STANFORD BUSINESS



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Sonia Preet Kaur Samagh is following her heart. As a Stanford undergrad she became committed to improving people's lives through medicine. She formed the nonprofit Global Health Volunteers to connect students with surgeons to create sustainable health projects in the developing world. In between her medical school studies, she's pursuing an MBA to further put her ideas into action.

Through the Public Management Program in the Center for Social Innovation—one of four centers that drive curricular innovations at the GSB—pursuing her passions has become a reality. She helped create a device that treats the thickening of the heart muscle in the *Biodesign Innovation* course. She's engaging classmates with her nonprofit through the school's Board Fellows program. And, she plans to take advantage of the GSB's *Social Entrepreneurship* course and the Stanford Management Internship Fund, which underwrites summer employment with socially responsible organizations.

"I hope to further the innovation frontier in health sciences and deepen my understanding of social entrepreneurship to create global change."

Sonia Preet Kaur Samagh, BA '06, MBA Class of 2011

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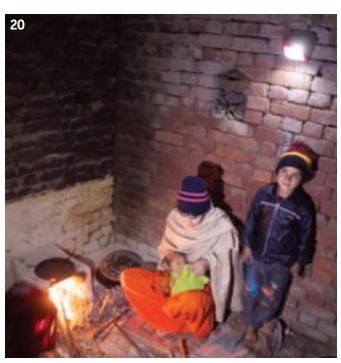




ON THE COVER

Persistence Required

Laura Esserman, MD '83, MBA '93, challenges the conventions of breast cancer treatment using skills she learned at the GSB. By DEBORAH FRANKLIN



Om Chaudhary stands next to his aunt Rama Chaudhary while she knits a sweater using a low-cost D.light product for illumination.

TOP PHOTO BY PETER STEMBER; LEFT PHOTO BY WILL EVANS; BOTTOM PHOTO BY RAULJUNIOR/EDITORA ABRIL/CONTENT XP

Bringing Light to India's Villages

D.light's lofty goal of providing safe, affordable lighting meets the practical challenges of distribution and financing. By JOCELYN WIENER

Beating the Crowd at Picking Stocks

Charles Lee's portfolio management style requires accounting for human biases to nudge prices closer to their real value. By MARIA SHAO

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Marcelo Miranda, Sloan '09, second from right, joined a Brazilian startup and soon became CEO.

ON THE COVER: Photograph by Anne Hamersky.



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- Relaxation

QUESTIONS

Isero_alicia@gsb.stanford.edu



Powerful Classroom Presence

THREE WEEKS BEFORE she would hold a Washington, D.C., news conference to announce a \$26 million radical new approach to cancer treatment research, **Dr. Laura Esserman**, MD '83, MBA '93, sat in the first row of a GSB classroom taking notes. She listened intently as MBA students still sporting pimples picked apart her leadership style. I wondered, is she a masochist?

My husband thought I was one tough cookie a few years ago when I stopped to smell roses blooming in front of a hospital on my way into breast cancer surgery. "How could you even notice there were flowers there?" he asked when I woke up from the anesthesia. I don't know, but I am sure I was less nervous about facing that knife than I would be about facing a bunch of MBA students analyzing where my leadership style was getting in the way of success in my chosen life's work.

Esserman, 53 and a veteran of breast cancer operating and exam rooms as well as MBA class-rooms, is tough. I saw her flinch just once when, during an hour-plus, our students analyzed her use of power and style of leadership. "She's sort of a bulldozer like [New York City planner]



Robert Moses, but I like her better," said one. "Her peers don't always like her," added another, who also had read the GSB case study about Esserman. "Who cares as long as she gets what she wants?" asked Professor Jeffrey Pfeffer.

When it was her turn to talk, Esserman said the pain of listening to such criticism was worth the gain: Not all criticism is accurate, but comments of these MBA students, along with those of her teenage children and previous classes of MBAs, had helped her see that sometimes her "principles" got in the way of her "values."

Her principles involve ideas of fairness that have been with her since childhood. As a breast cancer surgeon and researcher at the University of California, San Francisco, Esserman says her values involve doing something to drastically reduce the number of women "unfairly" dying of breast cancer. For several years, she has been figuring out how to take advantage of advances in genetics and informatics to make effective breast cancer treatments emerge more quickly from the academic-medical-industrial complex. But convincing others to support such an effort forces her to expend energy plotting and thinking about power relationships.

"I don't send pissed-off emails anymore," she told the students. "I still don't like power for its own sake, but I want power to make substantial change."

This is a lesson that Professor Pfeffer tries to drill into his students and readers of his soon-to-be-published book on power. His former student and now friend, Esserman is Exhibit 1 when he is trying to persuade people raised to believe in a fair world that they have to take a hard look at the real world they live in. If I understand him correctly, he would say it isn't fair that I got breast cancer or that my breast cancer was discovered so early that the radiation treatments it generated might ultimately prove to be more life threatening than the tiny tumor they treated. We don't know enough about the complex of diseases lumped under the big C.

It also isn't fair that someone who understands cancer as well as Esserman needs to work so hard at persuading others to support her approach. We both — Esserman and I — are still learning about fairness. There are those occasional setbacks when you really want to press the send button on an email you know you shouldn't.

EDITOR

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The "Touchy-Feely" Legacy

GENERATIONS OF GSB ALUMNI have been touched by our renowned Interpersonal Dynamics elective, known to all as "Touchy-Feely." Many of those same alumni believe that it was one of the most influential courses they took while at Stanford. Decades since it was first taught at the business school, however, courses like it are hardly mainstream in management education. Yet its impact on the curriculum at the GSB has only grown through the years as what we have learned about experience-based education from teaching it has become a core capability that we are able to leverage across a variety of classes.

Early on the course was controversial among educators at the GSB and elsewhere. After all, it doesn't look much like a conventional class; certainly there is no final exam. And to those appraising it from afar it has the feel of something distinctly Californian. Some kind of a self-help workshop perhaps, but not a for-credit course!

But as our graduates come to appreciate after becoming managers and leaders, the ability to work effectively with and through people is one of the most important determinants of success in any organization. Self-awareness, knowledge of the impact of one's style on others, and skill at interpersonal interactions are at least as important a part of the leader's skill set as is training in the more traditional business disciplines.

Today, in contrast to the one section of 12 students when Touchy-Feely began in 1966, we offer 8 sections of 36 students each, and experience-based leadership courses abound in our curriculum. In the first week of the fall quarter of the first year, students begin to hone their skills in a course called Managing Groups and Teams, then move on to Leadership Laboratories, a required course in which the students work in eight-person squads designed to improve their leadership skills through exercises and behavioral analysis. Key to the approach in these exercises is the role of the Arbuckle Leadership Fellows, second-year students who not only went through the course as first-years themselves, but who also have subsequently taken a course to prepare them to facilitate the experience for the class below them. This year 90 students applied

for these positions, an increase from 57 the year before. The fellows are further supported by a cadre of professional leadership coaches.

The Leadership Laboratories culminate in the Executive Challenge, a one-day series of exercises in which more than 160 senior-level alumni return to campus to play the roles of executives in brief simulations in which the students test the mastery of the skills they have developed during the quarter.

The basic elements of these courses — intense introspection, experiential skill-based learning, and the use of coaches (whether students



The ability to work effectively with and through people is one of the most important determinants of success in any organization.

or professionals) — are increasingly the foundation for other classes. One way or another this is true of courses such as Leadership Coaching and Mentoring, High-Performance Leadership, and Acting with Power. But these elements also find their way into other classes as a supporting component. For example, when we teach Entrepreneurship from the Perspective of Women, we invite two of the school's leadership coaches to facilitate a session for the women in the class to help them think through the basis of their attitudes toward entrepreneurship. Leadership coaches similarly now support Paths to Power. Indeed, there has been such a proliferation of courses that touch on personal leadership development that it has become important to coordinate our various classes and activities in this area, a role that Professor Lara Tiedens has agreed to take on for us. Touchy-Feely has definitely gone mainstream at the GSB.

TANFORD CHALLENGE

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DP PHOTO BY FRANK ROGOZIENSKI; BOTTOM PHOTO BY MEGAN MELVIN

Spreadsheet

* WHAT'S UP: NEWS ABOUT THE GSB AND ITS GRADUATES



DriveCam CEO Brandon Nixon, MBA '92, plays a video recorded by a windshield-mounted camera.

Deterring Distracted Driving

There's a new twist to the "How's My Driving?" bumper sticker, and it's called DriveCam - a small windshield-mounted digital recorder that concurrently films a driver and the road ahead. A built-in accelerometer triggers the cameras to save the 8 seconds leading to and the 4 seconds after sudden acceleration, deceleration, or lateral movement. That footage then is uploaded wirelessly to trained analysts who share the information with DriveCam's customers - mostly vehicle fleet managers and parents of teen drivers.

"I put one in my car my first week I started with the company," said **Brandon Nixon**, MBA '92, who joined DriveCam as CEO in September 2008. "Within six weeks I found that I was more aware of my surroundings and was a calmer driver." He also stopped using his cell phone when behind the wheel after watching videos of clients that showed how dangerous distracted driving is and how using DriveCam as a learning tool had improved their driving.

When Nixon started at Drive-Cam it was losing money, but he was able to help grow revenue by 40% and turn the company to cash-positive status in his first year. Customers have seen similar successes: One insurance company required all of its first-year teen drivers to use Drive-Cam and has seen its claims for that group drop 70%.

Nixon noted that many drivers are apprehensive about a "Big Brother" presence. He stressed that the camera saves footage only when triggered and that the goal isn't to watch every move but to raise awareness of the behaviors — texting, phone use, falling asleep, aggressive driving, etc. — that cause accidents and near misses.

All uploads, now totaling 15 million and growing by 4 million a year, are stored in a database. Analysts sift through the videos and offer to annual subscribers findings that will mitigate future risks. In some cases, the footage shows the cause of a near miss or accident.

Currently more than 120,000 vehicles are deployed with Drive-Cam and its monitoring service. "Most people don't realize they're bad drivers because they don't get into accidents," Nixon said. "The approximately 240,000 avoidable near misses recorded by Drive-Cam show the reality."

Student Dies After Malarial Infection

Roanak Desai, a member of the MBA Class of 2010, died in a hospital in Bangor, Maine, April 3 after becoming ill on a trip to Africa and the Middle East. His death, at age 31, was related to complications from a malaria infection.

Students, faculty, staff, and family members gathered on campus April 4 and again April 8 to honor his memory. The Class of 2010 had already lost two members, **Viet Nguyen** and **Micah Springer**, in an October 2008 automobile crash and was planning a memorial to them at the time of Desai's death.

"It is still difficult to come to grips with the fact that such a thing has happened to someone so vibrant and so clearly



Roanak Desai

on a path to have impact in the world," business school Dean Garth Saloner said in a note to the school community. "Through his positive spirit, warm humor, generosity, leadership, and intellectual curiosity, Roanak embodied much of what we all love about the GSB."

Desai, a U.S. citizen who was born in Mumbai, India, and worked in New Delhi before coming to the GSB, helped organize a 2009 study trip to India and was active in the View from the Top committee that identifies business leaders to address students on

6 STANFORD BUSINESS I SUMMER 2010 BIZONE THE STANFORD FOU

Alums Expand Baseball to Mobile Devices

In the world of sports television, the Yankees Entertainment and Sports (YES) Network, cofounded by Leo Hindery Jr., MBA '71, is in a league of its own. Shown on cable and satellite in New York, Connecticut, New Jersey, and parts of Pennsylvania and more widely on DirecTV, AT&T U-verse, and Verizon FioS - it's the most-watched regional sports network in the nation with more than 500,000 viewers on average each evening for its exclusive telecast of the New York Yankees. The network also shows New Jersey Nets games and college sports, prompting Forbes magazine to rank it ninth among all sports business brands.

Now led by **Tracy Dolgin**, MBA '83, the Manhattan-based network is playing in a new arena: digital media. Working with cable distributors and Major League Baseball, last summer YES became the first regional sports programmer to offer live broadband streaming of local pro teams' games. For an extra fee, fans who already have YES television subscriptions can watch games live on their laptops and smart phones within the YES market area.

Dolgin and vice president Michael Spirito, MBA'06, shared their experiences this winter with students in the popular MBA elective course Sports Business Financing, taught by GSB Professor George Foster and visiting lecturer Norm O'Reilly. Spirito, who once worked at AOL-Time Warner Ventures, told students the network's main concern was to avoid the fate of the struggling music and newspaper industries, which lost control of their content and/or gave it away online. "There's no question that we observed what happened there," said Spirito, the VP of business development and digital media. "The music business wasn't nimble enough to cut the right deal with regard to a digital universe. When we thought about our video assets, we made sure that we didn't

make the same mistakes."

YES president and CEO Dolgin added that the company "has strived to capitalize on the Yankees' leadership position by creating new revenue streams, developing new marketing platforms for our clients, and extending the breadth of our Yankee-branded programming. ... In these uncertain economic times, we continue to invest significantly while others divest, which further enhances our leadership position."

Dolgin and Spirito were among 20 sports industry leaders who spoke in the winter quarter class.

Rainwater Honored with Arbuckle Award

"Don't be mediocre at anything; be remarkable at something." That was the brotherly advice once given to **Richard Rainwater**, MBA '68, recipient of this year's Arbuckle Award. The honor is presented by the Stanford Business School Alumni Association and recognizes excellence in management leadership.

His brother's inspirational words helped steer Rainwater from an undergraduate background in math and physics toward what became a storied career in investing and finance. Classmates, associates, family, and friends gathered at the Stanford campus in February to recognize Rainwater's accomplishments — from his early days as the Bass family's chief financial advisor to his later investments that included oil, energy, entertainment, and real estate.

"For the balance of his career no one knew who Richard was,"

Quotable



"If you're too focused on today's headlines, then you will do nothing that will lead to a favorable judgment by history."

— Condoleezza Rice, Stanford professor and former U.S. secretary of state, speaking to GSB students about a lesson she learned in government. The February speech was part of the school's View from the Top speaker series.

"Why should the purpose of business be to make money? ... Did Bill Gates say his purpose was to make money? No, he had a vision that everyone should have a PC."



— **John Mackey**, chief executive and cofounder of Whole Foods Market, explaining his goal of running a company that serves society in addition to making profits. He spoke in March as part of the school's View from the Top speaker series.

said classmate **John Scully**, who participated in a video and panel discussion that praised Rainwater's talent for spotting economic opportunities and individuals to take advantage of them. "He has an extraordinary ability to judge people and the genius to let them go," Scully said, quoting Rainwater as saying to some potential partners: "We like you, we like the deal. now run with it."

Anecdotal stories about Rainwater's personal style abounded in both the video and panel. **Randy Chappel**, MBA '94, remembered Rainwater using vacant office space as a makeshift bowling alley, and Scully recounted tales of business lunches at Fort Worth taco stands, an unexpected location for somebody on the Forbes 400 list of richest Americans.

A video tribute by classmates can be viewed at BizOnline.Stanford.edu



Awkward Idea Morphs into Game Winner

In 1978, **Bing Gordon**, MBA'78, started his post-MBA job search with a unique resume — a mock advertisement promoting himself. Consultants didn't know what to make of Gordon, but ad agencies welcomed him to the fold. "It's easy to narrow your career path if you get rejected," Gordon joked with a group of MBA students from the school's High-Tech Club. He's now a partner for the venture capital firm Kleiner. Perkins. Caufield & Bvers.

Gordon came to the GSB with a lot of ideas. While in **Peter Keen**'s decision modeling class, students were asked, "If money were no object, what would you do?" While answers pigeonholed some for Wall Street and others for a life of leisure, Gordon's response was offbeat while also prescient: Create an adult Disneyland where people have adventures through a computer screen. "Professor Keen pulled



Jon Dawson, left, and Jim Bartlett, right, join '68 classmate Richard Rainwater, the honoree at the 2010 Arbuckle Award dinner.

Spreadsheet

me aside after class," Gordon said, "and he told me a classmate of mine had referred to something equally awkward and that I should get together with him."

That person was **Trip Hawk**ins, MBA '78, a future roommate and friend with whom Gordon eventually made a pact. Hawkins' plan was to launch an electronic gaming company within five years, while Gordon would start an ad agency whose first client would be Hawkins' venture. Gordon was lining up partners to open an agency in 1982 when Hawkins started what would become the pioneering electronic game company Electronic Arts. He asked Gordon to join the company that spawned popular computer games such as The Sims, SimCity, and John Madden Football. Gordon stayed on board until 2008, most recently as chief creative officer. In addition to his efforts at Kleiner, where he

lends his techno expertise, he also serves on the boards of directors for Amazon, Zynga, and ngmoco. Hawkins now heads another gaming company, Digital Chocolate.

From Nice to Ice to Useful Advice

First Laura Sanchez, MBA '94, was too nice, according to her manager during a training session. She heeded that advice, but then wasn't nice enough. "Finally, I started to let my smile shine through and be myself," she told attendees of the Hispanic Business Students Association Leadership Banquet in February. That's when she found her voice and began cultivating her personal style.

Sanchez, who was awarded the Jerry I. Porras Award for her significant contributions to the Latino and business communities, is now a managing director at Goldman Sachs. As the scope of her responsibilities broadened during her 16 years at the financial services powerhouse, so too did her personal development.



Mentors who don't share your traits may help most, says Laura Sanchez, MBA '94.

When she was paired with a mentor, she immediately judged him as somebody with whom she couldn't expose her vulnerabilities, especially since he was male, had a military background, and specialized in a different area than she did. "I could not have been more wrong," she said. "Over the years he invested in me — giving me honest feedback and building up my confidence."

Educational Reformer Trains Teachers in Peru

Daniella Raffo is not an educator. That didn't stop her, however, from cofounding Peru's equivalent of Teach for America.

"A sample application essay I read while applying for business school stuck with me," said Raffo, MBA class of '10. That essay described the origins of Teach for America, a program that trains American teachers to improve standards at urban and rural public schools. Before being accepted to the GSB, Raffo had been working at Procter & Gamble with the intention of exploring microentrepreneurship as a graduate student.

When she arrived here in 2008, she expressed to classmates her interest in closing the educational equity gap in her native Peru, a country where Raffo said only one-third of teachers can solve basic mathematical problems. Her classmates put her in touch with those who had worked on similar efforts in Germany and Great Britain.

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The small class size oave me a superb academic experience with some of the foremost thinkers



I earned 56 units, and gained 56 friends.

HOTO BY STEVE CASTILLO



Color Transforms Blight into Bright

Knowing renovations would have to wait until he finished business school, Eric Dayton, MBA '09, covered the doors and windows of a Minneapolis building he had bought in 2008 with brightly colored panels — first kelly green and then purple. The goal was to liven things up while letting neighbors know something was going on, Dayton said. Unexpectedly, the building inspired others. It became a backdrop for ad campaigns, fashion shoots, and wedding portraits. The juxtaposition of weathered bricks and bright coverings will come to an end this year as the building is converted to a mixed-use commercial property containing offices, retail, a restaurant, and an event space.

EnseñaPerú came out of countless hours of researching, networking, organizing, and fundraising by Raffo and cofounders Alvaro Henzler and Javier Navarro. In March, a pilot group of 26 new teachers began teaching at 10 schools in and around Lima, Peru. Their goal is to improve classroom instruction and have an impact on the overall improvement of the schools where they teach.

Two of the biggest obstacles for Raffo were the 4,500 miles between Peru and Stanford, and her full course load. Henzler and Navarro handled logistics in Peru while she raised funds on trips during academic breaks.

"When something motivates you, you don't worry about the effort involved," Raffo said.

Sinister Work with Benign Goal

How do you sneak a Boeing 757 out of the Netherlands? **Shingo Kobayashi** can tell you. He once repossessed one when he worked for a company that leased aircraft. That was before he completed the Sloan Master's Program in 2008.

Now, he hacks into corporate networks and websites for Japan's Cyber Defense Institute. "In 90% of the cases, our hackers acquired authentication or IT supervisory access," Kobayashi said. That's good for his company but bad for his clients: utilities, railroad companies, web portals, hospitals, banks, e-commerce sites, securities firms, and government offices.

His team of 15-plus "white hat" hackers, mostly Japanese, includes former web application and firewall designers who know the vulnerabilities of a system. "Black hat" hackers — those with political or disruptive intentions or who maliciously break into commerce and high-profile sites such as the military — are not employed by Kobayashi.

He and his white hatters also

perform penetration tests on peripheral equipment such as copiers, printers, televisions, and other consumer electronics.

Mountains Don't Move for This Manager

While some MBAs face metaphorical roadblocks in their careers, **Katariina Tuovinen**, MBA '03, deals with real ones. As Yosemite National Park's chief administrative officer, it's her job to see that the business side of the park runs smoothly, even if a forest fire closes part of the park or a rock-

slide chokes a main thoroughfare.

"The park has spent the last decade rebuilding some of the facilities lost during the 1997 flood," said Tuovinen, who normally oversees information technology, human resources, finance, housing, and procurement operations for a staff that swells as much as the park's Merced and Tuolumne rivers. At peak season the workforce grows from 600 to more than 1.000. Throw in the occasional downed tree that prevents workers from getting to their jobs, and you get an idea of the job's daily challenges.

She became involved with the U.S. National Park Service as a GSB student when she helped draft a cost accounting analysis for Joshua Tree National Park. That motivated her to get an additional master's degree in environmental science, policy, and management from the University of California, Berkeley. From there she joined the Park Service, first at several parks in the western mountain region and then as budget officer for the Golden Gate National Recreation Area.

The Yosemite job was supposed to be temporary, but Tuovinen wanted to stay on. "I love the challenges and complexities of this park," she said. •



Yosemite National Park's chief administrative officer, Katariina Tuovinen, MBA '03, loves the park's challenges and complexities.

BIZONLINE.STANFORD.FDU

How to Steer Your Career Around Life's Curves

Marriage, child rearing, transfers, promotions, and layoffs. Sooner or later, all Stanford business school graduates have to chart their career courses through transitions that can be tricky, particularly for women.

PAMELA WINER GOLDBERG, MBA '81, never will forget the phone call she received just days after her first child was born. It was her boss on the line from State Street Bank in Boston insisting she come into the office that afternoon for a client negotiation meeting. "I didn't go to the meeting and had no regrets," she recalls, "but that was a wakeup call for me." Instead of returning to investment banking after her maternity leave, Goldberg decided to launch an independent homebased consulting practice to help startups with strategic planning and financing. Today she's the director of the Entrepreneurial Leadership Program at Tufts University.

Divorce, serious illness, and aging parents. Sooner or later, all alums have to deal with the stuff of life, a process that can be tricky, particularly for women. What are the options for scaling back if a person needs to deal with family issues? What's the best strategy for finding work in a completely new location or industry? About a third of female MBAs and 16% of the males say they've stopped out of the paid workforce for at least one year in their post-Stanford careers.



"I didn't go to the meeting and had no regrets. But that was a wake-up call for me."

 Pamela Winer Goldberg, MBA '81, whose boss wanted her to attend a meeting days after she gave birth

Can a high-level executive who steps off the fast track ever get back on? And if so, what's the smartest way to do that?

Traditionally alumni have been able to go to the MBA Career Management Center for short-term counseling on these matters, as well as referrals to strategic career coaches. Starting this summer there's another resource they can tap: http://alumni.gsb.stanford.edu/ women/transitions, a website where business school graduates share their tales of transition, along with advice for staying the course.

Some of the contributors to this Transitions Project website recommend hiring a professional career coach. Others say they have found success through independent consulting, project-based work, or job-sharing. Nearly all cite the value of continuous networking: on the job, on the playground, and even in church. Above all, they stress the importance of being proactive - thinking ahead about potential career bombshells rather than responding after they've hit.

Michelle Clayman, MBA '79, describes the challenges she faced while growing her own New York-based asset management firm. "I'd like Stanford women to realize that they're not isolated; that stuff happens in life," says Clayman, managing partner, chief investment officer, and founder of New Amsterdam Partners. "As MBAs

"You think, 'I have to have my career path mapped out. ...' But A, it's not necessarily like that; and B, you can be resourceful in how you manage through those twists and turns." — Michelle Clayman, MBA '79



we're all terribly driven. You think, 'I have to have my career path mapped out with a nice graph with a line that goes straight up.' But A, it's not necessarily like that; and B, you can be resourceful in how you manage through those twists and turns."

The roots of the Transitions Project go back to 2004, when Clayman attended her 25th Stanford business school class reunion and was startled by the number of talented female classmates who had dropped out of the workforce. She teamed up with GSB Advisory Council member Mayree Clark, MBA '81, a partner at AEA Holdings, and Erica Richter, MBA'79, of the GSB Alumni Relations staff. The result was the Women's Initiative Network (WIN), a broad-based volunteer effort to support GSB women from the time they apply to graduation and beyond.

Laura Childs Saverin, MBA '81, is the chair of WIN's Alumni Outreach-Transitions committee. She and other project volunteers began collecting stories for the website last year. "Basically," she says, "we were interested in the fact that women do go through transitions. But smart as they are, they're not as strategic about planning for transitions as they are for other aspects of their careers." Her fellow committee member Roberta Baxter, MBA '96, agrees. "Our goal," she says, "is to help more women live out the professional lives they want and not feel that they really don't have any attractive options other than leaving the workforce entirely."

While many alumnae said they were happy to share their stories on the website, some asked that their names not be used. Among those who did agree to go on the record was Karen Harris, who graduated first in her Stanford MBA class of 1990. She started out in investment banking at Merrill Lynch, never thinking that she would stop out of the workforce. But when she was 35 and her first child was 20 months old, she had a change of heart. "I was so in love with

"Our goal is to help more women live out the professional lives they want and not feel that they really don't have any attractive options other than leaving the workforce entirely." — Roberta Baxter, MBA '96





David and Sharon Gross, both MBA '97, worked out a jobsharing agreement when their son, Stephen, was born. They "chose jobs that we were extremely well qualified for, so that they were happy to have us."

my daughter that I would literally run home from the subway," she recalls. "I just couldn't get there fast enough."

Harris wound up spending a year and a half at home with her preschooler. Then she tapped her network of former colleagues and found another position with more regular hours at UBS, where she built up its I-banking and industrial group. Today her daughter is in the sixth grade, and Harris is the global COO of the Equity Capital Markets Group at UBS. "Sometimes I have to come in at 5 or 6 in the morning to get it all done," she says, "but at least now I can leave at 5:30 p.m. and get home and help my daughter with her homework."

In hindsight, some GSB grads wish they had thought more clearly about their career options before going to business school. Others are convinced they chose the right path, just the wrong employer. Marketing expert Lisa McDoe (not her real name) graduated in the early 1980s and worked at a couple of high-tech companies. But after two product launches in six months and nights of sleeping in her office, the mother of two was ready to call it quits. Salvation came when a client suggested she take on a project as an independent consultant.

"There are two major challenges to being a consultant: structuring one's time and the highly variable income, com-See ADVICE, page 12

A Career Coach Can Help Keep Your Professional Life in Shape

WHEN IT COMES TO CAREER TRANSITIONS, women and men both can use some help. Just ask **Paul Work**, JD'89, MBA'95. After making some money in the dot-com bubble, he moved on to a position in corporate strategy/business development at McKesson in

San Francisco. Then his wife was offered a prestigious position as a deputy general counsel in Southern California, and the couple decided to move. "I never thought I'd be the trailing spouse," he says, "but it was the right thing to do."

Work didn't know anybody in Orange County. So he picked up the phone and contacted **Jennifer Winn**, MBA '90, a professional career coach based in Alamo, Calif., who had helped him make the jump to McKesson in 2005. "She gave me some incredibly helpful pieces of advice about



Paul Work

how to meet people and build a network rapidly," Work says. Today he's the chief operating officer of a Southern California-based social networking startup called Xenii, and an angel investor as well.

Unlike executive coaches, who are hired to groom talent within See COACH, page 12

"The biggest mistake people make is to network only when they actively need to change jobs or are out of work."

- Recent graduate who does MBA admissions consulting

ADVICE: continued from page 11

pounded by cash flow lags. Underlying both is the constant need to network and sell one's services," she says now, 15 years later. On the other hand, the independent road has given her priceless rewards: the ability to provide high-value work to her clients, repair her marriage, get the kids through school, restart her spiritual life, get regular exercise, become closer to her extended family, and make significant contributions at her church. As she told her Transitions Project interviewer: "While I was employed, I was a slave to my employer. As a consultant I have opportunities to put myself first."

Other website entries touch on everything from the importance of mentoring to self-marketing. Among the recurring themes:

SEEK OUT COMPANIES THAT VALUE WORK-LIFE BALANCE. When **Sharon** and **David Gross** graduated from the GSB in 1997, the husband-andwife marketing experts knew that work-life balance would be a priority. So they went to Hewlett-Packard, known for its flexible work options. When their son, Stephen, was born, they worked out a jobsharing agreement with the company and "consciously chose jobs that we were extremely well qualified for, so that they were happy to have us." Today they're the directors of e-commerce at Shutterfly, and job sharing there, too. "The arrangement has allowed me to coach our son's basketball team and volunteer in the classroom," says David. Adds Sharon: "We plan on doing this until we retire."

COMMUNICATE WITH YOUR PARTNER. "Have honest conversations with your spouse or partner about the roles in your marriage and the circumstances in which one person's career may take precedence over the other's," advises another recent alumna who married a GSB classmate. "Who's going to move? Who's going to spend more time at work or more time at home, and for how long?"

NETWORK, NETWORK. "The biggest mistake people make is to network only when they actively need to change jobs or are out of work," says a recent graduate who now does MBA admissions consulting. "That's like looking for a parachute when you've jumped out of the plane. Networking gets pushed to the bottom of the list in terms of things to do, but even just keeping in touch with past colleagues or joining a professional group can pay off."

Above all, Stanford alums should remember that good career management is a sign of good leadership. As **Mercy Eyadiel**, the director of alumni and Sloan career services at the school's Career Management Center, puts it: "When you're able to navigate through transitions, plan around them, make tough choices for your life, and be comfortable with them, this is what good leadership is about." •

Alumnae share career transition advice at http://alumni.gsb.stanford.edu/women/transitions



COACH: continued from page 11

organizations, career coaches work with individuals to help them refine their career goals and strategies. Typically they charge by the program, month, or hour (\$150 to \$250 on average, with some significantly higher) and meet periodi-



Jennifer Winn

cally with their clients over weeks, months, or even years. Some of the folks who come to them have been laid off. Others are attempting to reenter the job market after years of home-based work. Some are unhappy in their current jobs and want to move to a new company or industry. Others love their companies and want advice on getting ahead. Still others aren't sure what they want to do and need advice from an objective individual.

Mercy Eyadiel, director of alumni and Sloan career services at the GSB's Career Management Center, says she's happy to refer alumni to a list of highly qualified career coaches, including several who have MBAs from top institutions and professional coaching credentials. [See http://alumni.gsb.stanford.edu/career/advising.] Among them is Michael Melcher, JD/MBA'94.

"Now that there's this gigantic recession, all of a sudden the work that I do has become incredibly validated," says Melcher, who works in the New York office of Next Step Partners. "The old way of looking at careers — picking out a path and doing that same thing for 20, 30, or 40 years doesn't work anymore. ... People want expertise. They want a partner to help them navigate the process."

Melcher usually starts out meeting his clients once a week and assigning homework between sessions to help them clarify what they really like to do and what they bring



Michael Melcher

to the table. He also spends time helping them improve their networking skills. "Eighty percent of my work," he says, "is communications based: How do you talk to somebody you haven't talked to in eight years? How do you talk to the parent of your kid's soccer buddy who happens to work in an industry that you think would be interesting? Saying things exactly right is very much an art."

Winn, the coach who helped Work find his footing in Orange County, says it's common for clients to call her back months and even years after their first sessions, depending on what's going on in their lives. "Sometimes they get into a company, and then six or seven months later they might have a conflict with their boss; so we talk through that," she says. "That's probably the biggest difference between me and a traditional job placement counselor. Career coaches take a more holistic approach."

Wrinkle-Fighting Toxin Raises Terror Concerns

THE THREAT SEEMS ALMOST LAUGHABLE: who would think that Botox, the popular wrinkle-erasing drug, is a potential weapon of mass destruction? But it is.

Botox is a highly diluted solution of Clostridium botulinum toxin, with similar products manufactured by just eight legitimate pharmaceutical companies around the world. Given high prices and demand, it's not surprising that counterfeit Botox is showing up on the world's black market. Ordinarily that would be an issue for agencies such as the U.S. Food and Drug Administration and the FBI. But spurred, in part, by the research of Ken Coleman, MBA'89, the U.S. intelligence community worries that a terrorist group could buy botulinum toxin from an unscrupulous pirate lab and turn the drug into a terrifying weapon.

Although prescription Botox is safe, a speck of botulinum toxin the size of a grain of dust could kill a 150-pound adult. Furthermore, highly diluted toxin is sold on the internet and used in much of the world without prescription, creating a huge market for unlicensed labs to tap.

"This is an astounding development because for the first time it appears as though a Category A threat agent is easier to acquire than a gun, thus raising security issues never before encountered by the international security community," Coleman and coauthor Raymond A. Zilinskas wrote in a research paper that gained widespread attention early this year.

Sponsored by the James Martin Center for Nonproliferation Studies in Monterey, Calif., where Coleman is a senior fellow, the project was well matched to Coleman's training and professional interests in biology, toxicity, and business.

His interest in the toxic corners of microbiology dates back to his training in microbiology and molecular genetics at Trinity College Dublin, where he studied with Sir John Arbuthnott, an expert in infectious diseases. As a postdoctoral fellow and lecturer in 1984 at Harvard Medical School, Coleman was part of a committee to prevent bioterrorism, and though not a medical doctor, he led a project that involved cloning diphtheria toxin to make "magic bullets" to kill cancer cells. "It was very controversial. The paranoid among us worried that it would lead to a new biological warfare agent," he said. It didn't, and the so-called magic bullet is being used to treat cancer patients today.

In 1987, Coleman, who is now 53, returned to student life, earning an MBA from Stanford.

Years later, he watched then Secretary of State Colin Powell at the United Nations make a case for war, claiming that Iraq had con-

structed a fleet of mobile biological weapons stations. "I knew immediately that they were not what they were claiming, and I realized this was an area for me to make a public service contribution."

That chance came last year, when the nonproliferation center presented him with a list of research topics — including the Botox threat. "I could not have done the analysis [of the Botox issue] without the tools of the business school, such as market analysis and supplyand demand-side attributes," he said.



Ken Coleman



An alum's investigation of a growing market for a beauty product reveals security risks.

He quickly realized that the size of the market, the relative simplicity of producing the toxin, and the ease of distribution via the internet made Botox an attractive target for counterfeiters and terrorists alike. It was also apparent to him that "no one in the government was taking the lead on this. It seemed to fall between the cracks of criminality and terrorism."

By early this year, the work of Coleman and Zilinskas was noticed by reporters at the Washington Post, who tried to trace the flow of counterfeit Botox to labs in China. They didn't find one — though Coleman is convinced that there are indeed pirate labs in China and elsewhere — but the article was picked up by news outlets around

Coleman's work raises an interesting question: Does publicizing this threat popularize the idea with terrorists? He thinks not. "We have a view of terrorists being unsophisticated," he replied. "They are sophisticated and opportunistic. It is my hope that some debate on this issue will serve to raise awareness and lessen the threat."

The U.S. government has taken notice, and Coleman has had discussions with a number of agencies. He can't divulge details, but the formation of an inter-agency group to monitor the threat is likely. Researchers will conduct forensic analysis of counterfeit Botox with the goal of being able to trace any sample of botulinum toxin used in an attack back to the makers. This, Coleman said, "will act as a significant deterrent to any biological attack."

He sees the threat as serious but nothing to lose sleep over. Terrorists would need to find a rogue lab and strike a deal; it's unlikely that they could simply purchase undiluted toxin on the internet. While unsettling, the work on the threat meets one of Coleman's personal goals: "finding a way to use my brainpower and experience to make a public contribution; I call it scientific philanthropy." •

Sloan Fellow Starts Small to Build Something Big



WITH THE WORLD ECONOMY in a tailspin in late 2008, Marcelo Miranda thought about dropping out of the Stanford Sloan Master's Program to get a job. Instead, the 32-year-old engineer and father feverishly arranged interviews with multinationals in his native Brazil during the winter holiday and spring break. His hard work paid off with 17 interviews in a week and 13 job offers. In the end, he surprised himself by turning them all down for a vice presidency offered during a 5-hour meeting with an entrepreneurial bricklayer and his accountant wife. They were building innovative prefabricated houses in a remote area of Brazil and had reached the limits of their management expertise. His Stanford education, he discovered, had made it possible

Brazilian entrepreneur Sidnei Borges, left, and CEO Marcelo Miranda, Sloan '09, who made an unusual career move by forgoing a more traditional career path with a multinational to help Borges' startup expand.

for him to consider their offbeat offer.

By Christmas 2009, Miranda wrote back to friends at the Graduate School of Business that he was not only on the cover of Brazil's leading business/career magazine, he also had been promoted to CEO of the company, which had grown to 2,000 employees and was planning to double in size this year and move its headquarters to Brasilia. "We want to be among the five largest construction companies in Brazil in five years," he told the magazine.

Miranda's decision to forgo a large, established multinational for a medium-size Brazilian-based company in a remote location challenged the established wisdom of Brazil's young professional classes, the magazine Você S/A said. Last year, for instance, the international brewing company AmBev had 60,000 candidates for its management trainee program. Você S/A [translation: You Co.] attributed Miranda's courage in part to his exposure to ideas at the Stanford Graduate School of Business. "Closely connected to Silicon Valley companies and with a strong entrepreneurial curriculum, the school is home to brilliant, innovative professionals," the magazine wrote. Miranda says he was especially influenced by a Strategic Management class in which he "learned to be humble but bold at the same time." Alumnus Steve Ballmer also impressed him with a class talk about how he worked on the operational end of the nascent Microsoft to implement Bill Gates' creative ideas.

For their part, the founders of the Brazilian construction company BS Construtora were

past their comfort level, too. "I was worried that, because of all his qualifications, he would have demands and would be a cold person," said Sidnei Borges, the entrepreneur who had dropped out of school in the fourth grade to learn bricklaying and by 2001 was designing and building prefabricated sheds. By 2007, he was contracting to build 1,500 prefabricated houses a year, and by 2008, he had quadrupled his 2007 revenue.

In 2008, Borges' company was honored with the Entrepreneur's Award of Endeavor, a global nonprofit organization that indentifies and supports high-impact entrepreneurs in emerging markets to encourage long-term sustainable growth. The organization quickly BS Construtora's method of building homes by assembling modules is faster than its competitors'.

advised Borges to seek professional executive help if he wanted to continue the company's rapid growth. Meanwhile, GSB Professor Garth Saloner (now the school's dean) invited an Endeavor founder to speak in one of Miranda's classes, which encouraged Miranda to give the Endeavor-chosen company a chance to interview him. Nevertheless, with so many good offers he nearly canceled the meeting. But, after hearing the Borgeses tell their story, the challenge of structuring an innovative business practically from scratch was hard to resist. "Everybody said I was crazy," he adds, except his younger brother, who endorsed his judgment. Next Miranda had to negotiate a grueling schedule to complete his master's degree work at Stanford three weeks early because of the company's pressing needs.

"He is a focused and very hard-working person, which is also why he got so many offers in a down economy," says Sloan Program associate director **Sandy Cover**. "He followed up on every lead and kept his network growing."

Catching up with Miranda for a magazine interview is not easy these days. He is busy opening two branches simultaneously, designing a new model for an automated factory, implementing "balanced



scorecard" metrics and new business processes, moving the company headquarters, and planning for international expansion.

"The job is a great challenge of general management, and the Sloan Program was for sure very important to give me this base," he wrote to Cover recently. "Remembering the days that I almost quit the program because of the financial challenge of being there during the global financial crisis, it's really compensating when you take your own risks and overcome the challenges." •

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Disruptive Force

Surgeon Laura Esserman raised questions last fall about the effectiveness of mammograms for women under 50. Now she is coordinating a national research effort to match the right drug to the right cancer patients more quickly. Only collaboration makes this kind of medicine possible, says the 1993 MBA.

by Deborah Franklin

HE WAITING ROOM of the San Francisco breast cancer clinic designed by **Laura Esserman**, MD '83, MBA '93, looks more like a spa than a medical office. Comfy chairs, natural light, warm woods, and muted colors set a soothing tone. During a busy February afternoon, patients helped themselves to herbal tea while they waited to see doctors; soft bossa nova played in the background.

Only the large ceramic tiles that cover one wall — botanical prints individually inscribed with encouraging words from one cadre of cancer patients to the next — speak to the deadly seriousness of the battle at hand. As one tile reads:

"The chairs are soft, there's cool water and hot tea, but there is nothing comfortable about waiting for your first appointment with an oncologist. Take a deep breath. Summon your tigers. And walk through the door."

On the other side of the door, Esserman, a 53-year-old breast surgeon and chief of the clinic, prowls the halls in a long brown skirt, loose sweater, and low-heeled boots. She checks the chart of a new patient who has invasive cancer, consults with another doctor, then stops to advise a young intern who is racing to finish a grant application.

"When are you headed to the airport?" Esserman asks the intern. "Now your day is like mine. Lunch at 5 p.m. Perfect!" She laughs and turns to an assistant to ask about another colleague. "Does he know the grant's been delayed?" she asks. "Please call and let him know; he's probably working like a madman."

Esserman steps into "the hub," a small conference room in the clinic equipped with half a dozen computer terminals, and sits down to log on to the medical records of the patient she has just seen. Within a few months, the plan is to have every aspect of the patient's medical history and care — chemo treatments, scans, and multiple reports from radiology, pathology, oncology, nutritional interventions, and certain genetic tests — immediately accessible online to those on her medical team who need to know.

"Hospitals are known for their turf wars," Esserman says. "Taking one piece of the problem — the disease, the patient — and trying to control that piece. It doesn't work so well for the patient who gets shuffled off from one specialist to the next — and it doesn't save money."

So, instead of asking patients to schlep records across town for needed scans and lab work, Esserman made sure specialists such as radiologists and geneticists were based next to exam rooms. The design of the Carol Franc Buck Breast Care Center at the University of California, San Francisco, makes quick hallway consultations between doctors from different disciplines easier and more frequent, and that alone improves the coordination of patient care, Esserman says.

Teamwork is the future of medicine and medical research, she believes, though "being a team player is really something I didn't learn how to do until business school. Science and medical training in the United States is all about rewarding individual behavior. It's not about rewarding team players."

Esserman's vision of how collaboration can improve cancer care is about to get its biggest test. She's one of the prime movers behind two huge multicenter studies being launched this year. One, set to begin this summer, will "unite the breast cancer programs of all five University of California campuses," she says, "enabling doctors and researchers to share their data, analyses, and treatment plans. We'll be able to track the long-term outcomes of patients all across the state."

The second study, just beginning, unites nearly 20 major cancer research centers across the United States and aims to characterize different types of breast cancer using telltale molecular markers, then quickly screen the most promising new drugs against them. The ultimate goal is to give each patient a drug that is more individually tailored to her specific tumor — the better to wipe it out and prevent recurrences. The study design makes it easy to drop a drug that's ineffective and give more women quick access to new experimental drugs that seem to work.

Both projects rely heavily on the field of "bioinformatics," a research approach that pools and analyzes layer upon layer of data about individual patients and their breast tumors in a hunt for meaningful patterns as to why some cancers aggressively spread and others

Laura Esserman, MD '83, MBA '93, says teamwork —
"something I didn't learn how to do until business school"
— is the future of medicine and medical research.



"The person in charge needs to inspire them and get them to believe in her vision. That's leadership. And that's what Laura brings."

don't, and why some patients respond better to certain treatments than others.

"These are very complex projects with a lot of moving parts," says Anna Barker, deputy director of the National Cancer Institute, who worked closely with Esserman in setting up the national study. "It's not unlike running a big company."

Esserman "is a force of nature," Barker says, with exactly the set of scientific and business skills needed to keep the landmark collaboration among scientists, government, business, and philanthropic foundations on track.

"There's a tsunami of data coming in, and it takes a team of people to analyze and manage all that information," Barker says. "The person in charge also needs social skills — the ability to bring disparate groups together, to inspire them and get them to believe in her vision. That's leadership. And that's what Laura brings, too. She's a visionary and is able to translate that vision to other people."

EFORE SHE STARTED SHAPING the future of medicine, Laura Esserman studied the past. As an undergrad studying history of science at Harvard College in the 1970s, Esserman was fascinated by the context of scientific discovery — the way some of science's boldest ideas are initially discarded, sometimes for centuries, until culture catches up. Copernicus needed Galileo to test and popularize his theories about the true nature of Earth's orbit. Ignaz Semmelweis needed Louis Pasteur and Joseph Lister to confirm that microbes, not bad air, are behind infectious disease and festering wounds.

The lesson Esserman took away then, and has faced time and again: "Being passionate and sure of yourself and wanting to get things right

is a great thing, but at the end of the day, honestly, that's not enough to get the job done." You also have to get skeptics onboard.

She chose Stanford for medical school, she says, because it's on a university campus, where she could continue to take interdisciplinary courses. She thinks her strength is not as a specialist but as a "change agent" and "integrator," always looking for fresh ideas that can improve the practice of medicine. Though she sometimes ruffles feathers, Esserman says she's not a diva. "When other people have good ideas I'm just as excited to try to make them happen too."

Esserman worked her way through med school as a research assistant for mathematician and surgeon **David Eddy**, who was then at Stanford. In his lab she learned of "evidence-based medicine" and saw how mathematical models of disease biology could improve cancer screening. A postgraduate fellowship in medical oncology/immunology with Stanford's **Ronald Levy**, a champion of personalized medicine, spurred her to look outside the box for solutions to some of biol-

ogy's biggest problems, she says. Levy and his team were exploring new ways to harness the immune system to squelch lymphoma without the toxicity of chemotherapy.

Esserman stayed on at Stanford for her surgical residency and was chief resident in 1991 when, during grand rounds one day, she talked about the future of medicine — and her own future — with Stanford health care economist and managed care pioneer **Alain Enthoven**, another mentor who recruited her to enroll at the business school.

"Laura came to me and said she loved research, loved academic medicine and didn't want to leave surgery," remembers Enthoven, the Marriner S. Eccles Professor of Public and Private Management, Emeritus. "But she wanted to learn how to make decisions — good decisions — in big organizations." Business school could teach her that, he told her. And once she learned to read a balance sheet, he said, it would be harder for guys holding the purse strings to dismiss her ambitious projects out of hand.

Still, the young surgeon took some convincing.

"Hardly anybody was for it," she says. "Even my mother said, 'Don't you ever want to get out of school?" Esserman and her husband, political consultant Michael Endicott, were expecting the first of their two children, and Esserman had just finished eight years of surgical training. It was the early 1990s; at the time, surgery had few women leaders.

"A lot of people were just waiting for you to make a misstep," she remembers.

One advisor warned her that if she went to biz school, she'd never get a job in surgery again. "It was very hard to hear that," she says. "But it's also just the sort of thing that pisses me off."

So that fall Esserman signed up for a full load of business school classes while continuing to take surgical calls at the hospital. "You

Laura Esserman, center, operates on a breast cancer patient at UCSF Medical Center at Mount Zion. Although she has reduced her medical case load as her management workload has increased, Esserman says, seeing patients adds urgency to her other tasks.



DTO BY JUNE-HO KIM





Laura Esserman speaks at a March news conference launching a novel clinical trial for breast cancer patients. With her at the National Press Club is Dr. Janet Woodcock, director of the FDA Center for Drug Evaluation and Research.

can still practice surgery," Enthoven told her. "This will be like workstudy." It was never that easy.

"She was 20 or 30 minutes late to my class every day," says Professor **Jeffrey Pfeffer**, who teaches *Paths to Power*, one of Esserman's favorite classes. "When she finally got there on time — it was the last day of class — the rest of the students gave her a standing ovation. The thing is, she was perpetually late because she was coming from the hospital, seeing patients, and I think that gave her an interesting perspective, some insight, that other students didn't have."

Esserman says that although she's had to cut back on her own medical practice through the years as her management workload has increased, seeing patients still undergirds and gives life to her other tasks.

"That connection is really important," she says. "It's about urgency. When you are in a room with administrators, they don't have that urgency. It's really easy to forget if you don't see patients."

ODAY PFEFFER COUNTS ESSERMAN a close friend and invites her back regularly to offer some of those insights to his current students. She even consented to be one of his case studies — to have her management decisions sliced, diced, and analyzed by the class. They can be tough on her — accusing Esserman of taking on too much, of not delegating enough, of not staying on message. Esserman winces a little at the critique, but listens, takes mental notes, and says she finds the criticism useful. Pfeffer says resilience in the face of criticism is one of her strengths.

"Many people, when they are told no, feel rejected, like it's an attack to their ego," he says. "They give up. The world is full of people who give up. But Laura's great gifts are her persistence, resilience, and ability to work on multiple fronts. Early on, when she was having trouble getting something done within the structure of her department at the local level, she built national alliances and continued to be very effective. If you're blocked in one direction, go another."

Esserman tells Pfeffer's students that she learned that persistence from a scientist — Judah Folkman, a Harvard surgeon and medical innovator who died in 2008. Starting in the late 1960s, Folkman theo-

rized that tumors need to recruit their own blood supply. Finding a drug to shrivel that blood vessel network and block a new one from forming, he reasoned, might be a way to stop some cancers cold. Folkman's revolutionary theory was ignored, even ridiculed, for many years. But he persisted, eventually founding a field — anti-angiogenesis — that already has led to promising, revolutionary new drugs and today engages an estimated 1,000 or more laboratories worldwide.

"Judah Folkman said that when postdocs would come in complaining to him about getting two grant rejections," Esserman says, "or feeling depressed because they weren't where they thought they should be in their career or their research, he'd tell them, 'Well, come back when you've got 10 grant rejections.'

"Particularly if you are trying to change something that is very fundamental, you must be persistent," Esserman says. "You have to be determined and persistent and clever."

Many women and some doctors took umbrage last fall when her work and that of others suggested that the standard guidelines for who should be screened with mammo-



Laura Esserman talks to Professor Jeffrey Pfeffer while visiting his classroom for an exercise in which MBA students critiqued her leadership style. Pfeffer, who taught Esserman when she was a student, says resilience in the face of criticism is one of her strengths.

grams and how often needed updating. Esserman wasn't surprised.

For the record, she is not against annual mammogram screenings. She thinks that mammograms are a valuable tool and that most women between ages 50 and 70 should get them regularly. But women in other age groups could follow a more nuanced schedule, she suggests, shaped by the combination of other risk factors they have.

For example, the common practice of prescribing screening mammograms for all women in their 40s (beyond simply those with a strong family history of breast cancer, or a genetic mutation such as BRCA-1 or BRCA-2, or other factor that puts them at high risk) has led

Continued on page 32

D.light's Lofty Goals Meet Practical Challenges in India

A company born in a Stanford classroom discovers distribution and finance





VERY NIGHT AT 6 P.M., the electricity in Bhojaka, India, shuts off.

Until recently, the residents of this quiet, rural hamlet—several hours' drive from bustling Delhi—had no recourse after dark. Electricity was supplied to meet the needs of the owners of rice, wheat, and sugarcane fields around town. When the farming stopped at sundown, the lights went off.

Families that had the money paid a few dollars a month for candles or kerosene. But lantern light was too dim to be very useful for working or studying. The kerosene gave people racking coughs and made their eyes burn.

In 2008, a villager named Amit Chaudhary, a salesman by trade, heard about a new solar-powered LED light being marketed by a company called D.light Design. The young company, founded by a handful of Stanford business and engineering graduates, was selling inexpensive lanterns that could last a rural family for years.

Chaudhary purchased a light for about \$30 and soon noticed that his family's eyes no longer burned and their chests no longer hurt. Even better, they could see at night. His sister, Rama, was able to stay up late knitting sweaters. His father, Gajinder, could read without straining his eyesight. His aunt, Suman, stopped charring the flat chapati bread she baked over the wood stove.

Chaudhary liked the new lamp. He decided to help D.light sell them.

D.light's CEO, Stanford Graduate School of Business grad Sam

Goldman, MBA '07, estimates that nearly a million people in 30 countries are currently using the company's lights. He and his cofounders are aiming much higher: In the next decade or two, they want to completely eliminate the kerosene lantern.

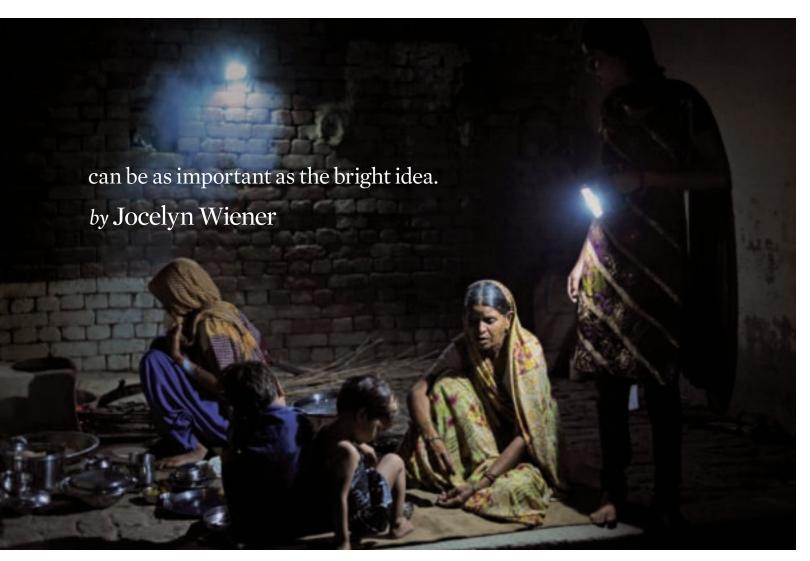
They know the goal is lofty. Goldman rattles off a long list of challenges the young company faces: Convincing hesitant customers with little extra income to invest in unfamiliar technology. Creating a strategy to spread the word that the product exists. Developing a supply chain to get it out to remote villages. Convincing skilled local workers to leave stable jobs to join a startup. Setting up offices in foreign countries. Not knowing the local languages.

In short, Goldman says with a laugh: "Everything."

Not to mention that, at some point, they'll need to turn a profit.

They realize, too, that they're taking on an enormous adversary. According to United Nations data, a billion and a half people in the developing world — especially Asia and Africa — still depend exclusively on kerosene or candles to light their homes once the sun sets. That light tends to be poor quality and expensive.

Kerosene fumes also can be extremely unhealthy, even fatal. And devastating fires are all too common. This past January, the *Hindustan Times* reported that five young siblings in West Bengal had burned to death in a fire probably caused by a spilled kerosene lamp. In February, the same paper reported the deaths of about a dozen chil-







Members of the Chaudhary family in Bhojaka, India, use D.light products to help them cook, read, and work after the village loses electricity every night. Above, the lower-price Kiran lamp — \$10 to \$15 — was developed because the Nova — about \$25 — was too expensive for many villagers.

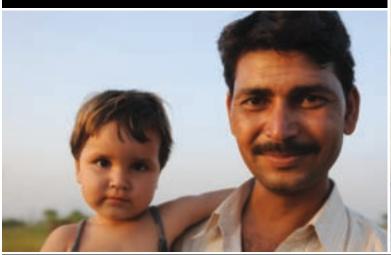
dren in a school hostel in Arunachal Pradesh. They had been studying by candlelight.

"In a bigger picture, it's not that we're delivering light to the customers, it's that we're delivering health, safety, education," Goldman said. "They actually don't need light, they need those other things. They need freedom from burns, they need the ability to study at night so that their families can progress, they need safety from intruders — whatever it is that light's bringing them."

D.light is by no means the only company using solar technology to

light rural villages in India and Africa. But the company has become something of a darling in the social enterprise world; it has received mention in *Time*, *BusinessWeek*, and the *New York Times*, among others.

In its first year, 2008, D.light reached about 100,000 people in 8 countries; by 2009, that number had quintupled — that year, it reached an additional 500,000 people in 28 countries. Some are not sold directly to end users. For example, the company provided 35,000 lights at its cost, taking no profit, to relief agencies who were giving





To encourage his neighbors to purchase, salesman Chaudhary arranged informal financing and even loaned out his own lamps.

them to earthquake victims and using them for other relief efforts such as lighting hospitals in Haiti. By the end of 2010, D.light's goal is to reach between 2 million and 5 million more people.

ESPITE THAT INITIAL SUCCESS, D.light's founders are quick to acknowledge that selling a new product to the Earth's poorest customers is no simple task. One central factor most often impedes the success of social enterprises in the developing world, says Stuart Hart, an expert on sustainable development and business at Cornell University: rich, highly educated Westerners assuming they know more about the needs of the rural poor than the poor themselves.

While it may be abundantly clear to outsiders that kerosene is toxic and dangerous, poor people in the developing world have depended on it for years. They've shaped their lives around it.

"It's changing people's way of living — their lifestyle — and then asking them to pay money to do that," he said. "That isn't always the easiest thing to do."

Rather than viewing poor villagers simply as customers, Hart says, successful companies must consult with them and view them as co-creators.

D.light has worked hard to do that, which is partially why funders think the little startup might eventually turn into something big. Although the company is not yet profitable, Goldman says it is on track to change that within the next two years.

Raj Kundra, director of the energy portfolio at the Acumen Fund, which has invested \$1 million in D.light, sees a lot of startups trying to take shortcuts by buying a bunch of solar lights for cheap in China, then bringing them to Africa to unload. Without designing the product and distribution channels around the needs of their customers, Kundra says, such endeavors quickly fail.

"In our mind, what differentiates D.light is they are building a social enterprise that looks and feels and functions in the way that the most sophisticated consumer products company would," he said. "They're not taking any shortcuts."

The company has gone back to the drawing board again and again, trying to find the perfect lantern for the residents of the village of



Bhojaka — and for thousands of similar villages the world over. Early on, D.light focused on creating lanterns with rechargeable batteries; after learning that many villagers didn't have an easy way to charge those batteries, they switched to solar.

After customers expressed a need to charge their cell phones, the company introduced the Nova S200, which includes an outlet for phone charging. And when it was clear that the price of the Nova (upward of \$25) was too high for the very poor, last fall the company introduced the Kiran, which retails for \$10 to \$15.

But creating the perfect lantern is only worthwhile if people — millions upon millions of people — know about it, want it, can pay for it, and have a way of getting it delivered to them. D.light has made inroads on all of these challenges; it hasn't completely solved any of them.

For help, the company depends on people such as Chaudhary, who until recently worked for D.light as a "rural entrepreneur." As the last link in the company's long supply chain, his job was to convince his neighbors in Bhojaka and dozens of surrounding villages that









Clockwise from left: Amit Chaudhary, a former D.light salesman, with his daughter Radha in Bhojaka, India. A villager washes next to a hand water pump at his home in Bhojaka. Teacher Risal Singh bought three lights for his home and three more for his extended family after borrowing an LED light from Chaudhary. Chaudhary's aunt, Suman Devi, prepares dinner over a wood stove with an LED light above. Bicyclists ride past the Chaudhary home in Bhojaka. D.light's CEO, Sam Goldman, left, and president, Ned Tozun, both MBA '07.

hary's lantern, Risal Singh, 57, was sold. Singh, a teacher, has since purchased three lights for his home and three more for his extended family.

"With the old kerosene lamps our eyes would water," he said. "Now there's no such problem, and we can work at night easily."

Chaudhary's neighbor, Pradeep Bhola, 22, said he couldn't afford to buy a lamp outright, so Chaudhary – on his own initiative – let

him pay in installments. Bhola, a tailor, is now able to sew for an extra three to four hours every evening. His daily income has increased by \$1 to \$2, he says, in addition to the money he saves from not buying kerosene.

But not all of Chaudhary's innovations can easily be brought to scale.

Dorcas Cheng-Tozun, Stanford AB '01, D.light's communication director and wife of **Ned Tozun**, MBA '07, the company's president, says D.light considers financing options important and is hoping to partner with microfinance institutions that might provide them.

"It needs to happen," she said. D.light just hasn't figured out a way to do it yet.

Brian Cayce of Gray Ghost Ventures, which has invested about \$1 million in D.light through its private foundation, Gray Matters Capital, said the foundation has encouraged D.light's interest in partnering with microfinance institutions, especially in the small, poor villages that most companies don't typically reach. But educating

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D.light's product was a worthwhile investment.

Chaudhary, 33, says he sold about 400 lamps before taking a fulltime job last fall selling spices for another company. D.light had switched him and other rural entrepreneurs from salaried to commission-based reimbursement, and he was no longer satisfied with his income. Goldman says the vast majority of rural entrepreneurs have always been paid on commission, but a few of the initial hires - including Chaudhary - were paid a salary before the company worked out its payment model.

Aside from this frustration, Chaudhary identifies two main challenges in selling the lights: The first is making people aware of them. The second is helping people afford them.

"There are many people who can't buy because they don't even have enough to feed themselves," he said.

To encourage his neighbors to purchase, Chaudhary arranged informal financing plans and even loaned out his own lamps on a

For some, that's all it took. After just one night borrowing Chaud-

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How to Beat the Crowd in the Stock Market

Charles Lee's portfolio management style requires accounting for human biases to nudge prices closer to their real value.

BY NOW, THE FALLOUT from the epic financial crisis is both familiar and tangible: foreclosed mortgages, failed banks, lost jobs, recession. On the less tangible side, the meltdown also shook faith in a widely accepted economic principle: Markets are efficient. Since the mid-1960s, many academics have embraced the theory that prices paid in large public markets, such as those in stocks and bonds, reflect the collective wisdom of investors acting rationally on all available information. Yet there's been growing recognition during the past 15 to 20 years that human psychology — including irrationality — can play havoc with the wisdom of crowds. The historic bursting of the real estate and financial bubbles further undermined the belief that investors and markets behave with machine-like perfection.

The crisis also gave new relevance to the work of Charles M.C. Lee, who joined the Stanford Graduate School of Business as a fulltime faculty member in July 2009. The professor of accounting has been at the forefront of the debate about market efficiency for nearly two decades. He was an early believer in the relevance of human behavioral patterns to market dynamics. Lee is among the pioneers in developing computer-based strategies for stock selection that take into account behavioral factors such as the tendency for investors to be overconfident or to ignore statistical likelihoods. The techniques he developed for valuing companies and predicting stock price movements help investors systematically evaluate and trade equities by taking advantage of market mispricings.

"The naïve view that markets are efficient by fiat is silly. You need to look under the hood. You can't just assume the engine works," says the trim and energetic Lee, who is the Joseph McDonald Professor of Accounting at the school.

Born in Taiwan in 1957 and raised in Canada from age 9, Lee was a professor for 14 years at the business schools of the University of Michigan and Cornell University. An innovator in teaching portfolio management, he founded an investment research center at Cornell and oversaw a novel student-run hedge fund. He later worked at Barclays Global Investors, a preeminent money management firm known for quantitative investing. With his return to academia, Lee brings to Stanford a track record in blending theory and practice. His passion for fly fishing has taught him that observation of the environment is as important as casting the line. Professionally, he says, "I have focused on the issue of market efficiency not as a 'yes' or 'no' answer, but a 'how,' 'when,' and 'why' answer."

The financial meltdown of 2007-2009 was a reminder that emotions dominate at the top and bottom of markets – greed at the top and fear at the bottom. Thus the crisis was "consistent," Lee says, with his view that market efficiency is limited, changes over time, and can be improved upon by active investing.

Classical economists tend to "model human beings like machines," he says. "They assume human beings are totally rational and have infinite processing power." Therefore, market prices reflect intrinsic value. Instead, investors are subject to cognitive biases and con-



Professor Charles M.C. Lee has been at the forefront of quantitative investing at universities and Barclays Global Investors.

straints such as fear, greed, overconfidence, and overreaction. Lee has studied, for instance, how these imperfections show up in security analyst recommendations and how human biases can result in overvalued or undervalued stocks.

His key intellectual contribution to the debate on efficiency has been developing the concept of "informational arbitrage," in which investors interpreting complex pieces of information actively try to profit from imperfections in market prices. The market's continuous disequilibrium, he argues, creates opportunities for some investors to arbitrage the mispricings, which in turn reduces mispricing. "You can make markets more efficient by trading on the inefficiencies," he says. "We try to make prices better by taking positions different from the benchmark."

At first blush, Lee's belief in active investing seems to stand in stark contrast to the philosophy of GSB professor emeritus and Nobel laureate **William Sharpe**, among others, who advocates index investing, where investors try to match the performance of market indexes rather than to outdo them. Lee says the two perspectives are not all that different. "I agree that low-cost index investing is the right approach for the majority of individual investors. But professionally managed active investing will always be part of a well-functioning market. Active managers help make prices right.

"As financial economists, we need to start treating active management as a science that involves a technology and a process. Making sausages is a process. There's a way to do it better, and there's a way to mess it up."

In the 1990s, with computing power costs dropping, Lee and others developed ways to use electronic data feeds and mathematical models to run large numbers of stocks through quantitative screens and to structure portfolio trading strategies. [See sidebar for details.] The techniques involve downloading company financial information from databases, slicing and dicing the data to estimate the intrinsic value of companies and identify mispricings. Traditional portfolio managers and research analysts conducted analyses of company financial reports and data, often on paper. A security analyst doing fundamental analysis might actively follow a dozen or so stocks. Greatly automating the process, computer techniques make it possible to analyze and screen tens of thousands of stocks worldwide — essentially the total investable universe — in real time.

"It's the idea that we can use technology to harness all the information and systematically use it by applying computers. [Lee] was one of the leading figures in this evolution," says Richard G. Sloan, the L.H. Penney Professor of Accounting at the Haas School of Business at the University of California, Berkeley.

Specifically, Lee developed stock selection techniques that allow investors to value companies and predict stock price movements by using accounting information, analyst data, and various market indicators

In 1998, with colleague Bhaskaran Swaminathan, he cofounded the Parker Center for Investment Research at Cornell's Johnson School, which features a trading room with data feeds and portfolio management software. Lee taught a course in which students managed the Cayuga MBA Fund with real money from investors. Teams divided by industry sector analyzed stocks, ran them through quantitative screens, and presented investment recommendations voted on by classmates.

Started with \$600,000, the student hedge fund now has about \$11 million under management. Since 2002, it has recorded positive returns in most years, including 2008, when U.S. equity markets dropped more than 30 percent. Lee's work with the student fund showed that "Charles has a tightly integrated view of research, education, and practice — for the benefit of all," says L. Joseph Thomas, dean of Cornell's business school. "What he did in the broad area of asset management really added capability to our school."

By 2004, itching to put his ideas to use on a bigger scale, Lee joined Barclays (now part of BlackRock), a pioneer and giant in index investing and quantitative active investing. He moved up over four years from director of accounting research to global head of equity research. Realizing that he missed the "intellectual freedom" of being a professor, Lee joined Stanford as a visiting professor in July 2008 and became a full-time tenured faculty member a year later. At the GSB, he created a course called *Alphanomics*, an elective on the "science" of active portfolio management. He arranged for software ven-

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Steps for Picking an Optimal Portfolio

CAN COMPUTERS PICK stocks and optimize investment portfolios?

Yes, they can come close to doing what human portfolio managers do — and often better. That's the view of **Charles M.C. Lee** and other proponents of active quantitative investing, who believe that investing is a scientific, quantifiable process that can be driven by technology. It involves the use of speedy computers, and sophisticated software and mathematics to find patterns in financial data that can be turned into successful investment strategies. "It's like teaching the computer to think like an analyst, teaching it how to analyze and screen thousands of stocks quickly. You harness intuition, not just automate," explains Lee, an accounting professor at the Stanford Graduate School of Business.

First, portfolio managers electronically comb through public and private databases of financial information on listed companies, such as the universe of more than 8,000 U.S. stocks. They quantitatively screen the stocks by sifting through millions of data points on earnings, cash flow, market-to-book ratios, market indicators, and other measures. The computer ranks the stocks in attractiveness on many attributes, based on mathematical models set up by portfolio managers. These rankings allow the system to produce return forecasts on thousands of individual stocks.

Computers then come up with a list of recommended stocks to buy and sell. For instance, Cornell's Cayuga MBA Fund initially screened more than 6,000 U.S. stocks, yielding weekly lists of 560 recommended stocks that were the most and least attractive. The list was sorted by industry sector and assigned to MBA students acting as sector analysts. They winnowed the list to 120 stocks and prepared detailed presentations for classmates. After a class vote, 100 stocks were selected for 50 long and 50 short positions.

After target stocks are picked, the next step is constructing the portfolio while controlling its overall risk. Specialized risk management software calculates the appropriate weightings of individual stocks and industry sectors to ensure that the overall portfolio is sufficiently stable.

Finally, technology is used to forecast and minimize trading costs of individual stock holdings. Transaction expenses, especially for large funds or for those that trade frequently, can have a significant impact on portfolio returns.

For active quantitative managers, it takes a lot of science to get the process right.

- MARIA SHAO



For video interviews with Professor Charles M.C. Lee, go to BizOnline.Stanford.edu

Slow Boat from China Misses Bigger Profit

Trendy designs and quick distribution keep fashion prices higher, a study finds.

>Faculty Research

MOST COMPANIES IN THE FASHION industry are entrenched in a business model that involves outsourcing production and distributing products through cheaper, "slow boat" channels. New research, however, suggests that while this approach seems to make economic sense, it may actually create gross inefficiencies that cause companies to miss out on significant profits.

Robert Swinney, assistant professor of operations, information, and technology at the Stanford Graduate School of Business, and Professor Gérard P. Cachon of the Wharton School of Management say fashion companies are best off when they combine highly fashionable, trendy product designs with short production and distribution lead times — in many cases producing goods closer to home. By getting goods into shoppers' closets when they are in demand, and not producing leftover unneeded inventory that will be dumped onto a sale rack, retailers are more likely to get customers to buy early at full retail price. The profit margin increase under this combined scenario is exponential, they write in "The Value of Fast Fashion: Quick Response, Enhanced Design, and Strategic Consumer Behavior," a Stanford Research Paper available on the internet by searching for the title and Stanford.

Using the more traditional outsourcing models requires long production lead times – generally six to nine months — handicapping success because producers may miss trends or changes in consumer tastes. By timing production to take place a few weeks before the selling season rather than half a year or more, a company can capitalize on more accurate estimates of demand.

When both rapid production and enhanced design are done together — allowing the latest merchandise to get into the hands of consumers quickly and with little overstock — a company's profits increase by up to twice

the sum of the extra profits that would have been earned from each activity alone, the researchers say.

"For example, say a firm were to earn 10% more through creating trendy products alone, and 10% more by achieving rapid production," Swinney says. "If that company were to accomplish both together, it would earn much more than a 20% increase in profits. In fact, it would earn something more like a 40% increase. Fast fashion is thus more than the sum of its independent components."

The fast fashion system circumvents one particular problem that has long plagued the apparel industry: consumers who wait for endof-season sales. "This phenomenon hurts retailers," Swinney says. "Fast fashion trains customers not to expect that highly desirable items will be left on the clearance rack." Because supply is more accurately tied to demand, the good stuff doesn't linger.

The model shows that combining high fashion with rapid production works extremely well to induce even the most sale-oriented indi-



viduals to buy early. In fact, a company's profits can spike up as much as 350% among this die-hard group.

Fast fashion is not just good for retailers, the researchers say, but also for consumers. "From a social point of view, 75% of the time fast fashion leads to greater overall welfare. People get a premier item that they value highly," Swinney says, "Because production times are short, they get it when they need it. Plus, there's less overproduction and waste."

Most apparel companies do not choose the fast fashion approach because it appears to cost more money than it's worth. Zara, which may well be the exemplar of this type of system, according to the investigators, is a Europe-based retailer that produces most of its designs in costly European and North African factories. Production is therefore far more expensive than it would be if the company outsourced more of it to Asia. Moreover, the retailer employs trend spotters, continuously monitors inventory levels in stores, and is not afraid of using expedited shipping if necessary, rather than cheaper sea shipping, all of which mean higher operational costs.

But Zara's success also exemplifies what Swinney and Cachon's model demonstrates: Profits still significantly outweigh costs. "Zara can take a design from the drawing phase to the storefront in a few weeks. If they outsourced, this process would take half a year or more," Swinney says. "The approach allows them to anticipate, spot, and take advantage of consumer needs and trends, and tag production to actual demand. They do very, very well using this strategy."

The paper, therefore, has important implications for apparel companies that outsource their production. "Firms might want to reevaluate the supposed economic utility of this practice," Swinney says. "It may be that it's better to have production facilities closer by so that it takes less time to get your merchandise from point A to point B." •

CHARLES LEE: Continued from page 25

dors to donate software or services that students can access to try out strategies and techniques.

In a recent class, Lee wove together a dissection of portfolio returns based on factors such as price momentum and trading volume, calculations on the "value" and "glamour" components in stocks, and even an analysis of Krispy Kreme's share price. Whenever he identified patterns or correlations in data and charts projected onto a large screen, he would call out, "This is pretty cool!"

"I really enjoy it," said **Alex Liloia**, MBA class of '10. "The quantitative style is new to many of us. It's great to have someone who has published and is very well respected and has worked at implementing these strategies."

Lee is involved in designing a 40-seat, high-tech classroom for the Knight Management Center, the school's new facilities now under construction. This "investment lab" will have live data feeds and software tools that enable students to access virtually any information about any company in real time.

He has been weaving together theory and practice since he was young. The son of a civil engineer and a Mandarin teacher, Lee has always had a practical bent. When he was 9, his family moved to Canada, where he grew up in Ottawa and Toronto with a talent for math. After graduating from the University of Waterloo, he became a chartered accountant. "I was a very practical, risk-averse kid," he recalls jokingly. After five years in public accounting, he earned an MBA and doctorate from Cornell.

A "defining experience" for Lee, who did not grow up practicing a religion, was becoming a Christian soon after graduating from college in 1981. He met his wife, Lily, in church and began teaching a life skills and values class to church teens. Lee says, "After that experience, I felt like I really wanted to teach. They were so appreciative. I said, wow, this is very satisfying." He went on to earn a certificate in biblical studies from Ontario Theological Seminary. Like his theological studies, Lee's favorite pastime — fly fishing — has taught him to take stock of the big picture. He has been fishing since childhood, and on the wall of his Stanford office is a framed display of 24 colorful feathered flyfishing lures, each tied and presented by a student portfolio manager at the Cayuga MBA Fund.

For Lee, it's not a stretch to draw lessons about investment management from fly fishing: "When you go to the river, you sit there first and just watch. You see many things you hadn't seen before — dragonflies are floating or damselflies are flying, the way the wind and sun move. Then you hear sounds you never heard before. Then you notice how the fish are doing. What are they eating? Where are they going? The goal is not to say how many fish you catch. The goal is to know and understand the river. That's the way I look at investing and studying markets. If you understand the river, you will catch a lot of fish." •

> Faculty Publications

ACCOUNTING

Market Reaction to the Adoption of IFRS in Europe

Christopher S. Armstrong, Mary E. Barth, Alan D. Jagolinzer, and Edward J. Riedl Accounting Review (Vol. 85, No. 1) JANUARY 2010

In Defense of Fair Value: Weighing the Evidence on Earnings Management and Asset Securitizations Mary Barth and Daniel Taylor Journal of Accounting & Economics

(Vol. 49, No. 1-2), FEBRUARY 2010

Corruption and International

Valuation: Does Virtue Pay?
Charles M.C. Lee and David Ng
Journal of Investing (Vol. 18, No. 4)
WINTER 2009

Earnings Quality Maureen McNichols

Accounting Review (Vol. 85, No. 1) JANUARY 2010

Capital Market Prices, Management Forecasts, and Earnings Management Anne Beyer

Accounting Review (Vol. 84, No. 6) NOVEMBER 2009

CORPORATE GOVERNANCE

The Stock Market's Pricing of Customer Satisfaction
Christopher Ittner, David Larcker, and Daniel Taylor

Marketing Science (Vol. 28, No. 5) SEPTEMBER-OCTOBER 2009

ECONOMICS

Firm-Specific Human Capital: A Skill-Weights Approach Edward P. Lazear

Journal of Political Economy (Vol. 117, No. 5), OCTOBER 2009

Two-Sided Matching with Interdependent Values Archishman Chakraborty, Alessandro Citanna, and Michael Ostrovsky Journal of Economic Theory (Vol. 145, No. 1), JANUARY 2010

Insider Econometrics: A Roadmap with Stops Along the Way Kathryn Shaw

Labour Economics (Vol. 16, No. 6)
DECEMBER 2009

A Decomposition Algorithm for N-Player Games **Srihari Govindan and Robert Wilson** *Economic Theory (Vol. 42, No. 1)* JANUARY 2010

Why Do Sellers (Usually) Prefer Auctions?

Jeremy Bulow and Paul Klemperer

American Economic Review
(Vol. 99, No. 4), SEPTEMBER 2009

FINANCE

The Levered Equity Risk Premium and Credit Spreads: A Unified Framework

Harjoat S. Bhamra, Lars-Alexander Kuehn, and Ilya A. Strebulaev Review of Financial Studies (Vol. 23, No. 2), FEBRUARY 2010 Frailty Correlated Default Darrell Duffie, Andreas Eckner, Guillaume Horel, and Leandro Saita Journal of Finance (Vol. 64, No. 5) OCTOBER 2009

Price Drift as an Outcome of Differences in Higher-Order Beliefs Snehal Banerjee, Ron Kaniel, and Ilan Kremer

Review of Financial Studies (Vol. 22, No. 9), SEPTEMBER 2009

The 4% Rule — At What Price? Jason S. Scott, William F. Sharpe, and John G. Watson

Journal of Investment Management (Vol. 7, No. 3), THIRD QUARTER 2009

MARKETING

A Larger Slice or a Larger Pie? An Empirical Investigation of Bargaining Power in the Distribution Channel Michaela Draganska, Daniel Klapper, and Sofia B. Villas-Boas

Marketing Science (Vol. 29, No. 1) JANUARY-FEBRUARY 2010

Group Incentive Compatibility for Matching with Contracts John William Hatfield and Fuhito Kojima Games and Economic Behavior (Vol. 67, No. 2), NOVEMBER 2009

Unraveling Priming: When Does the Same Prime Activate a Goal Versus a Trait?

Aner Sela and Baba Shiv Journal of Consumer Research (Vol. 36, No. 3), OCTOBER 2009

The Robustness of the Effects of Consumers' Participation in Market Research: The Case of Service Quality Evaluations Chezy Ofir, Itamar Simonson, and Song-Oh Yoon

Journal of Marketing (Vol. 73, No. 6) NOVEMBER 2009

OPERATIONS

Taming the Bullwhip

Hau L. Lee

Journal of Supply Chain Management: A Global Review of Purchasing & Supply (Vol. 46, No. 1), JANUARY 2010

Timing of RFID Adoption in a Supply Chain Seungjin Whang

Management Science (Vol. 56, No. 2) FEBRUARY 2010

A Dynamic Model for Post-Traumatic Stress Disorder Among U.S. Troops in Operation Iraqi Freedom Michael P. Atkinson, Adam Guetz, and Lawrence M. Wein

Management Science (Vol. 55, No. 9) SEPTEMBER 2009

Optimal Capacity Overbooking for the Regular Treatment of Chronic Conditions

Donald K. K. Lee and Stefanos A. Zenios Operations Research (Vol. 57, No. 4) JULY-AUGUST 2009

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Ideas on Encouraging Unselfish Behavior



>Faculty News

ABOUT 60 U.S. BUSINESS LEADERS came to the Stanford Graduate School of Business in February to discuss faculty research on practical and cost-effective solutions for encouraging donations, volunteerism, social activism, and other responsible, caring, and pro-social behaviors.

The daylong conference focused on the psychology of giving and how small steps can lead to substantial changes in behavior. It was organized by **Jennifer Aaker**, the GSB's General Atlantic Professor of Marketing, and **Francis J. Flynn**, an associate professor of organizational behavior at the school. Brief summaries of the research and the presenters follow. More detailed materials are online at <code>www.gsb.stanford.edu/news/research/small-steps.html</code>.

• "The Role of Social Norms in Energy and Water Conservation" by Noah J. Goldstein of the Anderson School of Management, University of California, Los Angeles:

Managers and marketers can motivate consumers to participate in environmental conservation programs by telling them how the majority of other people behaved in the same situation. Researchers specifically studied how to ask hotel guests whether they wanted to reuse their towels during the course of a stay.

"Can Defaults Save Lives? The Case of Organ Donation" by Eric J.

Attendees took part in a speed-dating exercise discussing pro-social behavior ideas during a daylong conference to connect academic researchers and business leaders and bring about change.

Johnson of the Columbia University Business School:

Preset actions — called defaults — on forms, web pages, and other materials have strategic importance that can make vital differences. Johnson concluded that defaults are far too important to delegate responsibility for setting them to programmers or form designers.

"Money Makes People Less Socially Focused" by Kathleen D. Vohs of the Carlson School of Management, University of Minnesota:

Money changes people's motivations — increasing their sense of self-sufficiency and even making them keep a greater physical distance from others. After focusing on money, individuals work longer before asking for help, are less helpful to others, and prefer to play and work alone.

• "Nonprofits Are Seen as Warm and For-Profits as Competent: Firm Stereotypes Matter" and "Getting People to Give: The Role of Time, Money, and Identity," both by Professor Aaker:

Consumers frequently assign stereotypical views to nonprofits, categorizing them as warm, generous, and caring organizations but assuming they are less competent in business abilities than their for-profit peers. In contrast, for-profit companies are seen as more competent from a balance sheet perspective, but not necessarily socially aware.

Asking potential donors for their time, not their money, is a better way for nonprofits to increase donations of both time and money.

- "If You Need Something, Just Ask" by Professor Flynn:
 People tend to grossly underestimate how likely others are to agree
 to requests for help. And many don't know how to ask for help. They
 also overestimate how many people will come to them for help.
- "Increasing Fundraisers' Motivation" by Adam Grant of the Wharton School, University of Pennsylvania:

Employees who use company-sponsored programs to give support to others feel a stronger commitment to their companies. These employees see themselves as more caring people and see the company as a more caring organization. Receiving support from a company in cases such as illness or family emergencies is appreciated but does not make employees feel as proud and supportive of their employer as does the opportunity to give help.

■ "The Benefits of Pro-Social Spending for Individuals and Organizations" by Michael Norton of Harvard Business School: Money can't buy you love, but it can buy happiness — as long as it's money for someone else. Researchers looked into how and why spending money on others promotes happiness.

 "Appealing to Sympathy" by Deborah A. Small, assistant professor of marketing at the Wharton School, University of Pennsylvania:

If organizations want to raise money for a charitable cause, it is far better to appeal to the heart than to the head. Put another way, feelings, not analytical thinking, drive donations. (Professor Small was prevented by weather from attending the conference.)

For detailed reports on encouraging unselfish behavior, go to BizOnline.Stanford.edu



James Porterfield: 1920-2010

James T.S. Porterfield, a GSB finance professor known for his humor and sharp wit, as well as his grasp of markets and financial issues, died Feb. 28 at Stanford Medical Center of pneumonia. He was 89.

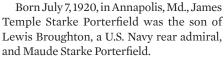
Described by GSB Dean Emeritus **Arjay Miller** as a "master teacher," Porterfield taught legions of executives, directed the school's Sloan Master's Program, and won teaching awards for his classes for MBA students. He was a regular faculty member from 1959 until his retirement in 1990.

In 1995, the Stanford University Alumni Association presented him with a lifetime service award. The citation read in part: "for vitality, humor, and pertinence (along with the appropriate ration of sports trivia) he injects into always challenging and occasionally arid course material."

Porterfield's language was "rich in metaphor," wrote **Elizabeth Erickson** and **Tim Kelly**, both MBA '85, in the April 27, 1984, issue of *The Reporter*, the MBA student newspaper. They listed some of his classroom comments: On classroom administration: "I would like to identify the lawyers at the outset." On top executives: "Presidents are the loneliest people on earth. They live in oak-paneled preserves." On banking: "Why do bankers use beta? To pander to the idiotic dribblings of their clients."

Joe Cusick, Sloan '73, remembered Porterfield fondly as "a tall and imposing figure in front of class, leading us into the murky depths

of corporate finance and clarifying our (mis) understandings. ... He was a man of enthusiasm and personal generosity."



During World War II, Porterfield served as a lieutenant on the *USS Salt Lake City* and on the destroyer *USS Porterfield* (named for his father) during the Battle of Okinawa, for which he received the Bronze Star.

After earning an MBA and PHD from the Stanford Graduate School of Business,

he worked at Wells Fargo Bank, Anglo-California National Bank, IBM Corp., and Ford Motor Co. He then taught at the University of Washington, Harvard Business School, and IMEDE in Switzerland. In 1959, GSB Dean Ernie Arbuckle recruited him as part of the effort to build the school into an intellectual powerhouse.

Porterfield authored books and articles on financial management, including *Investment Decisions and Capital Costs* and *Case Problems in Finance*. In an interview with the Stanford News Service in 1980, Porterfield reflected on the U.S. economy — decrying inflation that was eating into both individual and corporate finances — and on the value of business education at Stanford.

"The essence of graduate education in business should lie not in the transmission of information and techniques but rather in the development of judgment, the ability to analyze problems, and skill at making decisions on the basis of incomplete data," he said.

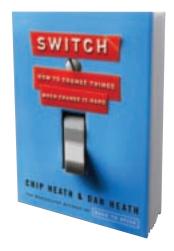
Riding Elephants to New Ground

PEOPLE WANT CHANGE TO HAPPEN, but at the same time many worry about the consequences of disturbing the status quo. We are like an elephant and its rider, said professor and psychologist **Chip Heath**. The rider represents the rational side of our brain and appears to be in charge of the elephant, which represents our emotional side.

"If there's ever a disagreement about direction, the rider won't

win the battle. The elephant has a 6-ton advantage."

Heath, the Thrive Foundation for Youth Professor of Organizational Behavior at the Stanford Graduate School of Business, was speaking to managers of nonprofits at an institute sponsored by the Stanford Social Innovation Review and the Association of Fundraising Professionals. He was summarizing ideas in his 2010 book Switch: How to Change Things When Change Is Hard, which he coauthored with his brother. Dan, senior fellow at the Center for the Advancement of Social Entrepreneurship at Duke



University. Their 2007 book, *Made to Stick: Why Some Ideas Survive and Others Die*, was retired from the *BusinessWeek* bestseller list after two years.

In their new work, the Heaths examine how organizations and communities can create change. First, "direct the rider," Chip said. That means providing clear direction so that people start imagining how the change could work rather than getting mired in overanalysis and debate about whether change should happen. Second, "motivate the elephant" to go down the path by helping people feel that change is desirable and that they are capable of making the change.

Engineering Academy Selects Lee

PROFESSOR **Hau L. Lee**, an expert on global supply chain management, has been elected to the National Academy of Engineering. He was cited for his "contributions demonstrating the impact of information-sharing on supply chain design and management."

Lee became the fifth Stanford Graduate School of Business faculty member to receive the honor. The others are **J. Michael Harrison**, the Adams Distinguished Professor of Management; **William F. Miller**, the Herbert Hoover Professor of Public and Private Management, Emeritus, who is former provost of Stanford and former president of SRI International; **Lawrence M. Wein**, the Paul E. Holden Professor of Management Science; and **Andrew S. Grove**, lecturer in business and former chief executive of Intel.

Lee, who is the Thoma Professor of Operations, Information, and Technology, is widely credited with advancing the study and practice of supply chain management, which involves the flows of materials, information, and money in producing goods and services. •



James Porterfield

Newsmakers

* WHO'S IN THE NEWS: A ROUNDUP OF MEDIA MENTIONS



Nicole Malcolm, MBA '05, is driving the Mr. Clean brand into car washes.

Consumers Revved up for Mr. Clean Car Wash

Nicole Malcolm, MBA '05, a brand manager at P&G's Future-Works incubator, was featured in a *Fast Company* article about big brands venturing onto new turf.

Working in a business incubator in an established company is both fun and rewarding, Malcolm says. "It's very entrepreneurial. I'm able to explore new business models with consumers who get to experience some of their favorite brands in a completely new way. And it's challenging because I'm constantly developing new approaches to analyzing and solving problems."

Malcolm is testing a new

model for her company's 50-year-old grime fighter, Mr. Clean, that is intended to appeal to the entire 21st-century familv. The chain of Mr. Clean Car Washes will have "Wi-Fi and coffee bars and giant water guns for the kids. As the cars go through the tunnel, kids can shoot soap on them," Malcolm told the magazine. "Recently, we did research in Atlanta and when we mentioned that Mr. Clean Car Washes were coming soon, people's faces lit up. Some started singing the jingle from back in the day. There's a built-in excitement, and we're aiming to be a national player."

Fifteen facilities have opened so far.

Social Networking According to the Talmud

Former brand manager Cary Rosenzweig, MBA '88, may seem an unlikely CEO for the virtual social network IMVU, an online community whose 45 million registered users interact through avatars. But Rosenzweig, who has his own CEO avatar, Cary Jay (pictured), has become a fan of the virtual world. "People from all over the world can meet and interact virtually on IMVU. It reminds me of a wonderful saying from the Talmud: Who is wise? He who learns from all people," Rosenzweig/CaryJay told the New York Times. IMVII doubled its revenue last year under his leadership. and this year intends to double its employees - actual ones.

Hazelnut Entrepreneur in Bhutan Highlands

For **Justin Finnegan**, MBA '09, who had considered a career in real estate, "It took two years in business school and this financial crisis for me to be honest with myself and find out what I wanted to do with my time."

Finnegan signed on with Mountain Hazelnut Venture in





Cary Rosenzweig, MBA '88, and his avatar, CaryJay.

eastern Bhutan, which will give local farmers hazelnut trees, help plant them, and buy back the harvested nuts.

"I'll be setting up strategies for how we manage the huge task of planting 10 million trees over 8 years: everything from making videos with our agricultural team to figuring out and teaching people how to plant a tree to building a huge factory. It's a dream job I didn't know was there. I wanted to get my hands dirty. I didn't want a desk job for 30 years. The world is in need of — and ready for — a lot more nontraditional careers," Finnegan told BusinessWeek.

From Homeless Shelter to Promising Venture

As a part-time counselor at the San Jose Business Development Center, **Chris Schwafel**, MBA'63,



Justin Finnegan, MBA '09, delivers rice in 2008 to a school in Mu Gu Ba, a village in a remote area of famine near China's border with Myanmar. Now he is setting up hazelnut groves in Bhutan.

TOP LEFT PHOTO BY GREG RUFFING; BOTTOM PHOTO BY AI YI NEN

has advised hundreds of entrepreneurs. One of his most memorable projects involved helping two down-on-their-luck guys — one an unemployed engineer, the other a laid-off shipping clerk — turn an idea hatched in a homeless shelter into a promising paper products company.

The two men, Bernard Groves and Robert Faison, approached Schwafel, who helped them file the paperwork and find a lawyer to handle incorporation. "You have to do all the Mickey Mouse stuff right, or else it's like building a skyscraper on sand," Schwafel told the San Jose Mercury News.

The startup, a wholesaler of biodegradable paper products such as diapers and toilet paper, recently signed a \$1.4 million contract for its merchandise, and the two founders, who are out of the shelter and interviewing potential employees, keep in touch with Schwafel.

"They are very astute guys," Schwafel said. "They are very motivated. They have been where they don't want to be again."

Groves said, simply, "Chris is my greatest, best mentor."

Lesson Learned Outside Classroom

Steven Yuan. MBA '09. wishes that all of his fellow Chinese could experience the type of society he encountered in the United States. "Living in a place where systems are stable, where services are well-established and valued, is an eye-opener," he told the China Economic Review shortly after he returned home from Stanford. "The more of us that go, the more of us will understand how a stable system works and the benefits that such a system can bring to people. Therefore, the faster we can develop our country."

Passion for Fashion

Former marketing director Akshata Murty, MBA '06, is combining her interest in business with a passion for fashion, says the *Mumbai Mirror*. Murty hopes to give Indian artisans the chance to make a sustainable living by using their traditional fabrics in fashions designed for Western women. "The aim is to



Jim and Becky Morgan, MBA '78, donated \$10 million toward a land trust to preserve the Cold Stream property outside Truckee, Calif.

take unique skills from India and expose them to a global audience in a contemporary and accessible format," she said. The new label, Akshata, will be produced in California, where Murty lives with her husband and business school classmate, **Rishi Sunak**.

Coordinated Effort Conserves Sierra Land

In 2007, Jim and Becky Morgan, MBA '78, founded an alliance of five existing conservation organizations to purchase and protect up to 100,000 acres of mountain land between South Lake Tahoe and Lassen Volcanic National Park. The Northern

Sierra Partnership is trying to raise \$100 million for the project, the San Jose Mercury News reported. "We formed the NSP because we were facing a critical window of opportunity in the northern Sierra, and we needed to approach this era with an integrated strategy," Becky Morgan said. The State of California joined the partnership last fall, and NSP completed its first purchase three months later.

Alumnus Elected Hiroshima Governor

Hidehiko Yuzaki, MBA '95, handily won the governorship of Hiroshima Prefecture, Japan, in

Hidehiko Yuzaki, MBA '95, center, celebrates with supporters after his victory in the gubernatorial election in Hiroshima Prefecture.

part because he was expected to continue in the footsteps of the previous governor. But according to the *Japan Times*, shortly after last fall's election Yuzaki hinted he would temporarily delay a controversial public works project championed by his predecessor. Preservationists oppose building a bridge to historic Tomonoura, claiming it will destroy the picturesque fishing village on the Inland Sea. Yuzaki suggested that the project needs further discussion.

Down with Downsizing

A Newsweek cover story, written by organizational behavior professor Jeffrey Pfeffer, detailed the ways companies that use downsizing as a weapon of first resort against recession hurt not only their employees and customers but also the bottom line. In "Lay Off the Layoffs," Pfeffer charged that in a majority of recent layoffs, "staff reductions were a response to a temporary drop in demand. They're cutting jobs to minimize hits to profits, not to ensure their survival." He noted that Southwest Airlines, the only U.S. airline not to downsize after 9/11, is now the largest domestic airline. Pfeffer's article provoked comment in publications as diverse as the Weekly Standard, Psychology Today, and the show-business journal Variety.

to a lot of unnecessary testing and rarely picks up the most aggressive tumors, Esserman says. And no good evidence exists to show that women older than age 70 or 75 benefit from screening mammograms, she adds. The cancerous tumors picked up in such tests of elderly women are generally the slow-growing, non-lethal type.

Though Esserman has taken some heat for that stance from some organizations, such as the American Cancer Society and the American College of Radiology, many other doctors and researchers looking at the data agree with her, including the influential U.S. Preventive Services Task Force, an independent group of experts charged with setting testing guidelines.

Fears that the new guidelines are motivated by a desire to ration health care are misguided, Esserman says. Instead, they are based on the evidence, accumulated through two decades, of when mammograms are useful and when they aren't. "Why should standards that were developed 20 years ago be set in stone?" she asks. "We've learned a lot since then. If you walked into a computer store and they tried to sell you a 20-year-old machine, you'd be outraged.

"Mammogram screenings have a useful place, but you can't ask them to be better than they are," she says. "The point isn't to argue about mammograms. Women should be clamoring for better methods of detecting cancer."

Sure, change can feel risky, Esserman admits. "But it's risky — even riskier — to stand still. If the current standard of care for breast cancer were so great, women wouldn't still be dying of this disease — about 45,000 in the United States each year. That's too many. We have to do better. We can."

D.LIGHT IN INDIA: continued from page 23

local credit officers about solar technology has proven difficult, and it's not clear whether the crossover will work.

"The jury's still out on that," he said.

As the company continues to look for solutions to such problems, it adheres to a principle at the heart of GSB Professor **Jim Patell's** *Entrepreneurial Design for Extreme Affordability* course: Listen to your customers.

The idea for D.light first emerged in that class four years ago, during a group project. Goldman, fellow business classmate Tozun, and engineering students **Erica Estrada** and **Xian Wu** ended up on the same team. Their assignment was to address a significant issue in the developing world. They chose energy.

That spring, the team members took exploratory trips to Burma. Villagers told them they spent huge sums each month on kerosene and candles. The team's rough prototypes of portable LED lights were so popular, Tozun said, that people would actually weep as they talked about how the lights had transformed their lives. In one village, the police even confiscated the prototypes — they, too, needed light.

After completing the course, the classmates headed off to various summer internships. The next fall, they reunited in the Oval to play Frisbee. They agreed to keep working on D.light's business concept.

The following spring, the team took second place in the University of California, Berkeley's Global Social Venture Competition and won first prize at Stanford's Social E-Challenge. Its big breakthrough came in May: It claimed the \$250,000 first prize in the prestigious Draper Fisher Jurvetson Venture Challenge competition.

"It's going to happen," Tozun remembers thinking. "It's not a dream anymore."

Tozun turned down a job at Google. Goldman turned down a job with Wal-Mart's sustainability team.

In the summer of 2007, after Tozun and Goldman graduated, the company incorporated. Starting in early 2008, they opened their international offices — first in India, then in Shenzhen, China, then in Tanzania, then in Hong Kong. Of five initial founders (the fifth was **Gabriel Risk**, Stanford MS '02, the husband of a business school classmate), three remain with the company — Goldman as CEO; Tozun, president; Wu, the senior project manager. Tozun and Wu focus on manufacturing and design and international sales out of Shenzhen.

More than 2,000 miles away, from his fourth-floor office in a dusty business complex in south Delhi, Goldman oversees the company's efforts to market and distribute the product.

At 30, Goldman is tall and slim. He has a neat goatee, a silver hoop in his left ear, and rectangular glasses that frame his blue eyes. He also has a personal grudge against kerosene.

Before attending the Graduate School of Business, Goldman spent four years working as a Peace Corps volunteer in rural Benin. He lit his mud house with a kerosene lantern. The light quality was terrible. One night, he walked into his darkened house to get something and was bitten by a snake. Another night, his neighbor's son accidentally knocked over a kerosene lantern. The accident left the boy with third-degree burns over most of his body.

Eventually, Goldman bought an LED light from another Peace Corps volunteer. He also started writing letters, trying to convince LED companies to market the lights to the rural poor. No one responded.

"Why isn't this happening?" he asked himself. "What is going on? There's some gigantic market failure here."

Six years and one MBA later, Goldman tries his best to share this passion and empathy with the people who work for him. The company requires all new employees in India to take an "empathy trip" to a rural village and spend the night with a family that has limited or no electricity.

This past January, my husband and I joined Rajesh Dubey, from D.light's accounting staff, and Sule Amadu, a fellow with the Acumen Fund, on a visit to Amit Chaudhary's home in Bhojaka.

For several hours, we hurtled down crowded highways, dodging motorcycles, bicycle rickshaws, and cows grazing on heaps of trash. Eventually, we turned off the main highway onto a bumpy, single-lane dirt road.

The electricity was still on when we arrived just before dusk, and Chaudhary's 6-year-old son, Om, was contentedly watching TV. At 6 p.m., as though on cue, the TV flickered off, and the room went dark. Chaudhary and his family scrambled around, pulling out their D.light Novas and a new Kiran. They placed one light next to each of two outdoor wood stoves. Two more lit the bedroom where we sat sipping milky sweet cardamom chai.

Late into the evening, we talked with Chaudhary and his family, peppering them with questions as Dubey struggled to translate. As a salesman, Chaudhary had plenty of frustrations with D.light; as customers, he and his family seemed thrilled.

"You can use [this light] for everything — to cook, to study," his aunt said.

"And also when we have to turn on the water to irrigate our fields," his father chimed in. "We're using it for everything."

We stood in the outdoor courtyard for a while, the lights shining down on us as we watched the fire crackle in the wood stove. Chaudhary's aunt was cooking, his sister was knitting, the children were playing.

Life moved on, illuminated.

For video interviews of D.light users in Bhojaka, India, go to BizOnline.Stanford.edu







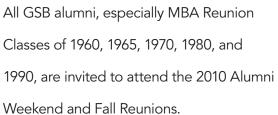
Real Leaders, Real Challenges

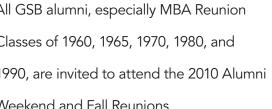
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