

working knowledge

**Dr. Rosina Weber helps
government researchers
access information on
microbial threats**

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BRIDGE

fall
2006



from the Dean

David E. Fenske

Isaac L. Auerbach
Professor and Dean

"What's in a name . . ."

a young woman once asked of her star-crossed love. In tragedy or technology, the answer is the same: a lot. Of all the questions and feedback I have received since we published the first issue of our College magazine, "Why Bridge" is perhaps the most common.

Fundamentally, a bridge is a connector; it links disparate elements, it joins, it unites. At the College of Information Science and Technology, our vision is to empower society by uniting people, technology, and knowledge through innovative education and research.

We strive to provide people with the power to harness the world of information, to connect

with others, to share ideas. I believe that our teaching and our innovation gives individuals the ability to participate in the advancement of society as a whole.

This vision is reflected in how we present ourselves as a unique institution, and in our involvement with a larger whole. Just as individuals are connected via the society they share, our identity as the iSchool at Drexel joins us to a larger community of colleges with common interests and goals. This allows us to work jointly to advance the public's understanding of the information sciences, knowing that doing so benefits not just our individual institutions, but ultimately the world.

Our symbols, our mottos, and our infrastructure also partake of our vision, reflecting our belief in the nature of information, the use of knowledge to empower society, and the ultimately collaborative essence of progress.

Most importantly, however, our vision is reflected in what we do.

From programs that seek to excite the next generation of IT students to community partnerships to educate the next generation of IT leaders, our commitment to innovative teaching is strong. The iSchool's involvement in the community at large is one of its defining characteristics. It is part and parcel of who we are. Without it, we ignore the world around us and unite nothing.

The students, alumni, and staff of the iSchool at Drexel live our ideals daily. To a person, they are intelligent individuals with the humility to learn, the knowledge to evolve, and the courage to challenge. They often achieve far beyond reasonable expectations, setting

a high bar, but encouraging and inspiring others by their example.

Finally, our faculty and their research continue to define innovation. Advances in knowledge, however, will come less and less from lone scientists toiling in obscurity and more and more from collaborations of researchers pushing at the boundaries of their respective disciplines until their edges meet.

The iSchool at Drexel is a continuing leader in this new paradigm. The inception of several Centers of Excellence in emerging fields, including Healthcare Informatics,

Our vision is to empower society by uniting people, technology and knowledge.

Bioinformatics, and Knowledge Management, places the College of Information Science and Technology at the leading edge of research in the 21st century. That this is signaled by favorable rankings in *U.S. News & World Report* is icing on the cake to an already proud Dean.

So, why *Bridge*? Because the word exemplifies who we are and what we do as an institution. Because we believe that a small magazine can do its part to unite a large and ever-growing community. Because our College is a span by which our students enter society. Because a bridge's importance lies not in itself, but in the connections it creates. *f*

Governor's School gives high school juniors a peek at college life
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Fall 2006's new iSchool alumni





Left: Scot Silverstein, M.D. discusses a usability issue with Clinical Director Fran Gelo, R.N. of Drexel's 11th Street Family Health Services

Below: Attuned to users' needs, Scot compares notes with 11th Street's Tamika Corbin



HIT HUMAN

"By computerizing health records, we can avoid medical mistakes, reduce costs and improve care... in ten years."

—President George W. Bush
State of the Union Address, January 20, 2004

The crowd roared. The President beamed. Scot Silverstein shook his head.

Trained in medicine, computer science and Medical Informatics at Boston University and Yale School of Medicine, Scot Silverstein M.D. has observed the progress of healthcare IT (HIT) initiatives since the 1970s. "I think most of us who study the issues involved find the President's timetable extremely optimistic," he deadpans.

Assistant Professor of Healthcare Informatics and IT and Director of the iSchool's Institute for Healthcare Informatics, a joint initiative with Drexel's College of Nursing and Health Professions and the School of Public Health, Scot is no luddite.

"Healthcare IT can achieve many of the President's healthcare goals, and more [see sidebar]. One of the obvious benefits is accuracy. The

Institute of Medicine's report *To Err is Human* stated that medical error may kill 100,000 Americans every year. IT can greatly reduce those mistakes."

But after decades of hands-on experience developing HIT systems, Scot warns against naive optimism. "We're in danger of repeating the UK's experience. A few years into their national HIT program, they've spent billions of pounds on what many are calling a train wreck."

Promise and pragmatism

Across the Delaware River, Drexel Nursing alumna Cara Paulmeno, R.N. prepares a patient's medicine in the ICU at Our Lady of Lourdes Medical Center. She scans the bar code on a bottle and instantly the PC at her elbow confirms drug, dose, patient cautions and other key data.

Cara makes it look easy: a few clicks and she has the right meds. So why not distribute that software, train caregivers, and consign medication errors to history's dustbin?

Scot demurs. "The reality in most HIT departments falls far short of that standard.

"Clinical computing and business computing are very different. But IT people tend to view their job through a top-down, prescriptive model.

"So a consultant designs a system after perfunctory consultation with the medical staff—who are forced to order revisions, additional training, tutorials, enhanced interfaces, and so on. The cost skyrockets while the users either work around the 'solution' or reject it outright. I wonder if some HIT people forget that their role is to serve the needs of clinical care, not the other way around."

Rx: medical informaticist

Scot decries this status quo. "Back in 1969, [HIT pioneer] Dr. Donald Lindberg said, 'computer experts have no idea of the problems of medical practice, and [underestimate] their complexity.'"

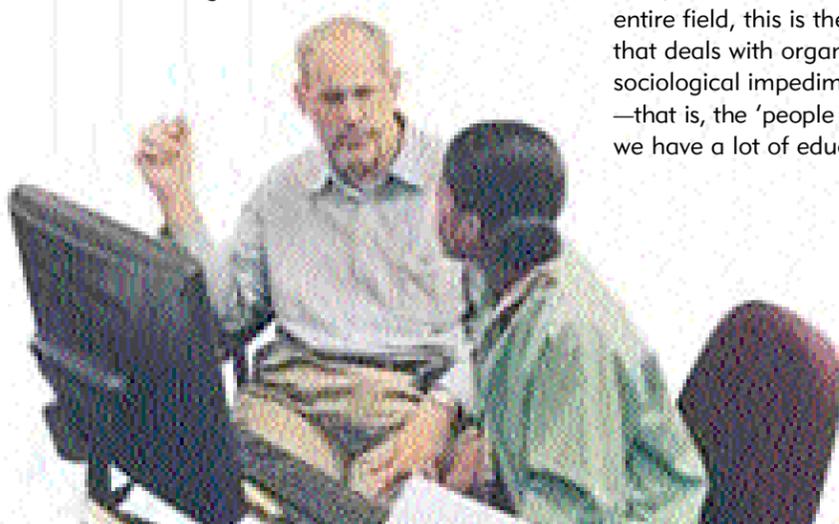
To ensure viable HIT systems, Scot recommends "the appointment of a guiding authority who understands both medicine and computers—a *medical informaticist*."

"We need to harness the talents of programmers under the steering control of the health professionals

who will use them. The software has to fit the workflow and situations that arise in the healthcare setting, not force clinicians into square holes."

Scot's HIT website has become a magnet for Kafkaesque tales of HIT chaos. But his experience shows that it doesn't have to be this way.

Before joining the iSchool, Scot led the design and implementation of Christiana Care Health System's Enterprise Electronic Medical Records system and specialized research information systems. The 1100-bed Delaware healthcare provider reports "substantial, quantified improvements in immunization rates, preventive care delivery, appropriate treatment of chronic diseases and error prevention"—and significant savings in high-risk, high-volume areas.



To make Christiana's experience the norm instead of a rare exception, the iSchool's new Center is conducting research, coordinating HIT initiatives in Drexel's own healthcare settings (including the offices of the 11th Street Family Health Services), and publicizing the issues. Industry heavyweights such as the Gartner Group and the American Medical Informatics Association have highlighted Scot's efforts.

"We're making progress," Scot says. "But there's a long way to go.

"I'm teaching a course to iSchool students who are considering HIT as a specialty. Smart young people are becoming aware that this is a field that's ready to explode."

Pulling a paperback from his bookshelf, he smiles ruefully. "But in the entire field, this is the only textbook that deals with organizational and sociological impediments to success—that is, the 'people factors.' Clearly we have a lot of educating to do."

Healthy horizons

Former National Coordinator for Health Information Technology David Brailer, M.D., Ph.D. remarked last year, "Used as intended, [healthcare IT] saves lives and saves money." Scot agrees that the potential benefits justify the expense if we can get it right. The technology can

- link clinicians for fast, efficient care
- personalize health records and data
- advance public health by mining millions of individual health histories
- reduce medical errors
- reduce healthcare inequality in remote or underserved locations

Success stories are starting to appear. Trade publication *Imaging Economics* reports that "Imaging procedure volume at Primary Children's Medical Center in Salt Lake City increased 25% since 1997, but turnaround time for those studies decreased by 15% during the same period," with the introduction of a picture archiving and communications system (PACS) for x-rays and other visualization tools.

For an enlightening, amusing, alarming look at HIT, visit Scot Silverstein's website: www.ischool.drexel.edu/faculty/ssilverstein/medinfo.htm.

The Southeastern Pennsylvania Transit Authority (SEPTA) and the Center City District (CCD) got on board with the iSchool this year, partnering with student groups on senior design projects. The collaboration shows how young ideas could help improve 738,000 daily commuters' experience.

Senior Design Projects—functional information systems projects designed for real-world settings—are the pinnacle of an iSchool student's academic career. In a mandatory series of three capstone classes, seniors learn about project management, form groups to define the scope and purpose of a project, then create and implement their information systems.

Of the roughly 15 projects created each year, five are selected to compete in the Senior Design Challenge, in which each team presents their project to a packed room and a panel of faculty judges. The winning team walks away with \$2,000.

Dean David Fenske with Senior Design Challenge finalists Istakharul (Iffy) Islam, John Simon and Adam Caponetti

Unique this year, the participation of outside organizations was mutually beneficial. The iSchool engaged the community and gave students the opportunity to work with local groups, and SEPTA and the CCD let a med way to use the GPS devices installed on every city vehicle to inform riders in real time about arrivals and delays.

Two projects emerged from the collaboration. RAPID collates the position data and arrival times of SEPTA's fleet. Commuters can access that information via a website and can register to receive arrival-time updates for their route via cell phones and PDAs. RAPID went on to take third place in the Senior Design Challenge.

The second project to emerge extends RAPID with sensors at bus stops to receive the collated position information and then broadcast it to nearby Bluetooth-equipped devices. At any city bus stop, commuters with the right equipment would know how long they had to wait.

Although it didn't make it to the final five, "SEPTA is very interested in that idea. It's the one they're just buggy about," reports Thomas J. Smith, iSchool professor, and advisor for Senior Design projects. Future iSchool students will continue to develop both systems.

In coming years, the College hopes to involve other area organizations in the Senior Design Projects. Their presence often injects a needed dose of reality into sometimes fanciful notions. Businesses, it seems, like to have their facts straight.

"The thing I'm most interested in is documentation, because that's the way things work in the outside world," Smith says. "And of course, that comes as a big shock to the students because they figure they can just throw some code together." With events like the Senior Design Challenge and the continuing partnership of local organizations, the iSchool aims to ensure its students are armed with the experience to know better. *f*



Governor's School is a springboard from high school to iSchool

For freshmen, starting college can be like jumping into the deep end without swimming lessons. But a group of tech-minded high school students can dip their toes into the pool of college life and even swim a few laps.

The Pennsylvania Governor's School for Information, Science and Technology, offered each summer to qualified high school juniors, provides a five-week taste of the iSchool. While exploring information technology, Governor's School participants room in Drexel dormitories, make friends and experience living and studying at a forward-thinking urban university.

Thomas J. Smith, the iSchool professor who runs the Governor's School program, notes that "Classes introduce the group to everything from computer programming to ethics and the implications of technology in society. We host students with a considerable range of interests—from hard-core techies to those interested in computers as a means to an end. Heavy computer proficiency isn't a prerequisite."

To a high school junior who might otherwise be working a part-time job or lounging by the pool during summer vacation, the Governor's School schedule might look like real work.

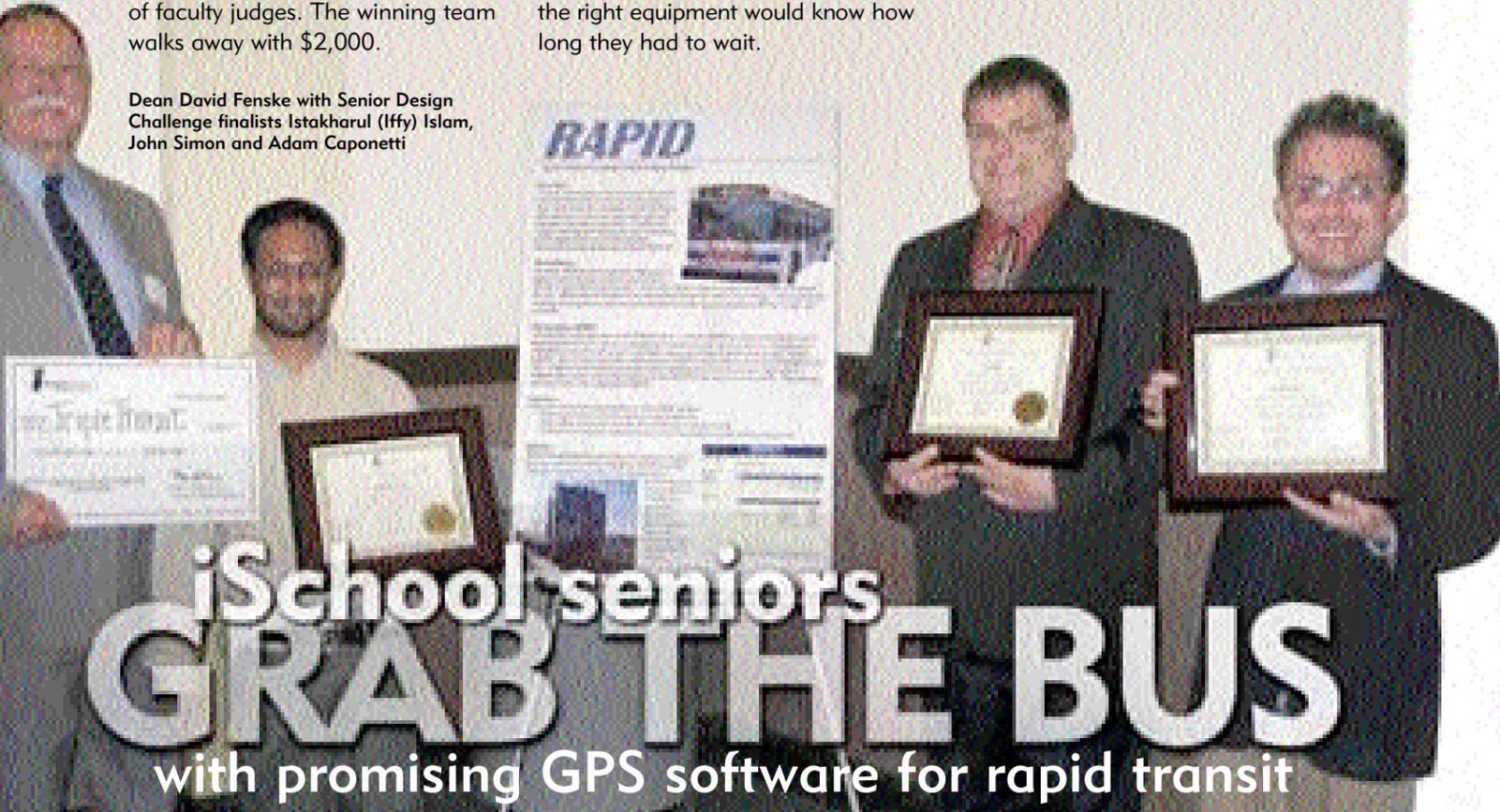
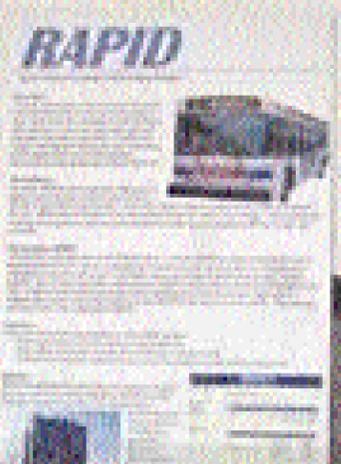
Wall-to-wall classes and labs fill the daily calendar, with weekends taken up by group activities including talent shows, contests, and outings at museums and sporting events.

But Professor Smith says his college newbies rise to the challenge with enthusiasm. "We try to focus on enjoying the experience."

The program culminates in a project based on a choice of themes. This year's topics included technology to help teachers, such as software to generate flash cards and a role playing game that focuses on spelling.

"We see some very creative ideas," smiles the director. "The students have a lot of fun with these projects."

While the program gives students an edge over their peers in technology and academics, Professor Smith notes that it also prepares them for the often choppy waters of freshman life. "One of the main things they learn is how to be a college student . . . living the dorm life, eating dorm food and getting up to make that 9 a.m. Monday class. It's summer camp with a lot of hard work." *f*



iSchool seniors
GRAB THE BUS
 with promising GPS software for rapid transit

It's April 2009. Twilight infiltrates the office where environmental biologist Gina Macauley stares at test results for a sample of brackish water from the tidal marshes fringing Maryland's Chesapeake shoreline. Its chemical signature betrays the presence of an unknown pathogen. *Anthrax?*

Gina's training in littoral ecosystems barely touched on infectious diseases. But Dr. Rosina Weber is working to make sure Gina can find accurate, detailed and pertinent scientific data on how anthrax propagates. Fast.

An iSchool assistant professor, Rosina wants to replace the anarchic state of knowledge management with a far more efficient one. Funded by the Environmental Protection Agency and the Department of Homeland Security, her KM project for CAMRA (the Center for Advancing Microbial Risk Assessment) seeks to enhance computers' power to assist researchers.

"We expect computers to react as a person."

Rosina believes humans often ask computers to do things they aren't good at, while preventing them from doing what they do best. "We use the technology the same way we used what it replaced, like notebooks."

And humans tend to anthropomorphize the computer.

"We expect the computer to react as a person. When it doesn't, we

blame the stupidity of the computers, of the programs, of the programmers and everything else."

The results: frustration, inefficiency and waste. Part of the solution, she asserts, is for humans to reprogram our assumptions about how to interact with computers and knowledge management software.

Rosina's quest strikes a sympathetic chord with anyone clicking through the fifth page of red-herring results in an Internet search. But for scientists and clinicians charged with defending the nation against microbial threats, knowledge management is literally a matter of life and death.

She wants to reconcile us with our cyberservants by helping us adapt to the ways they organize and retrieve data. "Computers excel at knowledge management," she notes, "Particularly at classifying collective knowledge to maximize its usefulness to everyone."

Gaining insight in previous studies of how large organizations collect and share data, she has amassed considerable expertise on what works or doesn't work... and why.

Rosina contends that there's often plenty of knowledge available, but no efficient way to gather, catalog and distribute it. Helping people utilize that collective knowledge is the goal



Dr. Rosina Weber is determined to help researchers and clinicians access and augment information

Rosina laughs at the suggestion that she's a cyber-tsarina. "I just want to take a small group of people and show that I can help them leverage and share knowledge.

"We're hoping that the case-

based model, rather than one based on unwieldy and inaccurate keyword searches, will make this system a better tool for CAMRA—and really, any group needing to manage information.

Building a repository of knowledge on what the government refers to as *biological agents of concern*, CAMRA is gathering data on everything from weaponized biological agents to naturally-occurring communicable diseases. The task is manifold: understand how biological agents spread and infect humans, study the pathology of those infections, then examine government countermeasures and possible public responses.

To be effective, CAMRA must make it easy for scientists, clinicians and officials to access and add to this vast data store. Rosina's contribution is a regime to ensure that researchers share knowledge, collaborate and build on it.

Informed by case-based reasoning, she's creating standards for the way "knowledge artifacts"—the nuggets of wisdom accumulated in research—are stored, recalled and incorporated in a *knowledge repository*.

Keywords exemplify the way data searching is being done backwards. You can't use keywords to convey a real idea or thought."

The case-based system requires users to realign their thinking to a more computer-friendly model. Rosina's plan entails a strict data-entry format: users detail what they learned, the conditions under which they learned it, what caused them to learn, and a context for further use of the knowledge. People searching for information will have to provide equally detailed, case-based criteria to obtain the most helpful results.

"You can't use keywords to convey a real idea."

"We must go to users and tell them, hey, computers are not what you're thinking," she observes. "They have their limitations.

"If you want your computer to work well for you, you have to work with it."

But she recognizes that her plan must accommodate humans: "People are in a hurry, and naturally they take the route of least resistance." So her system includes incentives.

"One motivation to follow such a detailed process is that it ensures the accuracy and specificity of the results from a later search. Scientists are used to working methodically, and self-interest will help maintain discipline."

There's a bigger prize. Once a sizable repository of knowledge exists, users will be able to perform

what librarians call *environmental scanning*—searches for every bit of material on a related topic—and identify gaps in knowledge.

Rosina's contribution to CAMRA has far-reaching potential for any organization or group that seeks to share knowledge, but especially for researchers and scientists who work across national boundaries. As she points out, "Research funding from now on is not going to be defined by lone scientists. We need to embrace collaboration, and I'm hoping my work contributes to that goal."

The Environmental Protection Agency and the Department of Homeland Security look to the iSchool's Dr. Rosina Weber to connect the dots in our

working knowledge

Sean Bakst makes his own breaks

When healthcare IT (HIT) is a reality, it will have CHIME written all over it. A prime advocate of HIT, CHIME—the College of Healthcare Information Management Executives—comprises hospitals, entrepreneurs, industry giants like Dell and Intel—and one iSchool senior.

my bedroom. Then one day the FBI called my parents asking about a security breach.”

In his zeal to aim the antenna, Sean had dialed into the government’s data centers for satellite tracking information—inadvertently accessing forbidden servers.

Sean’s entrepreneurial drive brought him to Drexel’s iSchool, where a casual decision proved momentous. “I had to pick a topic for a paper in Dr. [Randy] Kaplan’s class. I wrote about the barriers impeding IT in physicians’ practices.”

Research led Sean to CHIME’s website.

“I started to fill out the membership application, but then I changed my mind.

“Turns out the application sent each page as I clicked ‘next’ at the bottom. A few days later I got a phone call from CHIME, wanting to know more about me.”

Within weeks he was rubbing elbows with Barrett and other IT giants. “I was the youngest person in the room by a couple of generations. I pretty much just kept my mouth shut.”

His CHIME credentials landed him a spot on the technical committee of the Delaware Health Information Network (DHIN), where he’s helping to develop requests for proposals, specify functional requirements, and establish salaries.

Sean’s iSchool senior design project addresses human needs in a very different setting. “We’re making an RFID [Radio Frequency Identification] location system for firefighters.

“Everyone who responds to a fire wears a tag with a photo, name and information like that. The RFID chip will help make it possible to track people inside a building.”

It’s a digression from HIT, but fitting when Sean reveals that he serves as a volunteer fireman and rescue diver.

“I believe we all owe it to our community to give back,” he declares quietly. “You can’t just sit back when everybody can do something to make the world a better place.”

“I believe we owe it to our community to give back.”



“There I was,” recalls Sean Bakst of a recent CHIME conference, “Sitting not ten feet from [Intel CEO] Craig Barrett.”

Heady stuff, but Sean has always reached high. Director of Information Systems for Wilmington’s Delaware Back Pain, a multi-location provider, he explains his technology bug with equanimity.

“I’ve always been hands-on. When I was six, I fixed the garbage disposal.” The next year, “I literally chased a Comcast truck to ask for a part to fix my mom’s TV.”

Not every foray ended well. After surgery on a record player, Sean plugged it in. “There was a big blue spark—and the plug exploded.”

Miscues like that might inspire caution, but Sean was undeterred. “In seventh grade,” he continues, “I set up a satellite receiver in

Cathay Crosby takes her career off the shelf

Drexel graduate student Cathay Crosby knows from personal experience how far an iSchool education can take someone—and how fast.

A self-described “analog” librarian three years ago, Cathay is now helping her workplace charge into the digital age, while she pursues a Master’s degree in Library and Information Science at Drexel.

Now living in Newark, Delaware, Cathay began her library career shelving books as an Evergreen State College undergrad in Washington two decades ago.

“It was one of the most enjoyable and meaningful jobs I’ve had, and I’ve had a lot of jobs,” she laughs.

Graduation and marriage brought new challenges as Cathay decided to home school her children.

Though long absent from the professional library world, she found herself frequenting the stacks again as a mother and teacher, preparing lesson plans for her children and guiding their own tentative steps into the world of research.

In 2001, Cathay decided to give the library profession another shot when she noticed a job posting at the Cecil County Public Library, just over the border in Elkton, Maryland. She took the position and for three years applied the skills she developed as her children’s teacher to her new role creating programs for young readers.

The work rekindled her interest in a library career, and she was pleased to find one with both an excellent reputation and a campus close to home.

“Drexel is renowned in my field,” she remarks. “I want to do something meaningful in my life and the iSchool has given me the tools.”

Those tools have enabled her to quickly shift her focus from youth programming to her new roles as Webmaster, computer trainer and now Electronic Services Librarian.

Cathay was recently named one of a small handful of Maryland librarians chosen to join in the Gates Foundation’s Rural Sustainability

program. After a week in Seattle, they’ll take part in a forum at the American Library Association Annual Conference, then begin passing on their knowledge to Maryland’s librarians.

“What an opportunity,” she smiles. “I can’t express how much of a positive difference Drexel’s program has made to my life, and how marvelous it is to turn this back around—to be the best librarian I can for my immediate and extended service communities.

“Technology and the Internet are driving a lot of change for libraries and librarians, and we need to embrace that. My options are wide

“I really have a lot of passion for libraries.”



open now . . . it’s pretty exciting.”

Cathay acknowledges that libraries are institutions in flux, but she emphasizes their essential place in American democracy. And she’s delighted that her iSchool education is enabling her to reinforce that role.

“I really have a lot of passion for libraries, and their services for people and for our freedoms, as well,” she muses with conviction. “In this day and age, I want to be an advocate of freedom of information and the professionalism that makes that possible.”

Co-op is a win for iSchool students, employers

Cooperative education in the United States celebrated its 100th birthday on September 14, 2006. Born at the University of Cincinnati in 1906, Co-ops were the brainchild of UC's Dean Herman Schneider, who reportedly conceived of the idea when he was spooked by the whistle from a steel mill.

In the century since its startling origin, the co-op format has proved revolutionary. The iSchool at Drexel would like to take the opportunity of the centennial to thank those who make it possible: our Co-op partners.

Nearly 80 organizations, from Microsoft to Sunoco, have placed iSchool students in positions as varied as the agencies themselves. This experience gives our undergraduates an edge in a competitive world, and the opportunity to choose a career that is truly right for them. As the results of this century-old experiment continue to pour in, the question becomes less "Why Co-op?" than "Why not?"

A study by the National Association of Colleges and Employers (NACE) reports that graduates with related experience not only found work more quickly and enjoyed higher levels of responsibility in their first jobs than graduates without experience, but

also "were more likely to be employed in their fields of study, and were more satisfied in their current positions."

It's not hard to see the trickle-down benefits. According to most management professionals, employee satisfaction is high on a list of factors required for a successful business. This collective wisdom is backed by NACE's 2005 Experiential Education Survey, which revealed that some 80% of responding employers reported higher retention rates for college hires with related co-op experience than for those without, regardless of where that experience was obtained.

Given such incentives, organizations across the U.S. are scrambling to participate. Some 50,000 companies, including most of the Fortune 100, now offer co-op positions.

It's a win for everyone, and students such as Joseph Gravante (see sidebar below) join the iSchool in extending a hearty "Thank You" to all the Co-op partners who provide this outstanding opportunity. *f*

Microsoft landing suits Joseph Gravante

The iSchool's co-op partners include Microsoft, whose sprawling Redmond, Washington headquarters now serves as home base for eight iSchool Co-ops—a fact that Joseph Gravante finds very appealing.

"Co-ops are a little stressful, but they offer me a one-up on other

graduates: I'll leave Drexel with a year and a half of work experience they lack," he raves. "I'm working as a Program Manager in Microsoft's Financial department. After this, I think I'll probably have a shot at any IT job I want."

Tapping feverishly at his keyboard, Kyle Black maneuvers his virtual car through a series of hairpin turns and slides it neatly into an available space.

"*Parking Paranoia*," he beams, showing off the game he's spent a week creating. Kyle is one of 21 high school students who participated in a summer program at the iSchool called *Games in Real-Life Situations*, or GIRLS. With the help of iSchool staff, a couple of undergrad students, and off-the-shelf software, students learned to create video games.

In 1975, Pong's monochrome bitmap hardly presaged today's lifelike, highly interactive games. But after four decades, the release of some games causes as much stir as a blockbuster movie—witness Halo 2's \$125 million opening day, the highest grossing 24-hour release in entertainment history.

Capitalizing on that imaginative hold, iSchool Auxiliary Associate Professor Dr. Randy Kaplan developed the GIRLS program as a back-door way to interest

kids in information technology. The pitch was simple, and the hook set itself: Make your own game.

The weeklong day camp utilized a program called Game Maker, which enables users to create basic games without learning a complex programming language. Games were required to be non-violent, "socially relevant" and based on real-life situations that students face (or will face) as individuals or members of society.

Students own the rights to the games they create, and a licensed copy of Game Maker is theirs to keep.

"Video games are an amazing opportunity to get kids to explore the world through a medium they know, understand, and are comfortable with," explained Dr. Kaplan. "Plus, they're a great way to get them interested in computers, which is something that's really important."

Attending GIRLS was a no-brainer for Megan Rodenhiser of Malvern, who has her mom to thank for tipping her off to the program. "I love video games and online flash games, and I figured I would have fun and learn

about the Game Maker language and the coded functions of video games," Megan smiles.

Ruthie Kroah, Assistant Director of Marketing at the iSchool, hopes Megan's interest in technology continues. "One goal of GIRLS is to educate high school students about the many directions in which a degree in information technology can take you."

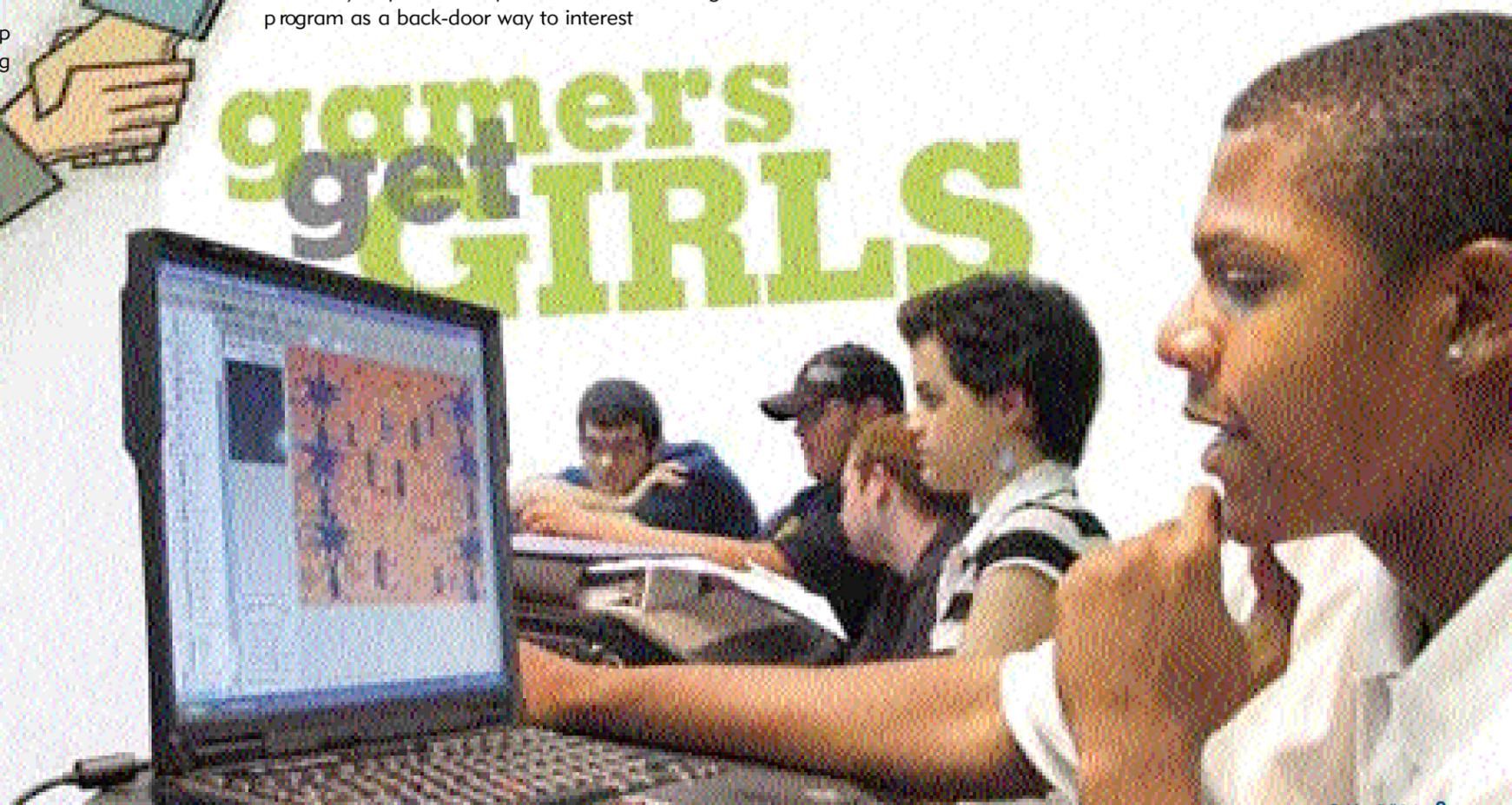
She gestures toward the crowd around an adjacent PC. "These students could be future alumni."

That possibility didn't escape the high schoolers either, as they peppered current iSchool undergrads Jessica Murphy and Christoph Shipley—who helped administer the program—with questions about college life.

The camp climaxed with a "game fair" in which students sampled the games their peers had created that week. Dr. Kaplan even tried his hand, though students noted with glee that he didn't do very well.

"The joke is on them," Dr. Kaplan laughs, crashing his car yet again. "They hardly realize they're learning." *f*

gamers
get
GIRLS





Mary Ann Conway cultivates Soft-touch success

new buildings, technology, and opportunities for deserving students. It's a hard job, but one that Mary Ann pursues with a soft touch.

"I'm about as low-key as possible. I like to let people get to know me a little, and bring it down to a very personal level. That's part of my philosophy about this," Mary Ann notes of an attitude she carries from her days at Big Brothers, Big Sisters.

Always on the lookout for opportunities to support iSchool initiatives, Mary Ann spearheads an effort to boost corporate support. Partnerships

In 1892, Information Science at Drexel consisted of a certificate program lodged with the Institute of Art in the Main Building. Today, the College of Information Science and Technology offers eight degree programs and has its own building. Change comes with the territory, but it doesn't always come free. Enter Mary Ann Conway.

As the iSchool's Director of Development, Mary Ann is charged with finding the resources to enable the College to fulfill a wishlist including

have been established with Numonics Corporation, Genesis Microsystems, Canon Business Solutions, and IBM. Contrary to popular belief, money isn't everything.

"In-kind contributions are great," Mary Ann says. "A goal of ours is to increase technology integration in the classroom, so the Numonics Corporation donated an interactive whiteboard. It's a wonderful gift."

Another source of fundraising is alumni, and Conway hopes former students will remember the excellent

education and great relationships they acquired at the iSchool.

"They're definitely a pretty tight-knit group," she notes of alumni. "The staff and faculty in this College are amazing people. Students feel very connected to them and as a result you build a strong support base. We're not one of the larger colleges, but it's like a family here."

One of the most rewarding avenues of alumni generosity is scholarships. Mary Ann realized that firsthand.

"I have a son who's starting college in the fall," she said, "and I now have this incredible perspective on how valuable a scholarship is to students and their families."

It's often less the size of a scholarship that determines its impact, but who it benefits and how. Mary Ann points to the David and Joanne L Witiak Endowed Fund: Joanne is an alumna from the class of '79. Their scholarship partially supports a single undergraduate student throughout college instead of being awarded to a new recipient yearly. Such generosity has the power to influence a student's entire life.

Some things on Mary Ann's wishlist are more tangible than others. One of the most obvious ways the iSchool benefits from fundraising is through facility upgrades and renovations, like those under way at the Rush building (see story, page 14).

In the long term, Mary Ann emphasizes that contributions help keep the iSchool at the top of its game academically, as shown by favorable 2006 rankings from *U.S. News and World Report*. "That's something we're really proud of and want people to know about," she beams.

With Mary Ann Conway's help, such good news will no doubt become commonplace. Who knows, students 114 years from now may smile at the quaint brick building that once housed the iSchool. *f*

With eclectic talents, an open mind and a questing spirit, Tori Orr has navigated Japan, the military, high tech, the ad business and the art community. When she chose to pursue an interest in library science, she navigated to the iSchool's online Master's program.

Tori applies her varied experience, and the skills gained through her Master's degree in Library and Information Science, as Manager of Information Services for the Montana State Library.

"I was a lab tech at Knight Library in college [at the University of Oregon, Eugene]," she recalls. "I think library work is a natural extension of other work I've done."

With undergraduate degrees in English and fine and applied art, Tori "arrived" at the iSchool in 2002 after serving in the U.S. Air Force, building and designing a *Star Trek* fan site, and creating a marketing department within DentsuFUSE, a subsidiary of Japan's largest advertising agency.

Though busy with her high-powered career, Tori kept a foot in the art world as a museum curator and prolific painter. Her Japanese sojourn steeped her in the Asian aesthetic, nurturing a fondness for Zen simplicity that colors her art and lifestyle.

After barreling through four major technology jobs and a freelance career, she decided to take a break. But for Tori, taking a break meant breaking new ground at the iSchool.

Drexel proved a fruitful and inspiring choice. "I'm so grateful to the teachers I had ... I'm blown away by their support and enthusiasm."

The returning student's own enthusiasm helped earn her the 2004 ASIST/Pratt-Severn Award for outstanding student research paper. Crediting Katherine W. McCain as a major inspiration and motivator, she insists "I couldn't have

"There's a tidal wave that's coming toward librarians."

won the award by myself. I'm glad Dr. McCain saw my talents and helped me exploit them."

Tori applies those new-technology talents in the world of traditional libraries, but she encourages library science students to look beyond the stacks to imagine how their skills can be employed in the broader digital world.

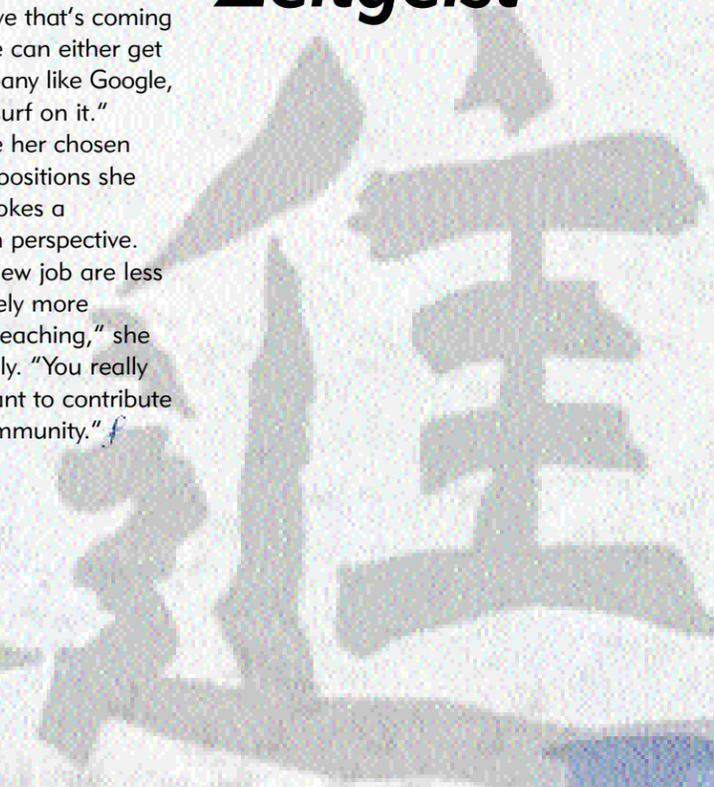
"Companies need information organizers more than ever.

"There's a tidal wave that's coming toward librarians. We can either get swallowed by a company like Google, or rise above it and surf on it."

Pressed to compare her chosen field to the lucrative positions she has enjoyed, Tori invokes a characteristically Zen perspective. The benefits of her new job are less tangible, but ultimately more rewarding. "It's like teaching," she concludes thoughtfully. "You really do it because you want to contribute something to the community." *f*



For Tori Orr, Zen trumps Zeitgeist



rush renovations give students time and space to collaborate

The iSchool's home has come a long way since it housed early 20th century tuberculosis patients as the Rush Hospital for Treatment of Consumption and Related Diseases.

Then, the focus was on keeping the building's residents away from others to stem the spread of the highly contagious disease.

How things have changed.

These days, rather than isolation, the word at the Rush building is *collaboration*. A number of ongoing and planned renovations aim to encourage students and faculty to interact, share knowledge and occasionally even relax.

Many of the improvements call attention to the high-tech studies taking place at the iSchool. Others upgrade the school's common areas

to maximize usefulness and comfort.

The building's last major renovation was completed in 1981, and one of the areas most in need of a 21st-century facelift was the lobby. With an eye to marketing the iSchool to prospective students, a better first impression was paramount.

"The lobby looks nothing like before—everything's new in there," notes Thao Danz, iSchool Director of Administrative Services. "It's now a welcoming communal area."

Completed in June, the lobby is now a gateway and "information commons" with wireless networking, an animated information kiosk, a case displaying work by students and faculty, and new seating.

Frosted-glass partitions evoke a futuristic lightness, and their writable surfaces bear the sketched record of

Rush Lobby, 1981



Rush Lobby, 2006



ad hoc brainstorming—and an ever-changing tableau of wry comments—by students.

The lobby's emphasis on casual, collegial space will inform

renovations in the second and fourth floor lounges.

Adjoining the lobby,

the iSchool's Computing Resource Center is also changing dramatically. New workstations and offices organize the space, with room left over for a wireless laptop lounge that's still to come. Here, too, the theme of shared workspaces influences the redesign.

Balconies overlooking the courtyard are being refurbished as pleasant, leafy outdoor collaborative nodes.

"A lot of the changes arise from the idea of collaboration."

—Dean David Fenske

"A lot of the changes we're making arise from the idea of collaboration in education, which is a key element in our college," explains iSchool Dean David Fenske.

"We wanted students to have spaces where they can congregate and discuss ideas," he continues, tracing a finger along one of the lobby's glass writeboards. "I think it's essential to provide opportunities for them to collectively generate thoughts outside of class."

Renovations "outside of class" include a coolly reimagined Alumni Garden. New bike racks, paving stones and plants grace the commons, and Rush's brick walls are emerging from their mantle of ivy.

Wireless networking will continue outside, with worn benches giving way to chairs and tables with built-in power outlets.

Thao adds that a water fountain and lush new grass will make the space more convivial for students and faculty from throughout the university. "This is definitely a place where a lot of people gather. It's very popular . . . kind of a refuge."

As an external manifestation of the iSchool's evolving identity, the new Rush building complements the versatile, cutting-edge institution it houses. Smiling, Dean Fenske recalls a recent visit by a colleague who commented on the impression, "Now, *this* is the iSchool." *f*

CHARLES RUMFORD

Charles Rumford, first-year iSchool IT student and photographer for Drexel's student newspaper *The Triangle*, offers rapid-fire answers to our reporter's probing questions.

Favorite class at the iSchool? → **INFO 101: Because I had some previous knowledge and could go further with it.**

One thing to have on a deserted island? → **A computer with an internet connection.**

Favorite programming language? → **PHP Hypertext Preprocessor, or PHP for short.**

Favorite movie one-liner? → **It's actually an Alexander Pope quote, but it's in the movie "The Eternal Sunshine of the Spotless Mind." *How happy is the blameless Vestal's lot! The world forgetting, by the world forgot. Eternal sunshine of the spotless mind! Each prayer accepted, and each wish resigned.***

Favorite iSchool event? → **The iSchool Challenge.**

Last book you read? → ***The Design of Everyday Things.***

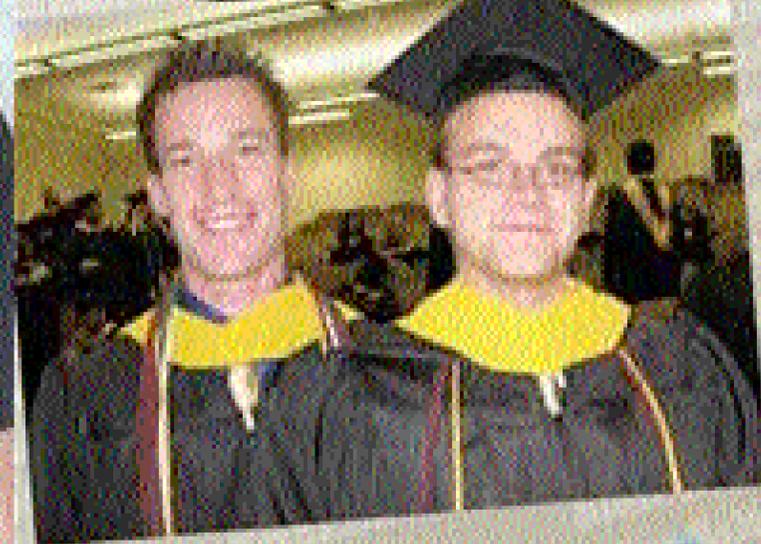
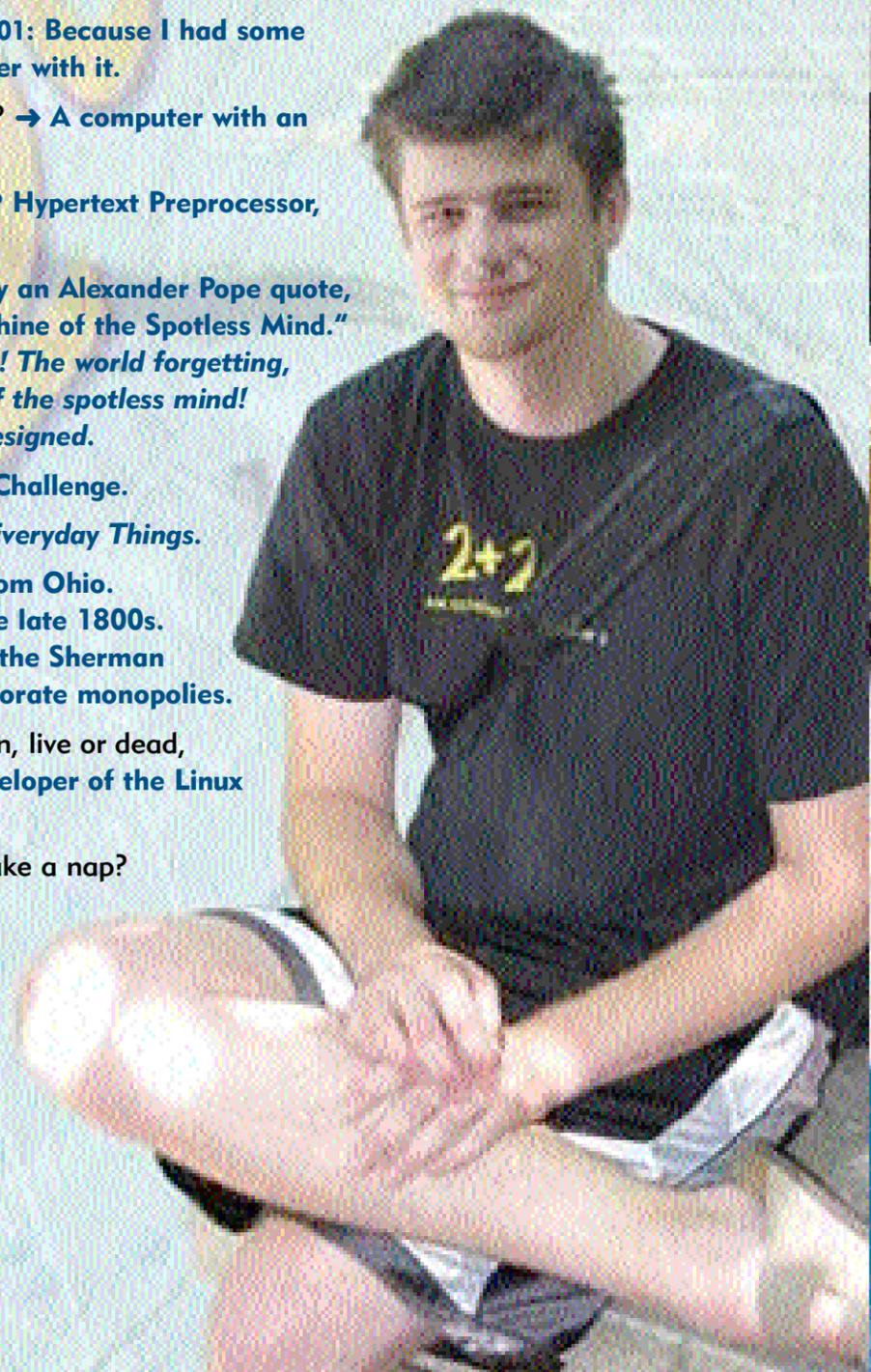
Favorite politician? → **John Sherman from Ohio. He served in Congress on and off in the late 1800s. I like him because he's responsible for the Sherman Antitrust Act, which helps prevent corporate monopolies.**

If you could have dinner with any person, live or dead, who would it be? → **Linus Torvalds, developer of the Linux operating system.**

Where's the best place on campus to take a nap? → **The *Triangle* staff lounge. There are no windows, the doors lock, and it has a comfortable couch.**

If you could transport the iSchool to any location in the world, where would it be? → **Dublin, Ireland**

Where do you see yourself in 10 years? → **Owning my own network support or architecture company.**



congratulations
to our newest
alumni