universityvolunteers.org](http://www.universityvolunteers.org)) and Lisa Friesen a traveling nurse and aid worker are creating a fund to bring two young girls, Soteria Laia, 11, and Emiwati Laia, 14, to Hawaii to receive desperately needed skin grafts. Lisa Friesen has made arrangements with Shriners Hospital in Hawaii to have the medical treatments handled. What is needed are the funds to get the girls and a guardian to Hawaii for nine months to a year. Your help can change their lives.





# twenty first century oil



By Diane Brown

Mary Jane Frisby and Kenneth Crews negotiate "deals" over "the oil of the 21st century."

Frisby, a 2000 graduate of the IU School of Law-Indianapolis, is an intellectual property attorney with the law firm of Barnes & Thornburg. Crews — also an attorney — teaches intellectual property law on the IUPUI campus and directs the law school's Copyright Management Center.

"Intellectual property is the oil of the 21st century," Mark Getty, grandson of oil magnate J. Paul Getty, reportedly once said. "Look at the richest men a hundred years ago; they all made their money extracting natural resources or moving them around. All today's richest men have made their money out of intellectual property."

#### NEW WORLD EMERGING

This new world order has developed as our economy has transitioned from "a goods-based economy to an information-based economy," Frisby explains.

"Most workers now deal in information. They are not in a factory making widgets on the line," she says. "The typical American worker is sitting in front of a computer and creating information, creating this intangible stuff, these computer files, word documents. That is what we are all trafficking in."

"The big companies now are not the Standard Oils that Rockefeller founded. It's Google, Amazon, AOL, Time Warner," she says. "Their assets are intellectual property assets." >>

# Intellectual Property



IU School of Law-Indianapolis graduate Mary Jane Frisby: "The big companies now are not the Standard Oils that Rockefeller founded. It's Google, Amazon, AOL, Time Warner. Their assets are intellectual property assets."

What is intellectual property, or "IP," as it is sometimes called?

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"In here is every form of intellectual property, right here in a Coke can," says Frisby, picking up a can of the soft drink from a stash in a conference room at the Barnes & Thornburg Meridian Street office.

"You have a trademark, that's 'Coca-Cola.' That's the brand name of the product, and you've got all this text (list of ingredients). It's copyrighted because its textual work ... and there are probably numerous patents covering perhaps the way to make this can or the way the bottle machine works when it puts (soft drink) in there and seals it up . . . and then of course, Coca-Cola is famous for having a trade-secret formula."

## PROTECTING ONE'S RIGHTS

Trademarks, patents and copyrights are the "big three" of intellectual property, with trade secrets and rights of publicity rounding out the territory, Frisby says.

Helping clients get, transfer or enforce rights associated with the ownership of such property is the stuff of Frisby's career as an intellectual property attorney.

"Intellectual property is a form of personal property, just like real estate, your car or purse," says Frisby, who also earned her undergraduate

Kenneth Crews is one of the foremost authorities on intellectual property at the IUPUI-based law school.



This new world order has developed as our economy has transitioned from “a goods-based economy to an information-based economy,”

{ Frisby }

degree at IUPUI, majoring in philosophy. “And with its ownership come legal rights, just like those you have in the land, car or purse you own.

“But unlike your car or your purse, (intellectual property) is intangible. You can’t hold it. And usually it is the product of someone’s intellect or creativity.”

While intellectual property itself isn’t tangible, copyrights and patents can bring money to their owners who sell or license them for use in pharmaceutical production, musical recordings, manufacturing, etc. And the fights over intellectual property make headlines:

- “Recording Industry Association of American Sues MP3.COM, Alleges Copyright Violations” – *CNET News.com*
- “UA student incarcerated for possessing illegally copied movies, music” – *KVOA.com*
- “USF professor accused of copyright violation over exam” – *St. Petersburg Times*

#### TECHNOLOGY SHAPING NEW WORLD

Technological advances are behind the proliferation of intellectual property disputes, says Crews.

“For example, take the use of technology in the classroom, creating web delivery systems of the content of the course ... suddenly, because of what we’ve done differently — the use of the Internet to capture and transmit this content — we have stepped into the world of intellectual property,” the professor says. “It’s not that intellectual property has come and found us; we’ve moved into its world. We can see much of the same thing going on with patents and trademarks as well.”

Such changes across society have turned intellectual property law into a “growing, growing practice area,” Frisby says.

She has handled cases as diverse as a patent infringement case concerning a cremation urn and a copyright dispute over song lyrics.

#### EDUCATION IS KEY

Educating her clients, one of the things she likes best about her job, is also one of her biggest challenges.

“It’s the big buzz word, to talk about everyone’s intellectual property, but you’d be amazed at how clients have not fully got their minds around this ... they are sitting on an asset that they don’t know they have,” Frisby says.

Crews agrees.

“If you are big enough to grab a handful of crayons and scribble on the wall, you are a copyright owner.” However, “some of us actually own copyrights that are worth paying attention to,” the professor adds.

Under Crews’ direction, IUPUI’s Copyright Management Center manages issues associated with the creation of original works and the use of existing copyrighted works for teaching, research and service.

“IUPUI provides a broad mix of academic programs with a rich agenda for creative teaching and ambitious research,” Crews says. A large part of what the Copyright Management Center does is to help faculty and others really understand how they can make good, well-informed decisions with respect to intellectual property, both the ownership and management of their new works as well as the proper use of existing materials.”

When the Copyright Management Center originated at IUPUI in 1994, it was the first office of its kind at any college or university in the United States. Cornell University recently used an IUPUI Copyright Management Center checklist to set its campus guidelines for implementing fair use of copyrighted material.

With Indiana’s emphasis on the life sciences, the patent is perhaps the “king” of intellectual property on a research campus, according to Frisby.

The IU Research and Technology Corporation, formerly known as ARTI, handles patent negotiations for IU researchers.

“Good heavens, everything that the School of Engineering (& Technology), the School of Science, the School of Medicine is researching could be something that is patentable,” Frisby says. “That is a very valuable asset.”

Those assets can mean additional revenue for the university, but more importantly, an improved quality of life for all of us, she adds.



# ANGEL: From Academia *to the Real World*

Hollywood has its Oscars.  
The music industry has its  
Grammy Awards.

And in the world of the  
academic software industry,  
there are the Codie Awards.

**BY DIANE BROWN**

Imagine for just a moment that you are seated at a black-tie awards gala. The crowd grows silent as the host announces:

*“And this year’s Codie Award for Best Postsecondary Course or Content Management Solution goes to the company that traces its beginnings to an IUPUI research project completed by a professor and a student lab assistant.*

*“Receiving the award for ANGEL Learning, Inc. is IUPUI alumnus and ANGEL vice president and chief technology officer David T. Mills. Accompanying Mills to the stage is ANGEL co-founder and IUPUI engineering and technology Professor Ali Jafari.*

*The IUPUI computer technology graduate*

*takes the stage, saying “I’d like to thank my wife ...”*

It’s no fairy tale. ANGEL Learning, Inc., headquartered in Indianapolis, took home one of 23 coveted Codie awards in the education category of this year’s competition.

“It’s a compliment to have people that understand the work that you do (select it) as the best in that category,” Mills says during an interview in his office, located in western Indianapolis near the 71<sup>st</sup> Street exit of I-465.

## CREATION OF STUDENT, MENTOR

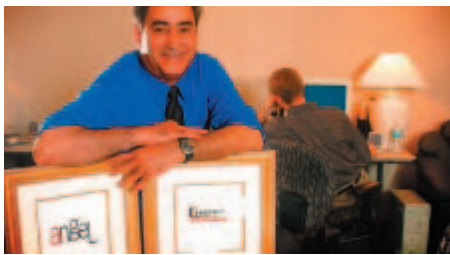
The company’s Internet course management program known as ANGEL — an acronym for “A New Global Environment for Learning” — is truly the brainchild of Mills and Jafari.

It is one of two software products to come out of collaborative research and development efforts that began when Mills was a student in the Purdue School of Engineering & Technology at IUPUI.

And Mills and Jafari really have Mills' wife to thank. It was the success of her graphic design career that allowed her husband to return to school and earn his computer degree.

"She took a gamble on me," Mills says.

It all started when, at the request of a professor, Mills retooled an HTML program



that he had written for fun into a program the professor could use for administering tests.

"I built a tool for creating online quizzes. You could create quizzes, then deliver them through the Internet, have them graded and have instructors get the results back," Mills explains.

#### BEGAN IN A LAB

Based on that work, IUPUI Professor Tom Ho introduced Mills to Jafari, who hired the student to work in his research and development lab.

Mills' first project with Jafari was the creation of an online course for chemistry 101.

"It was pretty well received by the students and a great proof of the concept that, yes, you could use the Internet to teach distance education courses," Mills says. "That project was a huge success, great feedback from students and instructors. Based on that, we started architecting Oncourse with the goal of having a place where researchers could easily manage a Web site for any and all of their courses, which was pretty novel at that time."

ANGEL would follow Oncourse.

While university-trained minds were behind the creation of Blackboard and other course management systems now available, ANGEL is the only one that is "100 percent ... the result of both the intellectual investment and financial investment of the campus," Jafari says. "From that perspective it is unique."

The IU Research and Technology Corporation (IURTC) — then known as ARTI — awarded Jafari and Mills \$110,000 in seed money to start ANGEL Learning. It

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ANGEL is the only one that is "100 percent... the result of both the intellectual investment and financial investment of the campus," Jafari says. "From that perspective it is unique."

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was money well invested.

"I started the company as the president and David was vice president, the professor says. "That is all the money we had. And now it is a multi-million dollar company."

The professor would run the company for six months, before returning to the campus as a professor. Mills has continued as the company's research and development leader.

"He is pretty sharp, pretty smart, a genius (of a) guy," Jafari says of the IUPUI grad.

#### NEW PRODUCT HEADED FOR MARKET

Jafari's latest project, Epsilen ePortfolio, is soon set to join ANGEL on the market.

The product allows users to create the equivalent of a "MySpace" Web site for their professional lives, offering "global" opportunities for job searching, social networking and learning, as well as course management. More than 1,000 active users from 167 registered university members use Epsilen 6, the latest version of an electronic portfolio system which is free to anyone with a university (.edu) e-mail account.

An earlier version of Epsilen was licensed to Bowling Green State University in Ohio in 2003. Currently more than 2,000 BGSU students have Epsilen accounts, and Bowling Green is now in the process of switching to the latest version (Epsilen 6), the professor says.

While a basic version of Epsilen ePortfolio will always be free to higher education users, faculty and students on campuses who license Epsilen ePortfolio will receive additional services such as more digital space and personalization features.

#### MEDICAL SUCCESSES

Most successful technology transfers on IU campuses involve inventions out of the School of Medicine, says Dr. Jack Pincus, vice president of technology transfer for IURTC. The most successful is a device licensed in 1995 for closing incisions made for a process called angioplasty.

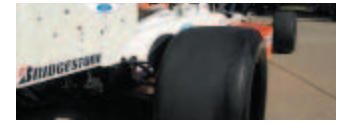
"It produces significant revenue," Pincus says.

Pincus described the normal chain of events that lead to technology transfer.

"A professor comes to us (IURTC) with an invention. He discloses an invention. We analyze it to determine whether it is patentable and the likelihood that we can market the invention," Pincus says. "If we decide to go forward, then we apply for the patent, we find the licensee and negotiate the license."

The vision is for IU to become more active in technology transfer.

"It is a priority in the life sciences strategic plan that President (Adam) Herbert unveiled earlier this year and which the Vice President of Life Sciences Dr. Craig Brater is actively pushing," Pincus adds.



Lynsey Tilton, a second-year engineering student began racing motorcycles at age 4. She chose IUPUI over universities like Purdue-West Lafayette, Rose-Hulman and Kettering.

# “THE FASTEST MOVING PROGRAM ON CAMPUS”

ISN'T JUST A SLICK TAGLINE ON AN IUPUI MOTORSPORTS POSTER.

BY DIANE BROWN

In the Purdue School of Engineering & Technology at IUPUI, the race is on to make IUPUI as synonymous to racing and the motorsports industry as the Indianapolis Motor Speedway and the Indy 500.

And in the words of race car driver and Professor Peter Hylton, director of the IUPUI motorsports program, “We are looking good right now and surprising a lot of people.”

## FIRST PROGRAM IN STATE

This fall, IUPUI became the first university in the state of Indiana to offer a certificate program in motorsports. The Motorsports Engineering Technology Certificate curriculum offers a solid basis in mechanical engineering technology with special motorsports-related courses. The 26-credit-hour certificate can be earned as part of a mechanical

engineering technology bachelor’s or associate’s degree or earned separately. Lab projects are geared toward motorsports competition.

An early success in the young motorsports program is “Cat,” a race car built entirely by Hylton’s students. Bearing the Jaguars spirit mark, the car is expected to hit the tracks this year for Sports Car Club of America competitions next year.

Hylton represented IUPUI in Kansas when Panther Racing announced an IUPUI/Panther Racing agreement, which will result in a second race car bearing the IUPUI marks.

While the motorsports program is housed in engineering and technology, the vision calls for a broad, interdisciplinary approach that will involve students in business and liberal arts, and perhaps others if connections to racing are discovered.

## INTERNSHIPS KEY

A key component of the program is the placement of students in significant internships in the motorsports industry. In an inaugural year marked by success, five students had such positions.

As his first assignment, intern Rodger Johnson, a communication studies major in the School of Liberal Arts at IUPUI, put together a media book for Panther Racing.

“I’m learning a lot about PR. I am learning a lot about communications. And a whole lot about motorsports,” Johnson said during an interview at the second annual Motorsports Day held in October at IUPUI.

Located in “the motorsports capital of the world,” IUPUI is strategically situated for taking the inside position in the world of racing-related education, particularly in securing real-world internships for its students.

The campus is four miles east of the Indianapolis Motor Speedway, home site for the Indianapolis 500 and NASCAR’s Allstate 400 at the Brickyard and the U.S. Grand Prix Formula One race. The Indianapolis area also hosts National Hot Rod Association and United States Auto Club events, and is home to numerous racing industry vendors and support operations.

## VARIETY OF EXPERIENCES

Besides Johnson, other interns who spent the summer of 2006 in the high-speed world of racing included Mike Armbruster, a mechanical engineering student, and Joshua Cullins, Griffin Randall and Mike



Sheridan, all mechanical engineering technology students. Armbrester, Cullins and Randall worked as track technicians for Champ Car World Series.

Sheridan's work with Panther included helping professional racing engineers collect data and develop the calibrations on the car driven by Vitor Meira.

"It's been a good opportunity," says Sheridan, who worked at races in several cities.

Their internships have given them an invaluable "foot in the door," the engineering students says.

"(Racing) is a hard sport to get into," Armbrester says. "You can't just knock on the door and hand them a resume. You have to have previous racing experience."

Armbrester's work with Champ Car included a week's stay in Australia.

"Motorsports is a sophisticated industry, generating billions of dollars in revenue," says IUPUI Chancellor Charles R. Bantz. "It needs highly skilled and talented people from accountants to mechanics to

#### CONNECTIONS ATTRACT STUDENTS

These working-world connections, coupled with the strong academic program, are drawing students such as Lynsey Tilton, a 19-year-old racer from California, who competes in the world of midget cars. Tilton, a second-year engineering student, began racing motorcycles at age 4. She chose IUPUI over universities like Purdue-West Lafayette, Rose-Hulman and Kettering because of the quality of its engineering program and the opportunity to continue racing while taking classes.

When she isn't in class, you can find her racing one of her two midget vehicles.

"With the motorsports program that IUPUI is now offering, I will be able to relate the information I am learning to my own racing which will make me a better driver," Tilton says. "The more knowledge I have that relates to motorsports, (the more) it will help me when I go out into the engineering field in motorsports. I know a lot of teams look at that, and I believe that IUPUI will help me accomplish my goals for a career in motorsports."

Another E&T student, Joshua Clemons, 18, has been racing and

## In partnership with IUPUI, Panther Racing — which placed eighth in the 2006 Indy 500 — will return to the Indy Pro Series with a single-car, student-run team for the 2007 racing season.

marketing professionals. Internships provide students the opportunity to experience the industry and to apply their studies everyday."

#### EXPANSION ON HORIZON

In partnership with IUPUI, Panther Racing — which placed eighth in the 2006 Indy 500 — will return to the Indy Pro Series with a single-car, student-run team for the 2007 racing season. Indy Pro is the developmental league used to prepare drivers and race teams for competition in the Indy Racing League, home of the Indy 500.

The partnership will involve students from engineering, as well as liberal arts, business and other academic areas. According to Hylton, it could easily make future connections to schools like law, medicine, public and environmental affairs and informatics — schools whose professional careers could easily intersect with the world of racing.

"These students aren't going to be standing around watching; they're going to be the ones building the race cars," said Panther co-owner John Barnes in announcing the partnership signing this summer. "We feel like this is going to be unlike any other internship a college or university can offer. These students are going to be qualified to work in our profession the minute they graduate from IUPUI."



working on cars since age 6. He chose IUPUI over a couple of other universities, including Purdue's West Lafayette campus.

"I wanted to continue racing while I was in college," Clemons says. "Being close to home was one thing, and I felt IUPUI had a lot of involvement with different kinds of racing organizations, with Champ Car and Indy car series. I thought it would be a better experience for me if I were to be at IUPUI."

Sheridan and three other "pioneers" in the internship program have high — and realistic — hopes that they will get professional motorsports jobs once they finish their education.

However, they have one regret: When IUPUI motorsports is really going full throttle, "we won't be here. We will have graduated."



## Sarah Needy

[www.magazine.iupui.edu/needy](http://www.magazine.iupui.edu/needy)

### FROM DIAMONDS TO VOLCANOES

BY RIC BURROUS

#### career at a glance

STAT	TOTAL	TO RANK IN TOP 10	SCHOOL RECORD
Batting average.....	290.....	355.....	439
At bats.....	452.....	488.....	700
Hits.....	131.....	156.....	244
Doubles.....	23.....	29.....	52
Triples.....	11.....	Ranks 8th.....	42
Home runs.....	3.....	4.....	26
Runs scored.....	59.....	96.....	188
Runs batted in.....	45.....	97.....	180
Stolen bases.....	68.....	Ranks 2nd.....	77
Stolen base attempts.....	85.....	Ranks 2nd.....	101

When she was 4, Sarah Needy solemnly told her grandmother she was going to “spend my life chasing tornadoes.”

When she was 11, she asked one of her older sisters what causes earthquakes, “because they fascinated me.”

A decade later, the diminutive IUPUI softball star has another career goal in mind: spending her life studying volcanoes.

No, laughs the earth sciences major, a senior in the Purdue School of Science at IUPUI, “I don’t have a death wish. I just love knowing things about our planet, our weather and what makes it all work.”

#### AVID STUDENT

Those who know her well aren’t surprised that Needy is avidly pursuing a career in the sciences. She was among IUPUI’s “Top 100” Students for the 2005-06 academic year, is a two-time Academic All Mid-Continent Conference selection, was named to IUPUI’s Academic Advisors honor list in each of her first six semesters on campus, and was the valedictorian of her class at Whiteland High School, a suburban school system south of Indianapolis.

“She’s driven,” says IUPUI softball coach Maggie Calcaterra of the youngest of four children of Edward and Kathy Needy. “A lot has to do with her home life; she was brought up to take charge, to do things herself.”

Her advisor in the School of Science, Andrew Barth, has been

impressed by Needy’s discipline and ability to excel academically despite the rigors of practices, workouts and games, including lengthy road trips.

“As a teacher, you love to have students like Sarah, kids who want to go beyond the minimum required to pass a class,” Barth adds. “She makes you raise your game, so to speak, because she wants to learn all you have to teach.”

#### HEADED FOR THE MOUNTAINS

“Volcanology has always interested me,” says Needy. “I’d like to get into forecasting eruptions, to help keep people safe, then watch a good show!”

To pursue that dream, she plans to get her master’s degree at IUPUI, then pursue a PhD out west, in the heart of America’s volcano country. Needy is intrigued by a career with the U.S. Geological Service, or by working “in the Cascade Mountains or overseas, anywhere there are lots of volcanoes,” but also believes a career in research and teaching at the college level would fit.

Mostly, she wants “a career tied to geology, something I’ve wanted since I was a senior in high school.”

As passionate as she is about geology, the path hasn’t been a cakewalk.

“It was a lot harder than I expected,” she says. “But you have to step it up, and if you do, you get a lot back in return.”



She appreciates the commitment of her IUPUI instructors.

“As a student, you feel good to have faculty who care so much about what they do,” she says. “It’s hard not to share that kind of feeling. We get a lot of individual attention to go with the high expectations they have of us — you really want to succeed and make them proud.”

As with many IUPUI schools and programs, internships are an important part of the landscape for the earth sciences program. Needy took advantage of one such opportunity and headed west to work at the Southern California Earthquake Center (SCEC) between her sophomore and junior years at IUPUI.

“It was a great chance to work with my future peers, with leaders in the field, and doing the work I want to spend my life doing,” she says with a smile. “I got to know several kids just like me, and have stayed in touch with several of them.”

She’s been able to follow up on her work with the SCEC back at IUPUI, studying the rock samples she helped collect along California fault lines in Joshua Tree National Park — an example of the field of igneous petrology, or the study of rocks formed from molten material.

#### WHAT LIES AHEAD

Needy knows the shape of her future, but she isn’t quite ready to give up her present, especially on the softball diamond.

“Softball is a passion for me, too,” says the veteran center fielder, who twice has earned second-team all-league honors. “It’s a great outlet for my competitive side, and when things get too intense, I can always grab my geology stuff and get lost in them. Of course,” she laughs, “when things get too stressful in class, there’s no release like hitting something really, really hard with a metal bat!”

She was good at the sport from the time she first picked up a bat and glove.

“I was a starter from day one, and usually was lucky enough to be an all-star in my league,” she says.

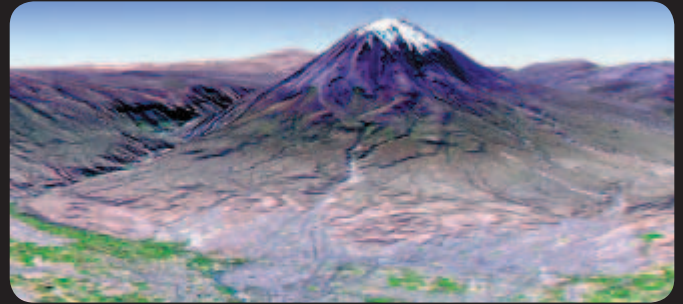
The 5-foot-6 speedster, among the leaders in Jaguars history in stolen bases and triples, was equally successful in both, was recruited by other colleges, including Big Ten schools, but chose IUPUI for reasons both academic and athletic.

“I knew a couple of girls on the team, which was part of the attraction,” she says. “So was being able to stay close to home and have family nearby. But mostly, it was the combination of a chance to play Division I softball and a good academic program in my field that drew me here.”

It’s been an enjoyable — and memorable — experience.

“Without a doubt, I’ll remember our dance parties on the bus,” she giggles. “We put on a CD, everybody starts dancing — anything you can shake your booty to!”

Calcaterra believes that Needy and her senior teammates are gearing up for a big finish to their college careers.



In the field of volcanology that Sarah Needy hopes to enter, she might find herself studying digital models of volcanoes such as El Misti (top image) near Arequipa, Peru, or evaluating the rebirth images (below) from Mount St. Helens in the state of Washington.

“As a student, you feel good to have faculty who care so much about what they do,” she says. “It’s hard not to share that kind of feeling. We get a lot of individual attention to go with the high expectations they have of us — you really want to succeed and make them proud.”

{ Needy }

“One of the things I want them to focus on is helping the underclassmen, to help our younger players along the way they got help when they came here,” says the coach.

Needy is ready for the challenge.

“We want to play well, to go out with a bang,” she says of the spring season, which launches Feb. 24 at Bradley and — she hopes — will end with the Jaguars earning a trip to the Mid-Continent Conference tournament in May. “It’s our chance to make our mark.”



## Brad Wheeler

[www.magazine.iupui.edu/wheeler](http://www.magazine.iupui.edu/wheeler)

### MILES TO SUCCESS

BY RIC BURROUS



For Brad Wheeler, success is measured in miles — long, lonely miles in the dog days of summer and frigid, windy days of winter.

Those miles — 70 to 75 miles per week, week after week for more than a decade — have given the IUPUI junior a shot at two goals: to earn a college degree in business and to help take the Jaguars' cross country program "to another level."

And he's doing it while indulging his passion.

"I started running in the sixth grade to stay in shape for basketball, which was my main sport at the time," says the 21-year-old business major. That didn't last long; his talent saw to that.

"By the time I was in eighth grade, I started running well and winning races," says Wheeler. He "was lucky" in his early years, joining a Franklin High School team that eventually won an IHSAA state championship.

Through the years, something about those miles clicked for Wheeler: he fell in love with the sport.

#### FELL IN LOVE WITH SPORT

"As I got older, it became a passion for me," says the junior. "I began to ask myself 'what am I going to do today to get better, to go up another level, and then another level after that.'"

Wheeler knew the "level after that" would be college, and thanks to a friendship between his high school coach Doug Drenth and Jaguars coach Scott Williams, the answer was obvious: IUPUI, with its budding

NCAA Division I athletics program and its world-class IU Kelley School of Business.

"I liked Coach Williams, and I liked that the core of the team was guys from central Indiana," says Wheeler, who would like to coach or work in athletic administration. "And I really, really like being in Indy — it's a great place to go to school and spend free time, too."

Although he knew a lot about the campus before arriving, some things have still surprised him.

"I don't think I realized that there were as many internship possibilities all around Indianapolis as there are, and not just in the business school," he says. "Students at IUPUI have so many opportunities to make contacts in their fields. It's one of the biggest advantages of coming here."

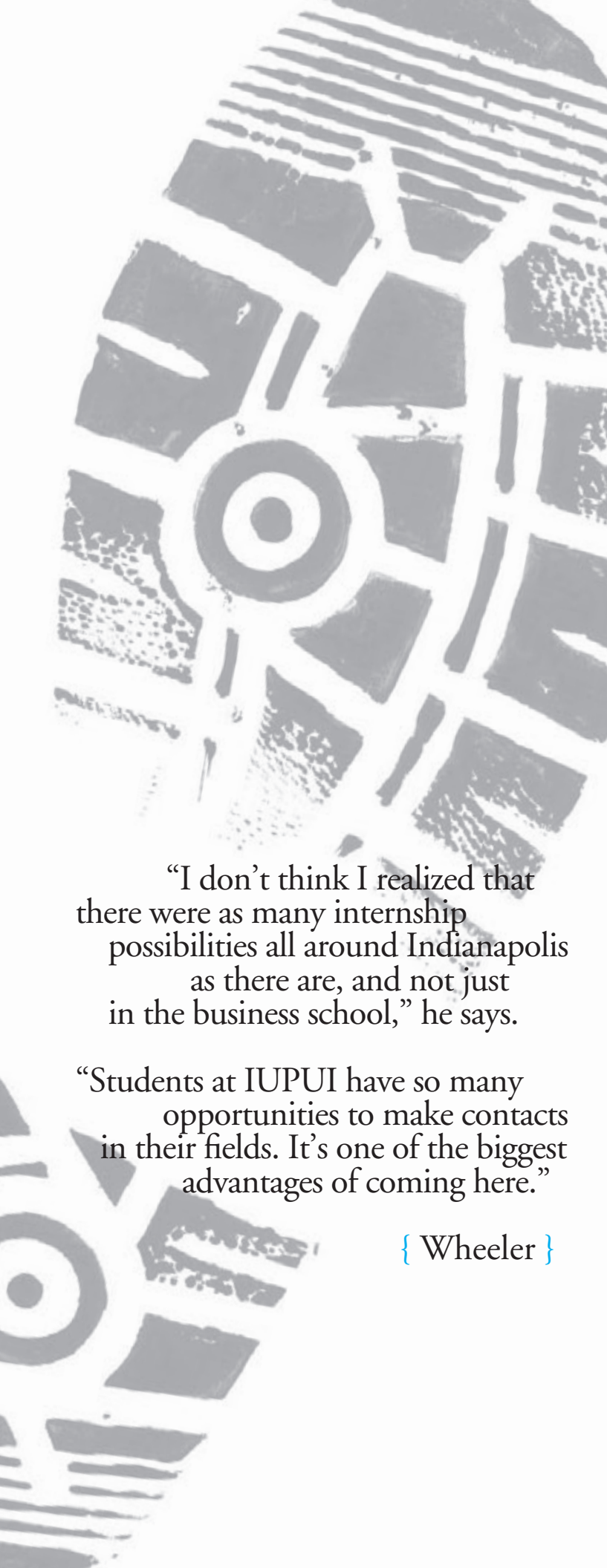
Williams was ecstatic over Wheeler's choice.

"I wanted Brad because he's the kind of kid you build programs on," says Williams. "He's invested in what he's doing. He's been running for 11 years now, and he completely understands the sport and his abilities. Other kids on the team feed off that."

#### LOVES PLANNING PROCESS

That "investment" includes Wheeler's personal style: a devotion to plans. Business plans or race plans, Wheeler loves the planning process.

"I think a lot about preparation for running and races every day, even in the off-season," Wheeler admits with a grin. He is big on race strategy, knows his abilities, and likes to get a feel for each course the Jags run.



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“Students at IUPUI have so many opportunities to make contacts in their fields. It’s one of the biggest advantages of coming here.”

{ Wheeler }

Knowing his strengths and weaknesses helps formulate the strategies he loves.

“The worst part of my style is the finish — I don’t have the greatest leg speed, so I’m not going to run many people down at the end of a race. I really have to grind to hold people off.

“I think the best thing I have going is my strength and endurance,” he adds. “And I think I’m mentally strong. A lot of guys put in a lot of miles to get ready for a season, but the difference in the end is mental — who can think their way through a race.”

Williams agrees that Wheeler’s biggest edge comes from within.

“Brad is always prepared, mentally and physically,” says Williams. “He goes into a race with about three game plans, then choosing the one that fits what’s happening on the course. He’s also very good at managing his races and his pace.”

“During a race, I’m pretty much inside my head, in a zone,” Wheeler laughs. “I’m not thinking of much of anything for those 25 minutes or so, except the runners around me, what’s up ahead on the course — anything about the race.”

That strategy got a stern test at the 2006 Mid-Continent Conference championships in Kansas City. He was running neck-and-neck with two runners from Southern Utah (the eventual team champion) when he fell about three-fourths of the way through the race. Undeterred, Wheeler picked himself up, took off and managed to grab a sixth-place individual finish, good enough for his third consecutive first-team All-Conference honor.

“I really think I would have finished at least fourth, and maybe second or third,” says Wheeler with a shake of his head. Third would have been nice; it would have matched his freshman-year finish, when he helped IUPUI to a second-place team finish, best in school history.

#### PURSUIT BEGINS

Typically, Wheeler is already planning his senior season the only way he knows how: off-season preparation. Even after the fall college season ended at the NCAA Great Lakes Regional in November, his schedule didn’t drop off much — one day off, maybe two.

“If I don’t run, I get this guilty feeling,” he says with a smile.

Williams considers Wheeler a key to the present — and future — of the Jaguars’ cross country team.

“Everyone in our program looks up to Brad, because of his dedication and his determination,” says the coach. “Every recruit we’ve landed the last couple of years knows who he is; they relate to his success, because they know what he’s achieved through sheer hard work! They think ‘if he can do it, so can I.’”

# Sports Briefs

The Natatorium at IUPUI will host the 2008 U.S. Olympic Team Trials in Diving in June of that year, the fifth time the world-class facility has hosted the diving trials.

Besides the diving trials, the Natatorium has hosted numerous other national and international competitions, featuring some of the world's fastest and most-honored swimmers, from Michael Phelps to Ian Thorpe.

Three new universities will join the Mid-Continent Conference membership roster in time for the 2007-08 school year.



## MID-CON INTRODUCES NEW MEMBERS

Chicago State is gone, Valparaiso has just one more year to go, but the Mid-Continent Conference's membership list will expand to 10 teams again starting in the 2007-08 academic year.

This past summer, IUPUI-Fort Wayne, North Dakota State and South Dakota State accepted invitations to join the league. That will keep Indiana's representation in the conference at two teams (IUPUI and IPFW), and add two new states (the Dakotas) to one of the country's most geographically diverse leagues.

## ATHLETICS HALL OF FAME TO ADD FOUR

A basketball player, two soccer standouts and a swimmer made up the largest single class of inductees into the IUPUI Athletics Hall of Fame, the athletics department's highest honor, since the charter class in 1994.

This year's selections include former men's basketball player Greg Wright, men's soccer star Armando Femia, women's soccer star Karrie Reising and women's swimmer Nichole Ellis. The ceremonies were Feb. 2, as part of IUPUI's basketball homecoming weekend. The four bring the Hall of Fame membership to 34 men and women.

Femia and Reising were each three-time All-Mid-Continent first-team selections in their respective sports, while Ellis was a two-time choice. Wright's career preceded IUPUI's entry into the Mid-Con.

For more on this year's class, go to the Web site: [www.iupuijags.com/News/2006\\_2007/100506\\_hof.html](http://www.iupuijags.com/News/2006_2007/100506_hof.html)

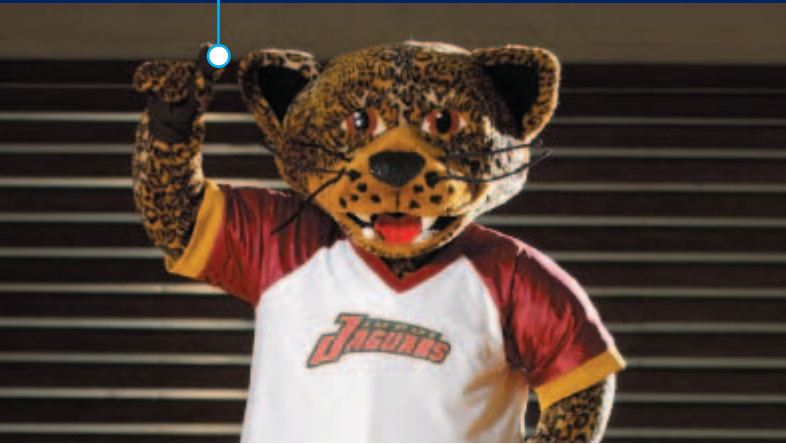
## NATATORIUM HOSTING 2008 OLYMPIC TRIALS

The roster of names of U.S. Olympic divers on the Natatorium wall at IUPUI will get a little longer in the summer of 2008 when the IUPUI sports facility hosts the U.S. Olympic Team Trials in Diving.

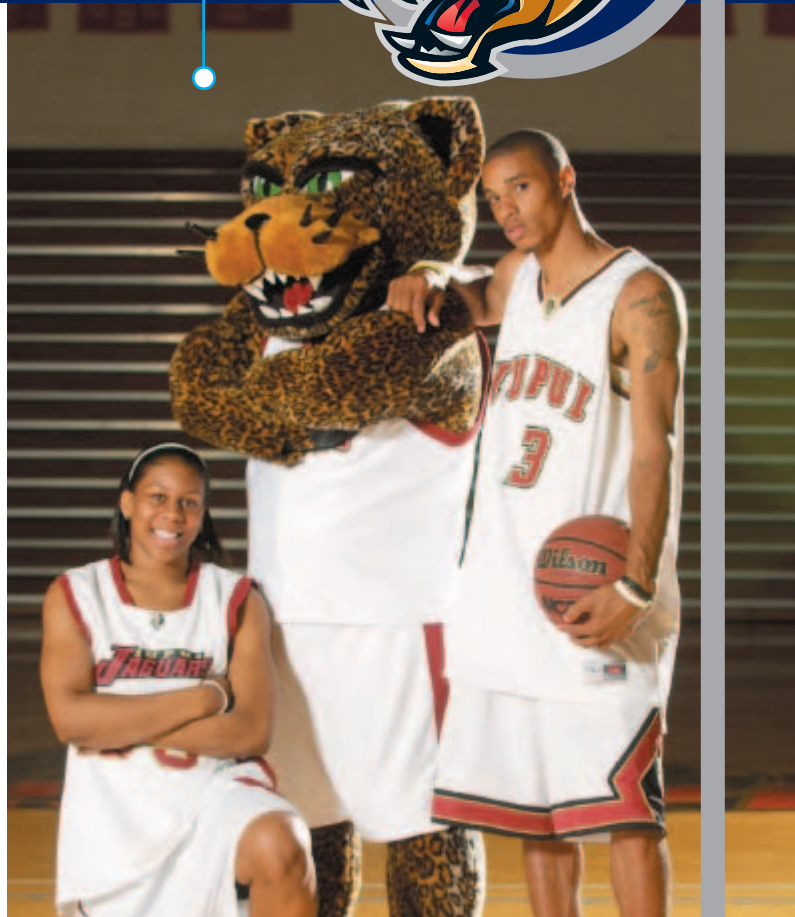
The event, which will run from June 18-22, 2008, will mark the fifth time the Natatorium has hosted the team diving trials that determine America's dive team in the Summer Olympics. Previous trials were held on the IUPUI campus in 1984, 1988, 1992 and 1996.

Event sponsors include the Natatorium and the IUPUI Sport Complex, USA Diving, the Indiana Sports Corporation, the Indianapolis Convention and Visitors Association, the state of Indiana, the city of Indianapolis, Indiana Starz Diving Club and Indianapolis Downtown, Inc.

Longtime IUPUI mascot Jinx (below) has a bold new look for the 2006-07 school year.



Joining Jinx is his brother Jawz (below), who had a few preseason tips for IUPUI basketball standouts Jernisha Cann (left) and George Hill (right).



“After five years of use... we felt it was time to update our athletics image.” { Brown }

#### NEW FACE IN THE JUNGLE

Fans who spend winter nights in “The Jungle” will have a new face on the sidelines lending spiritual leadership: Jawz, IUPUI’s new “sixth man.”

Jawz, the brother of longtime IUPUI mascot Jinx, is ready to roar and lead the cheers for the Jaguars’ men’s and women’s basketball teams as they pursue Mid-Con glory on the hardwood.

The muscular new cat will rock The Jungle and is sure to ratchet up the Jaguar fever that hit IUPUI basketball fans all last winter. And with both teams ranked among the league’s leading championship contenders — based on preseason coaches’ polls — Jawz is sure to have plenty of chances to make his mark.

Jawz isn’t the only “new thing on the block” for IUPUI athletics this winter. The campus has launched new spirit marks to give Jaguars athletics a new, fresh, vibrant feel. The new marks will help IUPUI schools promote their spirit activities, merchandise, giveaways and spirit publications.

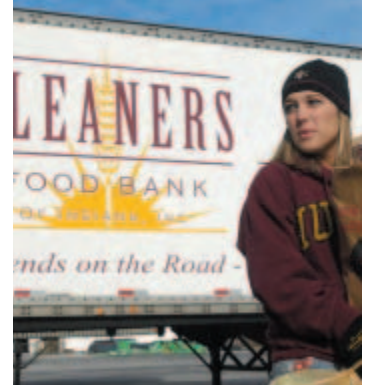
“After five years of use of our existing marks, we felt it was time to update our athletics image,” says Troy Brown, executive director of IUPUI’s Office of Communications and Marketing. “We also wanted new marks that are compatible with our updated mascot Jinx and our new game-night mascot, Jawz.”



The new spirit marks include:

- A three-quarter view of the Jaguar head;
- An additional primary mark that also is a three-quarter view, containing the Jaguars’ name, the name of the campus and the illustration itself; and
- Another version of the Jaguars wordmark.

## IUPUI in Action



### Presidential Award for Community Service

The outreach of its students, faculty and staff earned IUPUI one of three 2006 Presidential Awards, part of the first President's Higher Education Community Service Honor Roll.

"IUPUI truly sets an example for college civic engagement," said Stephen Goldsmith, chairman of the board of directors of the Corporation for National and Community Service, which fosters a culture of volunteering and service in America. "Community service is of growing importance on college campuses across the country, and IUPUI is a model for how to achieve success through service."

In 2005-06, more than 2,800 students provided nearly 54,000 hours of service that benefited 296 different community agencies and schools. Services included tutoring, mentoring at-risk youth, AIDS awareness education, college prep initiatives, developing computer applications, translations in medical settings and cultural exchanges.



#### NAMOS WINS WEB AWARD

The IUPUI-based National Art Museum of Sport (NAMOS) at University Place Conference Center & Hotel recently won international recognition for its Web site.

The International Sports Heritage Association recently named the sports museum's Web site — [www.namos.iupui.edu](http://www.namos.iupui.edu) — as the first-place winner in the category for institutions with an annual budget of less than \$250,000. NAMOS, founded in 1959, is one of the nation's largest collections of art depicting sport.

One distinctive feature of [www.namos.iupui.edu](http://www.namos.iupui.edu) is its section of artist biographies. The Web site features biographies of more than 50 of the artists represented in the museum. The award-winning site also includes a "tour" of the museum's 30 favorite pieces.

#### EDUCATION GRAD HONORED

Jessica Heidelberg, a graduate of the IU School of Education at IUPUI, earned one of two National Educator Awards given this year to Indiana teachers by the Milken Family Foundation. The award will provide Heidelberg a \$25,000 stipend she may use for any purpose she wishes. Heidelberg, a first-grade literacy specialist, has worked for six years in Washington Township schools in Indianapolis.

Heidelberg, a six-year teacher, was named MSD Washington Township Outstanding First Year Teacher in 2001, received the Lilly Teacher Creativity Fellowship Award in 2003, and earned National Board Certification in 2005. She currently serves as a Grade 1 Literacy Specialist.

Called the “Oscars of Teaching” by *Teacher Magazine*, the Milken National Educator Awards were created to celebrate, elevate and activate the highest caliber professionals in our nation’s schools.

#### NURSING DIVERSITY DIRECTOR HONORED

Lillian G. Stokes, the director of the IU School of Nursing’s diversity and enrichment program, was honored with a 2006 National Distinguished Service Award at the 15th Annual Black Chamber of Commerce for her leadership role as president of Chi Eta Phi Sorority, Inc. The award is given to individuals who have directly contributed to increasing the quality of life of African-Americans and other minorities in an exemplary way.

#### E&T GRAD WINS BUSINESS AWARD

Darla Y. Williams, a graduate of the Purdue School of Engineering & Technology at IUPUI and also an attorney, recently earned the Governor’s Award for Achievement in Business and Entrepreneurship. This special recognition award goes to candidates who have achieved excellence in the field of business.



## Grant expands Kenya program

The IU School of Medicine has been awarded a \$8.9 million federal grant to expand its highly regarded HIV/AIDS programs at Moi University in Kenya, tripling the number of patients who will be receiving anti-retroviral drug treatments. The medical school, based at IUPUI, has worked with Moi since the Kenyan school was launched in 1990.

The grant, from the President’s Emergency Plan for AIDS Relief, is in addition to a \$15 million grant for the HIV/AIDS program received by the IU School of Medicine in 2004.

“This funding will save tens of thousands of lives,” said Robert Einterz, associate dean for International Programs in the School of Medicine and director of the IU-Moi program. IUPUI launched a strategic partnership with Moi in November, building on the 17-year-old partnership between the two medical schools.

#### FORMER DEAN A LIVING LEGEND

Angela Barron McBride, former university dean of the IU School of Nursing, has been designated a 2006 Living Legend by the American Academy of Nursing. The designation recognizes outstanding role models in the nursing profession.

McBride was the first woman in Indiana to be elected to the Institute of Medicine, National Academies of Science. Other notable honors include being a distinguished professor of IU and being named one of the most influential women in Indianapolis by the *Indianapolis Business Journal*.

## IUPUI in Action

### NURSING RECEIVES \$1.3 MILLION NIH GRANT

The IU School of Nursing at IUPUI has received a \$1.3 million, five-year research service award from the National Institute of Nursing Research at the National Institutes of Health. The grant supports training for three students studying for their PhDs and for three more nurses with PhDs to become clinical researchers. The newly funded training program at the nursing school will train nurse investigators to conduct research that promotes well-being and enhances health-related quality of life in persons with chronic illness, such as stroke, cancer and Alzheimer's disease.

Joan Austin, an IU Distinguished Professor and the Sally Reahard Chair in the Center for Enhancing Quality of Life in Chronic Illness, directs the training program. Austin is an internationally known expert on mental health problems in children with epilepsy.

### MILITARY GRANT BACKS UNIVERSITY-ARMY ETHANOL PROJECT

IUPUI researchers will use \$1.5 million in funds from the U.S. Army to develop fuel cells powered by ethanol, a grain alcohol. The collaboration between the military and the university could mean that cell phones and laptops, as well as military vehicles and radios, could one day run on electrical power from corn grown in Indiana.

The project will team researchers from IUPUI's Advanced Energy Research Laboratory (in the Purdue School of Engineering & Technology) with the Army Research Laboratory's sensors and electronic devices directory at Fort Detrick, Md.



(L) Robert Hickey and (R) Linda Malkas

### Battle against breast cancer grows

A new \$6.8 million gift from the Vera Bradley Foundation for Breast Cancer Research to the IU Cancer Center has pushed the Fort Wayne-based foundation's commitment to the center to more than \$10 million. The gift will support the IU Breast Cancer Research Program, a multidisciplinary program that includes basic science and clinical investigators from 11 medical departments at the IUPUI-based medical school.

Co-leaders of the program are George Sledge, the Ballvé Lantero Professor of Oncology, and Linda Malkas, the Vera Bradley Professor of Oncology.

The Bradley Foundation previously made major gifts to the School of Medicine in 2001 (which endowed the Vera Bradley Chair of Oncology) and in 2005, establishing the Vera Bradley Breast Cancer Research Endowment.

Malkas and research partner Robert Hickey (both above) joined fellow medical faculty member Derek J. Hoelz to launch a new front in the fight against breast cancer through CS-Keys, Inc., a new life science start-up venture. The company's start was aided by a \$285,000 contribution from the Indiana Seed Fund.

The company's focus is on early detection of breast cancer through a new diagnostic tool developed by researcher Malkas. The new technology may change the way women with breast cancer are diagnosed and treated and potentially lead to more targeted therapies and improve the quality of life for breast cancer patients, says Malkas.

The new company will use the Indiana Seed Fund investment to complete several key scientific and business milestones.



## Gates grant helps Center on Philanthropy

The Bill & Melinda Gates Foundation has awarded the IU Center on Philanthropy a \$750,000 matching grant to help fund data collection in 2007 and 2009 for its signature research project, the Center on Philanthropy Panel Study (COPPS). The center is based at IUPUI.

COPPS is the largest and most accurate study ever conducted of charitable giving by U.S. households over time. The panel study looks at giving and volunteering by the same households over time and across generations as families mature, face differing economic circumstances, are affected by public policy shifts and encounter changes in their family size and health, among many other factors. Scholars and nonprofit professionals can access COPPS data and findings free of charge online in downloadable formats.

Philanthropy is a powerful force for positive change in society and in people's daily lives. According to the Giving USA Foundation, Americans gave nearly \$250 billion in 2004 to charitable organizations that meet vital needs in their lives and communities, ranging from immediate relief services for the most vulnerable people to higher education, job training and life-saving medical research.



### DISTINGUISHED ALUMNI

Two of the IU School of Dentistry's accomplished graduates were honored this past fall as distinguished alumni during the annual fall reunion celebration. Norman Becker (right photo, at left) is a 1946 graduate who became nationally renowned as not only a dentist but for his work as editor-in-chief of *The Journal of the Massachusetts Dental Society*. Pamela Steed, (left photo) the other award recipient, holds the distinction of receiving four degrees from the IUPUI-based dental school, including an associate's degree in dental hygiene in 1973, a bachelor's in dental hygiene in 1974, her DDS in 1983 and her master's in 1990.

### IUPUI, JAPANESE UNIVERSITY SIGN EXCHANGE AGREEMENT

IUPUI and Hakuoh University have signed an agreement for tuition-free student exchange. Hakuoh is located in Tochigi Prefecture in Japan, Indiana's sister state since 1999.

The agreement will enable IUPUI students to attend Hakuoh University where they will learn Japanese tuition-free, while Hakuoh students will attend IUPUI tuition-free for their majors. The two universities want to bridge the gap between theoretical and practical education by emphasizing applied knowledge and civic engagement. Uday Sukhatme (center), IUPUI's executive vice chancellor and dean of the faculties, with Hakuoh University representatives.



## Catching Up



Jenny Sarabia with Sen. Ken Salazar of Colorado



Matt Crenshaw

### NEWS ABOUT ALUMNI FROM IUPUI'S SCHOOLS

**Jenny Sarabia** | Growing up, Jenny Sarabia had three homes: Colorado, California and Indiana. Now, just a few years into a fledgling career in the heady world of politics, the 2003 graduate of the IU School of Law-Indianapolis has made her mark, ironically in those same three states.

After graduation, Sarabia (featured in the Spring/Summer 2004 issue of *IUPUI Magazine*) served Gov. Joe Kernan as the first executive director of the Indiana Commission of Hispanic/Latino Affairs, serving as a liaison between the administration and the Latino communities throughout the state.

When Kernan's administration ended, she made the bold move to Washington, D.C., and joined the staff of first-term Sen. Ken Salazar of Colorado in an administrative support role. But this summer, opportunity arose again: she became part of California Congressman Joe Baca's legislative affairs staff.

"I get to help write legislation on issues like education, labor, public safety, women's issues and homeland security," says Sarabia, who earned her master's in public affairs and nonprofit management from the IU School of Public and Environmental Affairs at IUPUI this summer. "It's exciting, because I get to deal with national issues, to be an advocate of new ideas."

She also has an opportunity to work with Fortune 500 companies whose philanthropic efforts intersect with the U.S. government, giving Sarabia a perfect opportunity to utilize her latest training. That makes her time-consuming commutes between D.C. and Indianapolis to finish her master's all the more worthwhile.

Though she enjoyed her days in Colorado and California, she admits "I really miss Indiana ... it has my heart! Working for Gov. Kernan led to my new position, and gave me the chance to do something I only dreamed of doing."

**Matt Crenshaw** | For Matt Crenshaw, the old adage "you can't go home again" doesn't have much meaning — the former IUPUI basketball standout has returned to his collegiate home to help coach the team he once guided into the NCAA Tournament.

Crenshaw, whose jump shot with just seconds remaining in the 2003 Mid-Continent Conference men's basketball tournament gave the Jaguars a victory over rival Valparaiso and a berth against Kentucky in the NCAA tournament, will serve as an assistant to Ron Hunter. In a way, it's fitting — Hunter always called Crenshaw "my coach on the floor."

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“The Shot,” as it became known to die-hard Jags fans, did more than just give IUPUI a trophy and a shot at playing No. 1-seeded Kentucky in Nashville.

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It made the slender, wiry-strong guard a national media darling. As a veteran of the U.S. Navy, Crenshaw was older than any other player in the tournament — he was 27 at the time — and was a popular interviewee by such renowned sports organizations as ESPN, Fox Sports, *The New York Times* and *The Washington Post* among others during the heady, hectic days leading up to the Jaguars' battle with the Wildcats.

The Virginia native always was the voice of experience and reason among his younger teammates, and hopes to impart the same kind of wisdom — tempered with his twinkle-eyed humor — to a new generation of Jaguars who plan to follow in the footsteps of that 2003 team.

## IUPUI'S 'BEST AND BRIGHTEST'

One's a national cycling champion; the other is a beauty queen and NBC reality show star. Their connection? Both Bri Kovac and Kaitlyn Christopher attend IUPUI, and both are among the featured "Amazing Students" on IUPUI's dazzling new Web site.

Bri, a third-year student in the IU School of Law-Indianapolis on the IUPUI campus, won a pair of titles at the National Collegiate Cycling Association national championships at the Major Taylor Velodrome in Indianapolis this past fall. When she graduates this spring, she'll hit a new track at high speed, beginning her legal career at the Indianapolis law firm of Bingham McHale.

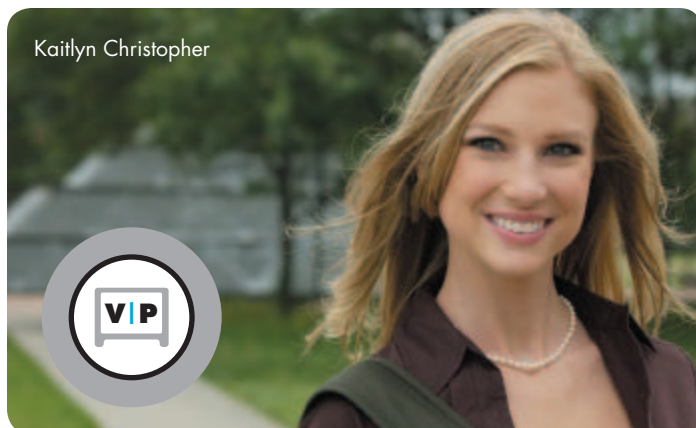
Kaitlyn was Miss Indiana USA in the 2005 pageant, and that experience earned her a spot on the Miss USA team in last summer's "Treasure Hunters" reality show on NBC, traveling throughout the U.S. and Europe in search of clues leading to the show's grand prize.

These days, she's chasing a prize of her own: a career in the medical field, with an eye on becoming a gynecologist.

To learn more about Bri, Kaitlyn and IUPUI's other "Amazing Students," visit the IUPUI home page ([www.iupui.edu](http://www.iupui.edu)) and click on the "Amazing Students" link at the bottom of the page.



Bri Kovac



Kaitlyn Christopher

# license plate

[alumni.iupui.edu/licenseplate.html](http://alumni.iupui.edu/licenseplate.html)



## Get your plate and "Ride with Pride!"

Display your IUPUI pride and support the Sam Jones Community Service Scholarship Program at the same time by signing up for an IUPUI license plate! To find out how to get the Jaguars' plate, go to the Web site listed below and follow the step-by-step instructions: <http://alumni.iupui.edu/licenseplate.html>



Robert Brown

## PARTNERSHIPS MAKE A DIFFERENCE

When the city of Indianapolis needed a helping hand in blending the Marion County Sheriff's Department with the Indianapolis Police Department, city leaders knew just where to turn: to IUPUI faculty member Robert Brown of the IU School of Public and Environmental Affairs (SPEA).

Brown's expertise in urban affairs has made him a familiar face around the City-County Building. His research into such matters has helped the city on issues ranging from city parks to crime prevention. But it also has helped Brown's campus, his school, his research and — most of all — his students. He and his SPEA compatriots have turned Indianapolis into a real-world laboratory to help students get practical experience to support their academic work.

To learn more about Robert Brown and other exceptional IUPUI faculty who help IUPUI students utilize the campus's "urban advantage," check out the "Outstanding Faculty" section at the bottom of the IUPUI home page ([www.iupui.edu](http://www.iupui.edu)).



**The Future is at Hand** | Construction projects are changing the face of IUPUI, bringing new resources on line to improve the quality of education, enhance campus life for our students, and serve people in need of high-quality health care. Projects in varying stages of construction include (clockwise from top left): Research III, a new home for medical research (opening in 2009); the expansion of Riley Hospital for Children (2009); Fairbanks Hall, a new headquarters for the IU School of Medicine, and located on the Downtown Canal (summer 2008); the Medical Information Sciences Building, also part of the “campus on the canal” (opening this winter); the dramatically expanded IU Cancer Center (2008); and the IUPUI Campus Center, the new focal point for student life (January 2008).

# IUPUI

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