

Summer 2007

WPI Transformations : A Journal of People and Change, Summer 2007

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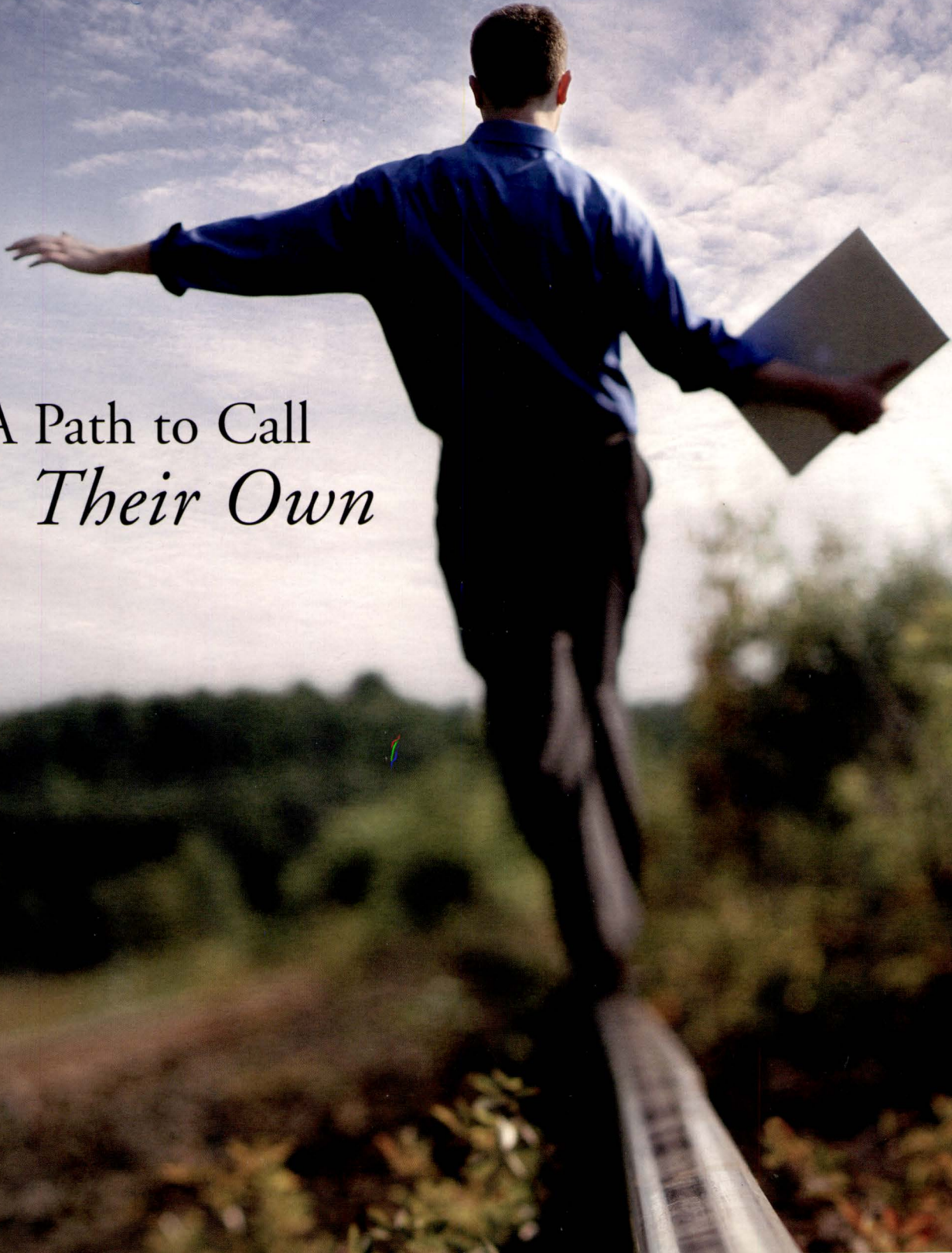
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WPI transformations

SUMMER 2007

A JOURNAL OF PEOPLE AND CHANGE

A Path to Call
Their Own



Departments

2 Starting Point

3 Letters

4 No Limits

A message from President Berkey.

5 Campus Buzz

New Life Sciences Center set to open; WPI goes SAT optional; hard hats on campus; WPI's 139th commencement; and more.

11 The Big Picture

Andy Edwards '09 is one of the nation's youngest elected public officials.

12 Inside WPI

Father Pete retires.

14 Explorations

Introducing WPI's newest project center, in Cape Town.

16 Investigations

Management professor Erwin Danneels studies product innovation and corporate renewal.

40 Alumni Connections

Meet Bill Krein '62, the new Alumni Association President; Reunion 2007 recap.

42 Class Notes

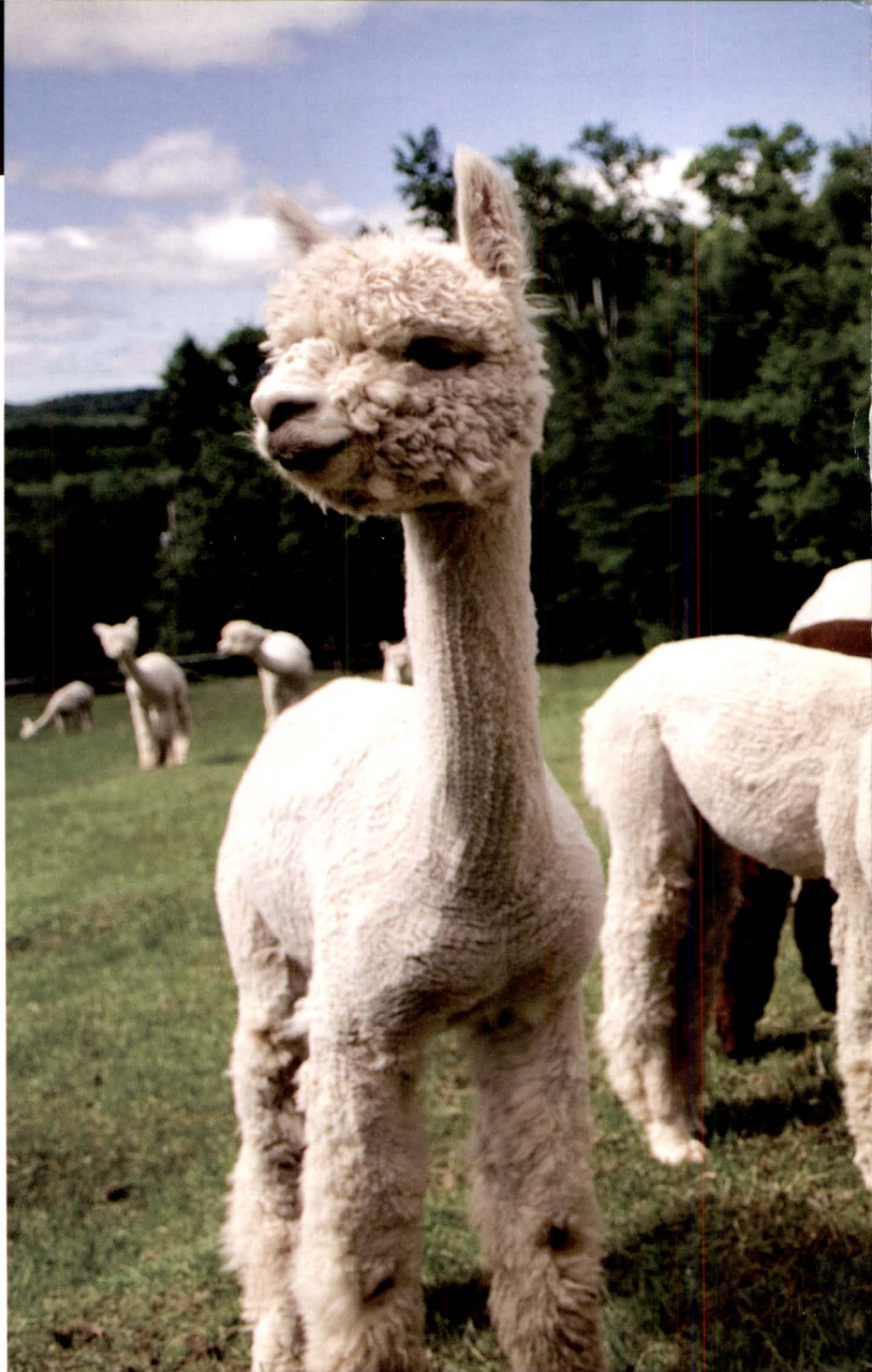
57 Obituaries

64 Time Capsule

About the cover

Entrepreneurial in nature, Zeb Tracy '07 is co-founder of WPI's new entrepreneurship club. Photography by Patrick O'Connor.

This page: photography by Andy Duback.



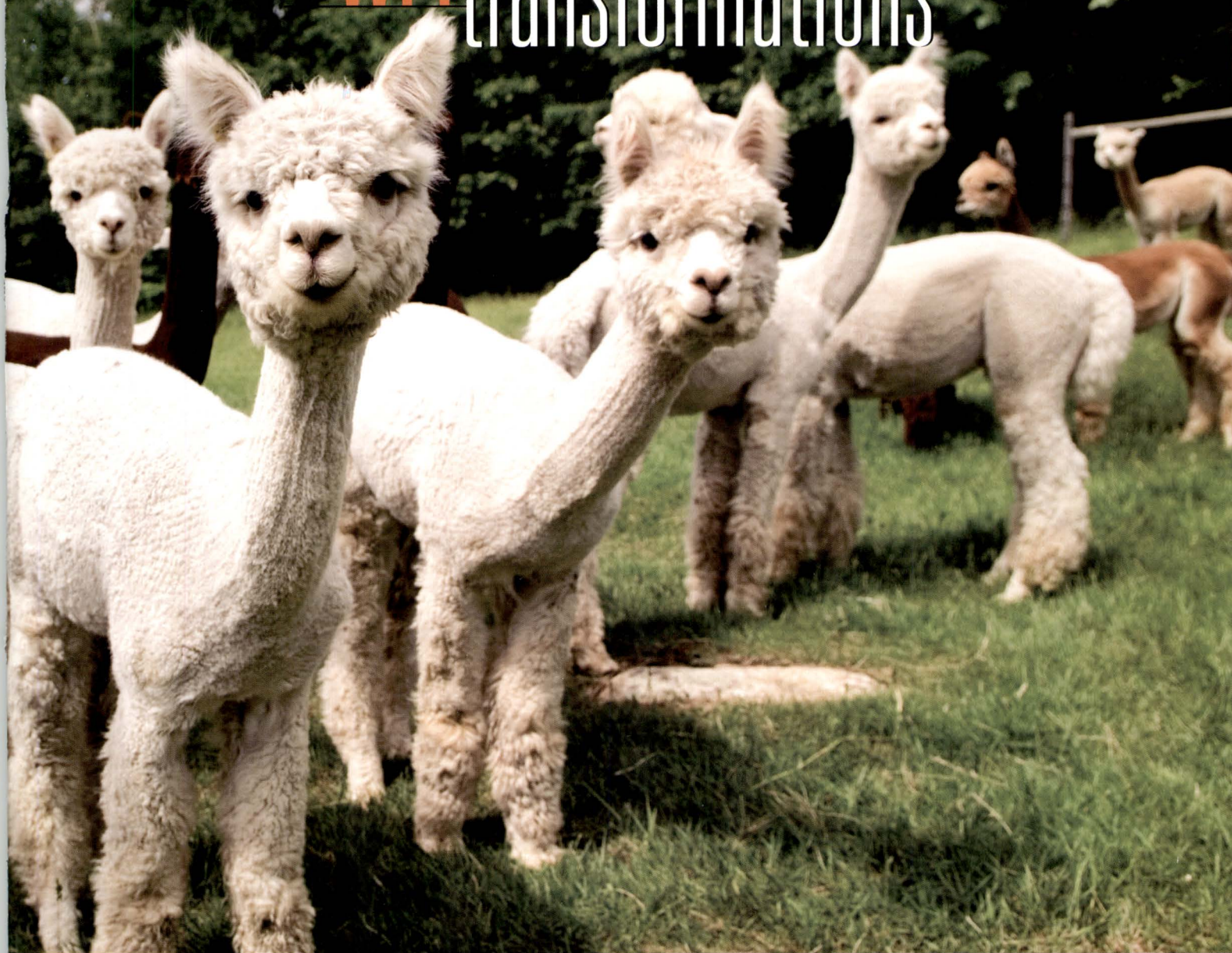
Features

18 The Spirit of Entrepreneurship at WPI

Faculty turn their ideas into marketable products with the help of WPI partnerships.

26 Entrepreneurial at Heart

Alumni reflect on the path that led them to become entrepreneurs.



32 Beyond 'Eureka!'

Ed Neister '65 and Tim McGreal '04 prove that being an inventor takes passion, determination, hard work, and patience.

36 A CEO of the Spirit

With degrees in business and engineering, Debora Jackson '89 isn't your typical pastor.

38 Breeding Business on Fertile Ground

As an alpaca breeder, Jennifer Lutz '94 wears many hats during any given day.

Starting Point

“Do not go where the path may lead, go instead where there is no path and leave a trail.”

Ralph Waldo Emerson (1803–1882)

Some 25 years ago, my father and his father talked about going into business together—the bagel business. My grandfather, my Zaide, would be in charge of making the bagels; my dad would handle the rest. Having moved to Connecticut to go to school in the 1960s, my father spent years looking for a good, New York–style bagel.

Unfortunately, their good idea remained just that—a good idea. Even more unfortunate is that others have since found success in the same market.

How is it we end up where we do? Is it careful planning? A chance encounter? A calculated risk?

Students come to WPI because they’re interested, generally, in science, technology, engineering, and math. And certainly, many of those students graduate and go on to lead very successful careers as engineers, scientists, and researchers within the STEM fields.

In this issue of *Transformations*, we focus on the stories of alumni who have taken a different, even unconventional, path. What’s the connection between a young inventor in Chicago and a pastor in Boston? A boat-builder and a venture capitalist? An alpaca breeder and an angel investor? Undoubtedly, they’re bound together by their alma mater (despite their far-flung interests, these alumni are quick to point out that they use, every day, their WPI education); but they’re also entrepreneurial by nature.

Given the university’s focus on interdisciplinary collaboration and its founding principles of theory and practice, it should come as no surprise that a good number of alumni become involved in entrepreneurial endeavors—whether they’re inventors, entrepreneurs, *serial* entrepreneurs, corporate executives, board chairs, or other leaders, movers, and shakers in the global economy.

Perhaps it’s not what they foresaw when they arrived as freshmen, but, like so many of our alumni, they’re putting their knowledge into action to solve critical problems in important ways.

Indeed, the entrepreneurial spirit runs deep at WPI. You can see it in the droves of alumni involved in promising, even lucrative, ventures; in the professors whose research forms the basis of young new companies; and in the students committed to providing a forum for budding entrepreneurs to share ideas.

We tell these stories, and more—a new project center opens in Cape Town, Father Pete retires, a WPI student lands a seat in the New Hampshire statehouse.

For me, landing at WPI two years ago has been inspiring, challenging, thought-provoking, and surprising. My only complaint? The bagels.

Thanks for reading.

Charna Westervelt, *Editor*

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SUMMER 2007
A JOURNAL OF PEOPLE AND CHANGE

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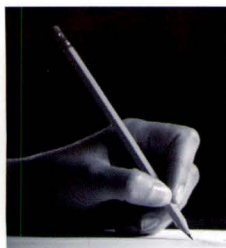
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We welcome your letters. Please include your full name, year of graduation, and current address. The editor reserves the right to determine the suitability of letters for publication and to edit them for accuracy and length. We regret that all letters cannot be published.

LETTERS

Rich History

I was delighted to see my esteemed father-in-law occupy center stage on the back cover of the Fall 2006 *Transformations*.

Andrew B. Holmstrom '17 truly became a central figure in WPI's and the city's rich history. WPI honored him in 1968 with a Doctor of Engineering for his accomplishments in business (Norton Co.) and civics (he was the first mayor under the new Plan E form of government), and at WPI, for his contributions as a trustee and his involvement in a capital fund campaign. The citation praised him for his "uncompromising integrity in his business, political, and personal life." WPI can look on his life and contributions with a great deal of pride.

Herbert P. Narbeshuber '53
Chatham, Mass.

Fond of WPI

I want to thank you for sending me the Fall 2006 *Transformations*. For many years I was the director of the Worcester Redevelopment Authority. I am a graduate of Harvard, and the Harvard School of Design. Working in Worcester, I really enjoyed my contacts with WPI. I also have a framed color photo of WPI in my office that I look at all the time.

I will only hope that you continue to send me the future issues of your wonderful magazine. It is so well done that I share it with other friends of mine in Worcester who think of you as well as I do.

Charles M. Zettek
Hopkinton, Mass.

Carrying On the Plan

I just finished reading the Fall 2006 issue of *Transformations* and was very pleased with it. I especially liked the article titled "Educated...for Life." Like Mr. Grasso and Ms. Dodd, I, too, started WPI with plans that have changed. I graduated in 1992 with distinction with a degree in mechanical engineering— aerospace. I went on to work as an engineer for 10 years, when I decided to get into education. I currently teach physics at Central High School in Bridgeport, Conn. I am a firm believer in the WPI Plan and project-based learning, and try to use these ideas in my classes to truly engage and educate my students. Thank you for the coverage of education in the magazine, and thank you to WPI for the support it gives to K-12 schools.

David Andrade '92
Stratford, Conn.

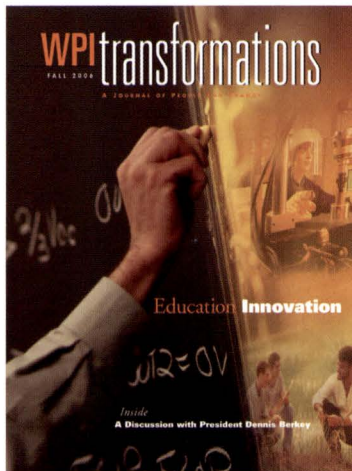
Campus Trivia

I enjoy reading *Transformations*. In the caption in the photo on page 48 (Fall 2006), you did not mention the athletic building or Sanford Riley Hall in the foreground. As you may know, the lower level appendage on this building was the kitchen, which featured a cafeteria-style dining hall for the freshmen housed in Sanford Riley Hall. This dining room also had folding doors that could open up to a common room. The two rooms together were used for banquets and the tables and chairs could be removed from the dining room for dances.

I lived in this "fairly new" dorm as a freshman in 1939 and for the three years that followed. I worked there for my room and board, first as a janitor, then busboy, and then monitor. How times have changed! There was only one telephone in the whole dorm. It was a pay phone in the lobby by the front door. As monitor, I would sit at the desk from 7 to 11 p.m. with the duty of answering the phone, finding the student whose call it was, trying to control discipline, and locking the doors at 11, when all the students were supposed to be in.

During the four years I was at WPI, (really three and one-half years, as we went all summer—without air conditioning—due to the war) Alden Memorial was built and the bridge over Institute Road was completed.

Ralph Smith '43
Kennebunkport, Maine



Notes on a View

Thank you for another fine issue of *Transformations*. Each issue lets this older alumnus share in the excitement that is WPI. It is the one periodical I read cover to cover. However, allow me a quibble or two about the caption for the campus picture on page 48 ("An Early View"). You date the picture

(continued on page 63)

Mirror, Mirror

Correction: In the aerial photograph on page 48 of the Fall 2006 *Transformations*, the order of buildings should have been listed from the right. Additionally, the open space is on the west side of campus, not the east.

A message from President Berkey

No Limits: The Entrepreneurial Spirit at WPI

At a recent alumni gathering in New York, I spent some time talking with a few young graduates who described themselves, somewhat ruefully, as the “black sheep” of WPI. When I asked them why, they replied, “Well, we have degrees in engineering, but we’re not practicing engineers.” What were these “black sheep” doing instead? They were starting new businesses, forming alliances among corporations, and serving as consultants on Wall Street. Black sheep, indeed!

In fact, these young alumni were carrying on one of WPI’s proudest and most enduring traditions—that of entrepreneurship, which has been woven into the very fabric of our university since its founding, when local entrepreneur John Boynton pledged his life’s savings to realize his dream of a school for future engineers. For more than 140 years, young men and women have come to WPI filled with the entrepreneurial spirit, capable of imagining *great things*, and committed to achieving their vision.

Exciting stuff, the principles of entrepreneurship. They infuse much of the WPI experience today, where students and faculty engage with the world around them, seeking to understand its challenges, conceive what might be done, and then make solid progress toward their goals. Beyond excitement, however, entrepreneurship requires good, old-fashioned, roll-up-your-sleeves hard work. It demands strength of character, the ability to persevere in the face of obstacles, a healthy disdain for shortcuts, and the ability to lead others around a common goal. These, too, are qualities that the WPI community possesses in abundance.

What the “black sheep” also illustrated so beautifully was the power of a WPI education—rooted in engineering and science, and infused with our university’s signature know-how—to provide excellent preparation for almost any field of endeavor. WPI graduates, as you will see throughout this issue of *Transformations*, enjoy putting their knowledge to work in a splendid array of interesting, meaningful, and often surprising ways. Individually and collectively, their stories demonstrate that there are no limits to where a WPI education can take you.

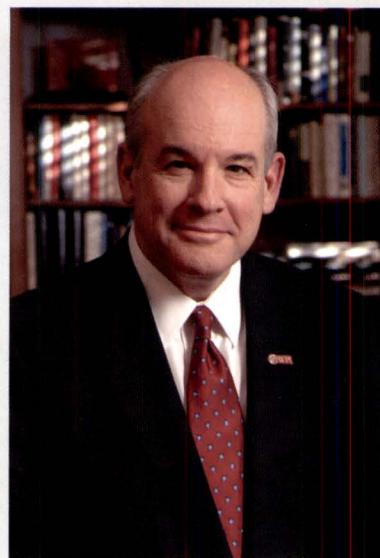
Equally immune to limits are WPI’s faculty, who pursue research that has the potential to affect billions of people around the globe—research, in other words, that *matters*. WPI faculty are not motivated by esoteric questions whose answers can only be appreciated, or even understood, by a small few. Rather, they are

driven by the desire to make a difference, to assert their intellectual leadership and entrepreneurial spirit, and to create something that will have a lasting impact in the lives of others.

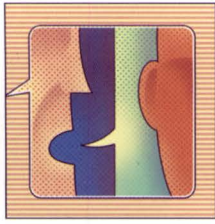
Manifesting physically the entrepreneurial spirit at WPI is our new Life Sciences and Bioengineering Center at Gateway Park. This marvelous facility, which promises to bring a new vibrancy to both WPI and the City of Worcester, is now home to a thriving community of innovators and idea makers from academia and industry. You are probably familiar with the old saying about the Red Sox, “25 players, 25 cabs.” The same could easily have been said about the traditional model of scientific research—25 investigators, 25 labs. Today, Gateway Park is helping to transform this way of thinking, with open and flexible spaces that invite a new kind of teamwork and spark creative collisions among great minds.

Expressions of entrepreneurship abound across WPI—and through WPI, to the community around us. As I write this message, the WPI Collaborative for Entrepreneurship and Innovation is hosting its summer Teens Discovering Entrepreneurship Day Camp. WPI undergraduates and local high school students are enjoying Dinners with Entrepreneurs throughout the year. And to help put to work the knowledge they have gained in their major, many WPI students are now pursuing minors in entrepreneurship. Of course, these represent a mere few of the many opportunities to understand and practice entrepreneurship at WPI.

More than 40 years ago now, Robert F. Kennedy said, “There are those who look at things the way they are, and ask *why*? I dream of things that never were, and ask *why not*?” When I contemplate these words, I cannot help but think of WPI, for ours is a community brimming with people inspired by *why not*? The great WPI difference is that ours is also a community with the talent, creativity, and conviction of purpose to turn the dream into reality. I cannot think of a finer model for American higher education today.



For more than 140 years, young men and women have come to WPI filled with the entrepreneurial spirit, capable of imagining great things, and committed to achieving their vision.



FIRST in Robotics

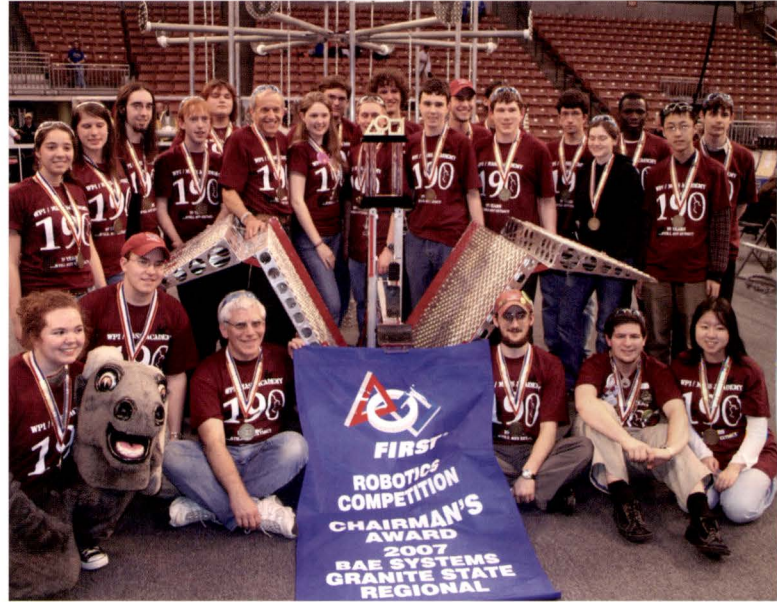
WPI Develops Nation's First Robotics Engineering Program and Sponsors World Champion Robotics Team

WPI will offer the nation's first bachelor's degree program in robotics engineering starting this fall. The new major grows out of an increasing demand for robots and robotics systems to meet national needs in such areas as defense and security, elder care, automation of household tasks, customized manufacturing, and interactive entertainment, and also responds to the escalating interest in robots among young people.

In the program, to be offered jointly by the Computer Science, Electrical and Computer Engineering, and Mechanical Engineering departments, students will receive a firm grounding in the fundamentals of these three fields, and learn to apply them to design and build robots and robotic systems for a wide variety of emerging applications. Graduates will be well-prepared for careers in the rapidly expanding robotics industry and for graduate work in the field. The program also includes an entrepreneurship course to ensure that students have the skills they need to turn their robotics ideas into viable businesses.

The robotics engineering program will draw on the expertise of more than 20 associated faculty and staff members and capitalize on the university's involvement in high-profile robotics competitions over the past 15 years.

One of those competitions is the international FIRST (For Inspiration and Recognition of Science and Technology) robotics contest. This year, the robotics team from the Massachusetts Academy of



Mathematics and Sciences at WPI, which is sponsored by WPI, walked away with the championship trophy.

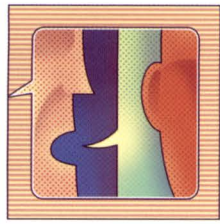
Student teams built their robots over a period of just six weeks. They were required to meet design specifications that included rigid overall weight and size limits, but otherwise left room for substantial innovation.

The WPI/Mass Academy team is one of only five that have remained continuously involved in FIRST since the competition was started by WPI alumnus Dean Kamen in 1992.

Meet the Class of 2011

- 820 students—the largest class to date
- 3.6 average GPA; average rank in the top 14 percent
- 45 valedictorians and salutatorians
- Average SAT 1284
- 26 percent women
- 33 states and 34 countries represented
- Top majors include: engineering (undecided), mechanical engineering, electrical and computer engineering, computer science, biology

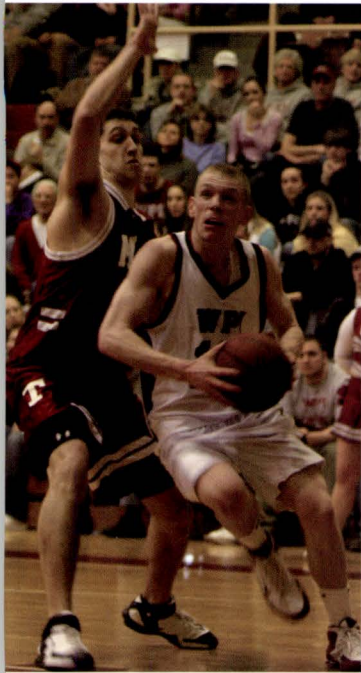




More**Buzz**

Basketball's Cain Takes Top Honor

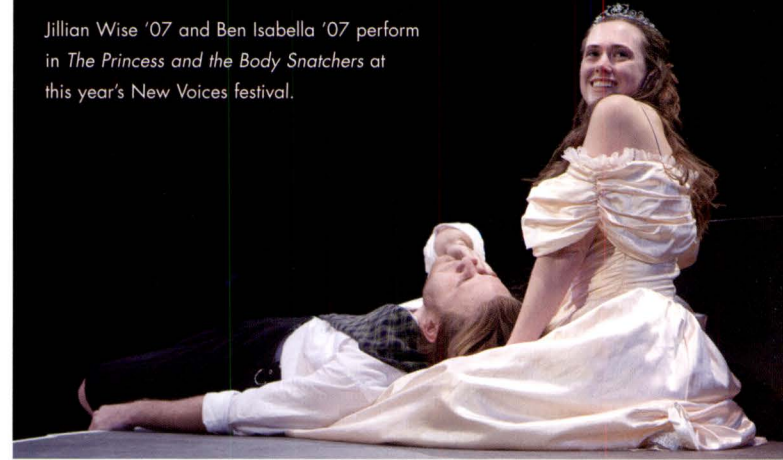
Ryan Cain '07 was awarded the 2007 Josten's Trophy this spring, recognizing him as the best male Division III basketball student-athlete.



As a guard, Cain played a pivotal role in transforming WPI's men's basketball team into a regional and national powerhouse. Over the past four years, the team has had an impressive 89–20 record, has won four straight NEWMAC (New England Women's and Men's Athletic Conference) regular season championships and two NEWMAC tournament titles, and appeared in the last three NCAA Division III championships. Cain, named NEWMAC Player of the Year, became WPI's all-time leading scorer during the regular season finale, finishing his career with 1,813 points.

Cain became the first player during Head Coach Christopher Bartley's six years at WPI to be named a preseason All-American by D3Hoops.com. He earned NEWMAC Rookie of the Year accolades as a freshman, was chosen NEWMAC Player of the Year as a

sophomore, and was named All-New England by D3Hoops.com and the ECAC as a junior.



Jillian Wise '07 and Ben Isabella '07 perform in *The Princess and the Body Snatchers* at this year's New Voices festival.

New Voices Turns 25

Masque and the Department of Humanities and Arts celebrated the 25th anniversary of New Voices, the country's longest continuously running university new plays festival. This year, seven plays, all written, directed, and performed by members of the WPI community, were chosen for the festival. More than 100 students were involved in this year's New Voices production.

WPI Wins Alden Award

WPI was recently honored by the Colleges of Worcester Consortium with its inaugural Alden Award for Excellence in Higher Education. The award recognized the university's commitment to improving the lives of Worcester residents through its Worcester Community Project Center, where students and faculty work on a sustained planning initiative, open space planning, and renewable energy. The center has also organized and hosted three major workshops focused on sustainable development for cities.

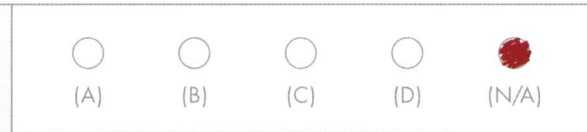
"It's an honor to be recognized, especially in a city where so many colleges are deeply engaged in projects that make substantial contributions to the people of our city," says Rob Krueger, director of the center and assistant professor in the Interdisciplinary and Global Studies Division.

The award is named after George I. Alden, WPI's first professor of mechanical engineering, an innovative educator, and accomplished researcher in mechanics and hydraulics.

WPI Makes the SAT Optional

In May, WPI became the first nationally ranked science and engineering university to make the SAT an optional requirement for admissions.

The SAT-optional policy, which takes effect for students applying for admission in fall 2008, has been adopted by many liberal arts colleges and research universities over the past 20 years. While the move is unprecedented within the science and technology education arena, implementation of the new policy is consistent with national efforts to attract a broader range of students to science, technology, engineering, and math disciplines—particularly women and minorities.



"The SAT may capture academic aptitude, but aptitude itself doesn't necessarily reflect success in this type of setting," says Kristin Tichenor, vice president for enrollment management at WPI. "The students who are most successful at WPI are those with high motivation levels, willingness to take initiative, and creativity in solving problems."

WPI will conduct a five-year pilot study to examine the academic performance of students who do not submit SAT scores, compared to those who do.

New Residence Hall Construction Begins; Alumni Field Renovated

It's an exciting time at WPI, as various construction projects shape the future of the campus for years to come.

This spring, construction began on a 232-bed, apartment-style student residence hall between Boynton and Dean streets, as well as an adjacent 189-space parking garage; both are scheduled to open in the fall of 2008. The residence hall will feature four-person apartments with full kitchens, living rooms, compartmentalized bathrooms, and single and double bedrooms. The air-conditioned building will also include recreation and fitness facilities, technology suites on each floor, and full wireless access. It will be the first major residence

hall constructed at WPI since the completion in 1985 of Founders Hall. The building was designed by Boston-based Cannon Design; the general contractor is Gilbane Building Company.

Also this spring, renovations began on Alumni Field. The project includes an infill-system turf field, new bleachers



and press box on the north side of the field, a new scoreboard, and a new field lighting system; also, the existing eight-lane track will be resurfaced. These renovations will enhance field space for varsity field hockey, football, soccer, and track and field, while also providing an improved facility for club sports, intramural programs, and for recreational use by the WPI community. The upgraded Alumni Field, scheduled to be completed in August, will allow WPI to host championships at the local, regional, and national levels.

This fall, the WPI community will enjoy various new dining options, including a Quiznos sub shop, located in the lower level of the Campus Center, as well as Outtakes, a convenience store, and a pub-style restaurant, The Goat's Head, both located in Founders Hall. Outfitted with six plasma screens and a pool table, The Goat's Head will provide table service and an extensive menu.

Students Win Popular Science Invention Award

MagicMouse, a three-dimensional computer mouse designed by a team of five WPI undergraduates as part of a Major Qualifying Project, was one of 10 inventions honored with the inaugural PopSci Invention Awards, the cover story in the June 2007 issue of *Popular Science*. The magazine, which has a circulation of 1.4 million, selected the mouse from among hundreds of submissions.

Developed by seniors Christian Banker, Michael Cretella Jr., Jeff DiMaria, Jamie Mitchell, and Jeffrey Tucker, the mouse is designed to permit a computer user to control and manipulate items on a computer screen just by pointing at the monitor. The mouse uses an array of receivers to track the motion of a tiny ultrasonic transmitter worn on the index finger like a ring. The students, all electrical and computer engineering majors, were advised by Brian King, assistant professor of electrical and computer engineering.

The MagicMouse is a true 3D mouse. Users can move the cursor about the screen simply by pointing their index finger. Zooming is achieved by moving the hand nearer to or farther from the screen. Since both actions can be done simultaneously, the mouse makes

it possible to work easily in three dimensions to pan and zoom through 3D maps, for example, or manipulate objects in computer-aided design (CAD) drawing packages. The mouse could also make game play more realistic and interactive, much as the novel 3D remote on the new Nintendo Wii game console has done.

The students plan to continue working on the mouse to extend its capabilities. The working prototype, for instance, does not incorporate the functions of the traditional mouse buttons. The students would like to add technology that will permit the user to perform specific functions using gestures, such as clicking by moving the finger rapidly forward and backward, and clicking and holding by moving the finger forward quickly, then stopping.





More**Buzz**

WPI Completes a New Home for Life Sciences Research and Development

Two years after breaking ground, faculty from several departments moved this spring into their new home at the WPI Life Sciences and Bioengineering Center at Gateway Park, a premier facility promoting collaboration and interdisciplinary research, and opportunities for faculty to partner with industry and generate significant intellectual property. The move precedes the grand opening celebration in September of WPI's flagship building, and the larger Gateway district, which will serve as a stimulus for economic development in the city and in the state.

Gateway Park will open at an opportune time, coinciding with Massachusetts Governor Deval Patrick's pledge at BIO2007 to invest \$1 billion to promote and support biotechnology development



initiatives over the next 10 years through the newly developed Massachusetts Life Sciences Initiative.

The Life Sciences and Bioengineering Center merges a new laboratory structure with a former industrial building, providing space for faculty offices, the headquarters of WPI's Corporate and Professional Education Division, meeting rooms, and a café.

In May, the U.S. Department of Commerce awarded Gateway Park LLC the 2007 Excellence in Economic Development Award for urban or suburban economic development. The award recognizes the partnership between WPI and the Worcester Business Development Corporation and their commitment to sound, research-based, market-driven economic development to help bolster the local economy.

Inspiring a lifetime of learning
in math, science, and engineering



The WPI K-12 Outreach Program is challenging students to grow academically and is making a difference in educating the next generation of leaders and innovators.

www.wpi.edu/Admin/K12



Commencement 2007

WPI's 139th Commencement ceremony was held on Saturday, May 19, in Harrington Auditorium. Set among a sea of black and crimson robes, and featuring the university's new regalia, WPI dignitaries awarded 653 degrees, including 480 bachelor of science degrees, 152 master's degrees (135 master of science, 8 master of engineering, 5 master of business administration, and 4 master of mathematics for educators), and 21 PhDs.

Honorary degrees were conferred upon keynote speaker Deborah Dunsire, MD, president and CEO of Cambridge, Mass.-based Millennium Pharmaceuticals, Bernard M. Gordon, founder and chairman emeritus of Analogic Corp., who is known as "the father of analog to digital conversion," and Neil deGrasse Tyson, Frederick P. Rose director of the Hayden Planetarium of the American Museum of Natural History in New York and host of the PBS television series *NOVA scienceNOW*.

In her address, Dunsire told students to remain true to growth and integrity, and that their education at WPI will help their careers and lives flourish. "Your experiential, project-based learning sets this school apart in wise and valuable ways," she said.

As part of the Commencement ceremony, President Dennis Berkey awarded the WPI Presidential Medal to Lt. Gov. Tim Murray, a former three-term mayor of Worcester. Murray worked to promote the city's economic development and the advancement of new research technologies and facilities—in particular Gateway Park, home of WPI's new Life Sciences and Bioengineering Center.

Also presented was the Chairman's Exemplary Faculty Prize, established this year through the personal philanthropy of Donald K. Peterson '71, current chair of the WPI Board of Trustees, to recognize faculty members who, as true exemplars of the university's highest aspirations and most important qualities, excel

in all relevant areas of faculty performance. Two prizes, each in the amount of \$10,000, were awarded this year to John A. McNeill, assistant professor of electrical and computer engineering, and Richard D. Sisson Jr., professor of mechanical engineering.

In his closing remarks, President Berkey reminded students that lifelong learning is "more than a slogan at WPI. It is a habit of mind that arises from the experience of a truly excellent education."

WPI's 2007 Commencement marked the debut of new regalia for degree candidates, trustees, and the president. The robes (black for bachelor's and master's degree candidates, crimson for PhD candidates) featured embroidered WPI seals on the front. Undergraduates receiving honors wore cords of crimson (distinction) or gray (high distinction). The new presidential and trustee robes were crimson. President Berkey wore a new Presidential Medallion, with the WPI seal cast in silver and the names and years of service of all 15 of WPI's presidents engraved on small silver plates that form links in the chain. Provost ad interim John Orr carried a new Academic Mace, a 42-inch-tall staff made from fluted cherry wood topped with a circular silver pedestal on which sits a large silver medal that has the WPI seal on both sides. The medallion and mace were gifts to the university from President Berkey and his wife, Catherine.



Clockwise from top left, Honorary Marshal John Goulet leads the Commencement procession; keynote speaker Deborah Dunsire tells graduates to "go for the growth"; Lt. Governor Tim Murray, center, is awarded the WPI Presidential Medal; Kelly Osberg '07 reminisces about "My WPI."



More Buzz

Students Earn Prestigious National Accolades

Several WPI students were honored recently with prominent awards and scholarships in recognition of the students' impressive academic achievements.



Nicholas S. McBride '07 was named a National Institutes of Health (NIH)-Oxford/Cambridge Biomedical Research Scholar. The interdisciplinary program is devoted to the training of up to six outstanding American students in biomedical research leading to a doctoral degree awarded by the University of Oxford or University of Cambridge in the United Kingdom.

McBride was active in research and extracurricular activities during his time at WPI. He was a member of Tau Beta Pi, the university's biomedical and pre-health societies, and Engineers Without Borders, a nonprofit humanitarian organization established to partner with developing communities worldwide to improve their quality of life. For his senior project, McBride developed cardiac patches that regenerate heart tissue. He has also conducted research at Total ReCORD, a Worcester biomedical firm, as well as the Woods Hole Oceanographic Institution.



Lynn Worobey '08 was named a Goldwater Scholar for 2007-08 by the Barry M. Goldwater Scholarship and Excellence in Education Foundation. **Charles Gammal III '08** was also recognized by the foundation with an honorable mention.

Since 2002, 10 undergraduates have been named Goldwater Scholars; this is the seventh straight year that at least one WPI student has won the prestigious scholarship, which covers the cost of tuition, fees, books, room, and board up to a maximum of \$7,500.

At WPI, Worobey has conducted research in biomedical engineering on campus and as part of a National Science Foundation Research Experience for Undergraduates award at the University of Rochester in New York. She is currently working with Australia's National Science Agency in Melbourne to develop a framework for adapting hands-on science education programs for students with special needs.

Promotions and Appointments at WPI

Arthur Heinricher, professor of mathematical sciences, has been appointed associate dean for the first year experience, a new position created to oversee and coordinate all aspects of the academic experience for first-year students at WPI.

Heinricher, who joined the WPI faculty in 1992, has a bachelor of science in applied mathematics from the University of Missouri at St. Louis and a PhD in mathematics from Carnegie Mellon University. At WPI, his teaching has focused on first- and second-year students. He has been director of the university's Center for Industrial Mathematics and Statistics since 2003.



Professor **Kent Rissmiller** of the Department of Social Sciences and Policy Studies has been named associate dean for the Interdisciplinary and Global Studies Division (IGSD).

Rissmiller joined the faculty in 1988, with a JD degree from Franklin Pierce Law Center and a PhD in political science from Syracuse University. He came to WPI after a year of teaching at New Mexico State University. He has taught American government, public policy, public law, and political theory. Throughout his time at WPI, Rissmiller has devoted significant effort to teaching and advising IQP projects within IGSD. He has advised nearly 90 IQPs throughout the world.

President Dennis Berkey announced the promotions of various members of the university's senior leadership team.

Tracy Hassett has been promoted to vice president for human resources. Hassett, a Senior Professional in Human Resources (SPHR), has also been elected assistant secretary of the corporation. **Linda Carre Looff** has been promoted to assistant vice president for government and community relations. **Stephanie Pasha** has been promoted to chief of staff in the President's Office; she was elected secretary of the corporation. **Jeffrey Solomon** has been promoted to executive vice president. **Kristin Tichenor** has been promoted to vice president for enrollment management.



The **Big** Picture

By Laurance S. Morrison

All WPI students do homework. But only Andy Edwards does House work, too.

One of the nation's youngest elected public officials, 20-year-old Andrew J. Edwards '09 is serving his first two-year term as a state representative. Last year, as a freshman, he served in the WPI Student Senate. Now this biochemistry major is a freshman Democrat in the New Hampshire State House, where he sits on the Science, Technology, and Energy Committee and the E-commerce Advisory Commission.

"I am astounded at how the other representatives regard me, often one-third their age, as an equal," Edwards says. "I receive no less respect. I'm listened to. Some of my fellow students feel that young people have no voice in public affairs. Well, that depends on how active you're willing to be."

In 2006, after deciding he wanted to do more than just volunteer for a campaign, he paid the \$2 filing fee to run for the House of Representatives, and saved \$500 to seed

his campaign by working the 3rd shift as a circuit board laminator at a local electronics plant.

Emphasizing the E of Edwards, his platform included education, economy, and environment. "I also highlighted my values, which I organized as A, E, I, O, and U: Accountability, Equality, Investment, Opportunity, and Unity." It worked. Running as one of 10 Democrats and 10 Republicans, he won one of 10 seats.

Essentially, the part-time legislature convenes when Edwards isn't on campus. His constituents reach him on his cell phone and by email. "My parents were flabbergasted when I told them my plans, but they didn't worry because they believed it was unlikely I would be elected," he remembers. "Now they're truly glad for me."



Inside WPI

Father Knows Best

In 1961, a young priest was charged by the Worcester Diocese with establishing a Catholic ministry on the campuses of the area's colleges. The Rev. Peter J. Scanlon—known to all as “Father Pete”—became WPI's full-time chaplain in 1969. For 45 years he watched over thousands of college students of all faiths. He welcomed them at Orientation with a hearty handshake, and sent them into the world four years later with his benediction at Commencement. In between, he helped students discover themselves.

On July 1, 2006, Scanlon officially retired from active ministry. (He continues in a part-time position as Diocesan Vicar for Colleges and Universities.) In his own words, “It's time to put the old car in the garage and step into a newer, smaller model. My old bones tell me it's time to slow down.”

Transformations asked WPI alumni to share their memories of Fr. Scanlon. The sentiments were universal: “He was a friend, mentor, and counselor to all students—not just the Catholic ones.” “He talked directly to us and not above us.” “For an old priest, he still knew what it was like to be a young person out on his own for the first time.”

Scanlon was a friend to the pioneering women in WPI's early years of coeducation. They recall how he would sweep through their dorm on a Friday night, gather up all the lonely souls he could find, and escort them to a fraternity party. Then he would tactfully disappear, after making sure they had a safe way to get home. He helped WPI students find dates; he married them; and when their children reached college age, he watched over them, too.

By Joan Killough-Miller

Without Father Pete, Anne McPartland Dodd '75 and Charlie Dodd '74 might not have been married. "I went to the bridal shop to pick up my dress, and they wouldn't take an out-of-state check. Father paid for the dress and I wrote the check to him. He then drove eight hours to northern Maine to marry us."



Here is just a sampling of the recollections from alumni. Read the full text and more tributes at wpi.edu/+Transformations.

He was a huge presence (literally!) who encouraged me to think about the intertwined topics of academics, community awareness, and religious beliefs. His voice boomed in the basement of Alden Memorial, echoing off the marble walls, making us all pay strict attention.

—Mark Cioffi '78

As chaplain for the Worcester Fire Department, he showed such concern and strength of character in guiding his flock through the horrific time after the 1999 Worcester Cold Storage fire. I remember him being honored to wear his white priest robes at the nationally televised memorial service. In the midst of death and mourning, he was a beaming symbol of hope.

—Jennifer Forsythe '01

One story still stands out: After giving me a penance, he sent me out of the confessional and whispered for me to meet him at the altar rail on the way out. A few minutes later, he came out, tapped me on the shoulder, and took me to the back of the church, where a young lady was waiting. After making the introductions, Father Pete told her, "He is going to call you and you are to tell your mother that I said it is all right." Father Pete was always one to give us assistance in all matters of life!

—Tom Benoit '66

I was tasked with teaching him how to email. Now, 10 years later, I still get his weekly meditations. He mastered the medium and realized the potential to reach out to even more students.

—Cyndi Fusco '96

He was a resource for our daughters, who attended WPI and Holy Cross. They are both graduated now, but believe me, I slept better knowing that he was watching over them. And it's true what he says: What happens in Worcester stays in Worcester. We never heard a word from him about their less-than-exemplary actions—if there were any.

—Anne McPartland Dodd '75

At WPI, I began to discover myself and my religion. Father Scanlon would send out a weekly email that revolved around his Sunday morning readings and homilies. Never has one email message had such an impact on a person as that. He related everything to life at WPI and in turn gave it a new meaning, every week.

—Christopher O'Malley '03

Father Pete joined some of us to form the first Greek Alumni Council, back in the '70s. The fact is, Father Pete was and is always there when he is needed. The good that he has done will be a lasting monument to his devotion and dedication.

—R. M. Hooker, Advisor and Regional President Emeritus, *Sigma Alpha Epsilon*

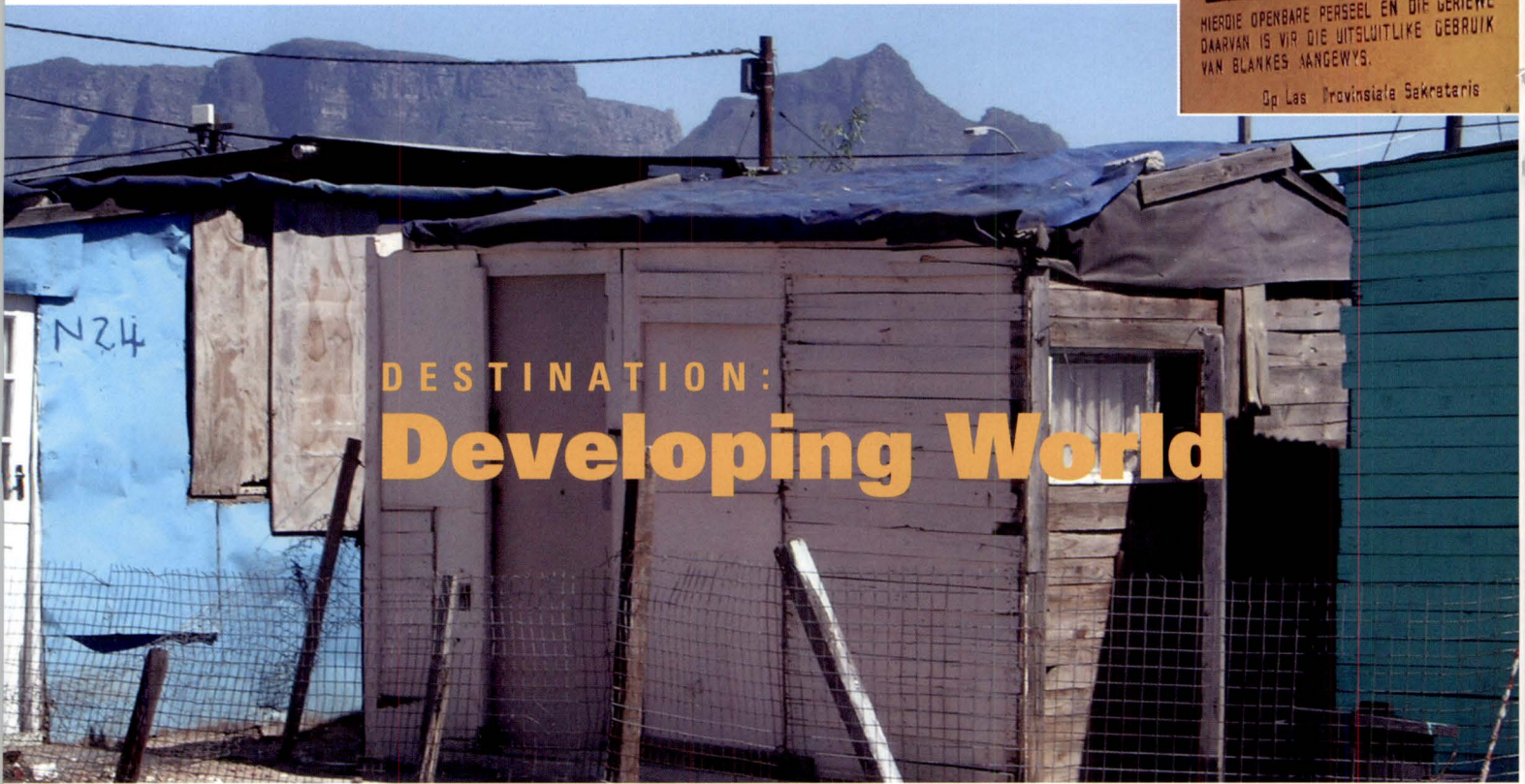
Fr. Scanlon married me and my husband (Kevin Duprey '91). I have kept copies of his weekly meditation emails. I plan on printing them and creating a booklet for each of our children, which I will give them when they enter college. In that way, Fr. Scanlon will help guide them the same way he guided Kevin and me in our college years.

—Teresa Cordeiro Duprey '92



Explorations

By Eileen McCluskey



DESTINATION: Developing World

In densely packed settlements on the fringes of Cape Town, South Africa, over a million people live in tin shacks connected by dirt paths. Most residents have no water, electricity, or sanitation in their homes. Illnesses such as tuberculosis and HIV/AIDS are common. Although more than half of the settlements' residents are employed, the vast majority experience extreme poverty and don't have enough food from day to day.

These sprawling settlements represent some of the most visible scars from nearly four brutal decades of apartheid. They also are the focal points for the newest project center within WPI's far-ranging Global Perspective Program, part of the Interdisciplinary and Global Studies Division (IGSD). The first team of students will travel to Cape Town this fall.

In a place where 30 people often share one toilet, homes flood during heavy rains, and people are frequently injured or killed by the few existing hazardous household electrical connections, the first Cape Town IQPs will focus on such practical needs as an environmental community center, recreation fields, and other public facilities. Students will docu-

ment transportation hazards for settlement residents and help make transportation safer and more efficient. They will also create options for sanitary and prosperous sidewalk meat markets, a critical livelihood for many in the area.

Scott Jiusto, director of the Cape Town Project Center and an assistant professor in IGSD, hammered out details of these and other IQPs when he traveled to Cape Town in May to meet with local project coordinator Basil Tommy of the City of Cape Town Planning Department. Tommy introduced Jiusto to those working on housing, environment, community development, and other aspects of sustainable development in Cape Town, including city officials, project developers, non-governmental organizations (NGOs), and academics.

"I met many dedicated people working to address daunting challenges with an optimism that inspires me," Jiusto says. "Their circumstances are sobering, and they are keenly interested in taking the next practical steps."

The settlements' many development needs, coupled with student interest, convinced IGSD dean Rick Vaz that the new Cape Town Project Center should open. "We have



"I met many dedicated people working to address daunting challenges with an optimism that inspires me."

—Scott Jiusto

seen increasing student interest for projects in the developing world," says Vaz, "and for projects making a difference, whether in the environment, energy, water, public health, or quality of life generally."

WPI project centers in Bangkok and Namibia—established in 1988 and 2002, respectively—have seen steady increases in student applications, notes Vaz. In 2003, 14 percent of students applying for an off-campus IQP selected a site in the developing world as their top choice. By 2006, that number had jumped to over 30 percent.

In addition to students' eagerness to help in developing countries, WPI enjoys strong ties with African nations, thanks to the work of Susan Vernon-Gerstenfeld, director of academic programs and planning in IGSD, and her husband, management professor Arthur Gerstenfeld. The two have long promoted business relationships between WPI and Africa, and they played a central role in establishing the Namibia Project Center, for which Gerstenfeld serves as co-director.

With grants from the U.S. Department of Education, the Gerstenfelds launched the annual WPI U.S.-Africa Business Conference in 2004. Most recently, they introduced their IGSD colleagues to government officials, educators, and others in South Africa's legislative capital of Cape Town.

"South Africa's economic health is key to the development of Africa's southern cone," says Vernon-Gerstenfeld, who laid the groundwork for the Cape Town Project Center. This region includes South Africa, Namibia, Zimbabwe, Mozambique, and Botswana, for which "South Africa is a huge economic engine. For example, Namibia and Zimbabwe rely heavily on South Africa for electricity and other services."

"No other university has what we have started in Africa," says Gerstenfeld, who reports that WPI will receive a two-year, \$200,000 Department of Education grant to build and expand WPI programs in Africa.

IGSD announced the Cape Town Project Center in 2006, noting that IQPs would focus on energy resources, water conservation, and the provision of housing, health care, and other issues of sustainability to underdeveloped areas. "The student response was overwhelming," says Vaz. Fifty applications were submitted for 24 spots.

The students who will do their IQPs in Cape Town major in a wide variety of subjects, notes Natalie Mello, director of global operations in IGSD—everything from mechanical engineering to interactive media and game development, actuarial math to fire protection. "In the spirit of the IQP, each student will delve into disciplines divergent of their majors," says Mello. "And they will, of course, work in teams."



Pierre de Galbert '02 was convinced that his lesson plan—the very first one he put together—was flawless.

Teaching math and computer skills to students in Namibia, the WPI alum wanted to begin the year with an easy task—he would show his class how to make a folder on their respective computers to save their work for the upcoming year. Unfortunately, de Galbert's well-thought-out plan hit a snag when he saw his students waving the computer mouses in the air.

"Most of them had never seen a computer before," he says, reflecting on the experience. "I realized my lessons plans were a bit ambitious."

De Galbert returned to Worcester this spring to chat with students traveling to Cape Town, the site of WPI's newest project center. He spoke about his experiences abroad, which include two years in Namibia and one year in Rwanda. He now lives and works in Niger, having earned this spring a master's degree in international education policy from Harvard's Graduate School of Education.

While telling the WPI project teams about the people, history, and culture of South Africa, de Galbert also encouraged students to make the most of their time in Cape Town. "The more you put yourself out there, the more you're going to get back," he advised.

De Galbert grew up in France and came to the United States to attend WPI after looking for a school with a strong computer science program and a project-based approach to learning. As a CS major, he took advantage of WPI's Global Perspective Program, and traveled to Denmark and California for his IQP and MQP, respectively. De Galbert says he was bitten by the travel bug and after graduation, he spent two months in Asia before moving to Namibia for two years.

"Living and working abroad pushes you out of your comfort zones," he says, "and that's a good thing."

Now in Niger, working with the Ministry of Education to improve school management tools, de Galbert encourages all WPI students to take advantage of the university's global travel opportunities. "Maybe this is a once-in-a-lifetime experience for you," he told the students. "Maybe it's the start of a new life, like it was for me."

—CW

Adds Jiusto, "I feel we have a lot to learn and to gain from working with the resourceful and creative people of Cape Town, and they are excited about the students' arrival. I think WPI can play a helpful role there."



Of Resources and Opportunities

Why do some companies thrive and grow like well-tended plants, while others bloom and fade like cut flowers? How do some firms manage to adapt to shifts in technology and the ebb and flow of market demand, while others gradually become footnotes in corporate history?

Erwin Danneels, associate professor of management at WPI, has been pondering questions like these for a number of years. As an authority on the link between product innovation and organizational renewal, his insights help executives think more clearly about the challenges and benefits of exploring new technologies and new markets, and the lost opportunities that result from not making the most of their assets.

Having conducted up-close field studies of individual companies and large-scale surveys of American public manufacturing firms (his latest project is funded by the National Science Foundation), Danneels says he sees the process of new product development as a sort of continuum where the effort and risk depend on whether firms can exploit existing competencies or whether they must develop new ones. Exploiting only existing competencies is the easiest route, but does the least to propel a company forward and shield it from environmental changes. Exploring a new technology and a new customer base entails significant risk. The middle route is most attractive: leveraging an existing competence to explore either a new technology or a new market.

In articles published in 2002 and 2007 in the *Strategic Management Journal*, Danneels reports on an in-depth study of five manufacturing firms. One of those companies (dubbed “Cheman”) developed a technology that fuses a silicon-based coating onto stainless steel, making the metal inert. Using the technology, the company created new products that were popular with existing customers, but it realized that the technology could have a broad range of applications in other markets.

“Cheman” had made the first step to leverage its technology to new markets: it was able to mentally “de-link” the technology from the products themselves and to see it as fungible. The company believed the technology could become the root of a host of potential applications, but it faltered in building the resources necessary to serve those markets, such as developing a deep understanding of prospective customers and building a sales force with the necessary access and expertise. Though executives were sure the technology represented a path to virtually unlimited growth, their lack of knowledge of how to address other markets and their hesitation to invest adequate funds proved insurmountable barriers to extracting the potential value from their new technology.

“Cheman’s” experience illustrates a common occurrence, Danneels says. “Many firms sit on technologies that they could do more with, by developing more products or selling the intellectual property, but they don’t have the marketing acumen to know which markets to address or how to do it.”

Danneels says companies should carefully consider which resources and competencies they have, and how they can be applied profitably. One set of primary resources and competencies is the technologies that underlie their products and the related engineering and manufacturing knowledge required to turn them into products. The other set relates to the company’s ability to serve certain customers—its brand, its knowledge of its customers, and its sales and distribution channels.

Danneels says these can add up to both an avenue for growth and a strait-jacket. Developing and capitalizing on company resources is like walking down



Tony Rinaldo

a path, he says. The farther down the path the company travels, the more likely it is to continue and the less attractive it becomes to consider alternatives.

“You must explore—that is, develop new resources and competencies,” he says. “Even if you are doing well right now, you could be missing opportunities to do even better. In addition, just exploiting current competencies puts you at risk should an environmental event make your technology or your market competence obsolete.

“Your historical choices constrain your future choices,” he adds. To overcome this “path dependency,” firms need what Danneels calls second-order competencies. Those are driven by the ability to evaluate and pursue other opportunities, which is dependent, in turn, on marketing and R&D competencies (the competencies to serve new markets and build new technologies). Danneels’s research is devoted to understanding these second-order competencies, the kinds of organizational cultures and top management teams that support them, and how they affect product innovativeness and financial performance.

Danneels says that new research based on his own work shows that inexperienced entrepreneurs tend to focus on only one opportunity, while serial entrepreneurs consider multiple opportunities and markets before they dive in—which leads to greater success. “New entrepreneurs develop or license a technology, but their horizon of market opportunities is limited by their industry background,” he says. “They often stick with what they know, which is, per se, not such a bad thing—it’s just that it may lead them to make suboptimal choices. Repeat entrepreneurs develop a second-order marketing competence which gives them a broader appreciation of the options.”

Getting the most out of technologies is important, Danneels says, because when a technology’s potential lies fallow, the result is more than lost revenue. “There is a lost societal benefit,” he notes. “If you have a technology that could be used in different applications and customers would be willing to pay for products that use that technology, it shows there is a benefit not being realized. And the sum of all of those benefits is our welfare.”



Danneels with products of Smith Corona, a firm with a proud heritage that disappeared as typewriters were displaced by computers. Pictured are Smith Corona portables from the 1920s and 1930s, as well as a failed attempt to compete with personal computers: a portable “personal word processor.” The company is currently providing a fascinating new case study for Danneels’s research on product innovation and corporate renewal.



The Spirit of **Entrepreneurship** **at WPI**

By Eileen McCluskey

Imagine a handheld device that lets clinicians detect early signs of renal failure, while there is still time to save a patient's kidneys. Now imagine that the same device can quickly give doctors the information they need to make the best possible decisions about diagnostic tests and treatment.

Two WPI researchers have done more than imagine such technology; they've developed a working prototype and started their own company, Active Surface Technologies Inc. (ASTI), to help make the idea a reality.

These are heady days at the university as faculty work vigorously to transform the fruits of their research into state-of-the-art entrepreneurial ventures. In fact, across WPI's disciplines, well-trained, creative minds turn toward taking inventions from laboratory to market.

Hitting them out of the (Gateway) park

Through WPI's Bioengineering Institute (BEI), the life sciences are playing a major role in this dramatic trend. In the past two years alone, the multidisciplinary institute has seen the launch of two companies from its ranks of faculty

researchers. BEI recently took up residence in the WPI Life Sciences and Bioengineering Center at Gateway Park, which is fast becoming a bustling hub of life sciences R&D.

"BEI acts as a catalyst for taking biomedical innovations from the lab bench to the bedside," says Grant McGimpsey, BEI director and co-founder of ASTI. "We identify problems, R&D funding opportunities, and WPI faculty who can team up to address challenges with inventions that, in turn, may have commercial value. We encourage faculty to enter into entrepreneurial ventures, and we seek partners in the private sector who can help BEI convert its growing medical technology portfolio into new products."

"Our current goal is to get a prototype onto someone's desk in a company that can take it to a commercial scale."

—Grant McGimpsey



WPI professor Chris Lambert, holding a prototype of a renal failure detection device, and BEI director Grant McGimpsey are the founders of Active Surface Technologies Inc., which aims to market the handheld technology.

WPI professors and ImagiSonix co-founders, from left, Peder Pedersen and Jim Duckworth have created a portable telemedicine system, with the help of research assistant Philip Cordeiro '97 (MS '06).




At the BEI Center for Untethered Healthcare, for example, faculty collaborate across disciplines—chemistry, electrical and computer engineering, and biomedical engineering. It is from this center that ASTI and another medical device venture were recently launched.

ASTI was co-founded in 2005 by McGimpsey and BEI associate research professor Christopher Lambert, who serves as chief technology officer. The company is developing a battery-operated handheld device that takes highly accurate measurements of renal disease biomarkers such as potassium,

urea, and creatinine, and executes two measurement techniques simultaneously in a re-usable sensor module. The combination of dual detection and re-usable format allows continuous self-calibration, giving the ASTI instrument a significant advantage over single-use instruments currently in the marketplace.

The second venture resulting from BEI, ImagiSonix, was incorporated in 2006 by Peder Pedersen, professor of electrical and computer engineering, James Duckworth, associate professor of electrical and computer engineering,



The ImagiSonix on-the-fly ultrasound imaging system could save lives during medical transport—whether in helicopters or ambulances.

and Thomas Szabo, professor of biomedical engineering at Boston University. Pedersen serves as president, Duckworth as interim CEO, and Szabo as CTO.

ImagiSonix offers a portable, battery-powered telemedicine system with ultrasound imaging that can withstand enough heat, dust, and jostling to work under harsh conditions in remote areas, as well as in emergency transport vehicles. Its battery operates for a full day without recharging, and its wireless voice and video communication features allow specialists at major hospitals to assist with diagnosis in real time.

“This will be a reconfigurable ultrasound system,” Pedersen says. “The components are not permanently connected to one another in a box, but instead the system is made up of an embedded computer, a power source, ultrasound

front end display, physiological sensors, an examination camera, and a transducer. This allows us to custom configure the system. For example, it can be integrated into a pre-wired vest, or incorporated into a medical bag.”

Development of the ImagiSonix ultrasound imaging system was funded in part by the U.S. Army’s Telemedicine and Advanced Technologies Research Center (TATRC); the U.S. Army Medical Research and Materiel Command, which oversees TATRC, supported early R&D on the ASTI sensor device. Both start-ups are now seeking venture funding.

Identifying diverse markets

“As we seek venture funding, ASTI is focusing on the civilian market,” says McGimpsey. Small wonder. The renal dialysis and transplantation market, for example, amounts to \$20 billion in the United States alone, and is predicted to exceed \$1 trillion worldwide over the next decade.

Because the number of dialysis treatments has been increasing by 9 percent annually, ASTI seeks entrée into hospitals, dialysis clinics, and doctors’ offices, where easily interpretable results will be obtained in minutes to inform decisions on further diagnostic tests or treatment. ASTI founders also see promise in the DNA, biomarkers, and drug discovery markets.

“Our current goal is to get a prototype onto someone’s desk in a company that can take it to a commercial scale,” says McGimpsey, who notes that ASTI revenues would flow from licenses with strategic partners, and from royalties based on unit sales.

ImagiSonix sets itself apart from the competition with its ability to function under rugged field conditions. Further, because the system will include a new form of 3D imaging that captures all the image information from a given region of the body, it will allow remotely located medical experts to view and interpret the field-based images as they emerge. This feature also enables medical experts to guide the technician as the scan is conducted, thereby reducing the need for highly trained field personnel.

The ImagiSonix on-the-fly ultrasound imaging system could save lives during medical transport—whether in helicopters or ambulances. To prove this point, the start-up’s team recently began working with the University of Massachusetts Medical Center in Worcester, testing the system in helicopters. Another field study with the Center for Pre-Hospital Care in Loma Linda, Calif., slated for this fall, will evaluate the imaging system’s usefulness in disaster and rescue situations.

(continued on page 23)

Bringing Entrepreneurship to New Levels at WPI

When it comes to incubating new businesses, the Collaborative for Entrepreneurship and Innovation (CEI) and its WPI Venture Forum act as a virtual hatchery at the university. Out of its workshops, networking events, competitions, and other resources, the CEI can lay claim to having helped dozens of start-up businesses in the last 15 years.



Mac Banks, head of the Department of Management, professor of entrepreneurship and strategy, and CEI director, sees the broad array of WPI entrepreneurial competitions and related programs as rich learning opportunities for students, faculty, staff, and alumni. "Validating the market for business ideas, writing a business plan, honing

presentation and public speaking skills, learning about inventors notebooks and IP protection, and other critical business basics," he says, "are key components for success in launching a technology start-up—whether for oneself or for one's employer."

The WPI suite of competitions includes the course-based Robert H. Grant Invention Awards, the Strage Innovation Awards, the Kalenian Award (for technology commercialization), the CEI@WPI ALL-OUT Business Plan Challenge, and the WPI Venture Forum Business Plan Competition.

The Strage Awards have inspired several student start-ups. William Tulli '05, who won the Strage Award in 2005, founded Dockum Engineering with classmate Alexandra Levshin '05. The two are pursuing an international patent for their motorcycle one-wire harness, which controls lights, switches, and other functions while eliminating the need for fuses, relays, flashers, load equalizers, and most wires.

Jeremy Hitchcock '04 founded Dynamic Network Services Inc. (DynDNS.com) after he participated in several CEI competitions. Today, Hitchcock is CEO of the Internet domain name system services company; Thomas J. Daly '04 is CTO.

While forming DynDNS, Daly and Hitchcock worked closely with Jerry Schaufeld, visiting professor of entrepreneurship at WPI, to develop their business plan, analyze the market, and value the

company's technology. "Jeremy and Tom started out as students in my entrepreneurship class," Schaufeld says proudly. "It was a joy to work with them. We'd meet informally to discuss marketing plans and other fundamentals of their business plan. Mac [Banks] encourages all of us in the Department of Management to work with students in this way. It's very rewarding."

Banks also works to institutionalize entrepreneurship at WPI. He recently incorporated a new element into the MBA program's Graduate Qualifying Project, through which students have conducted seven technology commercialization studies. Banks says he wants to use this "proof of concept effort" to demonstrate the tremendous value that WPI's MBA students can add to faculty research. The project also assists the technology transfer office by identifying potential licensees and, in some cases, developing plans for emerging WPI-connected businesses.

Banks now hopes to launch a new MS degree program called Technology Commercialization and Entrepreneurship, which could attract students who want to start a business, become inventors who license their technology, or establish a career in technology transfer. He estimates that as the MS program gains momentum, as many as 40 studies could be conducted by students annually.

At the undergraduate level, Banks is working with James Hanlan, head of the Humanities and Arts Department, as well as other HUA and management faculty, to create an arts entrepreneurship program for students interested in continuing their engagement in the arts through business ventures.

"Entrepreneurship is a key to helping the U.S. retain and expand its advantage in the global marketplace, through innovation," Banks says. "WPI's small size works very much to our advantage, by allowing us to work readily across disciplines. It's much easier to get to know—and therefore to access—people here than it is at larger universities."

"Entrepreneurship coupled with science, engineering, and the arts is the perfect marriage," says Gina Betti, associate director of the CEI. "Entrepreneurs want to commercialize ideas. Scientists, engineers, and artists want to improve society. Combine the two mindsets and you see potent results."

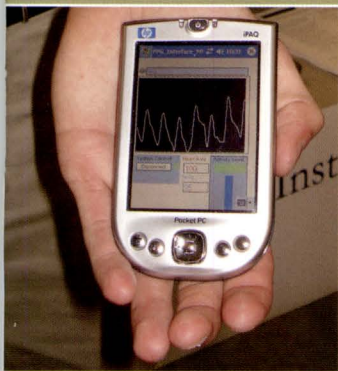
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"Entrepreneurship is a key to helping the U.S. retain and expand its advantage in the global marketplace, through innovation. WPI's small size works very much to our advantage, by allowing us to work readily across disciplines."

—Mac Banks

New Company Pulsing with Potential

As *Transformations* was going to press, another new company based on the fruits of funded research at WPI was springing to life. Advanced Body Sensing, like ImagiSonix, has its origins in the untethered healthcare project funded by the U.S. Army's Telemedicine and Advanced Technologies Research Center (TATRC).



Initially, the company will market a wearable pulse oximeter developed by Yitzhak Mendelson, professor and interim head of the Biomedical Engineering Department, and James Duckworth, associate professor of electrical and computer engineering. Mendelson is president of Advanced Body Sensing and Duckworth is CEO.

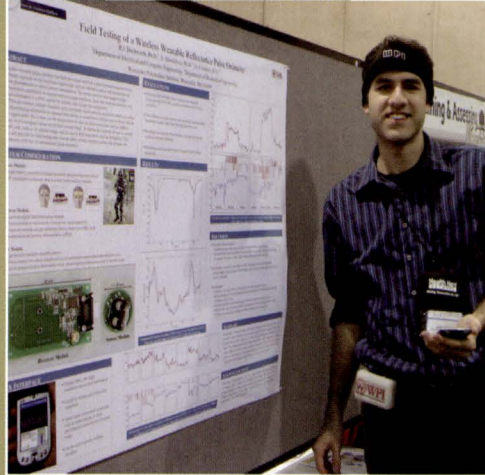
Pulse oximeters measure blood oxygenation noninvasively by shining red and infrared light through the skin and measuring how the different frequencies are absorbed

by pulsing arterial blood. Mendelson and Duckworth developed a battery-powered, wireless sensor about the size of a quarter and the thickness of three quarters. Designed to be held against soldiers' foreheads with a strap, it would alert medics of the tell-tale drop in pulse, respiration rate, and blood oxygen associated with a serious wound or injury. It would also permit remote triage by indicating which injured soldiers were most in need of immediate care.

The researchers faced two key technical challenges. To minimize power use and extend battery life, they developed an improved optical sensor that sends the information wirelessly to a small belt-mounted oximeter. The computer inside the oximeter performs the power-intensive jobs of signal processing and transmitting data to the medic's PDA or laptop computer. To eliminate motion artifacts caused by normal movements of active soldiers, they developed sophisticated signal processing correction algorithms that factor in data from embedded accelerometers that measure body movement and posture.

At press time, Advanced Body Sensing was close to lining up its first order. They were also investigating a number of nonmilitary markets for the device (monitoring the health of firefighters, miners, divers—even mountain climbers) and exploring ways to expand the oximeter's capabilities by enabling it, for example, to measure changes in blood volume to determine if someone is bleeding heavily.

—MD



Graduate student Gary Comtois demonstrates the pulse oximeter at the American Telemedicine Association's 2006 conference.

Tapping WPI resources

While the ImagiSonix team prepares to meet with angel investors, Pedersen admits with a wry grin that "starting a company was the furthest thing from our minds when we began this research almost four years ago."

But when it came time to interpret their inventions as products, the scientists knew where to turn. Pedersen and Duckworth tapped the Collaborative for Entrepreneurship and Innovation, which, along with the university's Technology Transfer Office, works to strengthen and support efforts on the part of faculty and students to turn ideas into patents, business plans, and investor-worthy presentations. And McRae (Mac) Banks, head of the Department of Management, professor of entrepreneurship and strategy, and CEI director, referred ImagiSonix to visiting professor of entrepreneurship Jerry Schaufeld.

"I was very excited to work with Peder and Jim," says Schaufeld, who helps emerging executives identify potential markets and clarify their corporate vision. "I screen deals with three different angel investor groups. Because of that, I have ideas about how to improve the probability of success in these

projects. I play the role of wearing the investor's 'green visor' focus on the issues of creating sustainable propositions."

This work, says Schaufeld, "is a natural extension of the management department at WPI. We are all encouraged to reach out to the faculty and assist in developing spin-off companies."

But, says Banks, when it comes time to commercialize technology, one of the most difficult problems an engineering or science researcher faces is understanding the market and the business value.

"They love the technology or the science, as they should," he says. "The problem is that potential investors want to know how they will make money on the dollars they spend, and researchers are almost never able to answer that question. But we can. We have a few faculty members, graduate students, even undergraduate students who do it all the time." (And, in time, Banks expects to increase that capacity with a newly proposed MS in Technology Commercialization and Entrepreneurship.)

Mike Manning, WPI's Director
of Technology Transfer



Tony Rinaldo

Duckworth notes that through BEI he and his ImagiSonix colleagues pitched their business ideas to a number of people. Those presentations, made in August 2006, led to the formation of the executive team.

When ASTI co-founders were preparing their business proposal, WPI technology transfer director Michael Manning helped get them in front of business groups, including the Massachusetts Technology Transfer Center, a UMass-affiliated organization.

“Both ASTI and ImagiSonix have gone through the ‘pitch’ process, which has yielded them many viable leads for financing, recruitment, and strategic planning,” he says. “An important direct result is that these university researchers have become adept at promoting and conducting business-focused overtures to prospective partners.”

Notes Pedersen, “I could not imagine starting a company alone—too much stress, and too little fun. Being an entrepreneur is exciting, for the most part. Not knowing where this is going? That’s an adventure!” ■

“An important direct result is that these university researchers have become adept at promoting and conducting business-focused overtures to prospective partners.”

Pure Genius!

When graduate student Paul Kassebaum and Zeb Tracy '07 joined forces in early 2007 to form a new entrepreneurship club at WPI, they did what any good entrepreneurs would do: they thought big and moved fast.

The students formed a vision of a national nonprofit organization, called Genius!, with chapters in universities and colleges across the country. They envisioned a club that would function not only for meetings, networking, and hobnobbing with successful alumni, but also as incubators of innovation, from which new companies could spring like so many streams feeding a river of economic activity.

Kassebaum and Tracy lost no time writing the Genius! business plan and executive summary. In the meantime, they recruited 60 WPI colleagues as members, and won the support of accomplished advisors and student entrepreneurs at other institutions of higher learning.

Genius!, which launches this fall at WPI, holds as its central tenet that innovation soars when people feel safe discussing their ideas in diverse, talented groups.

"The core of our idea is to build a network that fosters innovation by opening up a safe place for dialogue," says Kassebaum, a doctoral student in sustainable energy. "A lot of innovative students don't understand intellectual property [IP] law. Either they think it's scary, so they don't talk to anyone about their ideas, or they don't act on their ideas. Others think they don't have to worry about IP issues at all, so they unwittingly give their IP rights away."

To get started, "we're exploring nondisclosure agreements to create an initial shield for inventors," says Tracy, who studied mechanical engineering.

Teamwork among diverse students also forms a pillar of the Genius! approach. "Individuals acting alone can't see all the angles or issues," Tracy says.

Adds Kassebaum, "Genius! will value differences among team members that foster varying viewpoints, whether the difference is cultural, cognitive, skill set, age, or experience level."

At WPI, Genius! members will appeal to the university's alumni and area businesses to invest in the local club's entrepreneurs. Other Genius! chapters will operate similarly. Donors can earmark funds for specific chapters, or open their capital to the national Genius! pool, which would be managed by the umbrella nonprofit. The national organization would oversee fund distribution via an angel investor-style decision making process.

"The biggest value proposition to potential donors is that they can keep their finger on the pulse of new technological trends coming out of multiple universities," Tracy says.

"We also want to ensure that WPI's amazing resources made available through the Collaborative for Entrepreneurship and Innovation and its Venture Forum are fully used by students," says Kassebaum.



Richard Howard

Paul Kassebaum, left, and Zeb Tracy have started an entrepreneurship club, which launches at WPI this fall.

Genius! is attracting positive feedback. For example, the Worcester-based Boynton Angels (see story on page 31), faculty at the College of the Holy Cross, and students who lead the entrepreneurship club at Clark University have all expressed interest in helping to grow the Genius! organization.

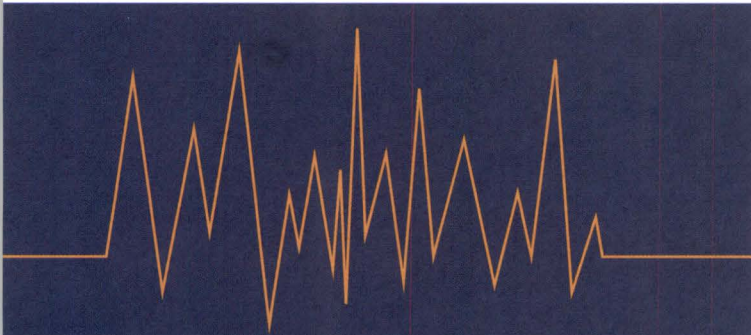
"I believe entrepreneurial talent is the key factor that will sustain America's economic vibrancy," says David Chu, director of entrepreneurial studies and associate professor of accounting at Holy Cross. Chu supports collaboration on Genius! between Holy Cross and WPI.

"We are excited about Genius! and look forward to cross-consortium collaboration," says Zachary Zielezinski, co-founder and board member of Initial Advantage, Clark's student entrepreneurship club.

As they prepare to hold the first official Genius! meetings, Kassebaum and Tracy hope to attract WPI alumni to mentor active club members.

"Genius! represents phenomenal networking and business creation opportunities," says Tracy. "I see the club as a venue for fertilizing the business landscape for exciting future endeavors."

Entrepre



WPI entrepreneurs follow widely divergent paths in their businesses—from building boats to building companies, from strategic consulting to medical device manufacturing. But they have a lot in common. They tend to view failure as a positive—a sign that it is time to change direction or tactics, rather than a reason to give up. They see their WPI experiences as entrepreneurial at heart. And they each have a story to tell. Here are a few.

When Ron Ranauro '83, '88(MS), joined GenomeQuest in 2002 [becoming president and CEO in 2004] he began boosting the firm's success by helping pharmaceutical clients see how bioinformatics can be used to fulfill their objectives to “fail early, fail often.”

“The worst thing that can happen in the pharmaceutical development process is to get to the clinical trial phase, and at that stage discover there's a toxicity problem, or that your medication infringes on someone else's gene patents,” says Ranauro. “GenomeQuest helps our customers avoid that kind of nightmare.”

It's no surprise that Ranauro readily leveraged researchers' “fail” concept. Having worked with two start-ups and founding his own company, he understands that intelligent risks tend to bring rewards, no matter what the outcome.

Ranauro made his first entrepreneurial move to venture-funded Viewlogic in 1986, after working for several years with Data General. In 1990, he became the first sales and marketing employee for Exemplar, a high-tech start-up with just five employees.

In 1996, he founded Blackstone Technology Group, which provided consulting services to the electronic design and grid computing markets. “We built a very profitable business with 15 employees,” he notes. The company won two rounds of VC investment to develop software to automate their services. But with the bust in 2001, “orders and venture capital dried up.”

Blackstone was sold to TurboWorx and Ranauro moved on, joining GenomeQuest. “Early in my career, I was interested in how each position would broaden my skill set,” he says. “Now that I lead a company, it's helpful that I've worked in many of the positions held by the people I manage.”

Based in Westborough, Mass., GenomeQuest has created a search engine that harnesses supercomputing power to sift through mountains of gene sequence records and associated text. Delving into an automatically updating database containing over 137 million sequence records, the company aggregates and uncovers often hidden information, and places it on researchers' desktops.

Customers such as Pfizer and Biogen Idec use GenomeQuest to prioritize a multitude of pharmacological

neurial at Heart

By Eileen McCluskey

research options. “There are many more candidate targets than any one company can possibly pursue,” explains Ranauro. “Our clients want to apply resources where they can really work for them, and discard those that are not likely to bear fruit.”

Some law firms, including Foley Hoag, that work on intellectual property (IP) issues use GenomeQuest to find out if a particular discovery is still available. “And if it isn’t, they can explore whether it would be possible for the client to work around the blocking intellectual property,” Ranauro says.

In addition to helping customers succeed by failing early, Ranauro also guided GenomeQuest as it developed a collaboration with the French pharmaceutical company Servier Labs. The collaboration uses the genome as a master index to link results from high-throughput DNA chip experiments with highly precise downstream measurement platforms. “This is exciting because now we’re bridging the multiple worlds of biology, IP, and business,” says Ranauro. With one system, a client can evaluate biological relevance, see the patent landscape, and seek potential collaborators or in-license partners.

As his experience deepens, Ranauro finds he enjoys sharing the lessons he’s learned. This year, he started teaching Entrepreneurial Communication and Influence at Clark University as an entrepreneur-in-residence.

At WPI, he offers what he calls “from-the-field feedback” as a member of the Department of Management’s executive council. He also participates regularly in the Collaborative for Entrepreneurship and Innovation “Dinner with Entrepreneurs,” and has been a guest on the WPI Venture Forum’s radio program.

Ranauro sees his WPI involvement as a natural expression of his gratitude to the university. “Navigating the IQP and the MQP was an entrepreneurial enterprise for me,” he says. “When I graduated, I felt as though I could do anything. I felt a great sense of accomplishment.”



“This is exciting because now we’re bridging the multiple worlds of biology, IP, and business.”



Tony Rinaldo

Susan Loconto Penta '86 has been an entrepreneur nearly all her life. "From an early age, I understood that if I wanted something, I had better earn the money to buy it," she says. As a high school student, Penta babysat for neighbors and tutored children in math. And while studying engineering at WPI, she cobbled together a 40-hour work week typing students' papers, waiting tables at local restaurants, and helping out in the university's athletic office. Over the summers, she worked two jobs to make ends meet.

"My parents taught me to be independent, to chart my own course," says Penta, a founding partner with the successful Cambridge-based MIDIOR Consulting. "I like to be in control of my own destiny."

As cartographer of her own life, Penta enjoys working for herself. In her first job out of London's CASS Business School, she worked for product developer IDEA Associates, where she says, "I was allowed to be the CEO of a product. This was a big deal for me."

At IDEA, Penta also met Michael Goldberger, who became her business partner when the two started MODA

"Once an entrepreneur, always an entrepreneur. It's in your blood, it's how you operate."

Systems in 1991. The wireless communication software company did well at first. "But we were too early to market," she says. In 1995, they sold the source code licenses to customers and closed up shop.

A year later, following the birth of her second child, Penta knew she needed to get back to work. When a colleague asked if she would consult on a project, she called on Goldberger for help. Before she knew it, she was back in business for herself. "Once an entrepreneur, always an entrepreneur," she says with a laugh. "It's in your blood, it's how you operate."

Through MIDIOR, Penta helps others operate like entrepreneurs, even in large corporations. "Our approach is grounded in the entrepreneurial perspective," she says of the business and technology consulting firm. "We use that perspective, combined with our engineering training, to unlock the power that products can have in the marketplace."

MIDIOR's long client list includes Gerber Scientific, Intel Corporation, and State Street Corporation. "We help these big companies find their entrepreneurs, and put them in the right roles," says Penta, who was named one of *Boston Business Journal's* "40 Under 40" in 2002.

Penta also assists nonprofit organizations as they refine their missions and goals. She serves as chair of Schools for Children, an East Coast nonprofit that owns three schools and one educational program. She is treasurer of the Center for Women and Enterprise and treasurer of the Belmont Day School. "I try to cultivate clarity of vision for the boards I work with," Penta says. "It's important to tie the vision to practical objectives. So I help them create plans and measure themselves against those plans."

At WPI, Penta was instrumental in forming the Collaborative for Entrepreneurship and Innovation, and now serves on its advisory board. "I believe in WPI, and understand how valuable this cross-disciplinary program is for both the students and the school," she says.

As an alumna with strong ties to WPI and as an executive who spends much of her time guiding organizations through competitive markets, Penta feels strongly that the university should continue to differentiate itself. "WPI's egalitarian culture is excellent," she says. "We should brag about it."

Roger Heinen '73 is no astrologist, but he knows that when the stars come into alignment, good things happen.

“For a start-up to be successful,” says the seasoned venture capitalist, “you need a unique idea, a strong team, and a ready market. When these stars align, there’s a powerful feeling.”

Heinen relies on that feeling, coupled with an acute business sense, to choose which high tech companies he will guide through start-up phase to initial public offering (IPO) and beyond. He serves on the boards of seven public and private high-tech companies, including Monotype Imaging in Woburn, Mass., which creates digital imaging technology and filed for its IPO in January; Bedford, Mass.-based Progress Software, provider of award-winning application infrastructure; and Pepper Computer in Lexington, Mass., which develops software and services for handheld and other computing devices, using the open-source Linux operating system.

He also directs start-ups as a general partner with Flagship Ventures, a Cambridge-based VC firm. At Black Duck Software, for example, Heinen serves as chairman of the board. The private Waltham-based company, which offers software compliance management solutions, is gearing up to go public. “Roger is especially artful in helping me navigate the sometimes frothy waters involving venture capitalists during financings,” says president and CEO Doug Levin.

Heinen entered the VC world after a distinguished career helping lead some of the nation’s most successful technology corporations. He started out in 1973 as a cub programmer at Digital Equipment Corporation, where he later became a corporate consulting engineer. He moved to Apple Computer in 1990, serving as senior vice president of the software division. From 1993 to 1996 he was senior vice president of Microsoft Corporation’s developer division.

“My motivation in going into the VC industry was to continue working with entrepreneurs in high technology,” he says. “It’s been very exciting because I feel like I’m still contributing.”

In addition to his technological involvements, Heinen joined the Maine Small Enterprise Growth Fund (SEGF) several years ago. SEGF was created by the state’s legislature in 1995 to stimulate and develop Maine’s economy with “patient” sources of venture capital.

The businesses supported by SEGF run the gamut from food companies, to guitar makers, to breweries. “I’ve found Maine’s investment environment particularly stimulating,” says Heinen, who makes his home there. “Unlike Massachusetts, Maine has very limited access to venture capitalists. So there is tremendous need for people like me to help develop a more diverse economy.”

Of course, Heinen would likely be the last person to say that he can predict the outcomes of his many investments of time, expertise, and capital. After all, the stars can move out of alignment even at the most carefully crafted companies, with the most singular ideas and stellar management teams. Indeed, says Heinen, “Things always go wrong. You can bank on that.”

That’s one reason he celebrates his WPI education. “At WPI, I learned how to set up a working environment that’s extremely flexible so you can recover, no matter what happens.”

As he mentors an undergraduate WPI student now, Heinen says he’s glad to see that the university “continues to teach the kinds of skills that are necessary in today’s quickly shifting business environment. I can see this student discovering, as she does her IQP and MQP, that no matter how organized and technically skilled you are, ideas always take longer to realize than you think they will. This student will enter the job market with that understanding. It’s one element that makes the WPI experience so rewarding.”



“For a start-up to be successful, you need a unique idea, a strong team, and a ready market. When these stars align, there’s a powerful feeling.”



Greg Hopkins '69 started and ran high-tech companies for 20 years before trading in his laptop for a pair of oars.

The entrepreneur launched two businesses during the 1980s, and a third in 1990. He founded UB Networks and ran its engineering operations—the networking equipment provider went public in 1984, was later bought by Tandem Computer, then by Compaq Computer, and finally became part of Hewlett-Packard. His Amber Wave Systems sold successfully to U.S. Robotics and was then purchased by 3Com. Windata, which Hopkins founded in 1990, built wireless local networks and participated in creating the IEEE 802.11 wireless standards.

“Those early days of local area networks, switching, and routing were heady times,” says Hopkins. “Our products became the plumbing for today’s wired and wireless networks.”

But don’t take his nostalgia for a longing to be back in the technological fray. “I’ve had enough of running start-ups and dealing with the venture capital community,” he says.

To capitalize on a long-standing love of boat building, Hopkins started Nextwave Boat Company in Portsmouth, N.H., in 2001. At first, he made one-offs for customers—kayaks, canoes, motorized runabouts, electric boats. “Basically, I was willing to build any boat a customer asked for,” he says.

Then he discovered the Piscataqua Wherry, a 16-foot rowboat specifically designed to navigate the tidal waters of Portsmouth. “It’s an amazing boat,” says Hopkins, whose research tells him it first appeared in the mid-1800s. “This rowboat used to be the taxicab for the Piscataqua [pronounced pis-CAT-a-kwa] River. It’s indigenous to this area. People get interested in it because of that.”

Soon Hopkins had set up his shop especially for building the Piscataqua Wherry—the set-up includes templates for every part of the boat and a set of permanent molds to plank the hull.

Now that his workshop stands ready, Hopkins enjoys customizing the Wherry for clients. “One customer brought wood from an apple tree that had been on his grandmother’s property,” he says. “I used it to make inlays in the fore and aft decks.”

Although he doesn’t miss the pressure of high-tech start-ups, Hopkins still does plenty of networking, enthusiastically spreading the lore associated with the Piscataqua Wherry. He has pored over trial records of the notorious Smuttynose murderer—named for the New Hampshire island on which the crime took place in 1873—and has concluded that the

“With boat building, I can see what I’ve accomplished at the end of every day. It’s very satisfying.”

Piscataqua Wherry may well have been the craft stolen by the perpetrator on the fateful day. On his website, he invites the curious to stop in and hear the whole story.

To further promote Nextwave, Hopkins plans to borrow one of the original Piscataqua Wherries from the Kittery [Maine] Naval Museum. "I'd like to show an original next to one of mine at the first Portsmouth Boat Show," he says.

As he rolls up his sleeves to build more rowboats, Hopkins finds the skills he gained in college just as useful as when he made routers. "WPI made me comfortable trying new

things," he says. Little wonder, then, that his latest venture is faring well—Nextwave has sold four of the rowboat reproductions in the last nine months.

Looking back over his varied career, Hopkins sees that his current course suits him. "When we were starting companies, we thought we were going to solve everybody's problems, and act as the conduit for everyone getting onto the Internet. That kind of goal can take a long time to realize," he says. "With boat building, I can see what I've accomplished at the end of every day. It's very satisfying." ■

Where Angels Dare to Invest

Mitchell Sanders '88(MS), '92(PhD), sees enormous entrepreneurial potential in his hometown of Worcester. And he ought to know about the odds of making it here. Sanders is executive vice president of Worcester-based ECI Biotech, a protein-sensor company he founded in 1998. He quickly secured \$15 million for ECI in equity, corporate development funding, and Small Business Innovation Research (SBIR) grants. Most recently, ECI received an \$800,000 low-interest loan from MassDevelopment Finance Agency to open a manufacturing facility.

"Worcester is being revitalized," says Sanders. "Our cultural, business, and educational infrastructure looks exciting. I've wanted to help build new businesses here through investing, but who has time to review business plans every day?"

Sanders knew how he wanted to answer that question—starting an angel investment group. And he knew where he could find colleagues to assist him—WPI. Sanders maintains close ties with the university: he serves as vice chair of the Venture Forum, holds dual assistant research professorships in WPI's Bioengineering Institute and Biology and Biotechnology Department, and serves on the board of the Collaborative for Entrepreneurship and Innovation (CEI).

The WPI Venture Forum Executive Board had also "identified the lack of gap funding, which angels typically provide, as an impediment to start-ups in central Massachusetts," notes Mac Banks, head of the Department of Management, professor of entrepreneurship and strategy, and CEI director. After Sanders became a member of the board in 2005, he began organizing the Boynton Angels (BA) with over a dozen WPI alumni and faculty members, including Gina Betti, CEI associate director, Chick Kasouf, associate professor of marketing and entrepreneurship, Steve Rubin '74, entrepreneur and member of the WPI Board, Amar Kapur '65, past president of the Venture Forum, and Jerry Schaufeld, visiting professor of entrepreneurship.

BA launched in November 2006 and quickly attracted 17 members. Aside from its WPI makeup, says Sanders, members include alumni and faculty from Clark University and the University of Massachusetts Lowell, and executives from industries including energy, manufacturing, biotech, consumer products, telecommunications, and software.

"Many of our members live or do business in Worcester," he notes. "Others simply enjoy investing and saw the opportunity



Mitchell Sanders, left, with Eric Overström, head of WPI's Biology and Biotechnology Department.

for a whole new array of deals they may never have heard about otherwise." According to Sanders, two-thirds of the BA members have invested as individual angels in over 25 start-ups. More than 80 percent have been founders, CEOs, or presidents of companies, and most have served on boards of directors.

"I tell potential members this is a great opportunity to invest with a strong group of sophisticated individuals," Sanders says. "With the Boynton Angels, you'll get better terms than if you go it alone, and the group is able to pursue vigorous due diligence, so you're not just *hoping* for the best when you invest."

With plans to focus investments in seed- and expansion-stage companies, the BA have ramped up quickly. Their screening committee sifted through 200 business plans and by January had chosen three entrepreneurs to present to the larger group. Among these hopefuls were software developers in the medical and real estate industries and a medical device maker. Two of these plans have been chosen for the due diligence stage. The BA will make their first investment this year.

"Unlike venture capital firms, the Boynton Angels can come in at earlier stages of investment," Sanders says. "We can fill that gap between a start-up's influx of funds from grants like those given through the SBIR, and the more formal VC."

A flexible investment group like the BA can prevent the "analysis paralysis" that often happens in the investment industry. "When we see great opportunities with sound management teams, we can get them moving. That's what I'm excited about," Sanders says. "I think the Boynton Angels are going to be the ignition switch for investment in this town."

Beyond 'Eureka!'

By Kate Evans-Correia

Sterilray, a new type of ultraviolet lamp developed by Ed Neister, could revolutionize the way people disinfect surfaces.

Brandishing WPI's legacy of innovation and entrepreneurial spirit, **Edward Neister '65** and **Timothy McGreal '04 (MS)** have proven that with determination, passion, and hard work you can see a great idea to fruition. Both have formed their own companies and invented products that could ultimately save lives. On the other end of the invention spectrum is **Michael Feely '97**, who is responsible for reviewing many of the 400,000 patent applications filed each year in the United States.

Ed Neister's invention looks like a prop from the 1984 movie *Ghost Busters*. But instead of trapping pesky ghosts, Neister's gadget zaps something real and much more threatening—germs.

His GermBuster Sanitation Wand, which uses Sterilray, a new type of ultraviolet lamp developed by Neister, could revolutionize the way people disinfect surfaces. By killing stubborn bacteria and viruses instantly, it could prove invaluable to health care facilities, food processing centers, germ testing laboratories, and hospitality centers, including cruise ships.

Consider this: A typical surface can have a million CFUs (coliform units) of bacteria per square centimeter, but a typical surface cleaner kills only a small percentage of those bacteria. It can take as little as 10 viral units of a norovirus to make a person sick. "What we're saying is, there's no better way to disinfect a surface than to use this far UV light," Neister explains.

After graduating from WPI in 1965 with a BS in physics, Neister went on to become one of the earliest developers of products using laser technology. He has started six companies, including his current enterprise, Healthy Environment Innovations, in New Durham, N.H., and has invented several products, including a tattoo removal laser. His latest idea has turned into the GermBuster.

Neister chose to attend WPI because he "wanted a school where a student was not just a theorist but an experimentalist." It was important for him to be able to grasp "the physics of nature, not just the calculations."

When he began his doctoral studies at Brandeis, the potential of laser technology (still in its infancy) was too tempting for Neister's entrepreneurial side. "It wasn't long before I realized I didn't want to be a nuclear physicist," he admits. "I said, 'It's new technology and I'm there.' I took a leave of absence [from Brandeis] and never went back."

He eventually earned his MS in physics from Northeastern University, while continuing to work at AVCO and later at Honeywell in laser research. Yet, as exciting as the research was, Neister became disillusioned with the field's

lack of job security. "In 1970 I said, 'Enough!' and started my own company."

Several years (and companies) later, Neister began exploring wastewater treatment using UV rays and looking for ways to apply the same process to kill surface bacteria.

Used commonly in the treatment of wastewater, rays in the UVC, or "germicidal" band, cause base pairs in the DNA molecule to bond tightly, rendering the molecule unable to replicate and microorganisms unable to reproduce. But under certain circumstances, light with longer wavelengths can weaken the base pair bonds, enabling the organisms to start reproducing again. Neister discovered that light in the far UV spectrum, with a much stronger photon energy than light from standard UV lamps, killed significantly more pathogens and actually damaged other parts of the DNA molecule. It virtually destroys all types of pathogens in less than one second. Hence, the birth of Sterilray.

"We made a simple lamp at different wavelengths, tested it at the University of New Hampshire, and saw improvement [in the destruction of a phage virus]," says Neister. At that point, he knew he had a "significant method for killing viruses on a surface."

Though it has taken almost five years to develop fully, there's still more testing to be done. Neister is looking at the possibility of doing bacterial and virus testing at WPI's new Life Sciences and Bioengineering Center at Gateway Park, part of an 11-acre life sciences and bioengineering district the university is developing with the city of Worcester. He says that a partnership with WPI is likely sometime within the next year.

Neister is excited at the prospect of working with WPI again. After all, he notes, it was a great foundation for his career as scientist, inventor, and entrepreneur. "The most important thing is WPI's ability to teach students to think for themselves," he says. "Doing all those experiments gave you a sense that you have a bunch of doors that you must figure out how to open. You won't get that out of books. You have to think your way through problems."



“People really need smoke detectors in every room. This product makes it much quicker, easier, and safer to do that.”

Fire Inspector Gadget

It was a class video that showed fire racing through a home that led Tim McGreal '04 (MS) to develop what promises to be one of the most simple, but useful, fire safety devices available to consumers—a product that makes it possible to install and remove smoke alarms without the use of a ladder.

“It’s a simple way to access a smoke alarm from the ground,” McGreal says of AlarmArm, a product that uses an extension pole and his patented magnetic mounting system. But he’s quick to point out that making it practical was the challenge. “Having an idea is much easier than developing a commercially viable product.”

As for ideas, McGreal has a million of them. Even as a little kid he was always thinking of ways to make things work better. This time, his idea stemmed from needing additional smoke alarms in his home.

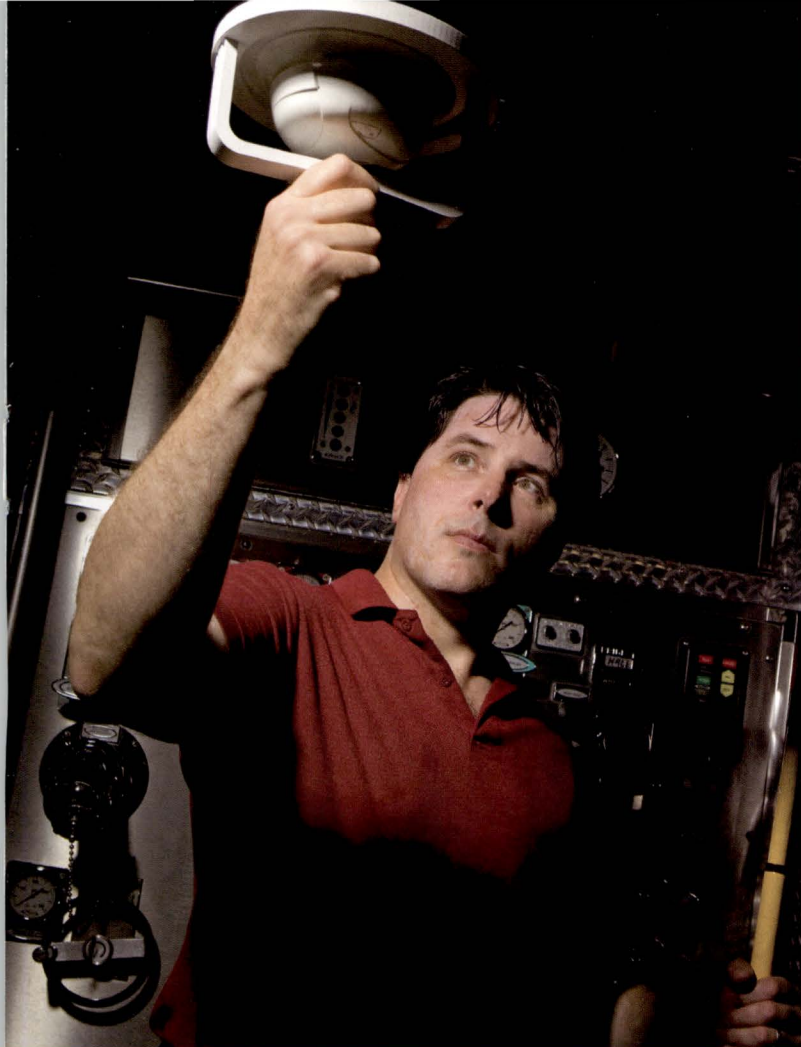
“One of the rooms had a 19-foot ceiling. I looked up and thought, ‘I need a smoke alarm there but I don’t want to climb a 16-foot ladder,’” says McGreal, who earned his degree in fire protection engineering through WPI’s Advanced Distance Learning Network. “The mock-up was done in about five minutes, but it took four years to turn it into a practical, commercially viable product.”

McGreal originally designed AlarmArm using adhesive.

But it just didn’t stick. Literally. So he reworked several models and found that magnets were the best way to go. In 2005, AlarmArm won NASA’s merit award for its “Entering the Future” contest, he modestly points out. But at the end of the day, it’s not about awards; it’s about saving lives. “People really need smoke detectors in every room,” he says. “This product makes it much quicker, easier, and safer to do that.”

The AlarmArm, which McGreal will be distributing through his company, SafetyWise, isn’t his first patented product, nor is it likely to be his last. In December 2000 he received a patent for “transmission apparatus and method,” which is a 120-speed transmission for an agricultural planter, and he has a patent pending for a “torque-limiting threaded coupler,” which allows threaded plumbing and fastener components to be precisely assembled without guesswork, luck, or measuring instruments, thus preventing water damage.

While working as an auto mechanic in the mid-’80s, McGreal watched his brother, Michael McGreal ’91, launch a successful career in fire protection engineering, and thought he could do the same. Now a full-time forensic engineer for Rimkus Consulting Group in Westmont, Ill., Tim McGreal estimates he has spent nearly 6,000 hours working on the AlarmArm. He received the patent for the device in February



2005, but much of his time is now spent on finishing the design and working on production tooling. Contracting production to Adams Magnetic Products Co., he expects to start selling the device this summer—initially through catalogs, the AlarmArm website, and the Home Shopping Network/QVC. Shortly afterward, it will be sold at retail outlets, such as Home Depot, Lowe's, Wal-Mart, and Target.

Although McGreal hadn't stepped foot on the WPI campus until after graduating, he credits his experience with WPI's distance learning program for the drive and patience to see an idea through to fruition. All distance-based fire protection engineering programs are taught on campus in real time and then streamed on the Internet. Each course has additional web-based content and a suite of collaboration tools that help foster interaction among faculty and students.

"One thing that was different [from a traditional college experience] was that the courses were conducive to independent work," he says. And even though his professors were a thousand miles away, it didn't mean he could slack off when they weren't looking. "I remember a test that took 20-plus hours to finish over one weekend. It gave me a taste of what the real world is like—what it's like to be an inventor, going nonstop." ■

As a patent examiner specializing in epoxy composition (adhesives), Mike Feely '97 admits he doesn't have a very sexy job. But, he asserts, it's a great job.



"People say to me, 'You must do some really cool stuff.' And I say, 'Yeah, these resins are great.'"

Though he jokes about his day-to-day work at the U.S. Patent and Trademark Office (USPTO), the fact is, Feely is about as close to innovation as one can get and he takes his part in the invention process seriously.

While he may not be pursuing the career path he anticipated, Feely says he is well suited for the job, thanks to his education and previous work experience as an engineer using materials and processes similar to the ones he examines in patent applications. "WPI provided me with an excellent foundation of analytical skills and technical knowledge, along with a very important taste of the real world," he says. "Project work was an excellent preparation for the complexities of industry and work life."

The USPTO has about 5,000 patent examiners (most of them with specialized degrees in engineering) reviewing the nearly 450,000 patent applications the office receives yearly. Of those, about 180,000 patents are issued each year, but that still leaves a backlog of 800,000 unexamined applications. Patent examiners review patent applications to determine their validity, value, and novelty. They compare the subject matter of an application to a large body of technological information to determine whether or not a patent can be granted.

"You get a feel for what the invention is and the scope of what they're claiming," says Feely, who has been with the USPTO since 2000. His job requires a good deal of time management, as does his expertise as a chemical engineer. "There are numerous deadlines so you have to keep on top of your docket. Do a thorough job or it will come back to haunt you."

Socially, it's a far cry from the group projects that were such an important part of his experience at WPI. "Here, it's much more of an individual work environment," which, he says, took some adjustment.

After graduating with a BS in chemical engineering, Feely worked as an engineer for small local companies. But a few years into his second job, he decided to try something and someplace different. He had his pick of locations, but chose Washington, D.C., where he'd spent part of his junior year working on his IQP.

In fact, the USPTO is gaining a reputation as being one of the best places to work in Washington. *Business Week* recently named the USPTO one of the top places to launch a career. Over the past three years, it has hired 2,200 new patent examiners and plans to hire an additional 1,200 each year for the next five years.

"I didn't know what to expect," he says. "I knew I was taking a chance. But everything turned out great. It was the change of pace I was looking for."

A CEO *of*

As the first African American—and the first woman—called to lead the 150-year-old First Baptist Church of Needham, Debora Jackson '89 moves easily between worlds of business and religion, trying to help each learn from the other.

the Spirit

By Joan Killough-Miller

The steeple of the First Baptist Church is the tallest structure in the town of Needham, Mass. Some might look to it as a symbol of pride or inspiration—but to the Reverend Debora Jackson, it is a source of revenue. When she first came on board as senior pastor in 2004, the church was reaping the benefits of cellular transmitting antennas concealed in the tower. Concerned that consolidation in the telecom industry might depreciate that asset, Jackson did some research. When some brokers came calling with a proposal to purchase the access leases, she had already run the numbers.

Jackson still laughs when she recalls their astonishment. “You could just see them looking at each other, saying ‘I thought she was the minister!’ They thought I was just there to offer the so-called ‘sandwich prayers’ at the opening and closing of the meeting.” She shot down their initial offer and came away with a lump-sum payment more in line with her analysis of market value.

The unflinching negotiations hardly came as a surprise to the church members. They had already seen Jackson in action when they first invited her to be their spiritual leader. She immediately renegotiated her compensation package, line by line—and that was while she was still a seminary student. Her parishioners knew full well that she came to the table with an undergraduate business degree from Indiana University, and two master’s degrees from WPI, in engineering management and manufacturing engineering.

At the heart of Jackson’s ministry and her consulting work is a surprising assertion: Like businesses, churches must be concerned with the bottom line and realize a return for their investments. Like churches, businesses can’t thrive unless they look out for their employees’ spiritual needs. Spiritual, she is quick to point out, doesn’t have to mean religious.

Jackson’s first calling was sudden and deep. “I’m going to be a computer programmer,” she declared at age 12, on a sixth-grade field trip. She began her career in software development and soon moved into management. She was leading the start-up of an e-commerce platform for utilities when Enron crashed, taking the energy industry with it. In the aftermath, she was forced to lay off half her staff, and then found herself jobless when her company folded.

Her religious vocation grew out of a lifetime of church involvement. “It was in December of 1999 that I acknowledged my calling. I felt like God had said to me, ‘This is where I want you to go.’ It was an overwhelming, troubling,

frightening sense. I just thought, ‘I can’t do that!’” But in the fall of 2000, after completing her second master’s program at WPI, she entered seminary at Andover Newton Theological School. As she was serving an internship at FBC, the church’s senior pastor retired, and Jackson was asked to succeed him.

While her church reaps the benefits of her business acumen, Jackson also helps businesses leverage the power of spiritual engagement. “I know that gets into touchy language,” she says. “It doesn’t mean I’m proselytizing. It’s about what drives you, what your passions are, and how those passions get manifested in your everyday life.” She is a partner in Executive Soul, a group consultancy that helps organizations and their leaders connect to their spiritual core. Before joining FBC, she had her own agency, The Renewal Group, which specializes in revitalizing workers and organizations after the demoralizing effects of downsizing.

Disengagement can also be an issue for churches. “The engagement is about being on fire for God,” she says. “If you are, you recognize the commitment to build the ministry, share the Gospel, feed the hungry, and clothe the naked. In the Northeast, particularly, church is seen as a nice-to-do, nice-to-have kind of activity. It’s always at the periphery. You have people who only want to give an hour, on Sunday, and start to squirm when it takes a little more than that. And it always does—when I’m preaching!” she adds with a laugh.

“I use my WPI education every day here, from launching a marketing campaign, to active recruiting, to meeting with business leaders,” she says. “It goes back to process, organizational development, and capacity planning—the courses I took at WPI. The church is an enterprise. How do I, as CEO, structure it so it can reach its goals and objectives?”

“I know that some people don’t like this comparison, because it seems too secular. Our objectives are not dollar driven—but they still have to be measurable and tangible,” she continues. “The reality is, so many of our churches are in trouble. If you don’t have a broader hand, you may not be able to achieve your desires.” During her tenure at FBC, attendance at worship services has doubled.

In the larger Needham community, Jackson’s energy galvanizes a wider audience. Her outreach to schools and civic organizations sometimes involves breaking down barriers. “People put clergy in a box,” she says. “They think I’m going to pull out a Bible and start telling them how Jesus needs to be in their lives, or something like that. But I’m thinking about strategic alliances and partnerships.”

Whether it’s bringing the town together to help Hurricane Katrina victims in Mississippi, or shedding her clerical robes for blue jeans to sing rhythm and blues on teen band night, Debora Jackson knows how to win over her target audience and get results. “What saps my energy is mediocrity,” she says. “There’s always a higher peak, and I want to climb it. My family is supportive of that, because they know that I function best when I am challenged and stretched. I can’t imagine it any other way.” ■

Armed with a BS in civil engineering, Jennifer Lutz '94 was headed toward a career in environmental engineering. That is, until a llama crossed her path. Literally.

Breeding Business on Fertile Ground

By Joanne Silver

Only hours after giving birth, Penelope is looking a bit weary as she tends to her newborn, Ajax. Jennifer Lutz greets her sympathetically, patting the recently shorn mother with a reassuring gesture before taking the fleecy white son out for a moment to be weighed. Lutz knows firsthand how difficult labor can be—after all, she has given birth to two sons of her own. She finds that her experience as a mother comes in handy. “Being in labor, having a baby—I can really identify with the girls,” she says.

And there are plenty of “girls” grateful for the support. On a sunny May afternoon, 170 are scattered about the barn, the outdoor pens, and the nearby pastures. Some are only days or hours away from giving birth. Others have just had a romp in the hay—actually, shredded recycled cardboard—with some of the 100 male residents of the wooden barn just down the hill.

All are alpacas—not so much a herd as a collection of individual creatures. Each has a name, a personality, a story. For Lutz, her husband, Ian, and their sons, Sam and Max,

the fuzzy creatures are part of a larger family at Cas-Cad-Nac Farm in Perkinsville, Vt.

This agrarian setting on the slopes of Mount Ascutney is just about the last place Lutz imagined herself ending up when she was a student at WPI. Having grown up on a farm in Woodstock, Vt., Lutz explains, “I ran away from the farm. That’s why I went into engineering.” She never did 4H as a child and never showed animals. Civil engineering was going to be her life’s work, not the care and feeding of a bunch of barnyard inhabitants.

The alumna was well on her way to her chosen career when her MQP took her to Ecuador. By then she and Ian, a high school classmate, had been dating for several years. At a study site a drive away from Guayaquil, Lutz and the other members of her group were investigating gold mining contamination. As she journeyed back and forth to places made hazardous by mercury and cyanide, she would catch glimpses of llamas. She fell in love with the quizzical-looking animals and joked with Ian about getting a llama for the backyard.



“I wear many hats in a day. I never do just one thing. This morning I played midwife to Penelope. I also play accountant, business person, salesperson, veterinary technician.”

After graduating in 1994, Lutz quickly found a position as an environmental engineer with a firm in Lebanon, N.H., working on remediation and tank removal. She and Ian married a year later. Shortly thereafter, at an agricultural fair in Killington, the camelid family reared its adorable head once again. This time the beasts were alpacas—smaller cousins to the llamas that Lutz had seen in Ecuador. She did her homework. By the time she and Ian bought their first five animals in 1997, they were ready—or so they thought.

They soon discovered that farm life means always being prepared for surprises. “I wear many hats in a day. I never do just one thing,” Lutz says. “I could wake up and find two babies. Or I could do paperwork in the office. This morning I played midwife to Penelope. I also play accountant, businessperson, salesperson, veterinary technician. We do a lot of our own veterinary work.” In her medical room—stocked with Vaseline, Pepto-Bismol, thermometers, rubbing alcohol, latex gloves, and syringes—Lutz reaches for a splint she created to fix the crooked leg of one brown twin born recently. She fashioned it out of a spoon, some PVC pipe, cotton, and duct tape. The materials were unconventional, but the splint did the trick.

If her career seems far removed from her WPI course work, Lutz says she still uses skills she developed back then. “I learned about how to think and not think linearly, to think in a lot of different directions,” she says of her college training. “I learned to multitask.”

Inside the barns, Lutz has tapped into her engineering skills to design a flexible system of partitions that responds to the changing needs of the herd. Expectant mothers are housed together. A newborn like Ajax will spend a day in a bonding pen with its mother, listening to her buzzes and

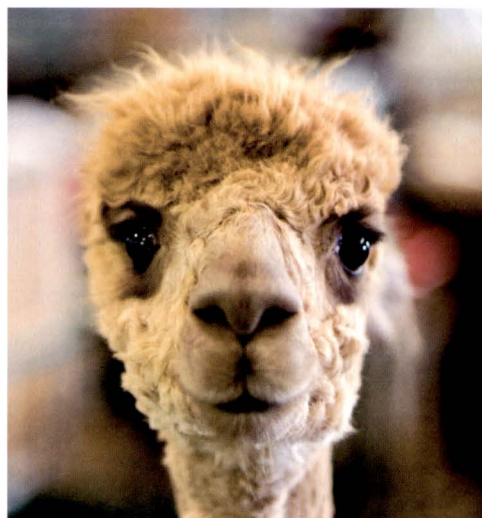
clucks, so that the two can get to know one another before entering the bustle of alpaca society.

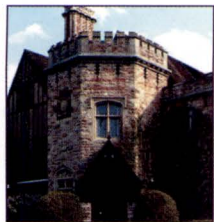
Outdoors, Lutz strings fences and opens gates to create a rotating series of pastures for the animals. In the winter months, when the alpacas tend to be indoors, and babies aren't being born, she haunts an upstairs room filled with puffy garbage bags. These contain the treasure for which

alpacas are rightly famous: a tawny rainbow of fleece so soft and luxurious it makes wool feel like sandpaper. She and her husband shear all the animals during the springtime, leaving them with coats that resemble furry corduroy. In her off hours and off months, Lutz grades the fleece, which might end up in a several-thousand-dollar Italian suit or rug or blanket, depending on its fineness.

Cas-Cad-Nac Farm, whose name means Ascutney in the Abenaki Indian language, has won many prizes for its fleece and its animals in shows across the country, and the Lutzes sell both from their Vermont

home. Jennifer Lutz's office is brimming with purple ribbons, as well as trophies featuring metal sculptures of curly-haired alpacas. A road trip to shows—such as the Nationals held in Louisville, Ky., in May—is a production involving a truck and a trailer that is a work of art in itself. A larger-than-life-size image of alpacas—Reality, Evangeline, Lustrous, Buttercup, and a young Sexy Sadie (so named because that was the song playing when she was born)—along with Sam Lutz as a toddler, adorns the exterior of the vehicle. The vinyl picture, produced by a Utah company that usually wraps buses, not livestock trailers, captures the essence of the passengers riding inside. On the highways of America, this might be the first encounter drivers have had with alpacas. But as Lutz knows well, these creatures are not easily forgotten. ■





AlumniConnections



Bill Krein '62 is owner of CREDO, LLC, in Woodstock, Vt. He is a former entrepreneur-in-residence at WPI and currently serves as an adjunct faculty member for the management department and the corporate and professional education division. He begins his term of office at an exciting time, ready to usher in a new era of alumni activism under a newly restructured organization.

Can you comment on the importance of the Alumni Association? Why get involved?

When you graduate from WPI, not only do you go into the world with an education, you also enter with a reputation. In the professional world, you are received with all the approbation earned by the WPI alumni who came before you and have been successful in their careers. Now, because you enjoyed that, it follows that you have an obligation to contribute to that legacy. By that I mean it's important to roll up your sleeves and engage yourself in WPI, so that you further its reputation for the people who come after you. It's not just about coming back for Homecoming and Reunion. It's a self-perpetuating cycle. Those word-of-mouth success stories about WPI graduates will help other alumni in their careers. And the more alumni hear about those successes—in *Transformations*, for example—the more they appreciate WPI, and the more inclined they are to support the university so it can have that kind of impact on the lives of others.

This is a time of great change for the Alumni Association. How will you build on that progress?

My predecessor, Morgan Rees '61, led the design work on the new structure for the alumni organization and initiated the implementation. Now it's time to get it working and demonstrate its effectiveness. As president-elect, Joyce Kline '87 is chairing a group that will define how the Alumni Association will be constituted as the central presence for all alumni programs and interest groups. In addition, members of the association's Board of Directors are working on revisions to the bylaws. Certainly, we want to keep up the momentum that the Alumni Office has generated—drawing together alumni all over the country—with its dynamic schedule of regional events and town meetings. We also want to capitalize on the energy created by the launch of the new AlumniConnect online community, with interactive features for alumni to remain engaged with each other and with WPI.

What's important to know about the new Alumni Association?

Our goal is to strengthen the relationship between the Association and the WPI administration. It's more than just a new organizational chart; it's a new way of thinking about alumni involvement. We're looking at how and where we can contribute on a more strategic level. With increased Office of Alumni Relations staffing to handle operations, the board is freed up to function in more of an advisory capacity, focusing on strategy and direction.

We're also responding to the need for broader representation. Instead of just a few key committee chairs doing all the work, we'll have 18 to 20 members-at-large, each with several areas of interest. Technology allows us to cut down on the frequent on-campus meetings. That opens it up to alumni who live outside the local area or those who may not have much time to attend meetings.

Career development has been a priority for you, given your involvement with the Alumni Association. What can alumni expect in that area?

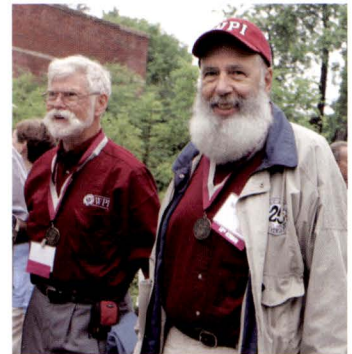
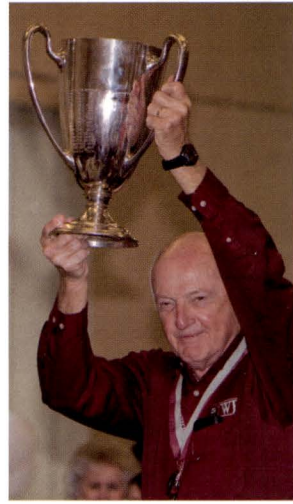
Over the last four years I've spent time reinforcing the concept that WPI must support its graduates throughout their careers. I'm excited by the fact that we have a new Career Development Center director who understands lifelong career involvement, and a firm commitment of resources from the administration. Right now we are engaged in recruiting a dedicated staff member who is skilled in assisting alumni at all stages of their working lives. You'll also notice expanded online resources, including a Career Services area as part of the new online community, and a link to job postings, accessible through *The Bridge*, WPI's monthly alumni newsletter.

What's the best way to stay on top of all this?

Register at the new alumni site: alumniconnect.wpi.edu. If you need a password or other assistance, contact alumni-office@wpi.edu.

Reunion Weekend 2007

Even the rain couldn't dampen the mood during Reunion Weekend 2007, held June 7-10. Alumni from the classes of '42, '47, '52, '57, '62, '67, '72, '77, and '82 celebrated their respective reunions with receptions and banquets, and by reuniting with old friends. Activities and events during the weekend included the annual Reunion Parade, campus tours, and Alumni College sessions led by WPI faculty and administrators. President Dennis Berkey accepted generous class gifts, and select alumni were celebrated with distinguished awards. *View more photos at alumni.wpi.edu.*



Class Notes

Staying Connected with Old Friends

Material for Class Notes comes from newspaper and magazine clippings, press releases, and information supplied by alumni. Due to production schedules, some notes may be out of date at publication, but may be updated in future issues. Please allow up to 6 months for your news to appear in print. Submit your Class Note at www.wpi.edu/+Transformations or alumni-editor@wpi.edu. You may fax it to 508-831-5820, or mail it to Alumni Editor, Transformations, WPI, 100 Institute Road, Worcester, MA 01609-2280.

1930s

Morton Fine '37 of Rocky Hill, Conn., discussed his career in forensic engineering with his local newspaper, *Rocky Hill Life*. In 1950, he founded Morton S. Fine Associates, which grew to 60 employees. He also served as executive director of the national Council of Engineering Examiners. He now maintains a one-man practice, with an office at Inwood Business Park, in Rocky Hill.

1940s

Noel Maleady '40 lives in Ladera Ranch, Calif. The *Ladera Post* ran a front page story on his many volunteer activities. He works at the local animal shelter, makes pastor visits at Mission Hospital, helps with the summer arts festival, and is a member of several other organizations. He was also instrumental in getting bus service for his area.

Ralph Smith '43 was one of several sharp-eyed readers who noticed an error in the previous issue of *Transformations*, which reversed the order of buildings in a 1933 photo of the WPI Quad. He shared memories of living in Sanford Riley, (a "fairly new" dorm at the time), and working as a monitor in the front lobby, where the dorm's single telephone was located. "I would sit at the desk from 7 to 11 p.m., with duty to answer the phone, go find the student (no elevators), try to control discipline, and lock the doors at 11, when all the students were supposed to be in. How times have changed!"

A "Legend for Lunch" tribute to **Richard Whitcomb '43** was held May 17, 2007, by the American Institute of Aeronautics and Astronautics, to commemorate his contributions to the development of powered flight.

A portrait of Whitcomb has been commissioned to hang in the First Flight Society's museum, and a fly-over in his honor is being planned.

Kim Woodbury '44 used his WPI education to poke fun at Boston's Big Dig woes. In a letter to *Telegram & Gazette* columnist Sid McKeen, he proposed a simple solution, which was shared with readers in McKeen's popular column, "Wry and Ginger." Oatmeal, Woodbury suggests, once dried onto cereal bowls, sticks permanently, is insoluble in water, and costs a lot less than the ineffective materials that were used. "When I went to school," Woodbury wrote, "a bolt was always fastened with a nut." He also suggests that his WPI classmates might have known better than to have designed an air duct ceiling with three-ton cement panels.

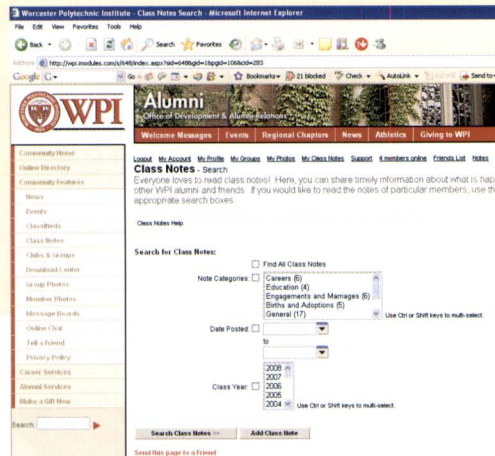
Andrew Goettmen '47 and his wife, Dorothy, moved to Benson, N.C.

Dan Sheingold '48 is editor of *Analog Dialogue*, which recently celebrated its 40th year of continuous publication in print and its eighth year online, at analog.com/analog-dialogue. Dan, an IEEE fellow, has been the magazine's editor since 1969.

Albert Soloway '48, author of *Failed Grade—the Corporatization and Decline of Higher Education*, was profiled in the Columbus, Ohio, *New Standard*. A former professor and dean, he is retired from Ohio State University.

1950s

After retiring from a career in marketing and consulting, which included 29 years with Monsanto, **Dick Davis '51** has fulfilled his dream of entering the healthcare



profession. At age 65 he graduated magna cum laude from Logan College of Chiropractic and has been in practice in St. Louis for 13 years. Dick plans to retire to a rural farm setting in the next year or two. His website, chiropractichealthcare.net, includes articles on various aspects of the profession.

At his 75th birthday celebration at The Boynton, **Don Campbell '53** received his



very own WPI goat from classmate **Jack Flynn**, as well as a certificate from WPI's "Growing Older Gracefully" department. "We all feel

so fortunate to be able to celebrate together," Don says, "since my fading recollection of the 50th Reunion includes the reading of the list of Class of '53 members who didn't make it that far." Jack reports that the WPI goodies were the hit of the party.

Roy Stone '56 is retired from a career in computer programming and continues as a home-based consultant in Wilton, N.H. In a recent feature in the *Nashua Telegraph*, he shared memories from his 50 years in the computer industry and described the "electronic evolution" from vacuum tubes and punch cards to today's compact PCs.

1960s

After seven months in Liberia, **Richard Brewster '60** is now in Gambia, as part of a Mercy Ships medical mission team. He and his wife, Susan, have been volunteers since retirement.

Hank Alessio '61 was awarded a place in the Auto International Association's Hall of Fame at the AIA's Silver Anniversary Celebration in Las Vegas. Hank, a longtime member of the AIA board of directors and a former Person of the Year, is managing director of Walden Consultants Ltd.

The Passive Solar House by **James Kachadorian '61** is now in its second edition, with a CD-ROM full of plans, worksheets, and formulas to help owners design energy-efficient homes.

Jesse Erlich '62, formerly a partner at Perkins Smith & Cohen LLP and a member of the firm's Science & Technology Group, has become a partner at Burns & Levinson LLP of Boston, as result of the attorneys of the former firm joining the latter. He recently presented a workshop on intellectual property and patents for WPI's Office of Research Administration.

Fred Molinari '63 shared his wisdom with WPI students at the September 2006 Dinner with Entrepreneurs held at Higgins House. He is president of Data Translation in Marlborough, Mass.

Jim Fee '65 presented an e-workshop on turning breakthrough ideas into demonstrable products this spring, through WPI's Collaborative for Entrepreneurship and Innovation.

John Lauterbach '66 runs Lauterbach & Associates, an independent company specializing in the chemistry and toxicology of tobacco products and related materials, in Macon, Ga. He also serves as a consultant to the American Chemical Society's Committee on Economic and Professional Affairs and as program chair for its Division of Small Chemical Businesses. He has made presentations to the society, and to the Tobacco Science Research Conference and the CORESTA Congress in Paris.

Richard Liebich '66 received a 2006 Community Laureate Award from the University at Albany Foundation.



Bob Demers '68 caught this 35-pound Ayakulik King Salmon in Kodiak, Alaska, on his annual fishing expedition. He has plans with several

other WPI alums for Silver Salmon fishing in August, at Unalakleet, an Eskimo village near the Arctic Circle. Bob is a clinical specialist in the Respiratory Care Dept. of Stanford University Medical Center.

Donald Scott '68 (PhD) published *The Electric Sky: A Challenge to the Myths of Modern Astronomy*. A lifelong amateur

astronomer, he uses electric universe/plasma cosmology to dispute the existing Big Bang and "Gravity Only" paradigm of prevailing cosmology. He is a former professor of electrical engineering at the University of Massachusetts Amherst. Find out more at electric-cosmos.org.

Joel Cehn '69 recently returned from Kuwait, where he was involved in an environmental project. "Uranium ordnance served the U.S. military well in Gulf War I, but littered the country," he writes. "The Kuwaitis are cleaning it up with U.S. help. I'm finding the work personally satisfying."

End of an Era

A dynamic chapter of WPI's history concluded this summer with the retirement of university vice president **Stephen J. Hebert '66**. Devoting his entire career to his alma mater, Steve Hebert started as assistant alumni director in 1969 and later served as director of development, treasurer and secretary of the corporation, and vice president for administration. A listing of the many hats he's worn at WPI would barely scratch the surface. "Although it's hard to define exactly what it is you do, everyone agrees that we couldn't do it without you," read his 2006 citation for the William R. Grogan Award for Support of the Mission of WPI.

As SJH, he presided over the institution's financial well-being, guided the board of directors, and managed campus services for all who lived, studied, and worked at WPI. He was



instrumental in making the Alumni Association an integral part of the university. He formed close bonds with alumni of all ages and helped them realize the importance of supporting their alma mater.

Steve Hebert leaves behind a very different campus from the one he attended. The visible developments include the Carol Hebert Garden, at Higgins House, in memory of his first wife; Reunion Plaza, made possible through his

persistent work with the City of Worcester to have West Street closed to traffic; the Campus Center; and Gateway Park. Although he shouldered responsibility without fanfare, everyone who knows him knows he would shrug off taking the credit. Steve and his wife, Deb, stand out as loyal friends and supporters of WPI. His good humor, generosity, and humble, down-to-earth nature will be missed by all.

"I will not attempt to summarize all that Steve has accomplished, and all those members of the staff he has nurtured and supported, during the many chapters of WPI's development in which he has played key roles," President Dennis Berkey said. "Suffice it to say that his service has been characterized by a very strong loyalty to WPI, and to those entrusted with its leadership, and that his contributions will have lasting value in many ways for years to come."

Ed Mierzejewski '69 is director of the Center for Urban Transportation Research at the University of South Florida. The center's 100 employees serve as a resource for cities all over the United States, looking into everything from highway traffic patterns to public transit innovations. The *Tampa Tribune* featured some recent projects, which include remote mini-helicopters to monitor traffic and an "elevated people mover" in Miami.

Mahendra Patel '69 is a project manager for the MBTA, after 31 years with electric power utilities. A former vice president of ASME's Boston Section, he says the regional meetings held in Worcester were "like homecoming" for him. He and his wife are also involved in Asian Indian groups. "Currently I serve as president of the ethnic 'Patel' community in the New England area, helping promote its unique culture and heritage. I welcome correspondence from my good old friends from WPI."

1970s

Robert Byrne '71 and **Lorri Lind Caruso '73** were married on Oct. 21, 2006. They live in Warwick, R.I.



When U.S. Magistrate Judge **Paul Cleary '71** (Northern District of Oklahoma) hired an intern last summer, he didn't

learn until after the fact of a WPI connection. Jessica John Bowman is the daughter of **Tom John '75** (MS) of St. Petersburg, Fla. Jessica received a chemical engineering degree from the University of Oklahoma and is now a law student at the University of Illinois.

Cutler Associates president **Frederic Mulligan '71** was appointed to the board of the Massachusetts Port Authority.

Bob Sinicrope '71 was the inaugural recipient of the John LaPorta Jazz Educator of the Year Award at the International Association for Jazz Education Conference. A former student of LaPorta's, Bob is founder and director of the jazz program at Milton Academy.

Maryann Bagdis Goebel '73 joined DHL Express, a division of Deutsche Post, last year as the division's global chief information officer. "I relocated to Cologne, Germany, in February 2007," she writes,

"but have kept my condo in Fort Lauderdale. I spend most of my time on the road, visiting our five global regions and our parent company in Bonn."

Roger Lavallee '73 was recently elected to the board of directors of BEACON (Biomedical Engineering Alliance and Consortium), a nonprofit trade organization consisting of corporations and academic and medical institutions dedicated to the development of medical technology as an economic engine for the Hartford, Conn., region, and beyond. He is vice president and director of business development at Phoenix Asset Management.

Bruce '73 and **Allison Huse Nunn '73** reside on the South Shore of Nova Scotia, where Bruce is VP and resident manager of the Bowater Mersey Paper Company, and Allison volunteers at the Queen's Manor senior residence and at the SHAID Animal Shelter. Their oldest child, **Will Nunn '99**, was married in 2006. Their youngest, **April Nunn '04**, works as a medical physicist in Alaska, and their middle child, Heather (a Willamette U. graduate) lives in Seattle. "We are always interested in hearing from classmates and Nova Scotia is a great place to visit," they write.



Alden Bianchi '74 was named co-chair of the ERISA Committee of the Boston Bar Association's Tax Section.

James Briggs '74 retired from the federal government in 2006 and is now employed by the Delaware Valley Regional Planning Commission in Philadelphia.

Kara (Hogan) Buzanoski '74 was appointed public works director for the town of Northborough, Mass., which has been her employer since 1990 and her hometown since 1979.

Lou Ciercielli '74 and his wife, Lois, own Bellows House Bakery in Walpole, N.H.

Steve Dacri '74 performed recently at the Magic Castle in Hollywood.

Michael Hartnett '74, chairman, president, and CEO of RBC Bearings, was recently appointed to the Board of Governors of the University of New Haven.

Peter Thacher '74 works in the planning department of Saudi Armaco in Dhahran, Saudi Arabia. His wife, Sarah, works in the law department. Recently back from vacations in Russia and Austria, they invite

friends to visit them in the Middle East.

Jon Anderson '75 was appointed by Vermont Gov. Jim Douglas to fill a vacancy in the Vermont House, which meets part time. A democrat, he represents the state's capital city of Montpelier. Jon runs Betsy's Bed and Breakfast with his wife and continues his law practice at Burak Anderson & Melloni, PLC.

Bob Fried '75 is now self-employed as a consultant to the discrete semiconductor industry, after 23 years with General Semiconductor. He and his wife, Meryl, live in Plainview, N.Y. They have two sons.

Larry Jones '75, former CEO and president of Activant Solutions was elected to the board of directors of StarTek Inc.

Gary LaLiberty '75 lost his wife, Deborah Jacobs-LaLiberty, last year. He lives in Grand Island, N.Y., and has two sons and a daughter.

Joseph Dzialo '76 is president of the Lee brand for VF Jeanswear LP.

After graduating from WPI, **Mark Johnson '76** earned a graduate degree from the University of Maine, and then worked his way across America with his family. He writes, "My career includes executive engineering, environmental, and management positions with water utilities in Connecticut, Illinois, and now in Southern California, where I serve as director of engineering for the Coachella Valley Water District. I estimate that about \$1.2 billion of infrastructure was constructed under my direction." Mark holds PE registration in Connecticut and California.

Tom McAloon '76 and his wife of 22 years, Beverly, are currently residing in Male, Maldives. Tom has been the Red Cross water/sanitation delegate for Maldives since September 2006, managing the installation of small-bore sewer and ocean outfall systems for six islands damaged during the 2004 tsunami. Tom and Bev welcomed their first grandchild, Asher, into the world just before leaving for Maldives.

David Sawyer '76 (PhD) was presented with a framed certificate of appreciation by the Portsmouth, N.H., Amateur Radio Club, for teaching a sequence of introductory, mid-level, and advanced courses in communications theory and practice. He and his wife, Nancy, continue to enjoy hiking in the nearby White Mountains.

Robert Cundall '77 is deputy director of finance and operations for the Seattle Art

Museum. He was a finalist in the *Puget Sound Business Journal's* 2007 CFO of the Year competition.

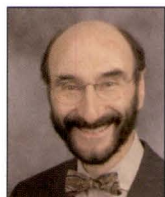
Paul Curdo '77 of Tucson helped coordinate a mini-reunion of ATO brothers from the Class of 1977. "The five of us had a great time," he writes. "It's been about 30 years since we've seen each other."

Steven Fine '77 married Eileen Mushin in June 2006. They reside in Derby, Conn., with Eileen's three children—Andrew, 15, Alyssa, 12, and Jenna, 10, and Steven's daughter, Destany, 8. Steven remains at Laticrete International (his 20th year) as a senior product development chemist. He was recently elected secretary/treasurer of the Methods and Materials Standards Association for the ceramic tile industry.



Personnel from the Harrington Group, the FPE firm founded by **Jeff Harrington '77**, led efforts to unite international standards of excellence for safety and

health professionals during a meeting between the Board of Certified Safety Professionals (BCSP) and the Singapore Institute of Safety Officers (SISO) in Singapore in May 2007, which resulted in the signing of a Memorandum of Understanding (MOU) between the two organizations.



Bruce Minsky '77 was appointed associate dean and professor of radiation and cellular oncology at the biological Science Division, Pritzker School of Medicine, University

of Chicago, and chief quality control officer for the University of Chicago Medical Center. In 2004, he received an honorary doctorate from the Friedrich Alexander University in Erlangen, Germany, for his work on gastrointestinal cancer.

John Woodhull '77 is an environmental process engineering manager at ENSR. He was recently appointed to the editorial advisory board of *Pollution Engineering* magazine.

Ron Fish '78 received an MBA from RPI in September 2006. He lives in Circleville, N.Y., and works for WMG Inc.



Reunion at Sebago Lake Scott Sieburth '77 writes, "In September 1973, I lived on the third floor of Morgan, with **Michael Sullivan** and **Steve Albino** across the hall. One of our RAs was **Jon Anderson '75**. Here's a recent photo of the four of us hanging out at what we refer to as 'Beer Camp' at Steve's place in Maine." (From left, Jon, Michael, Steve, and Scott.)



Reunion in Sedona A Class of '78 reunion in Arizona last year included (from left) **Larry Hindle**, **Chris Cocaine '77**, **Brian Clang**, **Laurence Shiembob**, **David Sartorelli**, and **Peter Landry**.



large-scale emergencies.

Thomas Gudewicz '78, MD, is a founding member of the American Board of Disaster Medicine, offering training and certification to help physicians prepare for

Bernice (Albetski) Hicks '78 received her MLS degree from Emporia State University in December. She is a reference librarian at Lafayette Public Library in Colorado.

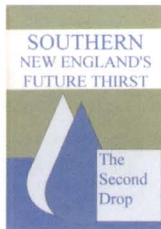
John McGee '78 was appointed a full-time instructor in the mathematics and statistics department at Radford University. He

Bookshelf

Recent and new publications by WPI alumni, faculty, staff

Southern New England's Future Thirst: The Second Drop

by Thomas S. Baron '64 *RoseDog Books*



Following up on his first book, *A Central Lakes Region Solution*, Baron provides detailed explanations of the initial steps needed to implement a regional plan for meeting the water demands of the future by sharing resources, rather than competing for them. Baron is a former Army Corps of Engineers officer and former director of operations for the Boston Metro Water System. His proposal for a tri-state regional plan was published in the September 2005 *Journal of the New England Water Works Association*.

Innovation: The Five Disciplines for Creating What Customers Want

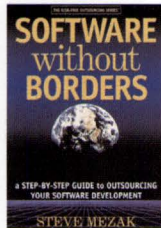
by Curt Carlson '67 and William W. Wilmot *Crown Business*



"Innovation is the process of creating and delivering new customer value in the marketplace," writes Carlson. As CEO of SRI International, he has looked deeply into the processes by which companies create and launch innovative products. His book outlines a tried-and-true methodology for fostering creativity and understanding what customers really value and need. *Business Week* named Carlson's book one of the Best Business Books of 2006.

Software without Borders: A Step-by-Step Guide to Outsourcing Your Software Development

by Steve Mezak '78 *Earthrise Press*



This hands-on, how-to guide includes chapters on selecting an outsourcing vendor, developing metrics, protecting intellectual property, and more. The appendix offers an outsourcing strategy decision matrix and a readiness test. Professor Rick Vaz writes, "WPI is a pioneer in producing internationalized engineers. Talent recognizes no borders. Well-educated, technically adept software developers around the world are available to deliver reliable software quickly and inexpensively. And this book shows you how to connect with them." Professor David

Cygangski is credited in the acknowledgements. Mezak is founder and CEO of Accelerance Inc. and a veteran of six start-ups.

Tracking Trash: Flotsam, Jetsam, and the Science of Ocean Motion

by Loree Griffin Burns '91 *Houghton Mifflin Co.*

Boston Globe-Horn Book Award-2007 Honor Book (Nonfiction)



When hundreds of Nike sneakers started washing up on beaches in Seattle in 1990, a maverick oceanographer tracked them back to a cargo spill and began to analyze their dispersal. *Tracking Trash*, part of the "Scientist in the Field" series for middle school readers, explains some of the unorthodox methods used to study ocean currents, including

beachcomber networks, rubber ducks, and computer simulation. With lively stories, vivid photography, and attractive graphics, Burns explores the growing problem of manmade debris in our oceans, the threat to marine habitats, and the consequences for humanity. She holds a doctorate in biochemistry from the University of Massachusetts Medical School and is at work on her next book for children.

received his master's from Virginia Tech with the thesis topic "Rená Schoof's Algorithm for Determining the Order of the Group of Points on an Elliptic Curve."

John Petze '78 was appointed CEO of Privaris Inc., a wireless biometric security firm in Charlottesville, Va.

Steve Rusckowski '79 is CEO of Phillips Medical Systems in Amsterdam, Netherlands.

1980

Chris Dennison writes, "I'm proud to announce my recent marriage to the fabulous Barbara Gorman, which also brings me three great step-grandchildren, Laura, Patrick, and Bridget. After a long time living in the shadows of NYC, I moved myself and my business to the suburbs, which is a bit of a change, but also a lot of fun. I almost feel like a grownup now!"

Steve Kmiotek of EBI Consulting received the Air & Waste Management Association's Leadership and Contribution Award.

Mark Lewis and his wife, Louise, live in Amador County, Calif., with their three sons and daughter. They have a new grandchild, Elizebeth Ann, born Aug. 23, 2006, to their son, Stephen, and his wife, Crystal.

Singer/songwriter **Martin Rowe** strikes again with another blues anthem for engineers. Go to tmworld.com/blues to download "The Lab in the Corner," a tribute to the "the test guy," who has the final say on product release. You can also listen to his first hit, "Measurement Blues."

John Titus and his wife, Beth, are pleased to announce the birth of Nora Marie on Feb. 6, 2006. "It's interesting having a newborn again," he writes. They live in Lonsdale, Minn.

1981

Elly Cromwick and her new husband, Joseph Tierney, live in Washington, D.C. Elly is a preconstruction manager with Turner Construction's mid-Atlantic office and is pursuing a master's degree at Virginia Tech. She has two sons—Tom, who starts college this fall, and Devin, a high school junior.

Mati Weiderpass, co-creator of Watch World International, sold that business in 2000, after expanding from a single store to 119 locations in 6 years. He and his partner, Ian Reisner, plowed the proceeds into The

Carnegie Hotel in New York City, which sold for a record \$1 million per hotel room, plus \$800 per developable foot for the development site. Parkview Towers, a condo development plan featuring multimillion-dollar apartments with Central Park views, is in the works, and the two are moving on to a 100-unit condo complex tentatively called Chelsea Heights, and a 200-room hotel project in Midtown.

area and want to do some fishing, just give me a ring!" The Bob's Outdoors website (bobsoutdoors.com) also posts reports of Bob's own hunting and fishing adventures.

Cynthia Kosciuczyk founded Designer Tastes Gallery, to offer a synthesis of international artists working in varied media. Her October 2006 open house featured a taste of Greek art and culture.

wife, Diane, live in Houston, with their children, Marcello, 8, and Marina, 4.

John McNamara coaches the girls' basketball team at Pentucket Regional High School in West Newbury, Mass. His daughter, Erin, is a point guard.

Scott Rudge received the Merriam Wiley Distinguished Author Award from the American Society of Engineer Educators for his book, *Bioseparation Science and Engineering*.

Keith Ruskin was recently promoted to professor of anesthesiology and neurosurgery at Yale University School of Medicine. He lives in Westport, Conn., with his wife, Andrea, and son, Daniel, 8.

Richard Testa is a partner in the new Lincoln, Mass., office of Lincoln Architects LLC.

Seasonal Sports



At left, Bob Millington '90, Stefan Heline '86, Mike Kelly '86, and Mike Gonsor '86, cheer on the Red Sox with the Boston Regional Chapter in August 2006.

At right, John McNamara '85, Tom Denney '86, Heline, and Gonsor at the top of the Bridger Gondola at Jackson Hole Mountain Resort in Wyoming. John lives in Lexington, Mass., and is VP, operations, and treasurer for Arlington Coal & Lumber. Tom lives in Marion, Mass.,



and is regional director for The Hanover Company. Stefan lives in Hebron, Conn., and is principal consultant, IT, with Pratt & Whitney. Mike also lives in Hebron, and is a program/contract manager with Pratt & Whitney.

1982

Tom Fiske is a member of the automation consulting team at ARC Advisory Group in Dedham, Mass. He is a contributing editor for *Hydrocarbon Processing*.

George Oliver was named president of Tyco Safety Products. He is based in Boca Raton.

1983

Bob Hicks writes, "I have ditched the corporate world to sell fishing tackle. If any of my old classmates are in the Michigan

Eric Peterson earned his MS though RPI's Hartford campus in August 2006 and hopes to enter the PhD program soon. He continues at Hasbro in East Longmeadow, Mass., as vice president of electronic engineering and technology development. "My three boys and my wife, Colleen, continue to be my support and motivation," he writes.

1984

Todd Cimino is president of Cimino & Assoc., a management consulting firm serving the oil and gas industry. Todd and his

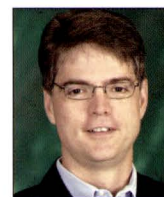
1985

"Greetings from the Pacific Northwest," writes **Denise Johnston-Hafenbrack**, who has left Blount to become supply chain manager for Micropump/Idex Corp., in Vancouver, Wash. "My daughters are both in high school; Kaitlin is 14, and Carly, 17, will be leaving for college in September. Time flew by! When I'm not at work, I am watching them play basketball, cooking, and plotting my next trip back to New England. I sure miss snow, Dunkin' Donuts coffee, and Cape Cod!"



Michael Smith (MSEE) has been named dean of Harvard University's Faculty of Arts and Sciences. He was previously the Gordon McKay Professor of Computer Science and Electrical Engineering. He also served as associate dean for computer science and engineering during a transformational time for Harvard's new School of Engineering and Applied Sciences.

1986



Jim Baum, formerly with Parmetric Technology Corp. and Endeca, was appointed president and COO of Netezza, a data warehouse company in Framingham, Mass.

Mike Duquette runs operations for Insulet Corp., an insulin pump company in Bedford, Mass. "Nanette and I still enjoy the city of Worcester, as we live in nearby Shrewsbury with our four children.

David Lugowski received tenure and promotion to associate professor of English at Manhattanville College, in Purchase, N.Y., not far from New York City. He also serves as director of the interdisciplinary Communication Studies program, which had its major approved by New York State this past year.

Donna Barone Viens writes, "After 16 years in engineering, including a two-year stint in Belgium for Pratt & Whitney, I left the corporate world for teaching. I am now a high school math teacher at Wilbraham & Monson Academy, where I coach varsity volleyball. My daughter, Jeannette, is an 8th grader at the school, and is following in my footsteps as a volleyball player. My son, Jack, is a 6th grader who has his mom's math and science genes. I'd love to hear from classmates at dlvstateside@msn.com.

1987

Air Force Lt. Col. **James Berry** commands the 485th Intelligence Squadron at Mainz-Kastel Station in Wiesbaden, Germany.

Ari Chaney joined WaterPartners International's board of directors. He is president and founder of Leveraged Restructuring, LCC, in Jupiter, Fla.

Mike Shipulski was named 2006 Distinguished DFMA Supporter of the Year, honoring a dedicated user and promoter of Design for Manufacture and Assembly software. An article on Mike's team at Hypotherm Inc. appeared in the July 17, 2006 issue of *Design News*.



Steve Woodard was promoted to senior vice president at Woodard & Curran, where he specializes in industrial waste treatment and biological nutrient removal processes.

1988

Robert Frommer was appointed senior vice president and Basel II program manager at Citizens Bank.

Gayle Harris, MD, (MS BBT) joined Collins Medical Associates 2 in Hartford, Conn. A graduate of the University of Connecticut School of Medicine, she has been practicing in the Hartford area for six years.

Lt. Col. **Rob Provost** is commander of the 614th Space Intelligence Squadron, Vandenberg AFB, in California, where his wife, Cindy (also a Lt. Col.), is assigned to the 30th Space Wing Plans and Programs office. Rob also runs a fly-fishing destination business, Grand Slam Fly-fishing Destinations (grandslamflyfishing.com), specializing in hosted trips to premier freshwater and saltwater destinations around the world.

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1989

Jennifer Chiao (MS EE) is a principal design engineer in the library development group of Broadcom in Irvine, Calif.

Adam Pease started Articulate Software, a consultancy specializing in open source ontology, in 2003. He has published research papers on topics such as linguistics, ontology, and group collaboration. Last year he climbed California's Mt. Shasta with **Dave Rothkopf '90**, and has made several attempts on Mt. Aconcagua in Argentina. Learn more about his business and his climbs at articulatesoftware.com.

1990

Al Alonzi and his wife, Susan, happily announce the birth of their second child, Elizabeth Addison, on Aug. 28, 2006. They live in Austin, Texas, where Al is the deputy division administrator of the Federal Highway Administration Texas Office.

Ken Comey and his wife, Julie, are proud to announce the birth of their first son, Joseph William, on July 13, 2006. They live in Redondo Beach, Calif., where Ken is a member of BP America's Environmental Compliance and Advocacy Team.



Paul Dombrowski joined Woodard & Curran as a vice president in the Cheshire, Conn., office.

Former wrestling captain **Brian Glatz** has moved on to coaching and teaching at Cherokee High School in Marlton, N.J. After breaking his neck in a judo competition in 1991, he was immobilized for months and had to learn to walk again. A profile in the *New Jersey Post Courier* described his comeback as a geometry teacher, wrestling assistant, and varsity football coach.

Nancy (McLaughlin) Kazmer and her husband, David, welcomed a baby girl, Catherine Marie, on June 22, 2006. She joins her big sisters—Laura, 8, and Elizabeth, 4—at their home in North Andover, Mass.

Miklos Kiss completed a postdoctoral research associate position in the Department of Medical Physics at the University of Wisconsin-Madison. He is now a research engineer at Volcano Corp., in Cleveland, on the campus of the Cleveland Clinic. He is

In the Public Eye

Flying magazine cited **Dick Whitcomb '43** in an article on the design of Honda's new light jet. Whitcomb is famous for developing the "area rule" and other advances in modern aerodynamics ...

Bruce Maccabee '64 was interviewed by the

History Channel for a documentary on UFOs, and by **Raiders News Network**

for a 60th anniversary series of the 1947 Roswell, N.M., incident ... **Curt Carlson '67**

was quoted in a Sunday **New York Times Magazine** cover story on the "Greening of Geopolitics" ... **Dean Kamen '73** was honored with a 2006 Global Leader-

ship Award from the **United Nations**, along with Bill Clinton. Kamen was dubbed "The Father of Inventions" in a **Newsweek** interview ... WPI Director of Computing Services

Ben Thompson '73 was appointed to Mass. Gov. Deval Patrick's **Public Safety and**

Security working group, charged with developing the new gubernatorial administration's policy agenda for the transition ... **Business Week** described the success of Nandi

Infrastructure Corridor Enterprise Ltd., the company in India of **Ashok Kheny '74** (MS MSR)

... **Dean Stratouly '74** was profiled in **Boston Business Journal** ... **Judy Nitsch '75**

was a panelist in three sections of the **BuildBoston 2006** convention and trade show.

Her firm, Nitsch Engineering, was named Best Civil Engineering Firm to Work For by

CE News, and Employer of the Year by **WTS International** ... **Terese Kwiatkowski '83**

was profiled in the **Boston Herald**. A former president of the Boston Society of Civil

Engineers, she is senior vice president and principal at GZA GeoEnvironmental Inc. ...

Karen Tegan Padir '90 was named one of **Mass High Tech's** Women to Watch. She is

vice president of enterprise, Java platforms, for Sun Microsystems ... **Sarah Arsenault '98**

was among the New Faces of Engineering selected for National Engineers Week. A profile

in the **Hartford Courant** emphasized her commitment to environmentally friendly design

in her work as senior research engineer at UTC ... "French Vanilla," a comedy by **Catherine**

"Cat" **Darensbourg '02** and **Elliot Field '02**, was selected for the 32nd annual **Samuel**

French Off-Off Broadway Original Short Play Festival in New York City.

The performance was directed and produced by WPI students, with a cast of New Voices

veterans ... A video podcast on **Romiya Glover '04** was part of **WGBH-TV's** "Profiles in

Science" Web series. The video shows Glover at work in her lab at PointCare Technologies,

in Marlborough, Mass., where she is developing a new HIV/AIDS testing device, and in

Harrington Auditorium, coaching the WPI cheerleader squad ... **Business Week** profiled

DynDNS CEO **Jeremy Hitchcock '04** and mentioned co-head **Tom Daly '04** ... ParkingBan.org,

the creation of **Adam Epstein '05** and **Mike Terranova '06**, was featured in **Worcester**

Magazine. The site helps Worcester residents stay on top of snow emergency parking ...

"Life of Fred," a comic strip by **Tom Roy '05** was mentioned in a Worcester **Telegram &**

Gazette article that also described Roy's career as a filmmaker and physicist ... The

Telegram & Gazette ran a moving story about the quest of **Patrick Spencer '05** to help

homeless people. He is the son of one of the firefighters killed in the 1999 Worcester Cold

Storage warehouse fire started by two homeless people who had taken shelter there ...

Joanna Bridge '07 was commissioned as a Navy ensign by President George Bush in a May

17 ceremony at the **White House**.

conducting research on ultrasound catheters used in the detection and diagnosis of atherosclerosis.

Patti Newcomer-Simmons and her husband, Stan, had a son, Weldon Mason, on April 25, 2006, just two months after Patti started a new job as CMO of the Card Services business at Wachovia. Their daughter, Megan, turned 3 this past May. They live in Charlotte, N.C.

Albert Prescott, president of Crescent Innovations in Worcester, won the 2006 WPI Venture Forum Business Plan Contest with his proposal to develop a polymer gel to relieve the pain of TMJ and other joint conditions. He also received the 2007 Kalenian Award, which includes \$25,000 to develop prototypes and move the technology to commercialization.

Edward Urquhart is CEO of Maerkisches Werk Halver, GmbH, where he oversees operations in Germany, Korea, Japan, China, and the United States. He recently joined the board of directors of SulphCo Inc.

Ron Skoletsy and his wife, Marie, and family moved to Portland, Ore., to become owners and operators of The Little Gym of Lake Oswego. They now spend their days growing motor skills and building confidence in children ages 4 months to 12 years.

1991



Loree Griffin Burns was awarded a grant from the Society of Children's Book Writers and Illustrators for her next book project. (See the Bookshelf column for her latest publication, a Horn Book honorable mention.) She writes, "Stay tuned...and visit loreeburns.com for more info."

WPI Athletic Hall of Famer **Brian Daly** ran the 2007 Boston Marathon on behalf of his son, Michael, to raise awareness of pediatric epilepsy. He reports that Michael is doing well and has been seizure-free for nearly three years. Learn more at firstgiving.org/daly2007.

Joel McCarroll and his wife, Andrea, had their second child, Ryan, on Jan. 15, 2007. Joel continues as region traffic manager for ODOT Region 4, based in Bend, Ore.



Duane Morin is chief architect for Connect Edu Inc., a Boston-based company that helps students and schools through the college application process with a variety of online tools.

Eric O'Connor writes with this recap: "I've been living in Portland, Ore., with my partner, Laura Taylor, since 2005. I'm working as a senior software developer for Adobe's Mobile & Devices Group, building client/server applications to deliver dynamic Flash content to handsets. I work from home and travel down to the San Francisco office occasionally. In my spare time, I play in two rock bands."

1992

Scott Ashton started a new position as vice president, aircraft acquisitions, at PrivatAir in Stratford, Conn., selling corporate jets. He was also elected vice president of the New England Air Museum and selected as a member of *Hartford Business Journal's* 40 Under Forty class of 2006.

Kevin Chin and his wife, Nina, are the proud parents of Amanda Natalie, born Dec. 28, 2006. Her brother, Tyler, was born in 2005. They live in Northern Virginia, outside Washington, D.C., where Kevin and Nina both work for Lockheed Martin.

Lyle Coghlin and **Patrick Tompkins** are co-owners of CTA Construction in Boston. Their current projects include schools and municipal buildings throughout New England.

Teri (Drake) Hamlin recently became NASA's technical lead for the Space Shuttle probabilistic risk assessment. She lives in Texas with her husband, Rick, and their two children, Emily and Stevie.

1993

Peter Cavallo and his wife, Gail Speakman, announce the arrival of twin daughters, Sara and Michaela, on Sept. 27, 2006. The girls join big brother Daniel, 3. Professionally, Peter was recently named an associate fellow of the American Institute of Aeronautics and Astronautics.

Rhonda (Ring) and **Philip Marks** had their third child, Harry Philip, in November 2004. He joins his big sisters Caroline and

Charlotte in their Chester Springs, Pa., home. Philip is manager of U.S. product development at Federal-Mogul Systems Protection Group, and Rhonda works from home as a Web consultant.

Stephen Tomas was promoted to director, flexible electronics, at FLEXcon Co. in Spencer, Mass.

Hermine Valizadeh joined the Electrical & Computer Group of Brinks Hofer Gilson & Lione in Chicago. A former IT consultant and a graduate of New England School of Law, she will focus on patent prosecution and litigation.

1994

Peter Berube and his wife, Tricia, welcomed the birth of their son, Ryan Dennis, on June 2, 2006. Peter is currently a major in the United States Air Force, stationed at Shaw AFB, S.C. He was assigned to the 9th AF/CENTAF in 2005, after completing a two-year assignment as an AFROTC instructor at DET 340 at WPI.

Chad Council lives in Londonderry, N.H., with his wife, Lora, and their retired racing greyhound, Keeper. He works for Motorola as a senior software engineer on the network element management aspect of the company's Fiber to the Premises project. Chad has expanded his involvement with FEMA's MATF1 Urban Search & Rescue by completing training to become a communications specialist.

Christy (Hinkley) Deliberto and her husband, Buddy, recently opened Pop's Pizza in Worcester's Tatnuck Square. They announce the birth of daughter Ashley Soozie on May 8, 2005. "Please come visit the pizza shop when you are in town!"

Kevin Hunt is general manager of VIA, a new "Italian comfort food" restaurant on Shrewsbury Street in Worcester. He previously worked for two popular Worcester eateries—The Sole Proprietor and One Eleven Chop House.

Dena Niedzwiecki married Diego Mechoso on Sept. 2, 2006, with **Becca (Mason) Yang** in the wedding party. Dena is a pediatrician practicing in Arcadia, Calif.; Diego is a pediatric hospitalist at Valley Presbyterian Hospital in Van Nuys.

Matthew Thibodeau and his wife, Jody, recently moved to San Luis Obispo, Calif. Matt is working as an energy efficiency consultant for VaCom Technologies and is

enjoying the beautiful weather and scenery in the central coast region of California. A multiple-time USA Triathlon All-American, Matt continues to compete in triathlons and recently notched his eighth overall victory at the San Luis Obispo Triathlon.

1995

Jeff Baron and his wife, Kim, are pleased to announce the birth of their second daughter, Rachel Grace, on July 24, 2006. She was welcomed by her big sister, Sarah, who is enjoying being mommy's helper. They live in Worcester.

Kathryn Chelini (MS MG) joined the law firm of Mirick O'Connell as an associate in the intellectual property group.

Jay Cimini and **Paul Gassler** have been working together at W. L. Gore in Ellkton, Md., for more than a decade. They both drive used Mercedes-Benzes that they converted to run on vegetable oil. A recent article on them in the *Chester County Press* bore the headline "Two amazing young men and their veggie-mobiles."

Spence Cocanour is stationed at USAF Hurlburt Field in Florida, where he serves as director of operations for the 23rd Special Tactics Squadron.

Heather (Linnehan) Desmarais and her husband, Dale, had a son, Jaden Dale, on April 28, 2006. "Big sister Kyla is thrilled to have a new baby brother," she writes.

Maj. **Neil Doherty**, USAF, married Dana Brown on June 15, 2006. Neil, an assistant professor of military science at BU, joined the Army Corps of Engineers, Gulf Region Division, Iraq, in July 2006.

Kristin Kotopoulos Garland (right) and **Kimberley Quigley Caserta** are consulting safety officers at Safety Partners Inc., provid-

ing safety support and development to life-sciences companies in the greater Cambridge area.

This year, Safety Partners made *Working Mother* magazine's list of top

25 small companies for working mothers. "Working in high tech and raising a family is very difficult," says Kristin. "Kim and I were fortunate to find a company where we could put our WPI education to use and still be there for our children."



2007 WPI

Homecoming

Friday-Saturday, September 28-29

Deb (Long) Marceau and her husband, Tim, proudly announce the birth of their first child, Riley Elizabeth, on March 18, 2006. They live in Virginia.

Kevin Shea received the Sherrerd award for distinguished teaching from Smith College, where he is assistant professor of chemistry.

1996

Paul Cabral has been an environmental engineer with Camp Dresser & McKee for more than nine years. He recently transferred to the Albany, N.Y., office, where he focuses on drinking water projects.

Katie Daly received her MBA from Babson College in May 2006. She is group manager of program management in the Oncology Division of Boston Scientific.

Rachel (Butland) Delisle received her MBA from WPI in February 2006. She is a Six Sigma engineer for Karl Storz Endovision in Charlton, Mass. Rachel and her husband, John, were married in 2000 and live in Dudley.

1997

Jeffrey Cayer and his wife, Shari-Ann, both teach chemistry at Trumbull High School in Connecticut. They were married in 2005.

Craig French joined Tighe & Bond as manager of the structural department. He lives in Belchertown, Mass.

Hector Hernandez was appointed IT manager of the Dominican Republic operations of Edwards Lifesciences. He lives in Santo Domingo with his wife, Sandra.

Shannon Hogan and Matthew Hollander became engaged on March 5, 2006. They are both third-year pediatrics residents: Shannon practices at Connecticut Children's Medical Center in Hartford, and Matthew is serving in the Air Force at Wright-Patterson AFB in Dayton, Ohio.

Chris Jamieson left the Naval Air Warfare Center in February for a new job as an aviation systems evaluator at the U.S. Army Evaluation Center. He was recently deployed to Baghdad for six months as team evaluator for the Army Operational Test Command Forward Operational Assessment Team. He also moved to a condo in downtown Washington.

Peter Manolagos and his wife, Ani, proudly announce the arrival of their son, Niko George. Peter was promoted to executive oncology sales specialist for Eli Lilly. They reside in Chelmsford, Mass.

Deb (Foley) McManus and her husband, Steve, welcomed their first child, Patrick Peter, on Sept. 9, 2006.

Stephanie Torrey married John Vuk on Oct. 21, 2006. After honeymooning in New Zealand, they now reside in Sherbrooke, Quebec, Canada.

Jennifer (Clark) (MS '00, PhD '02) and **Bill Weir** (MS '97, PhD '02) have been blessed with a son, Joseph Robert, born Aug. 5, 2006, in Worcester.

Jason Wening is clinical research director for Scheck & Siress Orthotics & Prosthetics. He recently spoke with schoolchildren about his own prosthetics and showed videos from his competitive swimming career.

Anne (Ciccolo) and **Donald Ziniti '96** welcomed their second child, Marcus Charles, on Feb. 17, 2006. Big sister Sophia is 2. Don works at Johnson & Johnson, and Anne writes that she is enjoying being a stay-at-home mommy.

1998



Jeff Alderson was promoted to director, strategic partnerships, for Connect Edu Inc. in Boston, which provides online tools to help students apply to college and helps schools track the process. He was the fifth employee to join the startup, which has grown to more than 50 employees. Jeff and his wife, **Sara (Maska) '04** (see her note under 2004), reside in Brighton, Mass., with their two cats, Ace and Venti.

After eight years of active duty, Lt. **Slade Brocket** transitioned to the Naval Reserve. His active duty included service aboard two submarines—the USS *Providence* and the USS *Ohio*. He also served on the staff of Commander, US Naval Forces Europe, in London. Slade is now a project engineer with BP at the Cherry Point Refinery. He and his wife, Mary, live near Blaine, Wash., with their children, Annika and Emma.



Doug Davis and his wife, Nevriye, announce the birth of their first son, James Preston, on Dec. 27, in

Izmir, Turkey, where Doug works as a contract performance manager, and Nevriye practices law.

Stephen Fong is assistant professor and head of the Evolutionary Engineering Laboratory at Virginia Commonwealth University.

Michael and **Rosanna (Caticala) '99 Glynn** are thrilled to announce the birth of their first child, Thomas Michael, on Sept. 28, 2006. They live in Cromwell, Conn.



Jason Hutt (2nd from left) poses with the ISS crew he trained for Expedition 14 aboard the Russian spacecraft *Soyuz T3S*. The record-

setting 215-day mission returned to Baikonor Space Center in Kazakhstan on April 21, 2007. As station training lead, Hutt spent two years preparing the ISS crew for emergencies such as fire, power failure, depressurization, and malfunctions of the ship's life-support system and computer systems. "It's somewhat ironic to spend 75 percent of my time training the crew for things I hoped they'd never have to do," he says. During the grueling training period, the crew traveled back and forth between Houston and Star City, Russia. Hutt and his team conducted training sessions, simulations, and performance evaluations, and monitoring the crew's on-orbit performance to identify areas where training could be improved for the next mission.

Jill Baryza LeFevre and her husband, Gene, welcomed their second child, Robert Anthony, on Sept. 12, 2006. Big sister Gabriella is happy with the new addition to their Peekskill, N.Y., home, Jill reports.



Ray Halpin '99 is WPI's new GOLD Chair. The Graduates of the Last Decade Committee works with the Alumni Association

to foster strong bonds between young alumni and WPI.

As incoming chair, Ray works with co-chair **Eric Marshall '02** and past chair **Jami Walsh '97** to lead a committee of representatives from each class. They are looking to recruit new committee members and launch regional subgroups. If you graduated between 1997 and 2007, you are a GOLD member! To get involved, contact gold@wpi.edu.

1999

Katie Taylor Boyd graduated from Albany College of Pharmacy in May 2006 with an accelerated doctor of pharmacy degree. She graduated summa cum laude, earning awards in both pharmacology/medicinal chemistry and pharmacy practice. Katie now works for Molloy Medical Arts Pharmacy as a clinical pharmacist. She lives in Poughkeepsie, N.Y., with her husband, **Kevin Boyd**, a process engineer at IBM.

Ed Cameron and his wife, Laurie, had a daughter, Isabelle Anna, on Jan. 27, 2006. Ed was promoted to lieutenant with the

Round Lake, N.Y., fire department.

Linda (Cappuccia) Grelotti and her husband, **Rob Grelotti '98** are pleased to announce the birth of Katherine Luisa on Aug. 15, 2006. Linda is a lawyer for the State of Connecticut, and Bob is a staff engineer at Pratt & Whitney. They live in East Haddam, Conn.

Will Nunn married Kerri Lachance on Dec. 30, 2006. They live in Rhode Island, where Will works for Toray Plastics and Kerri for Electric Boat.

After eight years in the Air Force, **Pat O'Sullivan** works for The Miter Corp. in Bedford, Mass., as a senior multi-disciplinary systems engineer.

2000

Former crew captain **Brittany (Noga) Campbell** is now a coach at The Bromfield School in Harvard, Mass.

Kara (Gibbs) and **Kevin Delaney** welcomed their first child, Colin Gibbs Delaney, on July 29, 2006. They live in Bloomington, Ind.

U.S. Army Lt. **Seth Flagg** graduated from Tufts University School of Medicine in May 2006. He received his commission upon graduation and is currently serving his country as a family medicine intern at Naval Hospital Camp Lejeune in North Carolina.

Kirk and **Christine (Belushko) Johnson** live in Dayton, Ohio, with their children, Aidan, 4, and Erin, 2. Kirk is an Air Force captain stationed at Wright-Patterson AFB.

Thomas Scherpa and **Malinda Danforth** were married Sept. 24, 2005. The wedding party included **Samuel Bullock**, **Jocelyn Songer**, and **Josef Scherpa '98**. Malinda received her MD from Dartmouth Medical School in 2005 and is currently completing her residency in pediatrics at Baystate Medical Center. Tom completed his MS in FPE in 2002 and is currently working as a process safety and fire protection engineer for DuPont. They live in Agawam, Mass.

2001

After they moved to their new home in Leominster, Mass., **Kevin Beverage** proposed to Kate Wrigley, a staff member in WPI's Academic Technology Center. They are planning a September wedding, to be held in Stowe, Vt.



At alumniconnect.wpi.edu you will find a new and improved searchable alumni directory; enhanced networking opportunities based on your profession, personal interests, geographical area, or WPI affiliation; job and resume postings exclusively for WPI alumni; up-to-the-minute news about your classmates; along with quick and easy ways to register for WPI events or make a gift online. For login information, contact 508-831-5600 or alumni-office@wpi.edu.

Eugene Cushman married Chelsea Richards on Sept. 16, 2006. Alumni attending their Seattle wedding included best man **George Stuart** and Eugene's sister, **Anna Cushman '91**. The couple honeymooned in Hawaii and currently resides in Arlington, Mass.



Kathy (Pacheco) Czerwiec (right, with her buddy, Karen Kohanek) was honored by Best Buddies of Western Massachusetts for her volunteer service as a

Citizen Buddy—an adult who shares companionship with a person with intellectual disabilities. Kathy teaches mathematics at Chicopee (Mass.) High School.

Brooke (LeClair) and Matthew Daniels announce the birth of their second child, Elliott Glenn, on Sept. 6, 2006. They and big sister Sophia live in Norwood, Mass.



Ken Gagne participated in the MS Challenge Walk in September 2006, along with several employees of WPI and the Mass Academy. After teaching writing and film at Mass Academy for two years, he now works for School Year Abroad. Ken completed a second MQP in E-Term 2006, adding a humanities major with a concentration in writing and rhetoric to his '01 BS degree in technical communications. He also serves on the board of directors of Calliope Productions Community Theater.

Jessica Hoepf and **Jeff Costa '02** were married April 22, 2006. (Jeff's name was incorrect in the previous issue of *Transformations*.) After a honeymoon in the South Pacific, they now live in Malden, Mass.

Fang Li (MS FPE) is founding president of the China Chapter of SFPE, which she helped establish last year. She works as operations manager of the Shanghai office of Rolf Jensen & Associates.

Kenda (Conklin) Newton works at NASA's Goddard Space Center. She married Jeremiah Newton last year.

Erica (Lafont) and David Philips announce the birth of their first child, Adley James, on Aug. 7, 2006.

Robyn Prinsen and Jeffrey Miller and got engaged while on vacation on Kaua'i, Hawaii, in December 2006. They are planning an autumn 2007 wedding.

2002

Army Capt. **Marc Bullio** returned from a 16-month deployment in Iraq in December 2006. He served with the 177th Stryker Brigade.

2nd Lt. **Alexander Clifford** ('04 MS) is serving at Edwards Air Force Research Laboratory as a rocket plume signature research engineer. He received his officer's commission in July 2006.

Alexander Haley works for Meditech as a programmer analyst. He and his wife, Emily, live in Worcester.

George Hanlan is an engineer at OFS Specialty Photonics. He lives in Southbridge, Mass., with his wife, Laura, a librarian at WPI's Gordon Library.



Alison Hughes and Jason Katz '01 were married Oct. 28, 2006. The wedding party included best man **Ryan Johnson '01**, groomsmen **Jim Shannan '00** and **Brian**

Carelli '00, and bridesmaids **Jaclyn McHugh** and **Kim Morin**. The couple honeymooned in Europe, with stops in Paris, Tuscany, and Rome. They currently reside in Ashland, Mass.

David Jasinski married Adeline Ashmore on July 4, 2006. He is an electrical engineer at the Naval Undersea Warfare Center.



Jeremiah Johnson won the Charles Russell Bard Award for employee excellence from his employer, C. R. Bard Inc. He is a project engineer in the Electrophysiology Division.

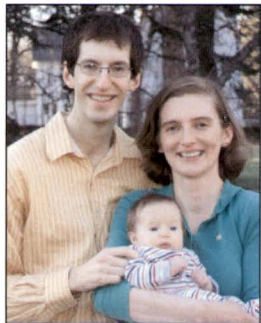
Michael Krager became engaged to Alyssa Chelotti on Feb. 22, 2007. He is working at Kidde-Fenwal in Ashland, Mass., as a mechanical engineer.

Kerri (Dagesse) Lemire and her husband, Charles, welcomed their first child, Charles (Charlie) Romeo Lemire III, on Jan. 11, 2006. They were married in July 2002, with **Jason Field, Jason Hemmer, and Jonathan Hone '01** in the wedding party. Kerri, Chuck, and Charlie reside in Waltham, Mass.

Jared Rhoads celebrated the one-year anniversary of the Lucidicus Project, a non-profit effort he founded to help medical students understand the moral and economic case for capitalism in medicine. He also works as a researcher for a healthcare consulting group in Boston and is taking philosophy courses through the California-based Ayn Rand Institute.

David Weatherwax works for Voice Signal Technologies. He married Michele Ingalls in October 2005.

2003



Kerry Lee Anderson and **Benjamin Kennedy '00** had a baby girl, Marie Jane Andken, on Sept. 27, 2006. They live in Newton, Mass.

Chantal Bichet and Richard Burdick were married in a private ceremony at their residence in Dedham, Mass., on Dec. 2, 2006. Chantal is a quality assurance documentation coordinator at AstraZeneca in Westborough, Mass., and can be reached at chantal_and_rich@yahoo.com.

Paul Elliot joined the New York office of Schirmer Engineering as an associate consultant.

Andrea Hubbard is pursuing a DMV degree at Ross University School of Veterinary Medicine in St. Kitts, West Indies.



Jaelyn Maiorano ('06 MS ECE) joined the civil engineering group of Tighe & Bond in 2003. She recently passed her PE exam.

David Sama married Tiffany Tata, June 3, 2006. He is senior account manager with Modcomp in Deerfield Beach, Fla.

Jeff Savard is pursuing a PhD at Carnegie Mellon University. His June 2006 wedding to Jennifer Garbett included classmates **Jeremy Allen, Colby Hobart, and Craig Perkins** as groomsmen.

Christina Watson received her DVM degree from the University of Illinois College of Veterinary Medicine in May 2007. She is completing an internship in equine medicine at Blue Ridge Equine Clinic in Earlysville, Va.

2004

Tasha Andrade and **Josh Clark** were married on Sept. 24, 2006, with **Rebecca Hamel** serving as a bridesmaid, and **Jeff Simpson** as a groomsman. Other classmates in attendance included **Shaun Armistead, Erica Bartos, Tom Beigbeder, Andrew Freeman, JJ Tranquilli,** and **Kendra Stafford.**

Josh is currently working as a software engineer at NuvoSoft in Waltham, Mass. Tasha is in her third year of law school at Roger Williams University in Bristol, RI. They took a mini-honeymoon in the Berkshires at Lenox, Mass., and will be going someplace tropical over the summer, after Tasha takes the bar exam.

John Baird started a unique literacy program at the New Haven Free Public Library. His project, called "Create a Comic," involves having elementary school children fill in blank speech balloons and thought bubbles on comic-book templates. He developed the approach while teaching English in Taiwan with Hess Educational Organization. The program has received rave reviews and has been publicized in the *Yale Daily News*, the *New Haven Advocate*, and the *New Haven Register*. John received his MS in epidemiology from the Yale School of Public Health in May 2007.

Erin Bliven is an epidemiologist with the Center for Disease Control and Prevention in Atlanta. She works with the Tuberculosis

Clinical Trials Consortium in the Clinical and Health Systems Research Branch of the Division of Tuberculosis Elimination within the Center for HIV, Viral Hepatitis, STD, and Tuberculosis Prevention.

Pamela Comey is an associate systems engineer at Textron Systems in Wilmington, Mass.

Erin Dupak and **Tom Daley** became engaged in May 2006. Erin received a master of engineering degree in bioengineering from the University of California, San Diego. She works for DePuy Spine, a Johnson & Johnson company. Tom is president and chief technology officer of Dynamic Network Services Inc. They live in Nashua, N.H.

Brian Landry married T r se Frazier on Aug. 4, 2006. Groomsmen included **Sam Gharabally; Justin Braga '05** was best man. T r se is a graduate of the University of Massachusetts at Amherst and is attending Tufts University School of Medicine. Brian is currently attending Suffolk University Law School.

Advancing WPI

Lisa Maizite, formerly executive director of major gifts, has been promoted to the position of assistant vice president for development. In this role, Maizite oversees the university's major gift and annual giving staff.

"I am honored to be serving WPI in this new role," Maizite says. "I look forward to working even more closely with the university's alumni and friends to help advance the important work of this remarkable institution."

Maizite arrived at WPI in 1996 as director of the Alumni Fund. Before WPI, she spent several years working in development at Clark University. She holds a bachelor's degree from the University of Vermont.



Eric Laurendeau is an electrical engineer at BAE Systems. On May 27, 2006, he married Carrie Momenee. They live in Merrimack, N.H.

Katherine Martel and **David Mason '06** (MENGR) were married July 1, 2006, with **Walker League-Pike** and **Daniel Thiffault '03** in the wedding party. Other alumni in attendance were **Aaron Meberg, Winfield Peterson '03, Elias Wilson '05,** and BE graduate program alumni **Anmol Nagre '05** and **Shweta Shanbhag '06.** After honey-

moon in Belize, Katherine and David returned to their new home in Marlborough, Mass., where they now reside with their two Italian Greyhounds, Jackson and Mouse.

Sara Maska and Jeffrey Alderson '98 (see his note under 1998) were married on Aug. 6, 2006. They honeymooned in the Mayan Riviera and now reside in their new home in Brighton, Mass. Sara recently accepted a position as a field application specialist with Promega Corp., where she will support academic accounts in Massachusetts, Maine, New Hampshire, and Vermont.

Jessica McAlear began PhD studies at the German Cancer Research Center (Deutsches Krebsforschungszentrum) in Heidelberg, Germany.

April Nunn completed her graduate degree at the University of Wisconsin last year and now resides in Anchorage, where she is a medical physicist for the Anchorage Radiation Center at the Alaska Regional Hospital.

Theodoros Toufas is working on a PharmD degree at Massachusetts College of Pharmacy and Health Sciences. He is a pharmacy intern at Acton (Mass.) Pharmacy.

2005

Paul Emery returned to Worcester from Rouses Point, N.Y., where he worked for Wyeth Pharmaceuticals. He is now a forensic chemist at UMass Medical School and is working on his master's at WPI.

William Herbert works for Autodesk Inc., in Manchester, N.H., providing support to end users and resellers for AutoCAD.

Jessica Reidel was accepted into the graduate studies program at the Catholic University of America in Washington, D.C. She will begin part-time studies towards her master's degree in biomedical engineering at the School of Engineering in the fall of 2007. Currently, Jessica works as a patent examiner for the United States Patent and Trademark Office in Alexandria, Va.

Joseph Reinsch and his wife, Amanda, are both petty officers 3rd class, stationed at the Navy Nuclear Power Training Command in Goose Creek, S.C. They were married in November 2005 and used their Christmas holiday leave to hold a reception at Joe's parents' home in Windsor, Conn.

Alumni Association Awards

The following awards were presented during Reunion Weekend, June 7–10, 2007.

Robert H. Goddard Award for Outstanding Professional Achievement

Ernest S. Hayeck '47, Retired Judge,
Worcester Central District Court

William W. Rawstron '57, Retired
Vice President, Technology Metso
Automation USA Inc.

Domenico Grasso '77, Dean, College
of Engineering, University of Vermont

Ichabod Washburn Young Alumni Award for Professional Achievement

David C. Cortese '92, Vice President,
Information Technology, Sony Pictures
Home Entertainment

John Boynton Young Alumni Award for Service to WPI

Jami B. Walsh '97

Herbert F. Taylor Award for Distinguished Service to WPI

Charles F. H. Crathern '52

George H. Long Jr. '57

Michael J. Stephens '57

Curtis R. Carlson '67

Joseph L. Ferrantino '67

William D. Cunningham '77

William R. Grogan Award for Support of the Mission of WPI

David Cyganski '75

2006

Amanda Otterman is serving in the Peace Corps as a mathematics teacher in Vanuatu, in the South Pacific.

Christopher Parker is pursuing a master's degree in biology and biotechnology at WPI. His research on influenza antigen design at UMass Medical School was published in the *Journal of Virology*.

2007

Michael McManus joined the Westfield, Mass., office of Tighe & Bond.

Graduate Management Program

Mehdi Sif '98 (MBA) is vice president, marketing, at Zeugma Systems in Palo Alto, Calif.

School of Industrial Management

George Walker '58 was appointed to the special task force for the revitalization of the Mississippi Delta by Lt. Gov. Amos Tuck.



Peter Leasca '65 has been active in honoring veterans of World War II. He is campaigning for a memorial statue on the Worcester Common behind City Hall.

Interested alumni may contact him at LSTWW2@aol.com or 516 Grove St., Worcester, MA 01605.

Harold Johnson '77 is treasurer of The Parris Island Historical & Museum Society in South Carolina, and also serves as a member of the museum staff.

Harold Long '77 is CTO and vice president, engineering and portfolio management, for INS in Santa Clara, Calif. He was recently appointed as the INS executive delegate to the Airports Consultants Council.



Your Legacy Is Your Life's Work

WPI can show you how to make it happen. A generous 50th reunion gift can give YOU an income for life—easily accomplished.

If you are interested in a Charitable Gift Annuity that pays you 6.6%* return for the rest of your life, just call Judi Cantor toll free at (888) 974-4438 or e-mail planned-giving@wpi.edu.

* Based on 1 person, age 71. Charitable Gift Annuities pay a life-income based on your age; many plans pay more than 6.6% and some pay less. You earn a generous tax deduction, income for life, and you support WPI with a gift. Ease of giving is our service to you.

ALDEN
SOCIETY

Obituaries

Transformations has learned of the death of **Russell H. Callahan '17** (Phi Gamma Delta) in 1994. He was predeceased by his wife, Anna, and a daughter. He retired from Tenneco (Tennessee Gas Transmission Co.)

Transformations has learned of the death of **Hamilton W. King '26** in 1996. He lived in Deerfield Beach, Fla., and was retired from Consolidated Edison Co.

Transformations has learned of the death of **Irving H. Campbell '29** (Theta Chi) in 1999. He was retired from U.S. Envelope Co. He and his wife, Barbara, had two children.

The last survivor of his class, **Arthur E. Gilbert Jr. '29**, of Louisville, Ky., died July 23, 2007. Predeceased by his wife, Mary (Southwick), he leaves three children. He attended his 75th Class Reunion in 2004 with his son, Richard Gilbert '54, who was celebrating his 50th Reunion. The retired vice president of Cheatham Electrical Switching, Gilbert contributed to the technology behind vehicles such as the bumper cars at Coney Island and cars used to haul ore from coal mines.

Henry F. Friel '31 (Phi Kappa Theta) of York, Pa., died Aug. 6, 2006. Predeceased by his wife, Lucine (Knox), and a daughter, he is survived by four children. Friel was retired from Wire Mesh Products as a product engineer.



Edgar C. Ansaldi '32 of Manchester, Conn., died Jan. 26, 2007. He was retired from Pratt & Whitney Aircraft as chief of experimental test laboratories. Predeceased by his wife, Alice (Aiken), he leaves two sons.



C. Milton Ekberg '32 (Phi Sigma Kappa), retired president of Abrasive Tools Inc., died July 24, 2005. He leaves his wife, Dorothy, of Cromwell, Conn., and three children. He was the brother of Alfred C. Ekberg '36, who also survives him.



Antonio P. "Jock" Maggiacomo '32 (Phi Kappa Theta, Skull) of Cranston, R.I., died June 24, 2006. A longtime science teacher and athletic coach in the Cranston high schools, he was designated a Sports Ambassador by President Gerald Ford. He was predeceased by his wife, Clara (Carlotti) and a son. Another son survives him.



Carroll C. Misener '32 of Zephyrhills, Fla., died May 24, 2006. He leaves his wife, Eunice (Hixson), four children, and two stepchildren. Misener was predeceased by his first wife, Rita, in 1977, and by his second wife, Ruth, in 1996. He was retired from the U.S. Naval Ordnance Laboratory, where he served as a mechanical engineer.

Frank L. Eaton Jr. '33 (Sigma Phi Epsilon) of Jonesboro, Ga., died March 24, 2006. He earned a master's degree in mechanical engineering at WPI in 1934 and retired from Hamilton Sunstrand as a senior designer. Survivors include his wife, Mary, and four children.

Robert E. Ferguson '33 (Sigma Alpha Epsilon) died Nov. 8, 2006, leaving his wife, Eileen (O'Brien), and eight children. He lived in Leicester, Mass., for many years and was owner and operator of Automatic Dispensers of Worcester.



Transformations has learned of the death of **Charles S. Dayton '34** in 2003. A retired district sales manager for General Electric Co. of Philadelphia, he was survived by his wife, Mae (Stillings), his son, Douglas Dayton '70, and three other children.

Donald C. Vibber '34, a longtime resident of Worcester and Southbridge, Mass., died July 1, 2006. He was the founder of Worcester Automatic Machine Co., and later served as chief engineer of Hyde Manufacturing Co. He is survived by his former wife, Eloise Vibber, and two sons.

Alumni who wish to make contributions in memory of classmates and friends may contact the Office of Development and Alumni Relations at 508-831-5660 or vlconti@wpi.edu.

Transformations has learned of the death of **Robert B. Logan '35** (Phi Gamma Delta) in 1994. He lived in Madison, Fla., and worked for St. Vincent Hospital and The Wilcolator Co.



George L. Chase '36 (Phi Gamma Delta, Skull) of Newcastle, Maine, died Sept. 16, 2006. He leaves his wife, Joy (Goddard), and two children. Chase worked for Scovill Manufacturing Co. for 30 years and later retired from Ball & Socket Manufacturing Co. as vice president.



William C. Maine '36 (Phi Sigma Kappa) of Columbia, Conn., died March 8, 2006. Predeceased by his first wife, Lucile (Hanna), and his second wife, Evalyn (Standish), he leaves two children. Maine was a plant engineer for Westvaco, Mohasco, and The Torrington Company.

Corrections: The Winter 2005 issue of *Transformations* erroneously reported the death of **Ralph M. Johnson '57**. The confusion arose from the death of a WPI student's father who bore the same name. • The death of **H. Roger Erickson '40** was mistakenly reported in the Fall 2006 issue. His brother-in-law, **Harold F. Henrickson '36**, died in 2005, which gave rise to a miscommunication with the records department. • The first name of **Robert H. York '62** was incorrect in his obituary in a previous issue. • Our apologies go out to those involved and their families.

Transformations has learned of the death of **Henry Plimpton Sr. '36** (Theta Chi) in 2002. He and his wife, Grace, had two children. He worked as a machine shop foreman for Manlabs Inc.



Erving Arundale '37 (Theta Chi) of Woodstock, Conn., died Aug. 12, 2006. A noted research chemist, he helped develop synthetic rubber to meet wartime needs, and unleaded gasoline to minimize pollution. He spent his career with Exxon Mobil Corp., established the Exxon Chemical Technology Center in Brussels, and retired with 68 patents in his name. Predeceased by his wife, Phoebe (Allison), he leaves three children.



Philip G. Atwood '37 (Alpha Tau Omega) of Fort Myers, Fla., died Jan. 31, 2006. After a 35-year career with New England Telephone (now Verizon), he retired as a staff engineer. His wife, Eleanor (Clark), predeceased him.

Transformations has learned of the death of **John E. Poeton '37** (Lambda Chi Alpha) in 2001. He lived in San Diego. His wife, Genevieve, died in 2003.



Allen R. Deschere '38 of Baileys Crossroads, Va., died March 5, 2007. His wife, Jane, died in 2000. Four children survive them. Deschere retired from Rohm and

Haas as assistant director of research and later served as automated systems coordinator for the Library of Congress's National Library Service for the Blind and Handicapped.

Professor emeritus **Donald W. Howe Jr. '38** ('43 MSE) of Westborough, Mass., died Dec. 12, 2006. He leaves his wife, Margaret (Walker), and six children. Howe taught at WPI for 50 years, starting in the physics department and then joining the electrical engineering department. An independent radio consultant and ham radio operator, he helped found public radio station WICN in Worcester.

John B. "Jack" Scalzi '38 of Easton, Md., died Dec. 20, 2006. Predeceased by his wife, Jennie (Celozzi), he is survived by two daughters and his partner of 14 years, Shirley Beck. An authority on bridge design, Scalzi retired from the National Science Foundation in 2005 as program director for infrastructure engineering, where he provided international leadership on earthquake protection. A former professor at Case Western Reserve and Carnegie Mellon universities, he was the author of several textbooks and numerous papers.

Transformations has learned of the death of **Robert L. Somerville '38** (Phi Gamma Delta) of Brunswick, Ga., in 2002. A consulting chemical engineer with numerous patents in his name, he specialized in the methodology of wet process phosphoric acid production and filtration technology. His wife, Elizabeth, and three children survive him.

E. Bruce Crabtree '39 of San Antonio, Texas, died Jan. 17, 2007. He leaves his wife, Anne, and three children. He retired as vice president of sales for Byrant Grinder Corp.

John F. Peavey '39 of Hendersonville, N.C., died Feb. 12, 2007. He was retired from the John H. Breck hair care company as plant engineer. He is survived by his wife, Anne, and four children.



Robert F. West '39 (Lambda Chi Alpha) of Cromwell, Conn., died Oct. 21, 2006. He leaves his wife, Dorothy (Nourse), and two children. As director of new products and research at Stanley Tools, he developed and improved many hand tools, including the PowerLock tape rule, and was named in more than 40 patents.

Transformations has learned of the death of **Carl Carnicelli '40** in 2002. He was a self-employed architect and engineer.

John A. Leach '40 of Brooklyn, Conn., died Aug. 22, 2006, leaving his wife, Priscilla (Karle) Reel, three children, and two stepchildren. His first wife, Alice, died in 1987. Leach was the founder of Leach Instrument Service.

Transformations has learned of the death of **Frederick B. Miller '40** (Alpha Tau Omega) in 2001. The former president of Echols International Travel Training, he leaves his wife, Virginia, and three children.

James I. Thurston '40 (Alpha Tau Omega) of Nobleboro, Maine, died Feb. 19, 2007. He leaves his wife, Jean, and three children. His first wife, Evelyn (Moore), died in 1993. Thurston was retired from Waite's Industrial Hardware.

Alexander S. Chodakowski '41 died Aug. 11, 2006, in Venice, Fla. A former member of the U.S. State Department, he served as an instructor and consultant to the Interagency Training Center in Fort Washington. He leaves his wife, Marian (Jenkins), and four children.



George P. Lentros '41 of Ashland, Mass., died May 9, 2006. He was the founder of Lentros Engineering, which he ran for 46 years. His wife, Angela (Koutsotasios), predeceased him. A son survives them.

Alvin A. Luce '41 (Phi Sigma Kappa) of Exeter, N.H., died Sept. 18, 2006. Predeceased by his wife, Ruth, he leaves two children. Luce worked for The Torrington Co. for 37 years and retired as a district sales manager.



George C.

Andreopoulos '42

(Sigma Phi Epsilon) of Leawood, Kans., died Sept. 26, 2006. Predeceased by his wife, Mary (Murray), and his brother, Theodore Andreopoulos '38, he is survived by three children. Andreopoulos was retired from United Bakery Equipment Co. An offensive and defensive guard on the WPI football team, he was the first player to earn letters in all four years.

Edward H. Jacobs '42 of Bandon, Ore., died Dec. 26, 2006. Survivors include his wife, Judy, his former wife, Marge, and five children.



William S. Jackson '42

(Lambda Chi Alpha) of Anacortes, Wash., died April 24, 2006. He leaves his wife, Christine (McDonell), and three children. Jackson was retired from E.I. DuPont de Nemours as regional manager for the Southwest Division.

Frederic C. Merriam '42 of Danvers, Mass., died Nov. 11, 2006. He is survived by his wife, Ellen, and a son. Merriam worked for United Shoe Machinery as a senior organic chemistry researcher. He also operated Merriam Energy Systems.



Hyman "Haim" G.

Nagirner Weinstein '42

(Alpha Epsilon Pi) of Green Oaks, Ill., died Oct. 20, 2006. A biomedical scientist, he received a master's degree from the University of Illinois Urbana and his PhD from the University of Chicago. He was a professor at Chicago Medical School (now Rosalind Franklin University of Medicine and Science). He also served on the faculty of the North Chicago VA Medical Center. Predeceased by his wife, Shirley, and a daughter, he is survived by a sister and his longtime friend and medical colleague, Moira Breen.

Auto Safety Pioneer



Carl Clark '45, best known as an advocate and innovator of airbag restraint systems for automobiles, died Aug. 24, 2006. His professional accomplishments also included developing a novel way to study the workings of the cell, setting the optical standard for "Coca Cola Green" (the color of Coke bottles), and pioneering the field of dynamic flight simulation to train X-15 pilots and Mercury astronauts for their missions.

❖ Clark developed and extensively tested the Airstop Restraint System for cars, the first practical automotive airbag safety system. His promotion of the benefits of airbags is credited with helping convince automakers to begin seriously investigating the practicality of adding

airbag systems to cars. Later in life, he brought the same passion to his advocacy for the use of laminated safety glass in the side windows of cars. He also developed an airbag bumper system that could protect car occupants from serious injury in a crash into a wall at up to 50 miles per hour. He leaves his wife, Elizabeth, and four children. He was a member of Alpha Tau Omega and Sigma Xi.

Albert E. Whiton '42 of Pittsfield, Mass., died Jan. 18, 2007. He leaves his wife, Geraldine, and three children. He was retired from GE Naval Ordnance with 41 years of service.

Philip C. Wright '42 of Phoenix, Ariz., died Aug. 5, 2005. Predeceased by his wife, Bernice, he leaves five children. He worked as an electronics engineer and manager.

George N. Drawbridge '43 of Worcester died March 6, 2007. He was a longtime employee of Worcester Pressed Steel and L. S. Starrett Co. Predeceased by his wife, Emily (Sjostrom), he leaves two children.

Herbert H. "Hank" Ferris Jr. '43 (Phi Gamma Delta) of Alpine, Calif., died Jan. 9, 2007. He leaves his wife, Jane (Fitz), and six children. Ferris was retired from Prudential Securities as an investment counselor.

J. Perry Fraser '43 of Gorham, Maine, died Dec. 12, 2006. He is survived by his wife, Elizabeth, and three children. He worked for General Electric for almost 30 years and later worked for Mechanical Technologies.

Wilmot J. Keogh '43 (Phi Kappa Theta) of Norwalk, Conn., died Feb. 19, 2007, leaving his wife, Margaret (McElroy), and five sons. He was retired from Westinghouse International, where he served as president of Westinghouse South America.

Transformations recently learned of the death of **Edwin H. Matasik '43** (Phi Kappa Theta) in 2004. He lived in New Haven, Conn., and worked for Perkin Elmer Corp.



Former class vice president **Behrends "Pete" Messer Jr. '43** (Phi Sigma Kappa, Skull) of Princeton, N.J., died Aug. 28, 2006. A lieutenant colonel in the

Army Corps of Engineers, Messer joined Mobil Oil in 1948 and retired as manager of wholesale plant and civil engineering for Mobil Oil Research and Development Corp. His contributions to standardization and regulation of the industry earned him a certificate of appreciation from the American Petroleum Institute. He is survived by his wife, Jeanne (Buckhorn), and four children.

John P. Newton Jr. '44 (Phi Sigma Kappa) of Selkirk, N.Y., died April 6, 2006. His wife, Maradean, survives him. He was a self-employed engineering consultant.

Transformations has learned of the death of **Earl S. Carpenter Jr. '45** of Salem, Mass., in 2004. The retired owner of Johnson Canvas Co., he leaves his wife, Janice.

Joseph D. Carrabino '45 (Theta Kappa Phi) died July 17, 2007, in Southern California. He held an MBA from Northwestern University and a PhD in engineering from UCLA. He served on the faculty and administration of UCLA for more than 40 years,

traveling to Italy as a Fulbright professor and serving on the California State Board of Education. In 1987 Carrabino was awarded an honorary doctor of science degree by WPI for his research on effective management and engineering practices to enhance productivity. He and Marilyn had six children, who survive him.

Edward J. Dolan '45 (Alpha Tau Omega) of Wauseon, Ohio, died July 12, 2006. He leaves his wife, Dorothy, and four children. He was retired from General Motors Corp. Hyatt Division as a metallurgist.



Alfred E. Green '45 (Phi Sigma Kappa) of Shrewsbury, Mass., died May 29, 2006. He is survived by his wife, Barbara (Janson), and a daughter. A 1953 graduate of the

School of Industrial Engineering, he was president and founder of Process Heating Corp. For his service to his class and to the Alumni Association, he received the Herbert F. Taylor Alumni Award for Distinguished Service in 2000.

Transformations has learned of the death of **Paul J. Meleen '45** (Lambda Chi Alpha) of Englewood, Fla., in 2004. His wife, Edith, and five children survive him. He was the owner of Meleen Motors Inc.

Bertrand C. Mills '45 (Phi Gamma Delta) of Vero Beach, Fla., died June 12, 2006. Mills began his career in General Electric's Management Training Program, became president of Carlyle Compressor Co., and

Generous Benefactor, Trustee, Loyal Friend



John C. Metzger Jr. '46, of Vero Beach, Fla., died Dec. 29, 2006. A WPI trustee since 1981, he was elected to emeritus status in 1989. Metzger received the Robert H. Goddard Alumni Award for Distinguished Professional Achievement in 1981. With his wife, Jean, he established the John C. Metzger Jr. Professorship in Chemistry in

WPI's Department of Chemistry and Biochemistry. ❖ Metzger spent his entire career with DuPont Co. and retired as group vice president for the Photosystems and Electronic Products Division. In addition to his wife, he is survived by three daughters. He was preceded in death by his first wife, Jane Metzger. He belonged to Phi Gamma Delta, Tau Beta Pi, Sigma Xi, and Skull.

retired from Carrier Corp. as vice president of manufacturing. He leaves his wife, Marjorie, and five children.

Lionel H. Seccombe '45 (Sigma Alpha Epsilon) of Canton, Conn., died Jan. 4, 2007. Survivors include his wife, Alice "Jane," and two sons. He was predeceased by a daughter. Seccombe was a design engineer. His employers included B. A. Ballou & Co. and Aquidneck Data Co.



Frank J. Stefanov '45 (Theta Chi) of Avon, Conn., died Dec. 20, 2006. He worked for The Torrington Company as a mechanical engineer for 38 years and retired

in 1985. He was the husband of Mary Evelyn (Guertin), and the father of Elizabeth Stefanov Johnson '89. He is also survived by six other children.

William R. Bingham '46 (Theta Chi) of Lunenburg, Mass., died Jan. 25, 2007. A self-employed land surveyor, he operated William R. Bingham Associates and assisted the local historical society in researching old homes and roads. Survivors include his wife, Mary (Bickford), and four children.

George R. Brown Jr. '46 of Versailles, Ky., died Nov. 26, 2006. He leaves his wife, Nora (Walker), and four children. He was a director of Massachusetts Mutual Insurance Co. for more than 24 years.

Robert F. Budge '46 (Alpha Tau Omega) of Bristol, Conn., died Dec. 8, 2006. He was predeceased by his wife, Gloria (Merrill). He was retired from Altair Corp. as quality control manager.

George Button '46 of Vero Beach, Fla., died Sept. 14, 2006, leaving his wife, Elizabeth (Higgins), and four children. A real estate developer, he was retired from the family business, Button Associates Inc.



Robert B. Charlton '46 of Prattville, Ala., died July 13, 2006. He leaves his wife, Martha (Chancey), and two children. As a self-employed consulting civil engineer, Charlton

designed the structure of many buildings in Alabama, including the local high school.

Daniel J. Goss Jr. '46 of Louisville, Ky., died Feb. 25, 2006. His wife, Doris, survives him. Goss was retired from International Harvester as supervisor of industrial engineering.

Howard F. McCormick Jr. '46 of Windsor, Conn., died Aug. 24, 2006. Survivors include his wife, Judith, and six children. McCormick ran the H. F. McCormick Tobacco Co., then held the post of plant manager at Hi-G Co., and most recently worked as a consultant for Philips Engineering.

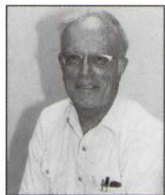
Donald L. Nichols '46 of Portsmouth, R.I., died May 26, 2006. He leaves his wife, Thalia (Peterson), and seven children. Nichols retired from the Navy Underwater Systems Center as associate technical director and later served as a self-employed consultant.

Thomas J. Passanisi '46 of Lexington, Mass., died Aug. 27, 2006. He was retired from Raytheon Co. as a principal engineer. Survivors include his wife, Carmela "Millie" (Tringali), and two children.

Robert L. Rocha '46 of Towaco, N.J., died Sept. 4, 2006. He is survived by his wife, Laura (Hatfield), and four children. A Navy veteran of World War II and Korea, he was the retired chief engineer at Picatinny Arsenal, where he also managed the explosive ordinance disposal office.

Nai-Chong Chang '47 of Santa Fe, N.M., died Nov. 28, 2006. He worked for UNISYS Corp.

Robert H. Adams '48 (Phi Gamma Delta) of Lake Forest, Ill., died Feb. 5, 2007. He leaves his wife, Joan (Ireland). He began his career with General Electric and later founded Adams Industries, manufacturer of electrical resistance heating elements, which he sold to a British firm in 1994.



David L. Anthony '48 (Sigma Phi Epsilon) of Columbus, Texas, died March 5, 2007. He leaves his wife, Betty, and two daughters. Anthony, a retired electrical engineer,

received a second bachelor's degree from Northeastern University in 1953 and worked for Texas Instruments.

David I. Caplan '48 (Alpha Epsilon Pi, Tau Beta Pi) of Delray Beach, Fla., died April 24, 2006. A patent attorney for Lucent Technologies, he received a doctorate in physics from Purdue University and a law

degree from NYU. Caplan was a longtime board member of the NRA who wrote and spoke on widely on gun ownership issues. His wife, Sue Wimmershof-Caplan, survives him.

Robert E. Eilertson '48 (Phi Gamma Delta) of Clearwater, Fla., died May 3, 2006. He leaves his wife, Virginia, and six children. He earned his BS from Boston University in 1995 and was retired from Benefacts Inc. as a regional marketing manager.

Niel I. Fishman '48 (Alpha Epsilon Pi) of Ormond Beach, Fla., died June 26, 2006. He was a senior sales engineer for Philip H. Werner Inc. and co-owner of Lindin Exhibits Inc. Two sons survive him.

Robert A. Bareiss '49 of New Port Richey, Fla., died May 15, 2006. He leaves his wife, Doris, and two children. He was director of process control at Champion International Paper Co.

Ritchie Memorialized in Olin Hall

Sev Ritchie, who passed away in 2004, is still fondly remembered by the Department of Physics as one of WPI's greatest machinists. A member of Skull, Sev dedicated 41 years to WPI and touched the lives of several generations of students, both physics majors and others. A plaque mounted outside the physics machine shop was unveiled Sept. 1, 2006, in commemoration of his service.



Francis J. Bigda '49 (Phi Kappa Theta) of Harwich, Mass., died Dec. 9, 2006, leaving his wife, Evelyn (Stefanik), and a daughter. He was a sales engineer and manufacturers representative for the semiconductor industry.

Thomas R. Carlin '49 (Phi Kappa Theta) of Shrewsbury, Mass., died Jan. 14, 2007. He earned an MBA at Boston University in 1958 and worked for Wyman-Gordon Co. for 39 years, retiring as manager of general purchases and project engineering. Survivors include his wife, Christine (Gasek), and four children.

Edward H. Dion '49 (Theta Chi, Skull) of Mount Holly, N.J., died April 11, 2006. He leaves his wife, Mary, and a daughter. He

was predeceased by a son. Dion retired from Wagner Hohns Ingles as a project manager and continued as an engineering consultant.

Orlando W. "Bud" Foss Jr. '49 of Waycross, Ga., died Sept. 23, 2006. Survivors include his wife, Colleen, two children and a stepson. Foss was the retired president of General Box Co. After retirement he served as an industrial training consultant for Okefenokee Technical College.

Transformations has learned of the death of **William C. Marcoux '49** in 2003. A resident of Nashua, N.H., he taught high school mathematics and wood shop at Newmarket High School.



Donald J. Baer '50 of Old Wethersfield, Conn., died Oct. 10, 2006. A longtime systems safety engineer, he was retired from GTE. His wife, Virginia, (Willard), survives him.



Paul J. Brown '50 (Phi Kappa Theta, Skull) of West Springfield, Mass., died May 5, 2006. Survivors include his wife, Marie (Sullivan), and four children. He

was predeceased by a son. Brown was retired from R. E. Phelon Co.

George W. McAllan '50 (Sigma Phi Epsilon) of Waynesboro, Va., died May 3, 2006. He leaves his wife, Viola, and three children. He was retired from New York Telephone Co.

Joseph R. Toegemann '50 (Sigma Alpha Epsilon) of Cranston, R.I., and Bradenton, Fla., died Jan. 1, 2007. A chemical engineer, he worked in research and development for Uniroyal and Goodyear, retiring in 1990. Survivors include his wife, Lois (Schaller), and three children.

Leo J. Verrelli '50 (Phi Kappa Theta) died March 6, 2007, at his Milford, Mass., home. His wife, Mary (Compagnone), died in 2004. Two children survive him. An electrical power engineer, Verrelli was involved in the design of numerous power plants throughout the country before his retirement from Stone & Webster Engineering Co. in 1984.

Norris H. Corey '51 of Sutton, Mass., died Oct. 7, 2006. He leaves his wife, Nancy (Carlson), and four children. He retired

from New England Power Co. as chief system dispatcher with 40 years of service.

Class President **Richard E. Ferrari '51** (Phi Kappa Theta, Skull) of Wilmington, Del., died Jan. 6, 2007. He is survived by his wife, Faye, and six children. A son predeceased him.

Melvin D. Savage '51 of Lexington, Mass., died Aug. 22, 2005. He received his dental degree from Tufts University and operated his own practice. Survivors include his wife, Arlene (Marlin), and two children.

Frank L. Briggs '52 (Alpha Tau Omega) of Wilton, Maine, died Feb. 19, 2007. He leaves his wife, Martha (Woods), and three children. He was employed as a sales engineer by Westinghouse Electric Corp. for 43 years.

Allan R. Thayer '52 of Framingham, Mass., died Sept. 13, 2006. Predeceased by his wife, Mary (Tagliaferri), in 1995, he leaves three children. Thayer was retired from Raytheon Co., where he held the post of principal engineer.

Michael J. Cariglia '53 of North Chelmsford, Mass., died Oct. 1, 2006. He leaves his wife, Barbara (Bonoveto), and five children. A longtime electrical engineer, he was retired from New England Power Co.



Vincent J. Boliver '54 (Phi Kappa Theta) died Oct. 21, 2006, at his home in Brooklyn, Conn. He worked as a product manager for G&W Electric Co. His

wife, Dolores (Lord), survives him, along with four children.

Robert A. Luoma '54 (Theta Chi) of Charleston, S.C., died Nov. 23, 2006. A retired electrical engineer, he worked for General Electric. He was the widower of Alice (Holl).

Ralph K. Mongeon '55 (Alpha Tau Omega) of Shrewsbury, Mass., died Aug. 19, 2006. He was retired from a 45-year career with Riley Stoker Co. He leaves his son, Kenneth S. Mongeon '95, his wife, Dorothy, and a daughter.

George W. Gilbert '56 of Warren, N.J., died Jan. 12, 2007. He leaves his wife, June (Langevin), and four children. An electrical engineer, he worked for the former Bell Labs and North Carolina Labs.



John W. Braley Jr. '57 (Phi Gamma Delta) died June 30, 2006, at his home in Fairview, Texas. He was the retired president and CEO of Infotechnics Inc.

Survivors include his longtime companion, Carla Cerkleski; his four children; and their loving mother, Mary Braley.

Alan J. Carlan '57 (MS) of Rancho Palos Verdes, Calif., died Jan. 29, 2007. He was a self-employed aerospace consultant and the owner of Carlan Associates. In the late 1950s, Carlan enrolled in graduate courses in physics along with his wife, Audrey '57 (MS), who in 1957 became the first woman to earn a degree from WPI. In addition to his wife, he is survived by three children.



William F. LaPointe '57 (Theta Chi) died June 15, 2006, at his home in Kennebunk, Maine. He leaves his wife, Florine (Collaro), and two sons. A graduate of Indiana

Polytechnic Institute, he worked for Vishay Sprague for 38 years and spent many years in the Middle East. He retired as international liaison and engineering manager for the Tantalum Division.

Transformations recently learned of the death of **Kenneth D. Chickering '59** in 1984. He earned a master's degree in physics at WPI in 1961 and worked for the University of Connecticut in Storrs.



Robert W. Hoag '59 of Attleboro, Mass., died May 31, 2006. He was president of Walton & Lonsbury. Survivors include his wife, Mary (O'Keefe), and two children.



Wilford A. Sutthill Jr. '59 of Seal Rock, Ore., died June 25, 2006. He leaves his wife, Sarah (Chandler), and three children. He earned a

master's degree in civil engineering at Drexel Institute of Technology and worked as plant engineering manager for Dakota Gasification Co.

John T. Manchester '60 (Phi Sigma Kappa) of East Bridgewater, Mass., died Nov. 11, 2006. He is survived by his wife, Lorena (Douglas), and three children. Manchester

received an MBA from Northeastern University in 1968. He retired from Exergy Corp. as vice president in 2004.

Franklin I. Siegel '60 of Chelmsford, Mass., died March 7, 2007. A pioneer in the field of hybrid microelectronics, he worked for Teledyne and Raytheon, where he made notable contributions to the Apollo space program and numerous missile systems. He was the father of Andrew Siegel '89; he also leaves a daughter.



Bradford S. Cushing '61 (Phi Sigma Kappa) of Exton, Pa., died Oct. 24, 2006. He leaves his wife, Mary, and two sons.

A specialist in the field of hazardous waste management, he was vice president and principal of Applied Environmental Management Inc.

Transformations has learned of the death of **Robert G. McDonald '62** (Tau Kappa Epsilon) in 2000. He lived in Porterville, Calif.

William H. Reinert '62 (Tau Kappa Epsilon) of Ore City, Texas, died Feb. 16, 2007. He was the owner of Advertising Concepts, along with his wife, Diane, who survives him. He was active on the Ore City Fire Department and was named Volunteer of the Year in 1980.

Marcel H. Clavier '63 (Phi Kappa Theta) died Nov. 20, 2006, at his home in Sutton, Mass. He leaves his wife, Mireille (Bruneteau), and two children. After receiving an MBA from Stanford University he pursued a career in the cable and wire industry, most recently serving as vice president of corporate purchasing for Cable Design Technology of Worcester. An active member of his Class Board of Directors, he was instrumental in organizing the 40th Reunion and gift campaign.

Arthur F. Darley '63 (Tau Kappa Epsilon) of Southbridge, Mass., died Sept. 15, 2006. He spent his career in civil service and was most recently a district project engineer for the Massachusetts Highway Department.

Donald G. Gregoire '65 of Merritt Island, Fla., died May 8, 2006. He leaves his wife, Claire, and four children. He was a retired systems engineer for Lockheed Martin.

Roger J. Armata '66 (Phi Sigma Kappa) of Torrington, Conn., died Oct. 12, 2006. Survivors include his wife, Sally (Lagowski),

and two children. A manufacturing engineer, Armata worked for The Torrington Company for 28 years and retired from ACME Packing Corp. as manufacturing services manager.

Ryan Jones '06, Victim of Roadside Bomb in Iraq



First Lt. Ryan Patrick Jones '05 died May 2, 2007, in Baghdad, of wounds he suffered when his vehicle struck a roadside bomb. He was assigned to the 4th Brigade Special Troops Battalion, 4th Brigade Combat Team, 1st Infantry Division, from Fort Riley, Kansas. As a freshman at WPI, Jones joined the Army ROTC program on an Army Scholarship and began his service with the 1st Infantry in December 2005. He went to Iraq in February 2007. He was the only child of Kevin and Elaine Jones of Westminster, Mass.

"It is a terrible loss of human life, youth, energy, and education," said Rajib Mallick, associate professor of civil and environmental engineering and advisor of Jones's MQP. "Ryan is a student I will remember forever. I will remember him for his kind and gentle nature and his ever willingness to help others."

Howard J. Braley '66 (Theta Chi) of Placerville, Calif., died Sept. 30, 2006. He earned an MBA at Boston College and served in the U.S. Air Force for 20 years, retiring as a lieutenant colonel. He then joined Aerojet, where he worked as a test manager for rocket engines until his death. He is survived by his wife, Cynthia (Adams), and two children.

Dennis D. Murphy '66 of Houston died May 15, 2006. He was a lecturer in computer science and artificial intelligence at the University of Houston-Clear Lake. He previously taught at NOVA University in Florida. Survivors include a son-in-law, nieces, and nephews.

Marshall A. Kaplan '67 (Alpha Epsilon Pi) died July 27, 2006, at his home in Worcester. A research chemical engineer, he worked for the U.S. Navy Dept. and later for Lincoln Laboratories. He is survived by two sons.

Burton F. O'Rourke '67 of Key Largo, Fla., died Aug. 16, 2006. He leaves his wife, Audrey (Davis), and two children. He was a chief engineer for Norton Co.

Richard E. Broggi '68 (Phi Sigma Kappa) of St. Simons Island, Ga., died June 21, 2006. A longtime construction supervisor of marine projects, he helped build many major U.S. highway interchanges, as well as roads in Puerto Rico and the Bahamas. Survivors include his wife, Ami (Rigdon), a son, and two stepchildren.

Transformations has learned of the death of **Donald R. Shurtleff '68** in 2004. A professor emeritus of computer science at the University of Missouri-Columbia, he was the husband of Loramel (Wagner) and had three children and four stepchildren.

Transformations has learned of the death of **Rashmikant C. Shelat '69** of Oradell, N.J., in 2003. He was a senior field engineer for the New York City Dept. of Design and Construction.

Transformations has learned of the death of **John Manzo '73** (MSCS) in 2004. He was vice president, R&D, for U.S. Robotics in Skokie Ill. He and his wife, Patricia, had one child.

Linda M. Pusateri '74 (MNS) 61, of Spencer, Mass., died Oct. 11, 2006. She leaves two sisters. A graduate of Worcester State College, she taught mathematics and science at North Brookfield High School and later worked for Riley Stoker Corp.

Paul M. Houlihan Sr. '75 (Phi Sigma Kappa) of Scottsdale, Ariz., died unexpectedly on Feb. 16, 2006. He was regional sales manager of the western division of Nallatech. Survivors include his two sons.

Richard C. Dudley '76 (SIM) of East Brookfield, Mass., died Feb. 8, 2007, leaving his wife of 42 years, Gloria (Conway). He was a 22-year Navy veteran and instructor, who retired in 1965 as master chief machinist mate. He then served as assembly superintendent for Morgan Construction Co. for 25 years.

Paul J. Duquette '76 of Dudley, Mass., died Feb. 1, 2007. He worked at Mantrose-Haeuser Co. Inc. He was the husband of Paula (Kaczynski) and the father of Jeffrey Duquette '91 and Jaime Duquette '94, who survive him.

James F. Falcone '76 (MSM) of Holliston, Mass., died Dec. 2, 2005, at age 79. He leaves his wife, Gloria (Cerveny), and two daughters. He was retired from Natick Labs.

Robert R. Jussaume '76 (SIM) of Dudley, Mass., died Oct. 15, 2006. He was 74. He is survived by his wife, Eileen (Gardiner), and three children. Jussaume was retired from Hyde Tool Co. as personnel director.

Gregory A. Scott '77 of Shrewsbury, Mass., died Sept. 3, 2006. He worked for Update Logic and had published several technical articles. He is survived by two children; his companion, Elaine Moreland; and his former wife, Sandra (Clemens).

Willie Lee Hoover '79 (MSM) of Terry, Miss., died Jan. 4, 2005, at age 79. He was retired from Raytheon Co.

David L. Arnold '80 (MSM) of Norton, Mass., died Jan. 26, 2006. He was 60. He leaves his wife, Lynn (Durette), and four children. Arnold taught mathematics at North Attleboro High School for 34 years and later worked for J. E. Case Co. and Clinical Science Lab.

Steven J. Kahn '80 of Sewickley, Pa., died June 15, 2006, while vacationing with his family in Tuscany, Italy. He leaves his wife, Mary Frances, and two daughters. Kahn was

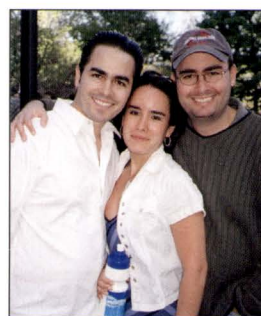
a systems analyst with TeleCove. The Steven J. Kahn Award is presented annually to outstanding senior members of the WPI Glee Club to honor contributions, commitment, and unwavering loyalty to the organization.

Transformations has learned of the death of **Xiaojun Zhang '87** (MSBB) in 2003, at age 43. She was a microbiology professor at Lakeland Community College. She and her husband, Weijun Ling, had one daughter.

Robert A. Cupolo '88 of Bristol, R.I., died Jan. 5, 2007. He leaves his wife, Jennifer (Morrison), and two children. Cupolo received a master's degree from Boston University and worked for Raytheon Corp. for 20 years.

Ronald "Kirk" Hayden '89 (Phi Gamma Delta) of Hingham, Mass., died Sept. 7, 2006. He is survived by his parents, two brothers, and a sister. He worked as a sales manager for New England Controls and Jack Conway Family Group.

Lawrence W. Harvie Jr. '93 (MSCS) of Lewiston, Maine, died May 13, 2006. He was 41. He worked as computer analyst and programmer for Per-Se Technologies. Survivors include his father, a sister, and a brother.



Rudy B. Soriano '96 (Tau Kappa Epsilon) died Jan. 2, 2005, after a recurrence of cancer. He leaves his wife, Gina Pulido-Soriano, his parents, his

brother, Carlo Soriano '97, and a sister. He worked for the J. D. Edwards consulting firm and lived in New York City.

Kenton D. Boltz '00 (MBA) of Sturbridge, Mass., died Nov. 21, 2006. He was 45. He leaves his wife, Brenda (Redman), and three children. He was head of the Sturbridge office of Edwin Jones Investments.

Brandon M. Kilgore '06 of Sacramento, Calif., died Jan. 9, 2007. He was the husband of Kimberly (Ware) Kilgore '06 and the brother of Ryan Kilgore '01. He is also survived by his parents and grandparents. He was a test engineer for 3com.

Letters

(continued)

Notes on a View *(continued from page 3)*

as circa 1933. It must have been taken after 1935. It shows a soccer goal in what is now the Quadrangle. In the fall of 1935, I played my last soccer game. The field then was end-to-end with the football field along Park Avenue. I think it was moved up the hill the next year.

You correctly identify Stratton Hall and the Atwater Kent Labs, but at the time of the photo they were designated, respectively, as the Mechanical Engineering Building and the Electrical Engineering Building. It was some time later that they acquired their current names.

It is, I am sure, the oldest aerial photograph of the campus, but not the oldest aerial picture. About 1910, Richard Rummell, a well-known artist, created a hand-engraved copperplate (at right) depicting the then WPI campus. He viewed the campus from a tethered balloon about 300 feet above ground. In 1987 I purchased one of a limited edition of hand-pulled prints from the Rummell etching, which now hangs in our den.

John R. Brand '36
Hockessin, Del.





Time Capsule

Gordon Library Turns 40



Prior to 1967, when the George C. Gordon Library opened its doors, WPI maintained branch libraries for each academic department and a general reference library, housed first in Boynton Hall, above (circa 1920), and later in Alden Memorial. But in 1964, WPI received a \$5 million bequest from Ohio businessman and distinguished alumnus George Crompton Gordon (class of 1895). Today, the library boasts holdings of over 270,000 volumes of books and periodicals, access to over 70,000 electronic journals, books, and databases, and special collections of more than 2,000 linear feet and 4,000 volumes of archival materials and rare books. Since opening 40 years ago, new study and instructional facilities—including the multimedia Tech Suites, Movie Lab, and Anderson Instruction Labs—have been added. The library also hosts eight art and history exhibits a year in its two display areas, the Class of 1941 Gallery and the George Gladwin Art Gallery.

See more photos and read about upcoming anniversary events at wpi.edu/+library/40.

Graduate Studies in Science & Engineering

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it's your choice.



WPI's Science and Engineering Graduate Programs feature world-class faculty and facilities. WPI's graduate students and faculty work closely together in a number of cutting-edge research areas, leading to breakthroughs and innovations in such fields as biotechnology, fuel cells, nanotechnology, and information security. Opportunities for fellowships, teaching, and research assistantships for full-time students are available.

Graduate Programs at WPI:

- Biology & Biotechnology
- Biomedical Engineering
- Chemical Engineering
- Chemistry & Biochemistry
- Civil & Environmental Engineering
- Computer Science
- Electrical & Computer Engineering
- Fire Protection Engineering
- Management
- Manufacturing Engineering
- Materials Process Engineering
- Materials Science & Engineering
- Mathematical Sciences
- Mechanical Engineering
- Physics
- Social Science & Policy Studies

The following programs are available online:

Environmental Engineering, Fire Protection Engineering, Management, and System Dynamics.

Information Sessions

Thursday, August 23, 6 p.m. • WPI Campus Center

Thursday, September 27, 6 p.m. • WPI Campus Center

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