

The Frinky Science of the Mind

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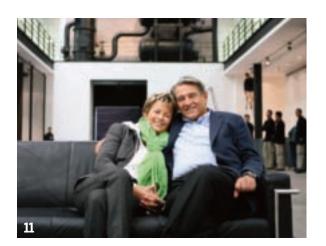
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# Student Fellowships: Educating Leaders at the GSB

How endowed fellowships enable talented students from a variety of backgrounds to pursue their dreams and pioneer new business paths.



Emma Wendt, left, Class of 2008, with fellowship donor Scott Stuart, MBA '86, founding partner of Sageview Capital.

"I have such an amazing wealth of resources at my disposal at Stanford. ... The list of unique opportunities available to me goes on and on and on."

- Emma Wendt, Class of 2008

**Creating the GSB Community:** To remain competitive as a top business school, attracting and enrolling the best students—regardless of financial circumstances—is essential for the future of the Stanford Graduate School of Business. The School's international reputation as a leader in management education is built on the quality and diversity of our students, whose broad range of experiences and backgrounds foster a distinctively collaborative GSB community culture.

The Need: Fifty-five percent of MBA students receive fellowships. For the 2007–08 academic year, MBA fellowships generally meet 25 to 35 percent of an individual student's total annual need. Students graduate with an average debt of \$72,500. "A fellowship at the GSB establishes a legacy of significance that helps to ease the financial burden on future business leaders," says **Scott Stuart**, MBA '86, founding partner of Sageview Capital.

Why Give: Fellowship support allows the GSB to attract the most talented graduate students, including those who are studying pioneering fields—and putting their knowledge into real-world practice. Emma Wendt, who plans to work in the area of sustainable buildings and energy, is pursuing the new joint MBA/MS in Environment and Resources degree, which puts her on campus for two additional quarters. "Completing an MBA is already a financial strain, especially since I'm coming from and going back to a nontraditional field," says Wendt. "I simply couldn't afford to be at Stanford without fellowship assistance."

**Impact on GSB:** Investing in our students ensures the School's continued success. With your support for endowed fellowships, we can remove financial barriers and develop committed leaders at the GSB who will go on to change the world.



## Circuitous Minds and Hearts

THE THREE OF US WENT SHOPPING TOGETHER for his final valentine. Would our father's casket be oak or cherry wood? Should his wake include a rosary or Scripture readings?

As we sat in the funeral home surrounded by the accoutrements of a proper funeral and burial, I was trying to gauge whether Protestants would outnumber Catholics at the wake. Would a rosary service distance our dad's Lutheran and Methodist neighbors from the Catholics at a time we hoped they would share memories? Would the Catholics of his generation be offended if we didn't say a rosary?

"A rosary," my brother said, ending his deliberation very quickly. "Dad was traditional. We should have a rosary."

Ah, yes. I remembered Dad telling us once that he prayed the rosary three times a day when he was trying to persuade our mother to marry him. But that was 1945, and this is 2007 when ecumenism is more accepted.

And so it went—my brother making quick choices from his gut; my sister and I trying to weigh all the angles. For two weeks after my father's death, she and I were heavily engaged in the assigned tasks that accompany a family member's death. My brother helped too, but his approach

was different. He wanted, for instance, to have a farmer's cap placed on Dad's head before the casket was closed. At the time he mentioned this, I was trying to decide if we needed more than one roll of postage stamps for thank-you cards.

In this issue of the magazine, we have many articles that deal with styles of decision making. The death of a loved one might seem like a context in which everyone's visceral emotion would trump deliberate analysis, but I found the opposite to be the case for me. The rituals involved in a death, like a wedding, seemed to demand attention to the rules of etiquette and custom. It would be several weeks before I allowed myself to "feel" my loss, just as it had been when Mother died.

How people make decisions is the primary focus of research by marketing Professor Baba Shiv, whose counterintuitive findings are featured in this issue. We also have research by marketing Professor Uzma Khan on shopping as a two-stage decision-making process, and finance Professors Peter DeMarzo and Ilan Kremer show how economic bubbles take on hot air from perfectly "rational" decision makers investing in risky long-shots. No decision is more complicated, however, than choosing a life partner who must also choose you. Our article on online dating websites provides perspectives on why algorithms have become decision aides to customers of these matchmaking companies.

If all this decision talk leaves your head spinning, consider Baba Shiv's insight that most decisions are not objectively right or wrong. If you are satisfied with your choice, it was a good decision.

Whether Dad's decision to pray rosaries helped his courtship or not, Mother eventually decided to marry him. Unwittingly she picked the first day of hunting season for the wedding. Dad later explained his decision not to point out her social flub: "I went hunting ducks that morning, but I got to the church on time," he said. "It was the best decision I ever made."

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Kottleen O Toule

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# Critical Thinking in the New Curriculum

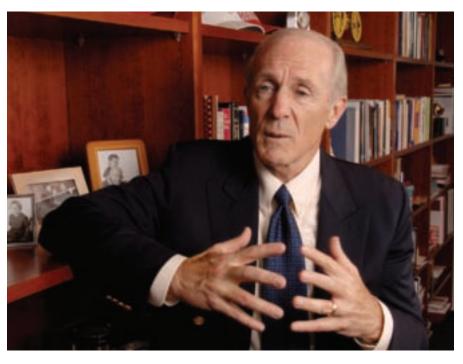
WITH THE FIRST QUARTER of our new curriculum now behind us, I'd like to give you a window into our Critical Analytical Thinking (CAT) class, the 14- and 16person seminars for all entering students that are emblematic of the curricular innovation put in place this year.

It's a Thursday night and Professor Garth Saloner has just opened discussion for his section of CAT. Students are seated in a circle on sofas and chairs. Pamela Tsai, a student from Taiwan, makes the case for ideas laid out in Jeffrey Sachs' book The End of Poverty: Economic Possibilities for Our Time. It offers top-down World Bank-style solutions for alleviating global poverty—the subject of the evening's seminar. Arve Schreiber, a Cambridge University-educated Israeli student, counters that Sachs borrows too much from clinical medicine, breaking poverty into a grid of estimates and assumptions that don't always play out as expected. "The master plan won't cut it," he says. "It's like tackling several patients with one drug without diagnosing each one of them."

Faisal Ahmed, from India, argues for a bottomup approach in which people with field experience try different projects through in-country NGOs. Solutions that work would then be heavily funded and replicated.

This was just one discussion in one of the 24 sections of CAT. The classes were designed to develop the students' skills in critical analysis and then in communicating their analyses on paper and orally. Topics and readings were introduced weekly, and by 11 p.m. each Wednesday students turned in three-page papers that would be critiqued by professional writing coaches and graded by their professor for content within two days. Students and professor then met for discussion.

There are no easy answers in CAT. Faculty chose their subjects to



check? Or do you take some time out and participate directly?"

After the discussion, Michael Armstrong, from San Diego, said the class gave him context: "You're doing business in the greater world. It puts things in perspective."

Smaller class size was why he chose Stanford, but he didn't expect it would be this intimate, Evan Reas of Madison, Wis., said at an afterclass taco dinner with classmates and Saloner, who hosted most of his sessions at his home. "This is a lot of give and take."

The development of CAT, led by David Kreps, Jonathan Bendor,

and Dale Miller, was a team effort by the 12 professors teaching the sections. Jim Phills enjoyed the interaction with fellow professors fed by a flurry of emails while grading weekly essays. "We expose students to conflicting perspectives about how to address

complex issues such as poverty," Phills said. "The challenge lies in trying to construct good inductive arguments from imperfect data, and that struggle produces tremendous insight and learning for students and faculty alike." Faculty also advised students—usually meeting each MBA two or three times during the quarter. Professors got to know students' backgrounds and objectives before placing them into one of three courses for each of eleven required areas of study, such as finance.

The degree of risk, commitment, and innovation undertaken by our faculty to pioneer this seminal beginning for our revamped curriculum has been both inspiring and rewarding for our students—and for me. •

### This isn't making a chip shot from the sky deck. Students learn to reason and hold their ground for much longer.

give a sense of the scope and complexity of issues. Topics included: What happened to the electric car? What should Google do in China? Should education be publicly or privately funded? Unlike a traditional case discussion, CAT teaches students how to take apart an argument, examine its parts, and then synthesize the information into a clear line of their own thinking. This isn't a matter of making a chip shot from the sky deck and fading away. Students learn to reason and hold their ground for much longer.

Saloner, like other CAT professors, stretched students beyond their reading. In the poverty session he referenced physician Paul Farmer, who created free health care centers from Haiti to Rwanda and who recently spoke at Stanford. "How do you scale this?" Saloner asked, knowing previous discussion had illustrated an intractable problem. We want our students to think deeply about their role in solving these issues. He wrapped up: "Is this a problem about which you want to feel some ownership? Do you go into private equity and write a big

STANFORD CHALLENGE

### Seeking Solutions, Educating Leaders.

GSB Goal for Faculty Support: ......\$95 million Every gift to the GSB counts toward The Stanford Challenge. For more information, see www.gsb.stanford.edu/giving

# LEFT PHOTOS COURTESY OF MEGAN BLACKBURN. RIGHT PHOTO COURTESY OF KRIS TIMKEN.

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



### **Alum Commissioners Analyze Foreign Aid**

During 20 meetings in Washington, D.C., interspersed with study trips to 18 developing countries, the U.S. HELP Commission failed to find a single government official or development expert willing to defend the way the United States currently delivers foreign aid.

Members of the bipartisan commission were selected by the president and Congress to analyze U.S. foreign development assistance and find ways to improve its effectiveness and efficiency. Leo Hindery, MBA '71, the commission's co-vice chairman, and Eric Postel, MBA '83, were appointed by former Senate Minority Leader Tom Daschle. The two Business School alumni joined forces on a study trip to Malawi and later worked long hours on the committee that wrote and revised the commission's final report, which was delivered to the president, secretary of state, and Congress Dec. 10.

The commissioners agreed that aiding developing countries with the aim of making them self-reliant is in America's national interest. But the process is not working. They found an incoherent mishmash in which at least 20 government units separately dispense aid and often are at cross purposes, with the Department of Defense taking on an increasingly large role. Furthermore, "our professional



Leo Hindery, MBA '71, the HELP Commission's co-vice chair, greets one of his hosts in Malawi.

As a member of the HELP Commission. Eric Postel. MBA'83. above right, visits Malawi to analyze disbursement of foreign aid to developing countries.

development corps has been eroded and replaced with people who must focus mainly on managing outside contractors," they wrote.

The commission's solution is to restructure the system: Put development on a par with diplomacy and defense, integrate aid agencies, coordinate with the private sector and nongovernmental organizations, and develop a long-term strategy—with funding—that can survive political party change.

"Only when bold leadership is prepared to enact bold, enduring changes through legislation can we fix the now long-standing problems," they wrote. "We encourage the next administration and Congress to take the necessary steps to overhaul America's approach to development assistance, and we urge Americans to support our call for change."

### Invasive Plants on Her Don't List

"Fifty percent of invasive plants in California are introduced by gardeners," says Ashley Boren, MBA '89. Boren is executive director of Sustainable Conservation, which has teamed with stakeholders in the horticultural industry, environmental organizations, and government to prevent gardeners from innocently cultivating plants that jump from garden to wilderness and take over. Not all non-native plants are invasive, but the group has identified and listed the state's worst offenders, suggested attractive alternatives, and posted the information where California gardeners can easily find it at www.plantright.org. The taskforce is also enjoying considerable success at enlisting nurseries and garden centers to voluntarily stop selling 21 identified invaders.

Sustainable Conservation, a San Francisco-based nonprofit with a \$2.3 million annual budget



Ashley Boren, MBA '89

and 18 staff members throughout California, collaborates with businesses and other groups to find sustainable solutions to environmental problems without involving excessive legislation or costly litigation. "We've established a strong track record across the state," Boren says.

Its partners are as diverse as its projects. Sustainable Conservation

has worked with brake pad manufacturers and auto recyclers to find ways to alleviate pollution caused by those industries. It put together an alliance of everyone from the Audubon Society to the California Cattlemen's Association in an effort to grow communities of tricolored blackbirds and keep them off the endangered species list, which would in turn endanger the Central Valley farmers whose land they inhabit. And it is currently working with dairy farmers to turn their cows' other major product, methane, into energy.

Boren was appointed to the California State Board of Food and Agriculture by Governor Schwarzenegger, and she received the 2007 James Irvine Foundation Leadership Award for her important work in "advancing solutions for California's future."

### Study Groups Keep Alumni Brains Limber

When **Chris Tilghman**. MBA'04/ MA Education '05, was a student, he loved study groups. "I showed up here and said, 'This community is awesome. How do I preserve this opportunity to learn?"" The answer: Tilghman started a program that allows alumni and doctoral students to learn from each other.

The Community Study Group program, which now is organized by the Business School's Lifelong Learning department, offers six-week courses in which one or two PHD students meet with a group of 12 to 18 alumni to explore a given topic-most recently, "Power, Status, and Social Hierarchy."

Tilghman, who is director of higher education marketing at InsideTrack, a college coaching service, said the new model addresses important needs. "Alumni get access to cutting-edge research. Students get access to working business people. The quality of the exchanges is generally rich."

Kimberly Rios Morrison, a PHD candidate, said the program helped her expand her abilities as an academic. "Teaching the MBA and Sloan alumni gave me

a better sense of how I could further my students' professional growth while making sure they thought critically about the subject matter," she said. "I am currently on the academic job market, and because a few of the schools that I'm applying to emphasize both teaching and research, I couldn't be happier that I decided to lead a study group."

Tilghman said he keeps coming back for "the little flashes of insights, learning something new, seeing something in a different way. It is such an intellectually rich environment. You don't find that everywhere. When you do, you want to mine it as much as you can."

Learn about upcoming study groups at the Lifelong Learning web page.

### Classroom Links Former Adversaries

"Some of my fellow students don't exactly have a warm spot in their hearts for activist groups," wrote executive education participant Mark Powell, vice president for fish conservation at Ocean Conservancy, in his blog at blogfishx.blogspot.com.

Powell's fellow students in last vear's Business Strategies for Environmental Sustainability executive program included other managers of environmental

### **Q**uotable

"I understand the technology. I understand the medicine. But you have to make a business out of it. That was the part I was missing. That was what attracted me to Sloan."

William New, Sloan '81, at the Sloan Program's 50th anniversary celebration in September. A physician and engineer, he founded the medical products company Nellcor immediately after graduating from the program. He is now chairman of the Novent Group, which funds young medical companies.



### "A brand is a promise to a customer. A successful brand delivers on that promise."

Marketing professor **Jennifer Aaker** at the Nonprofit Management Institute in September; she advised nonprofits to establish a brand to build relationships and then actively manage and measure the relationships.



"Nobody has to work for you. They all have a choice. It's our assignment to be able to energize them and influence them so that they all want to be around us."

Bill Amelio, Sloan '89, explaining that the best leaders learn to treat employees like volunteers. Amelio, who is president and CEO of Lenovo Group, took part in a leadership panel at the Sloan Program's 50th anniversary celebration September 13-15.

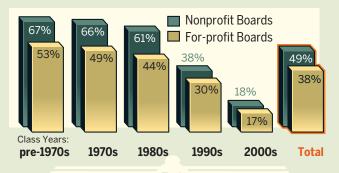
organizations as well as executives from Oracle, Hewlett-Packard, and ConocoPhillips. Over six days in September Powell, and presumably others, gained understanding.

"I heard specific case studies of people building alignment where there was once no alignment, to real advantage," Powell wrote. "I heard business leaders in the class groping for solutions, just like me. What do ya know?! As they say where I come from: 'Well, shut my mouth.' And maybe, once or twice, I did."

The program was full of surprises for Powell: "I can tell you that supply chains are sexy," he wrote. It changed his attitude toward business: "It comes as a welcome surprise to me to find

### Alumni Snippets

### **Alumni Service on Governing Boards** Since Graduation



50% of men and 40% of women have served on nonprofit boards.

46% of men and 14% of women have served on for-profit boards.

SOURCE: 2006-07 GSB-wide and reunion-class surveys (3,681 male and 1,121 female respondents)

### Can You Guess?

What percent of GSB alums have run for elected office since graduation?



### Placement Report: MBA Class of 2007

INDUSTRY	Percentage of Class	Median Base Salary	Median Base + Bonuses
Consulting	29	\$120,000	\$162,000
Private Equity/LBO	12	\$125,000	\$252,500
Investment Management	10	\$120,000	\$ 187,500
E-Commerce/Internet Services	7	\$105,000	\$142,000
Hedge Funds	7	\$125,000	\$300,000
Consumer Products & Services	6	\$ 92,500	\$ 120,550
Investment Banking/Brokerage	5	\$ 95,000	\$235,000
Biotech/Pharma/Medical	4	\$102,500	\$ 117,500
Real Estate	4	\$ 110,000	\$203,000
Computer Hardware	3	\$ 110,000	\$125,000
Nonprofit	3	\$ 70,000	\$ 90,000
Venture Capital	3	\$150,000	\$225,000
Media/Entertainment	2	\$ 115,000	\$150,000
Software	2	\$ 110,000	\$ 143,250
Financial Services-Diversified	1	\$95,000	\$ 170,000
Other Services	1	\$ 110,000	\$ 110,000

Total does not equal 100% due to rounding.

TOP FUNCTIONS: consultant, 35 percent; private equity analyst, 14 percent; investment portfolio manager, 12 percent

BASE SALARY: median: \$115,500 (range: \$54,000-\$300,000) **SIGNING BONUS:** median: \$20,00 (range: \$4,000-\$180,000)

OTHER GUARANTEED COMPENSATION: median: \$40,000 (range: \$5,000-\$410,000)

SOURCE: Stanford Business School Career Management Center. For further details: www.gsb.stanford.edu/cmc

out that smart people have been studying and thinking about the dynamics of business/environmental nongovermental organization relations for some time." And he found he had something to learn from a business school perspective: "The study of business strategies is just the study of change, and I'm in the business of promoting change."

Powell's bottom line: "Kudos to organizer Professor 'Wild' Bill **Barnett** and his team for a truly great learning experience. This very strong program is in its first year and deserves to continue."

### Firsthand Experience for **Budding Entreprenuers**

The Center for Entrepreneurial Studies racked up nine successful years of its Entrepreneurial Summer Program (ESP) last year. The program offers financial and other forms of assistance to MBA students who forgo hefty corporate salaries to spend 8 to

10 weeks working in a company that's just getting started or is in its early stages of growth.

About 30 students a year take advantage of the program. "I suspect that if we didn't have the ESP, the number working for small startups would be less than half that," said Irv Grousbeck, director of the Center.

The wannabe entrepreneurs "can see firsthand what the founders are going through. They can see what it's like to be in a 10-person company instead of a 10,000-person company," Grousbeck said.

"I used to picture Silicon Valley startups as all run by 22year-olds," said **David Silver**, MBA Class of '08, who worked for Scalent Systems, a Palo Alto infrastructure software company that provides software to repurpose servers in data centers. "But enterprise software tends to be a whole different ballgame," he said, adding, "It was awesome to be at the intersection of a great company and a really hot market segment right as the industry was taking off."

### Hail, Stanford, Hail

Even Beethoven might not recognize the da da da DUM of his Fifth Symphony as performed, excruciatingly, by a long-haired, leather-clad "keytar" player in one of three 30-second TV spots that ran during Stanford football games last fall. And neither may a few Stanford alumni understand why their beloved hymn, "Hail. Stanford, Hail," was used as the punch line of the hilarious tongue-in-cheek series.

# This "keytar" player promotes

Stanford during halftime telecasts of Stanford football.

"All of the other schools put their promos through what I call the 'blander," Bruce Miller, MBA '75, the ads' creator, told the industry chronicle Adweek. Miller, who is CEO of Dailey & Associates, described the runof-the-mill freebie National Collegiate Athletics Association football promo: "There's the obligatory shot of the quad, the earnest professor lecturing an attentive class, and plenty of ivy." Miller focused instead on the quirky but proud heritage of Stanford, which cheers its notactually-marching band with almost as much zeal as it touts its 27 Nobel laureates.

"For over 100 years, Stanford University's devotion to knowledge through exploration has paved the way for world-changing inventions, inventions like the FM synthesizer," Miller's narrator intones as the dreadful music plays in the background. "By modulating the amplitude and frequency of wave forms, this music synthesis produced simple timbres that would later replicate entire orchestras and spawn generations of musical exploration. Hail, Stanford, hail." Cool, Stanford, cool.

### San Diego Fires Ignite Volunteerism

Early in October, Daisy Gordon Crompton, MBA '97, drove her stepson to school and then returned to her home in La Jolla,

### **Global Immersion Photography**





MBA students who do internships between their first and second year in the Global Management Immersion Experience program return to campus anxious to share their explorations in photos, so a contest was born. Winners this year were Alon Krashinsky for the photo at left of a woman and her daughter at Ellora Caves near Aurangabad, India, and Eric Wong who photographed himself with a pineapple treat on Seminyak Beach in Bali. From its 1997 beginnings in China, the internship program has expanded to 41 countries.

Calif., near San Diego. At least she tried to return. The street was barricaded because of a massive landslide in which six houses eventually were lost and many more damaged. Crompton and her family could not sleep in their house for another two weeks. Two days after their return, a series of horrific fires broke out in San Diego County, and Crompton spent the following week working 12-to-16-hour days at the county's emergency command center as a volunteer. How did she feel after all that stress? "Lucky," she said.

Crompton was buoyed by the fact that 2-1-1 San Diego, the county-funded nonprofit information and referral call center that she helped launch in 2005, came through the fires with flying colors. She had spent two years as project manager for the 24-hour referral center, overseeing all of the non-operations aspects of the launch-strategic planning, product development, committees, revenue development, marketing, website, and publicity. Two years later, she was the only volunteer at the county command center with the necessary background to fill in for their trained 2-1-1 disaster responder.

In the first eight days of the fires, 2-1-1 San Diego fielded 108,000 calls, compared with 125,000 in all of 2006. "It would

Daisy Gordon Crompton, MBA '97, volunteered in the San Diego County's emergency command center during the 2007 fires.

have easily exceeded last year's entire call volume if we hadn't been overloaded," Crompton said. "Once we successfully brought up additional phone lines mid-Tuesday, calls reached a peak of 25,000 on Wednesday, the fourth day of the fire."

Overall, the impressive professional, volunteer, and corporate response to October's emergencies seems to bode well for the community. "When the landslide hit, the city mobilized," Crompton said. "It was like a rehearsal for the Big One."

### **Executive Education** Barcelona Bound

The Business School's Center for Social Innovation is taking its message on the road. In March it will cosponsor a new executive education program with Escuela Superior de Administración y Dirección de Empresas (ESADE), one of Europe's most highly regarded schools of management. The program, Corporate Social Responsibility: Strategic Integration and Competitiveness, will explore ways in which companies can incorporate societal and environmental perspectives into strategic thinking.

"ESADE has a longstanding research center on corporate social responsibility," said Julie Juergens, the Center's director of programs and external relations. "We're delighted to be partnering with them on the Business School's first-ever executive education offering in Spain."

The program meets in



### **Cautionary Reminder from Classmates** of Jailed 1993 Alum Jude Shao

WHEN WE SAW THE AUGUST ISSUE COVER ARTICLE. "Probing the Realities of Business in China," we were surprised that there was no mention of an alumnus who has faced the harshest "reality" for the past nine years as a result of running a thriving U.S. medical equipment import business co-located in Shanghai and San Francisco. Our friend and classmate, Jude Shao, MBA '93, might have added his advice to that of the other alums if he were not serving a 16-year prison sentence in Shanghai.

As Professor Glenn Carroll noted during the faculty study trip, China's political economy is intimately entangled with China's brand of capitalism. But China's lack of legal infrastructure extends far beyond the shaky intellectual property rights protection mentioned by Sequoia Capital China founder and fellow alum Fan Zhang, and can actually result in criminal charges for business behavior that in the United States is considered ethical. Jude ran afoul of local government officials who solicited him for a bribe to stop a "special tax audit." When Jude refused to pay the illegal bribe, he was arrested "to teach him a lesson" and held incommunicado in a local jail for 24 months. Later, without the chance to review the evidence against him, he was convicted of tax evasion in the Chinese courts.

Lest you think this is an isolated case, the Dui Hua Foundation counts over 40 American citizens in Chinese prisons or detentions for so-called "economic crimes." Most are ethnic Chinese who speak the language and understand the culture, but these advantages, the benefit of American citizenship, and lack of wrongdoing are often not sufficient protection in a country without legal transparency and with ingrained local government corruption. Doing business in China offers many opportunities, but there are also serious risks that were not mentioned in your coverage, particularly to entrepreneurs without deep pockets.

Americans behind Chinese bars also languish despite the best advocacy available. For example, while members of Congress, the State Department, and even President Bush have pressed the Chinese government for Jude's release during the past nine years, he remains in prison.

For more information on Jude's case including the latest media coverage, and to learn how to help, please go to www.freejudeshao.com.

-Chuck Hoover, Cyn Dai, Caroline Pappajohn, Lang-Ang Pham, and Mark Williams, all MBA '93, The Free Jude Shao Campaign

Barcelona March 26-28, and is aimed at European executives who are considered decision makers for their companies. Classes will be taught in English by faculty from both institutions: Bill Barnett and Hau Lee will represent the Business School.

### **Turnaround Artist Faces Down Bankruptcy**

In an industry known for stiff competition, market volatility, and demanding customers, Continental Airlines CEO Larry Kellner found a formula guaranteed to smooth the ride.

When Kellner joined Continental as CFO in 1995, he confronted \$2.3 billion in debt defaults, no cash, and a third potential bankruptcy. He proceeded to come up with a turnaround plan that defied conventional wisdom and some of the standard operating practices of the times.

"If you don't spend any money you're not going to make it," he told a Business School audience in October. His number one priority: Bring flights in on time. How to do it? For every month the company made it to the top five

### **New Ventures**

### **Mountainous Equity**

Baby boomers have been snapping up land in the Mountain West as fast as they can fire up their private jets, and two Business School alumni-one with a background in conservation, the other with experience in investing-are riding the boom. Environmentalist Carl Palmer and former venture capitalist Robert Keith, both MBA '03, founded Beartooth Capital Partners, a real estate private equity firm, to generate strong financial returns through the restoration and conservation of ecologically important ranchland. Beartooth purchases properties in the Greater Yellowstone ecosystem, a sublime landscape of mountains, rivers, and meadows in Montana, Idaho, and Wyoming. Before reselling parcels, which usually measure upward of 1,000 acres, the company restores habitat to make it attractive to wildlife-and, consequently, to buyers-and places the properties under conservation easements that encourage agriculture and permanently limit subdivision and development. Founding a company like Beartooth was a dream of Palmer's—he presented

the original model as a project in **Joel Peterson**'s real estate investment class at the Business School. "I felt this could be a real engine for conservation," Palmer says.

### Marketing Software

Cofounded in 2006 by Jon Miller, MBA '99, Marketo provides on-demand marketing automation software for business-tobusiness marketing professionals. Marketo's first product automated the process of generating business leads. Its second, which was introduced in November, helps analyze those leads and nurture the most promising prospects. Miller, who serves Marketo as vice president for marketing, founded the company with two fellow veterans of Epiphany, a customer relationship management firm. Learn more about Marketo at marketo.com.

### StairMaster for Brains

The gym wants three hours a week for body maintenance. Now Alvaro Fernandez, MBA '01, is asking for another hour and a half to work out your gray matter on his website, SharpBrains.com.

Doing crossword puzzles is good, Fernandez told the Birmingham News, "but like your body, you don't just exercise one part of the brain." Fernandez, who cofounded the startup with a neurologist, predicts the "same surge in brain exercise that occurred with physical fitness in the '70s." The Los Angeles Times, which also interviewed Fernandez, described the new business of mental exercise as "a StairMaster for the brain."

### Online Tuition Coach

According to College Company cofounder Monisha Perkash, MBA '03, "Everything you've been told about the process of applying to college first and then finding the financing is wrong." College Company's Tuition-Coach helps families calculate college costs, navigate the labyrinth of funding possibilities, learn how to fill out financial aid forms, and analyze aid offers, all online. It also gives personalized advice by email. Perkash, who is CEO of the company, credits one of her high school teachers with finding her the financial aid she needed to

attend college. "I've decided to dedicate my life to doing the same for other students," she told the Oakland Tribune. Families can learn more at TuitionCoach.com.

### **Instant Conferencing**

In parts of Africa, the word boma signifies a fortified area that protects its inhabitants. Boma Systems was cofounded by Alan Larson, MBA '90, with the same purpose. The company's Push 5 telephone system allows a subscriber experiencing an emergency to instantly and silently call as many as 12 people with a single push of the speed dial 5 button on the phone. If the caller is able to talk, he is placed in an instant conference call with evervone who answers. Even if not, the service informs the contacts of the emergency alert from their friend. Boma's second product is a non-emergency version of the first. With Boma Instant Connect, the caller sends a message announcing a conference call to whatever group she chooses, stays on the line, and speaks with all who pick up. Learn more about Boma services at BomaSystems.com.

for on-time arrivals, employees would earn an additional \$65.

Within 30 days, Continental moved up to fourth place for on-time arrivals, and within two months, gained the number one slot—a ranking it still holds. "All of a sudden the employees who had been ripping the Continental patches off their uniforms when they went to Wal-Mart after work were in the company store buying Continental hats," Kellner said.

Continental's "Go Forward" plan gave employees more ownership in the company's success and more transparency about how the company was run. Kellner, who is credited with making Continental the world's fourthlargest airline, is not stopping

there. "You've got to constantly reinvent the business, reinvent the way you do it, and keep your product fresh," he said. "I fly our competitors on a regular basis-I want to see what they are doing, how they are rolling out their service, what we can take from them. I will gladly take anything anyone does that's smarter."

### **Even Ordinary People** Can Change the World

Never underestimate the influence of Oprah, the power of presidential praise, or the impact of a great idea.

Last fall, television host Oprah Winfrey welcomed former President Bill Clinton to her show. Clinton was promoting

his latest book, a paean to philanthropy called Giving: How Each of Us Can Change the World. Front and center in the audience were Matt and Jessica Jackley Flannery, MBA '07, who had founded the online microfinance site Kiva, praised in Clinton's book for giving ordinary people everywhere the opportunity to change the world by making small loans to entrepreneurs in developing countries.

The day the Flannerys briefly appeared on Oprah, Kiva.org registered 4,388 new users and raised \$145,000 in loans to businesses, almost four times the average daily total of the previous week. The following night, after raising another \$153,000, Kiva "sold out." Even

with a temporary cap of \$25 on all loans, every entrepreneur in Kiva's portfolio was completely funded. Kiva was back in businesses in days, but the cap stayed on for much of the following two months.

Meanwhile. Clinton continued his book tour, and at every stop, it seemed, he spoke of Kiva. In what must rank as the highest praise given an internet startup in recent memory, here's how the former president summed up the company on Fox News: "Kiva.org gives you a chance to do what Muhammad Yunus won the Nobel Peace Prize for." •

FROM PAGE 7

And the answer is: 2%

## Stanford Smarts in China's Art Marts

IN THE MID-1990S, a European contemporary art connoisseur called the Chinese contemporary art collection of Guy Ullens, MBA '60, "rubbish." Few people internationally, let alone in China, were interested in Chinese contemporary artists or their art. "Nobody knew about them," the retired Belgian businessman chuckled.

How times have changed. Last October, a painting by Chinese contemporary artist Wang Guangyi sold to a buyer at a London auction for \$1.59 million, 63 times more than its American seller paid in 1996. Ullens, who owns one of the world's finest Chinese contemporary collections, has helped foster this change in international attitudes. Now, with the recent opening of a groundbreaking contemporary arts center in China, the 72-year-old collector is bent on changing Chinese attitudes as well. He explained, "The whole thing is to promote Chinese artists and at the same time show Western art. The Chinese will learn very fast."

Soaring prices, expanding Chinese wealth, and an emerging market spell opportunity for the entrepreneurial, so it is no surprise to find Business School graduates investing in China's art marts. Craig Yee, MBA '03, and

Chris Reynolds, MBA '04, have started an art management company focused on classical Chinese art. According to Pauline Yao, an independent curator formerly with the Asian Art Museum in San Francisco, these projects indicate "a growing awareness of art among the Chinese, who, because of the improved socioeconomic situation, have time and money to indulge in art." They also represent two different approaches toward enhancing the value of art. If successful, they will further the Chinese art market's development.

Guy Ullens de Schooten did not always spend his days promoting Chinese contemporary art. Taking over his family's food empire in the early 1970s, the Belgian baron had by the late 1980s turned the troubled conglomerate around. Just prior to his retirement, his Artal Group in 1999 bought a majority stake in Weight Watchers from food giant H.J. Heinz.

Ullens' attempts to gain a business foothold in Asia proved less suc-



The arts center is in a restored Germanbuilt electronic components factory in Beijing's 798 Arts District, which expects to draw large crowds during the summer Olympics.



The Ullens Center for Contemporary Art in Beijing opened in November, boasting one of the largest art spaces in the world for Chinese contemporary art.

cessful. But during his many trips to Beijing, he often relaxed on weekends with local contemporary artists. The businessman's ease in the seemingly alien worlds of art and China stemmed from a long family history in both, including a father and uncle who were diplomats in China after World War I.

During the 1980s and 1990s, Chinese authorities often shut down contemporary art exhibits, which they viewed as social threats. Artists,

### Four alums try two approaches to building markets for old and new Chinese art.

with little commercial experience or following, were ecstatic to earn \$5,000 for a painting, Ullens says. Moved by their work, he eventually amassed a collection of more than 400 pieces.

Upon retiring in 2000, Ullens and his wife threw themselves headlong into their passion; in 2002 they mounted the largest Chinese contemporary art exhibition in Europe. After holding a few more exhibitions, Ullens hired prominent Chinese contemporary art expert Fei Dawei to help him realize the full potential of these efforts. Fei advised him to include video and installations. "I'm an amateur," Ullens recalls replying, "Where am I going to store all that?"

Thus began Ullens' search in 2004 for storage in China, which eventually snowballed into the Ullens Center for Contemporary Art: an enormous, state-of-the art exhibition space in Beijing's thriving 798 Arts District. He signed a lease in June 2005 for a dilapidated electronic components factory built in the 1950s by East Germany. He then



Guy Ullens, MBA '60, with his wife, Myriam, in front of paintings by Chinese artist Geng Jianyi, at the Ullens Center. Their Beijing art museum features an auditorium, library, and three exhibition halls for showing contemporary Chinese and foreign art work. At right, two views of the Beijing center's opening exhibit. Below, the Ullens inspect work by contemporary Chinese artists.

hired a top international architect to transform its two 25,000-squarefoot industrial spaces into three exhibition halls, a 200-seat auditorium, a contemporary art reference library, a children's center, a shop, a cafe, and VIP facilities. The center, which opened in November with Fei as artistic director, holds solo and group exhibitions of Chinese and foreign artists in addition to programs aimed at educating visitors. More a museum than a gallery, it does not price or sell exhibited works.

Ullens is currently financing the project himself. He originally hoped to set it up as a nonprofit, but greater bureaucratic scrutiny and an underdeveloped legal code for nonprofit foundations made him opt to operate it as a commercial venture. The center still runs itself on a not-for-profit basis, however, with all income earned from admission fees, and room rentals plowed back into the project.

Ullens will not profit financially from the Center. But like all works exhibited there, the value of his personal collection should benefit indirectly from the public exposure. He insists he will have little say over art programming matters, however, and leaves decisions on shows and works chosen to the Center's curators.

From the project's outset, Ullens leaned for help on Boston Consulting Group's China team, led by David Michael, MBA '92. The team was instrumental in devising the center's strategy, dealing with the Chinese government, and recruiting and training staff. "Without them we would not exist," Ullens insists.

The center's opening is well timed commercially and politically. The high prices contemporary artworks are fetching at auction these days and the staging of the summer Olympics in Beijing in August should spur attendance. Moreover, the center's mission coincides with Chinese government efforts during the Games to highlight the country's cultural progress in addition to its economic achievements.



Ullens credits his Stanford training with giving him the vision to seize a unique opportunity. He said: "We probably would not have the chance again because the building would cost too much and we'd face too much competition [from other large internationally recognized groups]. Here we will be the first. It's really the Stanford way of thinking."

Of course, being first and high profile in a country like China is risky. The government is likely to watch the project more carefully than smaller exhibition spaces, and such scrutiny hampers the center's ability to offer edgy art. Some galleries hold controversial shows without government approval—something the Ullens Center can ill afford. "We have to be sensitive not to anger the censors and Chinese society in general, which is fairly puritan," Ullens acknowledges.

The project fills critical gaps in China's contemporary art scene by raising overall standards and indirectly enhancing the value of works shown there. Although there are a handful of private and state-run professional, and more cash-strapped. They sometimes undermine their credibility by accepting payment from artists for exhibition space. "The Ullens' project is important because it is so dedicated to running the project in a highly professional way," explains Yao, the independent curator formerly with San Francisco's Asian Art Museum. The center also brings greater intellectual rigor and international prominence to the market. According to Yao, "A big difference is the caliber of artists the center will be able to work with because it has such a reputation outside of China." SIMILARLY, CRAIG YEE AND CHRIS REYNOLDS are finding opportu-

nity in the inefficiencies of China's market for classical pre-1949 Chinese paintings. They set up an art management company focused on raising private equity funds to buy high-quality collections that are undervalued due to credibility problems dogging that market. After closing the credibility gap, mainly by conducting academic research on the paintings, China Fine Art Management (CFAM) plans to sell the collections for a profit.

exhibition spaces for contemporary art in China, they are smaller, less

Their business model grew out of a Business School independent study project that merged Yee's knowledge and passion for Chinese art with Reynolds' financial know-how and desire to invest in China's expanding private wealth. The pair met at the school's Asian Society, where Yee expressed to Reynolds his many frustrations with the Chinese art market. Sensing a commercial opportunity, Reynolds investigated possibilities in an independent project with two Business School experts on inefficient markets, A. Michael Spence (2001 Nobel laureate for work on signaling theory) and the late John McMillan (expert on market design and problems plaguing developing economies). "This is an example of the benefits of the cross-disciplinary mindset and entrepreneurialism that the GSB fosters," Reynolds says.

Since its inception in 2005, CFAM has raised a \$35 million fund (Spence is one of its investors), is in varying stages of acquiring major collections, and is undertaking a large-scale research project in China of targeted works. "The project concurs with advice I'm giving my clients, which is that classical Chinese paintings remain an undervalued sector of the market," says Chinese art agent William Hanbury-

Tenison, comparing the situation there to the speculation he sees occurring in Chinese contemporary art.

Undervalued? Some collectors of classical Chinese paintings have seen values jump 10-fold since the 1980s, with 19th- and 20th-century painting prices surging more than 30 percent over the past five years. Reynolds attributes this growth to the entry of newly rich Chinese mainlanders into the market.

Still, genuine masterworks consistently sell at a discount of their appropriate value, he explains. Most classical Chinese paintings for sale at auction are either mediocre in quality or fake. Auction houses and museums do not have the expertise to judge the quality and authenticity of classical Chinese paintings for buyers like they do for mature markets. Indeed, the world's most well-known auctioneers, Christie's and Sotheby's, stopped guaranteeing classical Chinese painting authenticity in the 1980s following repeated difficulties retaining credible experts. Buyers assume the worst and pay accordingly. Collectors subsequently resist putting genuine masterworks up for sale for fear of not realizing their full value.

To overcome this market failure, Reynolds and Yee target for pur-



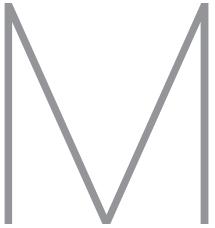
While they were GSB students, Chris Reynolds, MBA'04, left, and Craig Yee, MBA'03, researched Chinese art markets, which led them to form a private equity company that invests in classical Chinese art, such as the 1925 ink-on-paper scroll by Wu Changshi, below left, and the 1946 ink landscape by Lin Fengmian, below right, both owned by a Berkeley, Calif., family.





chase museum-quality works or collections with established ownership histories but little public exposure. They then invite scholars to do research on the pieces and publicize the findings in publications. exhibitions, and conferences. "By inviting scholars to authenticate the works of art, you add another layer of approval that may make these works more acceptable to the marketplace," Tenison says.

Ultimately, Yee and Reynolds hope to help the market better discriminate between good and bad paintings by damping doubts about collections in CFAM's portfolio. By obtaining premium prices for authenticated paintings upon resale, they expect to generate healthy profits for their investors and themselves. "CFAM is trying to drive greater efficiency by creating more transparency," Yee explains. "If we do what is good for the art, we will enhance its value"—and theirs! •



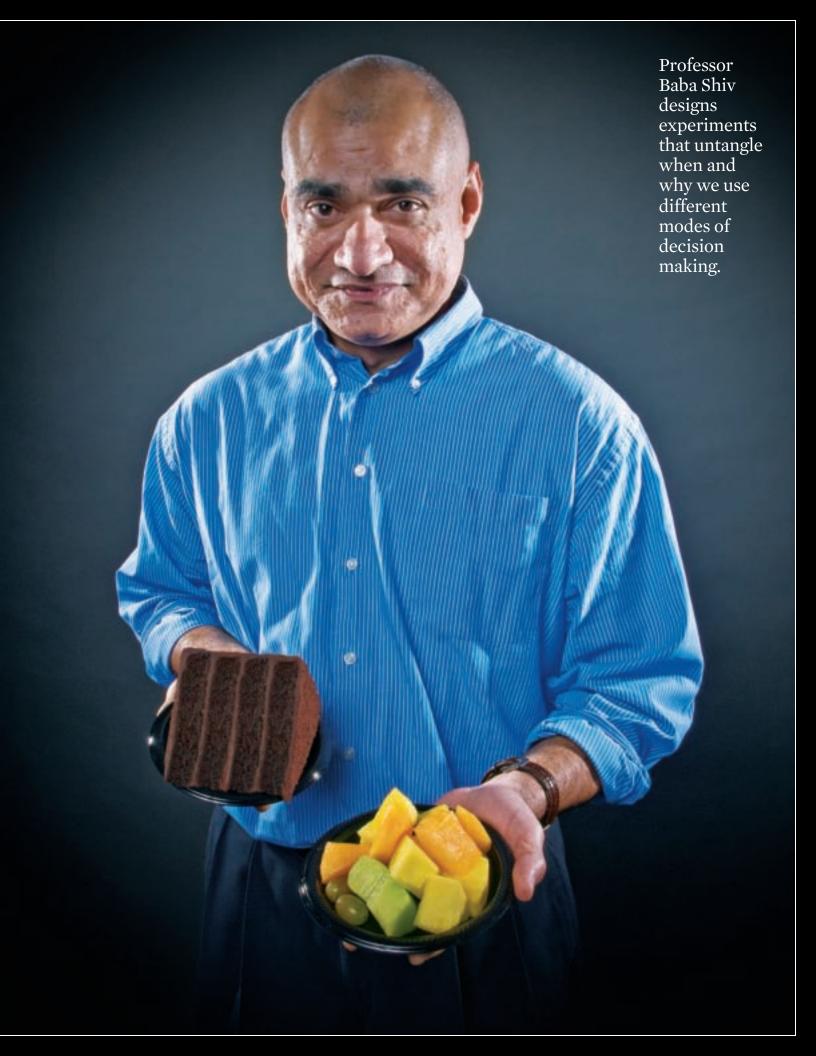
MICHAL BORTNIK, A SECOND-YEAR MBA STUDENT, was one of 14 who had arrived on campus before the start of classes to attend Professor Baba Shiv's intensive week-long elective seminar on "The Frinky Science of the Human Mind." Bortnik, who had been a computer science major, had no particular interest in psychology or neuroscience; he was there for one reason: He'd heard that Shiv is "awesome." The award-winning teacher, an associate professor in the marketing area since 2005, didn't disappoint: In the first session alone, after instructing everyone to call him "Baba," he took apart a model of the human brain and gave a whirlwind tour of its emotional circuitry, presented the intellectual history of emotions in decision making, and managed to tie it all in with, among other things, emotional branding in Coke and Pepsi TV ads, Best Buy's problem with product returns, and Google's \$3.1 billion purchase of DoubleClick. Throughout, Shiv wove in research results that he calls "frinky"—not a dictionary word but one his son made up to mean counterintuitive and funky. Case in point: The Shiv study that became fodder for a Jay Leno monologue.

The study, which aimed to see the effect of emotions on making simple investment decisions, examined how well healthy adults performed compared to patients with damage to the emotion-processing regions of the brain. The rules were simple: Participants each got \$20 they could use to place \$1 bets on 20 tosses of an ordinary coin. Each losing bet would cost \$1, while >>



by Marina Krakovsky

Photograph by OLIVIER LAUDE



each winning bet would earn \$2.50. From a cool-headed distance, the right decision is a no-brainer: Given the payout and the odds of winning, of course you should bet every time. But anyone at all familiar with prospect theory in behavioral economics, developed by legendary psychologists Daniel Kahneman of Princeton and the late Amos Tversky of Stanford as an alternative to theory on expected utility, knows that's not what most people actually do. Irrationally, we're risk averse, finding the pain of loss much greater than the pleasure of equivalent gain. And, sure enough, in Shiv's experiment the healthy participants passed up several chances to place a bet-and, as fear mounted with each subsequent coin toss, were less and less likely to take the gamble. As a result, they earned an average of only \$22.80. A typical demonstration of loss aversion? Perhaps, but here's the frinky part: The Mr. Spock-like ("Vulcan") patients earned \$25.70, on average, because they remained unswayed by the fear of loss throughout the game.

Enter Leno. "If you've been banging your head against the wall, frustrated with your investment returns," he advised on the Tonight Show, you should "keep banging your head against the wall." Bada-Bang, Bada-Boom. Needless to say, that won't work, even when you strip away the enormous complexity of real-world investment markets, as this study did. (Nonetheless, for good measure, Shiv and his colleagues-behavioral economist George Loewenstein and neuroscientists Antoine Bechara and Hanna and Antonio Damasio-also

# Because of rapid progress in neuroscience over the past decade or so, the field of decision making has boomed.

had tested patients with other forms of brain damage and found that their performance was about the same as for normal individuals. In other words, blunted emotions are the key.)

But this research doesn't simply confirm what philosophers from Plato through Descartes and beyond have said about emotions as the enemy of reason. In fact, in the complex world outside the lab, people with impaired emotional circuitry tend to be terrible decision makers. Without benefit of fear, regret, embarrassment, or other visceral cues to guide them, they careen from one poor choice to another, repeatedly failing to learn from their mistakes. What's more, as Antonio Damasio described in his book Descartes' Error (and as Malcolm Gladwell further popularized in Blink), these lesion patients are crippled by a bizarre—vou might even say irrational tendency to vacillate over the most trivial decisions, such as which appointment slot to take or which \$15 gift (a wallet or a pen) to accept for participating in a study. They're a little like the proverbial ass who starved to death for failing to choose between two equally good stacks of hay. Compound all this poor decision making by the countless choices our lives demand and it's clear why life with severely impaired feelings doesn't work: Humans evolved emotions for good reason.

"The belief in the academic field is that emotions are essential to decision making, otherwise you'll end up making bad decisions," Shiv says. "But," he adds, explaining his huge contrarian streak, "I can show the opposite as well, that brain-damaged patients can make better decisions than normal individuals."

So what's going on—are emotions beneficial or detrimental to good decision making? There's no simple answer except, "It depends." But on what? In making choices, when is it better to think things through and when should you go with your gut? And given that we have both modes of decision making at our disposal, why do we sometimes give in to our impulses even when we know better, while other times we show more self-control?

These sorts of questions fascinate Shiv, a major player in the field of "decision neuroscience," the study of how the brain makes decisions. Since becoming interested in the role of emotions in decision making as a doctoral student at Duke, Shiv has sought out a variety of collaborators and just about every research tool available to probe the workings of the human mind as it makes decisions. His findings have not only offered clues to interesting theoretical questions but also given practical insights to marketers and consumers hungry for real-world applications.

HIV CAME TO DUKE after a brief marketing and sales career in his native India, where he earned his MBA in consumer marketing. For his PHD thesis he studied advertising. But his focus gradually shifted, in part through the influence of his dissertation co-advisor Jim Bettman, a leader in the field of consumer decision making. By the time he got his PHD, Shiv was interested enough in decision making and the brain to take a job at the University of Iowa mainly on the strength of its neuroscience program.

Because of the rapid progress in neuroscience over the past decade or so, the field of decision making has boomed as well. "It used to be you could think of decision making as a separate kind of process: There was perception and there was decision making," explains Stanford psychology professor James McClelland, who heads the University's multidisciplinary Center for the Mind, Brain, and Computation. "But when you think of the neural mechanisms involved, the boundaries between them start to become more vague. When you open your eyes and you see an object and end up thinking it's a cup instead of a bowl, that's a neural process that ended up with one interpretation or another."

In that sense, all aspects of our daily lives involve constant decisions, whether or not we're aware we're making them. Do you put on a bicycle helmet before you hit the road? Do you opt for the salad over the cheeseburger in the cafeteria line? Even quick, often unconscious choices like these can have important consequences, which is one reason scientists studying everything from mental health and addiction to law and public policy are interested in decision neuroscience. And that's why Shiv and some of his colleagues find the term "neuroeconomics" too limiting, though it's been used to describe Shiv's work. "This research applies to all fields where people have to make decisions," says Bechara, now an associate professor of psychology at the University of Southern California.

One area of particular interest is the interplay between deliberate, analytical processes and the more primitive, visceral paths to a decision, and Shiv has been a pioneer in the growing understanding of these issues, says Bettman, a long-time marketing professor at Duke's Fuqua School of Business. "Baba did his empirical work early on, before it became a cottage industry as it is now," he says. "He was one of the first to come up with a nice empirical demonstration illustrat-





ing the tug between more automatic or emotion-driven or intuitive processes versus more thoughtful, cognitive processes—the immediate tug of the chocolate cake versus the cognitive tug of the salad."

Bettman is referring to a 1999 paper based on one of Shiv's characteristically elegant experiments. Shiv and his coauthor, Alexander Fedorikhin, showed that participants who had been asked to memorize a seven-digit number were much more likely to choose chocolate cake over fruit salad than those who'd been asked to memorize only a one-digit number. Carrying a lighter cognitive load, the one-digit group had more brain power left to resist the lure of the cake.

Shiv has done many such experiments, both in the lab and in more natural in-store settings. But when it comes to deeper questions about emotions, these experiments can take you only so far, Shiv says. For one thing, emotions are by nature fleeting. Not only that, but peo-

"Emotions help us resolve trade-off conflicts. When you feel a trade-off conflict, it behooves you to focus on your gut," Shiv says.

ple have limited insight into their own feelings, so self-reports aren't a great measure. That's why Shiv has turned to neuroscience-both through his work with lesion patients and his use of functional magnetic resonance imaging, currently the most precise way of telling which brain regions are active moment to moment during a particular task. "With brain imaging, you can start to get a toehold into how emotions are influencing decision making," explains Stanford psychologist Brian Knutson, Shiv's most frequent collaborator on campus.

Not all psychologists are as comfortable with neuroscience research as Shiv is. Sometimes, says Bettman, "the thinking is, 'Oh my God, somebody's got to know how to run these machines, there's a whole different way of analyzing the data, there's all these brain

regions,' et cetera. But Baba showed that you can work with people in these other disciplines and have partnerships where people bring different things." Shiv is working with scientists at CalTech, MIT, USC, Carnegie Mellon, Columbia, and elsewhere—and spending any time with him makes it easy to see how he's attracted so many collaborators. In person, he has an upbeat, big-hearted, genuine way about him, like a favorite uncle who is always interested in your life and eager to talk about new, exciting ideas. "As academics we are many times looking at the negative things," says Dan Ariely, a behavioral economist at MIT's Sloan School of Management and a close friend of Shiv's, "and we have to do it to some level, but many of us have taken it on as a hobby in addition to our work. And Baba ...," he says, pausing to inflect his voice for contrast, "is full of enthusiasm, curiosity, and positivity." Ariely has identified what he calls a "Baba placebo," whereby Shiv's mere presence makes everything around him seem better.

■ HE QUESTION OF WHEN you should go with your gut remains complicated, but Shiv has an answer, and it hinges on first figuring out your definition of a good decision. "An economist would say there's a normative answer and the closer you are to the normative answer, the better your decision," he begins. By "normative," he means not what normal people actually do, but what they should do if they made optimal choices. In the coin-toss study, for example, the normative answer is to keep investing because the expected value of investing is higher than of not investing. But what about more complex decisions, where each option has pros and cons that can't be quantified, let alone compared? Take the choice between buying a small house in a great neighborhood but with a long commute versus a larger house close to work but near a noisy freeway. "There's nothing normative about buying a house," says Shiv. And most real-world decisions are like that-from choosing between job offers to picking a life partner.

So what do you do when there's no normatively correct answer? Here, you must use a different yardstick: A good decision is one in which the decision maker is happy with the decision and will stay committed to the decision, Shiv says. And that's where emotions come in: They're mental shortcuts that help us resolve trade-off conflicts and, unlike the vacillating Vulcans who can't even decide between a pen or a wallet, happily commit to a decision. "When you feel a trade-off conflict, it just behooves you to focus on your gut."

This kind of analysis is typical of Shiv's approach. "If somebody is greedy, I want to know which part of the brain lights up and why it matters," he says. "How can I come up with an intervention that will change people's behavior?" But there's more.

"Many people in the field of decision making are interested in exploring the ways that people are irrational and some of the implications of this," says Ariely, who's written the forthcoming book Predictably Irrational that deals with precisely those themes. And Shiv is interested in irrationality too, but he also wants to know what's behind it. This deep interest in the underlying process, including what goes on at the brain level, sets him apart from many behavioral economists and others studying irrationality. As Ariely puts it, "Baba has a very high standard for 'Why?'-and is willing to do lots of experimental manipulations to understand the Why."

For example, Shiv worked with Ariely (and Ziv Carmon of INSEAD) on a series of studies that found a strange price-placebo effect: When participants bought an energy drink at a discount, they

actually performed worse on a puzzle-solving task than participants who had paid full price for the same drink. "It turns out you end up becoming dumber if you buy the product at a discount," Shiv says. That's an astounding result in itself, and it also suggests the possibility that drugs bought at a discount, such as drugs from Canada or generic versions of brand-name medications, might be less effective even when they're otherwise identical. But what's behind this effect? The answer, it turns out, is our unconscious belief equating low price with low quality—a belief that works even though we know on some level that it's not always true. "So when you get a drink at a reduced price, global beliefs get involved without you being aware of it."

Though Shiv is interested in academic questions, he keeps his feet firmly on the ground. "He brings knowledge about which questions really matter to people in the business world," Knutson says.

N THE "FRINKY" SEMINAR, Shiv discusses how decision research might reduce the rate of product returns, a problem that can be, for a chain like Best Buy, the difference between turning a profit and coming out in the red. The key question here is how to get customers not only to buy a product but to stick to that decision. Shiv's research suggests that product packaging that's harder to open lowers the return rate from 12 percent to 3 percent because taking time to open a product seems to increase the customer's commitment. To introduce this idea of perceived commitment, Shiv shares an anecdote from his own corporate career: He tells the class that salespeople at industrial equipment maker Caterpillar, where he worked as a sales engineer in the 1980s, were taught to ask clients to sign a pro forma invoice, a legally nonbinding document that increases the chance the customer will eventually sign the real thing.

At the end of each day in the week-long seminar, Shiv asks his students to present ideas for monetizing that day's teachings. For example, Shiv's lesson about the value of gut instincts included the idea that quick impressions tend to be as reliable as judgments formed over a long time. So one group of students proposed a "speed-shopping" website to help customers make more satisfying clothing choices. The class liked the idea so much that Shiv offered to put the group in touch with Zappos, the online shoe retailer.

Kelly Sortino, Class of '08, who was part of that group and is pursuing a master's in education along with her MBA, sees a personal benefit from Shiv's teachings. "It seems relatively counterintuitive that complicated decisions would in fact be better served by gut reactions as opposed to logical deliberation," she says. "This has given me a slightly new take on the big decisions I need to make this year." Bortnik, her classmate who had started the seminar with no particular interest in psychology, agrees: "Relying more on my gut is going to save me a lot of time and guilt," he says. He's further along than he may realize: Choosing the seminar based on Shiv's reputation was as good a mental shortcut as any. •

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# Herd Investors Fear Missing the Bubble



### • by Marguerite Rigoglioso

WHY DO PEOPLE HERD AROUND risky investments, causing "bubbles" that inevitably burst and leave most investors losers? Couldn't the players in the dot-com bust, for example, have seen disaster looming? Why did more investors not get out earlier, and why did they continue to pump money into already overinflated stocks? Similar questions surround the recent bust in the subprime mortgage market.

Two Stanford researchers decided to investigate the possibility that what investors fear the most is not the risk of a loss per se, but the risk that they may do poorly relative to their peers. Their results indicate that even though investors know investments in areas such as new technology often are particularly risky, they tend to cluster around pie-in-the-sky opportunities to avoid being the only one in the community to miss out on the "next big thing."

In three related theoretical studies, Peter DeMarzo and Ilan Kremer, along with Ron Kaniel at Duke University, have discerned that individual investors care deeply about how their level of wealth compares to that of others in their peer group and community. "Investors fear most being poor when everyone around them is rich," says DeMarzo, the Mizuho Financial Group Professor of Finance.

A primary reason for people's concern, they explain, is that the cost of living in any community may depend on the wealth of its residents. The more money people have, the more expensive houses, real estate, daycare, and other necessities and amenities will be. "It's worse to have a lower income in an area where everyone is wealthy than it is in an area where everyone has a similar income as you," says Kremer, GSB associate professor of finance.

After showing that these relative wealth concerns arise naturally when investors compete over scarce resources, the three were able to provide rational explanations for why both individual investors and companies might pursue risky investments and technologies.

Specifically, people are most likely to follow others in their community or professional cohorts into technologies with a small chance of a high payoff. "Herding around certain investments allows you to combat the fear that everyone else might be betting on the winner while you're not," DeMarzo savs.

The traditional economic assumption that people are driven by the straightforward desire to maximize their wealth is simplistic. Once actual consumption decisions are considered, peer pressure also comes into play.

"We might classify behavior based on relative wealth as 'irrational,' but in choosing similar, risky portfolios, investors are actually doing what makes sense to them," Kremer says.

The researchers say that investors would tend to herd particularly around high-tech investments that have the potential to revolutionize the entire market and promise a big upside-technologies like fiber optics, internet-related infrastructure, and so forth. "These are typically high-risk stocks that, in seven out of eight cases, are likely to go bust. But people are willing to invest in them in the hopes that they'll hit that one-in-eight jackpot," DeMarzo says.

This herding behavior explains how stock bub-

bles emerge. When people begin crowding to certain investments, the price of the assets they hold becomes overinflated. The standard model says that if stocks are overpriced, smart investors will sell or avoid such investments. But DeMarzo and Kremer find that even if people know a stock is overpriced, their fear of doing something different from their peers and potentially losing out makes them move in ever greater numbers to the swelling investment.

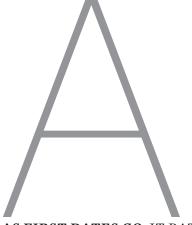
Firms' decisions to invest follow suit, the researchers have discovered. In the late 1990s, telecommunications companies, for example, overinvested in droves in fiber optics. Because they ended up laying far more lines around the country than were needed, by 2003 the value of fiber-optic networks fell by more than 90 percent from its

# Investors take bigger risks when joining others in their community.

all-time high. Telecommunications companies accounted for 60 percent (by net worth) of U.S. corporate bankruptcies.

For individuals, herding also can provide a kind of buffer when the bubble bursts. "If everyone loses his or her money together, it's perceived as not as bad as if you lose alone," says DeMarzo. Thus the "keeping up with the Joneses" school of investing has benefits on the upside as well as the downside.

For more detail, see "Technological Innovation and Real Investment Booms and Busts," in the 2007 Journal of Financial Economics; "Relative Wealth Concerns and Financial Bubbles," in the forthcoming Review of Financial Studies; and "Diversification as a Public Good: Community Effects in Portfolio Choice," in the 2004 Journal of Finance.



**AS FIRST DATES GO, IT RATED FOUR STARS. The antipasto platter** and pizza were good; the conversation was even better. Both spoke Italian, loved Mediterranean food, and had lived in Florence, so there was plenty to talk about. The chemistry? "I knew from her pictures that she was beautiful," says Dan Beltramo, MBA'94, "but when we met, it was love at first sight."

His date, Laura Cheney, must have agreed; before long they were dating steadily. But the couple was a bit hesitant to tell friends they had met via eHarmony, a popular online marriage and dating site. Instead, they claimed to have bumped into each other at a local BART station. Beltramo, who went on to found Vizu, an online market research and ad measurement firm, and Cheney, a physical therapist and graduate of the University of California, Davis, married on June 17, 2006, 18 months after their first date.

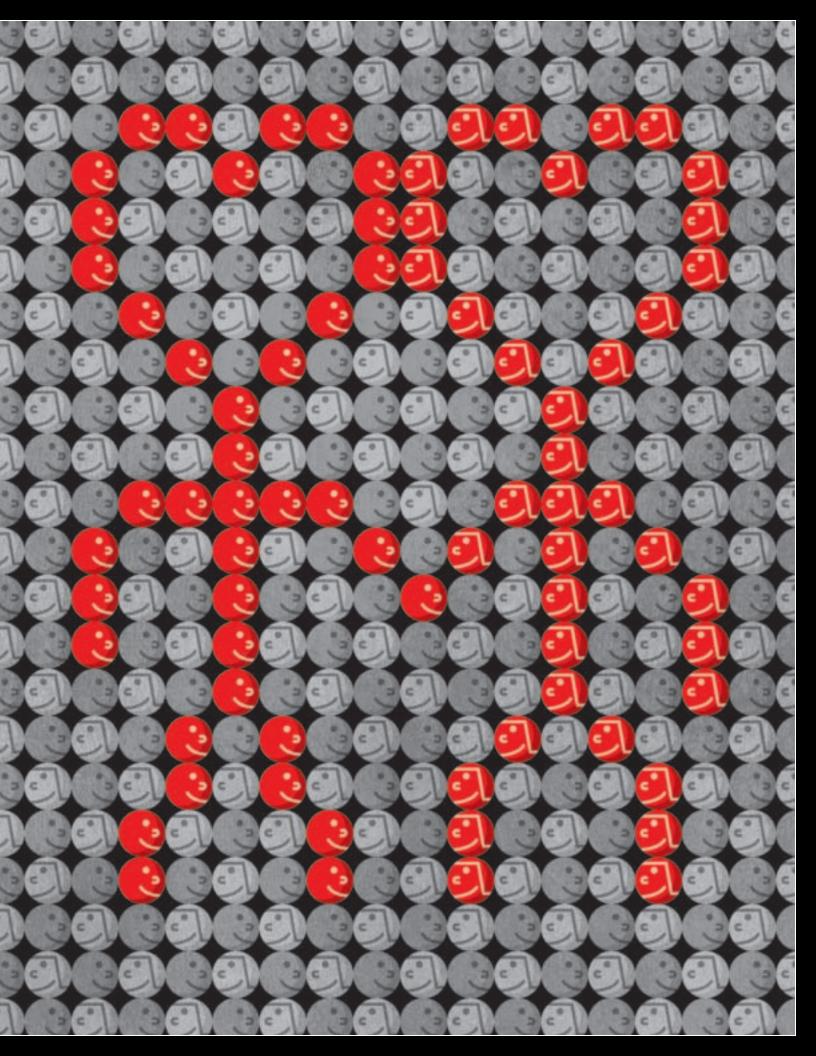
Not every online pairing has such a sweet ending, of course. Finding lasting love in the virtual world may be no less certain than in the real world. But millions of singles are turning to matchmaking sites in hopes of meeting Mr. or Ms. Right, and some entrepreneurs believe that both profits and better marriages will result. Whether it's coincidence or some thing in the Palo Alto air, at least four such sites—eHarmony, Match.com, OkCupid.com, and SpeedDate.com—were founded, or now are >>>

# Finding Love Online



• by Bill Snyder

Illustration by JOHN HERSEY



managed by, graduates of the Business School.

Greg Waldorf, MBA '94, the CEO of eHarmony, was looking for a socially conscious business and joined the company because he shared its goal of promoting happy marriages and reducing divorce. Sam Yagan, MBA '05, and Dan Abelon and Simon Tisminezky, both MBA '07, felt online romance is one of the next big things and likely to be a commercial success.

Matchmaking sites have different approaches, ranging from psychological profiling and controlled studies used by eHarmony to the on-the-fly video meetups facilitated by SpeedDate. Some charge for their services, some are free at least temporarily, and some survive through advertising. What they have in common is a belief that the internet is a better place to find a mate, or at least a date, than the real world. "We don't add the magic, people add the magic," says Galen Buckwalter, who heads eHarmony's research efforts.

**ESPITE WHAT YOU SEE IN THE MOVIES, mate-finding has** never been just magic. People have always turned to their social networks-tribal matchmakers, country clubs, churches, and work groups-to find a mate. The large category of social networks these days also includes internet sites such as Facebook and LinkedIn, which greatly expand an individual's loose connections to friends of friends, or customers of customers. Just as the odds of

### The internet might make it easier for people to find better business partners and romantic mates.

finding an out-of-print book are greater now that websites like BookFinder.com are there to help, it would seem that the internet might make it easier for people to find better business partners, suppliers, contract manufacturers, and, yes, even romantic mates.

Indeed, Stanford sociologist Mark Granovetter in 1973 published one of the most quoted writings in sociology, titled "The Strength of Weak Ties," which demonstrated the advantages of utilizing connections that exist beyond our day-to-day circle of friends and business associates. He found that professionals are more likely to get jobs through the weak ties of casual acquaintances than through the strong ties of close friends. The work has implications that go well beyond career building.

More recently, Michael Ostrovsky, an assistant professor of economics at the Graduate School of Business, has been studying the effect of the internet on various electronic commerce-related markets. While he hasn't looked at matchmaking per se, he sees an interesting similarity. "In both cases, transaction costs are lower, and the market is suddenly thicker."

A "thicker" market, he adds, means more choices. In electronic commerce, there are more buyers and more sellers; in matchmaking people, there are more potential mates, which means a better chance of a happy outcome.

N A VIRTUAL MARRIAGE MART, you might think that the typical shopper is a lonely, nerdy white kid, sitting in his dorm room or Silicon Valley apartment. Not even close.

Interviews with online dating execs and the relatively small amount of academic work focused on the topic suggest that users come from a broad demographic swath, with women generally outnumbering men by a small percentage, a wide spread of ages and religions, and significant representation of minority groups and the disabled.

At eHarmony, most users are aged 25 to 54, but the fastest growing segment recently has been people in their mid-50s and up, says Waldorf, an early investor who became the company's second CEO. "It's like America, people of all ages and races," he says.

A 59-year-old woman showed up at one of SpeedDate's first events and "wrote that her 85-year-old dad wanted to join," said Dan Abelon, the site's cofounder with classmate Simon Tisminezky.

How many people use these sites is hard to know, and how many find lasting love is even harder. Since eHarmony's founding in 2000, some 18 million people have registered, though not all are active, paving users of the site.

When two Wharton researchers wrote about online dating in 2007, they cited data from Forrester Research suggesting that 16 percent of singles are using online personals. A September 2005 internet tracking poll by the Pew Internet & American Life Project and Princeton Survey Research Associates International suggested that 3 percent of internet users who are currently coupled first met online. And with 72 million U.S. households on the internet as of 2006according to Gartner, a technology research and consulting organization—those numbers are obviously huge.

What's the attraction? Users of these sites normally don't talk about thicker markets and lower transaction costs, but they likely are drawn by the possibility of improving their odds or shortening the time involved in finding a good match.

In real-world market terms, people in college and graduate school find the shelves, as it were, crammed with merchandise-eligible singles. As they get older and enter environments that are not age segregated, the store shrinks, says Paula England, a professor of sociology at Stanford. "With the divorce rate so high, there are many people reentering the market without an easy way to meet people," says England, who met her current love interest via Match.com, founded and then sold by Gary Kremen, MBA '89.

**HAT GREAT FIRST DATE** enjoyed by Beltramo and Cheney wasn't serendipity. The good match was—at least in part—the product of data crunching by eHarmony's computers. After his classmate Greg Waldorf suggested he try the service, Beltramo spent a few hours filling out the company's online questionnaire, which features about 250 questions focusing on 29 different personality attributes. The answers are the raw material plugged into a regression analysis that aims to provide couples with detailed profiles of only those the computers deem compatible.

"We're looking for similarities; without exception they are the proverbial money in the bank when it comes to long-term relationships," says eHarmony's Buckwalter. But what about the idea that opposites attract? "We say that opposites attract and then attack," he jokes.

Buckwalter presides over a department that includes five PHDs, an elaborate observation lab in Pasadena, Calif., and a database of

# Digital Matchmakers



Dan Beltramo, MBA '94, left in left photo, at his June 2006 wedding with bride Laura Cheney, center, and classmate Greg Waldorf, right. The couple met through eHarmony where Waldorf is CEO. Other online matchmakers include SpeedDate's Dan Abelon, MBA '07, left in center photo, with classmate Simon Tisminezky; and Sam Yagan, MBA '05, of OKCupid, standing, with associate Chris Cohen.

research built on more than 15,000 interviews and questionnaire data from the millions of people who have registered over the years and from married couples. He is a protégé of Neil Warren, a clinical psychologist and marriage counselor who studied more than 5,000 couples before cofounding eHarmony. At regular intervals eHarmony adds to its questionnaire database on married couples and then constructs a series of algorithms that attempt to correlate a potential couple's likes, dislikes, and personality traits with behavior that predicts marital satisfaction.

The team employs regression analysis, a familiar tool in the social sciences in which a historical database is mined for correlations.

The team employs regression analysis, a familiar tool in the social sciences in which a historical database is mined for correlations between individual causal factors and particular outcomes. Simply put, a regression analysis predicts the future based on past patterns.

If there is an 80 percent probability that a model can correctly put someone in the upper 25 percent of good relationships, eHarmony adds it to the system, Buckwalter says.

Ian Ayres, a former Stanford law professor now on the faculty at Yale, wrote about the use of statistical analysis by various matchmaking sites. He noted that True.com uses a regression analysis based on data from 99 relationship factors, while Perfectmatch.com uses a variation of the Myers-Briggs personality test, which classifies people into 16 basic personality types.

Perfectmatch and True.com look for complementary personalities, a type of matching that Buckwalter dismisses. "It's hard to tell who is right," Ayres wrote in his 2007 book Super Crunchers, "because the industry keeps its analysis and the data on which the analysis is based a tightly held secret."

TANFORD'S MATCHMAKING ALUMS have all been around the dot-com block. Sam Yagan is founder of a relatively new advertising-supported service called OkCupid.com, where users take personality quizzes and play trivia-type games. Each answer they give adds data points to their profile, making it easier for the system to suggest potential partners. Yagan recently launched an even newer website called Crazy Blind Date.com. As the name implies, it matches people with a minimum of screening and sends them off on real-world blind dates. The site is making matches in four cities and draws on OkCupid's database of thousands of singles to pair people up with as little as a few hours' notice.

Just 30, Yagan is on his third dot-com, and he's spoiling for a fight with the big kahunas of the online dating world. "If I can build a site that is free to consumers, acquires customers at no cost, and is better than the subscription alternatives, I should become the biggest online dating site on the web," he says. That's pretty brash, but he previously built a solid online business by challenging CliffsNotes with SparkNotes, and then took on the record companies with eDonkey, one of the largest peer-to-peer file-sharing applications. And no, Yagan didn't meet his wife online; he married his high school sweetheart, Jessica Droste Yagan, MBA '05.

Waldorf, who has a penchant for socially conscious businesses, helped found Start Up, an East Palo Alto nonprofit that provided training for aspiring entrepreneurs in that struggling community. He and his mother, Toby Waldorf, founded Destination-U, which helps high school students find the right match in a college. Why move to couple matchmaking? "What we do has such an impact on people's lives. The couples [matched by eHarmony] are very special to us," he says. Waldorf is married, but the details of his family life, like his company's profit margin, are private.

Not everyone is pleased by eHarmony's mission. The company has been criticized and is currently being sued for not allowing people to look for partners of the same sex. "We don't have a political agenda. We're running a heterosexual matching site; because of the size, it's the market we're going after," Waldorf says. He adds, however, "That could change in the future."

Business, meanwhile, is strong. Sales this year are expected to hit a record \$200 million, and the company is developing new lines of business and working to improve the accuracy of its matchmaking. The research staff is busy studying the elusive quality of chemistry

Continued on page 32



## Specialized Offerings Yield Better Sales

SUCCEEDING IN ANY MARKET requires being noticed by relevant customer audiences and showing them that what you're putting out there has appeal. But appeal is a tricky thing. As social scientists have discovered, it's an intangible based not only on the intrinsic value of your goods or services, but also on the degree to which those goods fit neatly into predictable categories that the audience can understand.

A recent study by Business School faculty shows that producers whose offerings or expertise are more clearly associated with one or two product categories have better sales than those whose goods or professional identity span multiple categories. More focused producers throw off subtle hints that they know their stuff, which is not lost on customers. In short, says organizational behavior professor Michael Hannan, the old adage that "the jack of all trades is the master of none" governs consumer choices about whose goodies to buy.

The investigators used as test cases consumer responses in two arenas: Hollywood films and eBay auctions. Looking at how critics and consumers rated films over a three-year period, Hannan and coresearchers Greta Hsu, PHD '03, and now a faculty member at the University of California-Davis; and Özgecan Koçak, PHD '03, on the faculty of Turkey's Sabanci University, found that films identified by audiences as belonging to one or two genres-such as Western, comedy, or science fiction—ere rated more favorably than those they slotted into more than two genres. In other words, a comic sci-fi story set in the Wild West would have proven just too much for most people's taste.

Moreover, the more genre-restricted films were more successful at the box office. For instance, films classified in only one genre grossed roughly 40 percent more at the box office than did films with what the researchers identified as an average level of genre crossing. This held true even when other factors were taken into account, such as star power, budget, and the number of theaters showing the films.

A second part of the research—looking at eBay auctions-suggests that sellers do better when they stick to the category or categories they know best. The researchers examined nearly 1,500 online titles that sellers posted to identify their auction items in a host of categories such as dolls, Elvis memorabilia, and toy trains. They found that certain sellers used sophisticated lingo in their titles that would be known to experts in a particular category, and that this resulted in more successful auctions.

"Acronyms like CPK for Cabbage-Patch-Kids dolls, and quality markers like 'Certified MS63,' for example, were important signals to bidders that the seller was knowledgeable about the doll or coin categories," explains Hannan, the StrataCom Professor of Management. Importantly, the investigators found that sellers who used the more

expert titles tended to auction other items in only a few categories, while those who used generic titles frequently posted other items in a host of other unrelated categories. "That means the sellers were using better titles precisely because they were specialists in only a few areas, and weren't just being promiscuous, if you will," Hannan says.

### The study suggests that focus pays off, which may make diversifiers and hybridizers think twice.

And that translated into money: The odds of completing a sale for sellers who listed items in more than one category were only a third as high as for sellers who focused on a single category.

The study, "A Formal Theory of Multiple Category Memberships and Two Empirical Tests," suggests that focus pays off, which may make diversifiers and hybridizers think twice. "A lot of businesses these days are looking for synergies, but this study underscores the fact that there's a real trade-off when you try to be or mix too many things." Those who have the most success at boundary busting and diversifying, he says, are likely to remain those large organizations with the proper resources to solve problems by making sure they hire an adequate number of specialists in each area. The paper is available online at https://gsbapps.stanford.edu/researchpapers.

# Strategic Spot Trading Benefits Some Supply Chain Participants

IN INDUSTRIES RANGING from agriculture to electronics components, manufacturers and suppliers make long-term purchasing contracts months, and sometimes years, in advance. Today spot markets also exist, where suppliers and even manufacturers with surpluses openly trade goods all over the world.

A model created by Business School researchers Haim Mendelson and Tunay Tunca shows that by strategically using both fixed-price advance contracts and open market trading, supply chain participants can create greater efficiencies, but they need to do careful analysis to determine how their decisions will affect the bottom line.

"The use of electronic markets for business-to-business trading



Haim Mendelson



Tunay Tunca

allows participants to learn what's going on in the marketplace in terms of supply and demand, even if they don't have that information firsthand," says Mendelson, the Kleiner Perkins Caufield & Byers Professor of Electronic Business and Commerce, and Management.

But there are drawbacks. "The more you trade, the more you drive the price against yourself," says Tunca, associate professor of operations, information, and technology. Buying only on-the-spot raises the risk that you're going to spend more than you would in a fixed-price contract made six months ago. On the other hand, you have a better idea of actual need.

What, then, is the best balance for supply chain players between long-term contracting and using the spot market? Mendelson and Tunca argue that the key is determining how liquid the spot market is in any given industry. A good spot market, they say, creates efficiencies not only in the spot market itself but also for long-term contracts.

Their model calculates a spot-market liquidity measure that incorporates demand and cost information. The study finds that markets are more liquid where consumer demands are more certain, demand forecasts are less noisy, or there are many market players. The high-end computer chip markets tend to be less liquid, for example, because sellers are relatively scarce, while the large number of buyers and sellers in the oil market make it more liquid.

In liquid markets, the researchers advise, manufacturers and suppliers should leave more of the purchasing for the open market. In industries with illiquid markets, they should do more of their purchases early through fixed-price contracts. But in all cases, both are needed: No matter how efficient electronic spot markets can be, there will likely be a role for long-term contracting.

But the good is not always good for everyone: In some markets, the spot market makes manufacturers better off at the expense of suppliers, whereas in others suppliers gain the upper hand. Supply chain participants have to analyze carefully the impact the spot market will have on their own profit.

### Want More?

More research details available online at GSBresearch.stanford.edu

### Cross-Owners Fuel Merger

AFTER A MERGER IS ANNOUNCED the stock value of the acquiring company generally drops while that of the target firm goes up. Yet few buyer-side shareholders attempt to block mergers even in the face of such losses.

A new study by Michael Ostrovsky, assistant professor of economics, has proposed an explanation: Top shareholders in acquiring companies often break even because simultaneously they own a near equal number of shares in target firms.

Ostrovsky and Gregor Matvos, assistant professor of finance at the University of Chicago Graduate School of Business, first examined the 2003 merger of Bank of America and FleetBoston Financial that saw Bank of America's value drop almost 10 percent in one week, producing a loss of more than \$2 billion to the 10 largest B of A shareholders. In comparing the list of those shareholders against those of Fleet, however, the researchers found that 9 out of 10 names were identical, among them big companies like Fidelity, Vanguard, and Barclay's.

The authors then looked at whether voting on mergers in the mutual fund industry also was affected by stock cross-holdings. Those who owned shares in both purchaser and target companies approved mergers 98 percent of the time. Across the board, those who owned stock only in acquiring companies lost up to 1.5 percent in value while those who owned stock in both acquiring and target firms, made a net gain of about 2.5 percent.

The numbers were even more striking for those involved in the largest 100 mergers. Acquiring shareholders lost up to 4.5 percent of the value of their holdings. Cross-holders in such instances enjoyed a modest net gain of 1 percent, but clearly their assets in the target firm had mitigated against what could have been a significant loss.

### Why Retailers Shouldn't Bury Necessities at Back of Store

THAT BAG FULL OF ITEMS you really didn't intend to buy may not be completely your fault. What consumers purchase and when they buy it can actually create momentum to shop more.

Researchers including the Business School's Uzma Khan, assistant professor of marketing; Ravi Dhar of Yale; and Joel Huber of Duke found that for most people buying that fateful first item seems to open the purchasing floodgates. This realization, they say, has important implications for how stores are laid out as well as understanding individual behavior.

In experiments, student subjects were allowed to purchase discounted items, in some cases a light bulb, in others an education CD that was



Uzma Khan

more relevant to their needs. The more relevant the first item, the more likely they were to buy an additional unrelated item. The purchase of an initial item creates what Khan and her associates call "shopping momentum."

Once the buying phase takes over, a subtle psychological mechanism comes into play. "People in this transition go from thinking from their mind to thinking from their cart. The cart takes over," Khan says.

One factor that can stop the momentum is having more than one payment transaction.

Subjects who had to open two envelopes to pay for items were less likely to buy. And the more the first item was perceived to be a luxury buy—with the associated guilt—the less likely people were to make a STANFORD BUSINESS SCHOOL

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### MICHELLE R. CLAYMAN MBA'79

Excellence in Leadership Award Dinner Wednesday, April 2 New York, New York



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Excellence in Leadership Award Dinner Thursday, May 15 Monterrey, Mexico

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second purchase.

For marketers, the studies imply that necessities are the best drivers to get customers on a shopping roll, Khan says. Retailers should put necessities at the front of the store while the more guilt-inducing items go toward the back. They also should have fewer points of sale so customers do not have to open their wallets repeatedly.

On the customer end, the studies indicate that to resist temptation, a change in shopping strategy may be in order. "If you're out doing gift shopping," for example, says Khan, "buy that indulgent item for yourself first. That will curb your shopping!"

### Mimicry Can Seal the Deal

SUBTLY IMITATING MANNERISMS and gestures of the other partner during a negotiation can lead to greater success for both parties by facilitating the building of trust and sharing of information. In one experiment 10 of 15 negotiations that included mimicry resulted in a deal, compared with only 2 of 16 without.

In the experimental settings the mimicry was so subtle that none of the subjects being mimicked was aware of it. The outcomes in cases where mimicry was used were more positive for both parties than those that lacked this element.

"Negotiators often leave considerable value on the table, mainly be-cause they feel reluctant to share information with their opponent due to their fears of exploitation," said study authors William Maddux of INSEAD; Elizabeth Mullen, assistant professor of organizational behavior at the School; and Adam Galinsky of Northwestern.

Because negotiations typically involve the distribution of limited resources, they are fraught with incentives for competition, withholding of information, distrust, and conflict, particularly among negotiators interacting for the first time.

"Building trust and sharing information greatly increases the probability that a win-win outcome will be reached," wrote the researchers.

### Striking First Has Advantages

MAKING THE FIRST OFFER in a negotiation allows you to anchor the process, Professor Margaret Neale told a conference of nonprofit leaders in September.

The only time it makes sense to wait for the other side to make an offer, she said, is when you have information that gives you significant advantage in the bargaining or "when you honestly believe that the other side dramatically values the object of the exchange at a much higher rate than you do."

How extreme should a first offer be? "Just this side of crazy." Neale said, adding that you should be as aggressive as possible, but not cross the line and prompt the other side to use its greatest weapon: the ability to walk away.

However, if you can't risk an impasse or spare the time it takes to negotiate, your first offer should be on the low side. This is also true if you want to start an auction with lower barriers to entry, she said.

Neale called negotiations "a mixed-motive interaction," not a zerosum game, when she spoke at the second annual Nonprofit Manage ment Institute, cosponsored by the Stanford Social Innovation Review and the Association of Fundraising Professionals.

# Class Mixes MBAs in Bangalore, Silicon Valley

STANFORD MBA STUDENTS returned from Bangalore last September with valuable insights into Indian culture and the country's economy. The students who took part in an intense week of living, learning, and bonding with peers at the Indian Institute of Management in Bangalore (IIMB) came back with an understanding of the rapidly developing nation—an understanding they say is missing from most international exchange programs, where students often spend more time with fellow Americans than with the people of the country they are visiting.

That was the intent of **Seenu Srinivasan**, the Adams Distinguished Professor of Management at the Business School, who helped design the new exchange program as a way for students to immerse themselves in the reality of Indian business without having to spend an entire academic quarter away from Stanford. The new program has a structure similar to the Business School's exchange program with Tsinghua University in Beijing.

"They lived on campus and ate breakfast, lunch, and dinner with a group of 16 IIMB students," said Srinivasan. "They got to know each other in depth."

If mealtimes offered a great way to start the bonding process, the camaraderie deepened during long bus trips over roads packed with cars and cows alike to destinations like Infosys, Google India, and local health care centers. Indeed, these daily commutes, which most Indians endure without a shrug, emerged as one of the most striking lessons of the program—a metaphor for how the growing opportunities in India today are tempered with equally big challenges, and how the locals manage to navigate the two extremes with patience and optimism.

Like the outdated roads over which Indians travel to high-paying jobs in modern office buildings, the country's strengths and weaknesses were exposed by the program, say the Stanford students. Some of the strengths they observed included a culture that was not only highly diverse but also surprisingly tolerant. They also perceived a rapid reversal of the Indian brain drain: Now, it seems, both Indians and foreigners are more interested in starting their careers in India than in the United States.

The students also saw innovative approaches to some universal



MBA students Abhishek Dubey, left, of the Indian Institute of Management in Bangalore, and Andrew Cantor of Stanford, work on a business plan at the GSB in December.



Students from both schools visit a grocery store in Bangalore in September with Professor Seenu Srinivasan, second from right.

social problems, like the shortage of affordable health care. One system used a mini-hospital on a bus to treat patients in far-flung rural areas. A local health insurance system managed to provide coverage to rural farmers for less than a dollar a month.

"They are creating solutions for themselves," said **Lloyd Nimetz**, MBA Class of 2008. "They don't need developed countries as much as we need them."

On the downside, students noticed a stubborn gap between the haves and the have-nots and a cultural aversion to risk that led most Indian business students to favor careers in banking and consulting over entrepreneurial ventures. While a number of Stanford students said they were inspired to think more seriously about starting a company in India, some admitted that cultural differences posed a potential drawback.

"Indians are not motivated by wealth in the same way that Americans are," said **Reshma Karipineni**, also MBA Class of 2008. "It's something I would think about if I was considering starting a business there."

Such topics may sound politically incorrect, or just too awkward to discuss, but they were exactly the issues Srinivasan hoped close contact with Indian peers would bring to the fore. Srinivasan, an India native who has lived in the United States since 1968, said he understands firsthand how the two cultures have vastly different styles of communicating, which, unless addressed, could lead to serious misunderstandings in the business world.

"Indian executives will rarely come right out and say that they will not do something. Face saving is a very big thing in India," Srinivasan said. "This is not always a good thing in business, but it can be. It can lead to ways to look for a third way, a compromise."

The exchange continued in December, when the Indian students visited Stanford and had the opportunity to observe American businesses for themselves. •

# Kenyan Study Trip Sparks Case Study



>Faculty News

AMONG THE MANY CEOs who have been invited to speak at the Business School, one thing made James Mwangi different: The students, or at least most first-year MBAs, were likely to have been familiar with his story because it was part of a case study developed for the new introductory course in the global context of management.

Mwangi's relationship with the School began last March, when Professor **Garth Saloner** led a student trip to Nairobi to study small, nongovernmental organizations and microfinance institutions. With the help of **W. Kimathi Marangu**, MBA '93, and **Jessica Flannery** and **Tanya Melillo**, both MBA '07, Saloner's team arranged a meeting with Mwangi, the head of Equity Bank of Kenya.

Equity Bank was founded in 1984 as a provider of mortgage financing to low-income Kenyans. When he became CEO in 2004, Mwangi shifted the bank's focus to microloans. Equity Bank now serves more than 1 million customers, more than 31 percent of all Kenyan bank accounts.

"I immediately recognized that this was an interesting case in microfinance and also strategy," Saloner said. Mwangi agreed to have his company's experience incorporated into a case study, and the School sent casewriter **Bethany Coates**, MBA '04, to Nairobi to do the research.

"If you are going to be a bank to the poor, you have to be a trusted partner of the very poor who have little experience with financial institutions," Saloner said. "The key was their ability to put together a culture that embraced the mission of the company to serve the very poor and do so in a way that is cost effective but appealing to the clientele."

Mwangi's visit to classes in October gave MBA students a unique opportunity. "It's pret-



James Mwangi

Professor Garth Saloner, far right, and a group of MBA students visit a Kenyan farmer who had financed an irrigation pump with a microloan. Saloner met banker James Mwangi, below left, in March 2007 on the study trip, which led to a case study on the bank's microloan operations.

ty extraordinary to have the CEO of a Kenyan company fly in to talk about a case that all 362 first-year students have just discussed," Saloner said. "If you talk about globalizing the curriculum, this is the kind of thing that fits into that."

### **OB Pioneer Leavitt Dies**

Harold J. Leavitt, a management professor who believed organizational success should be judged in human—not numerical—terms, died of pulmonary fibrosis at age 85, in December at Huntington Memorial Hospital in Pasadena, Calif.

His 1958 textbook—*Managerial Psychology*—pioneered the field of organizational behavior in business school curricula. Now in its fifth edition, it has been translated into 18 languages.

As a graduate student at Massachusetts Institute of Technology in the 1940s, Leavitt began writing about the role of behavior in organizational success. It was an era when researchers studied rats to under-

stand human behavior, and organizational success was determined by analyzing numbers. He turned to human subjects and began a lifelong career arguing that organizational success should be measured in human terms.

Throughout his lengthy academic career, he recognized the inevitability of hierarchies, arguing they helped create successful workplaces and accomplished employees. In his last book, *Top Down*, published in 2005, he argued that modern organizations had not become "flatter," as pundits claimed, but rather



Harold J. Leavitt

were just new types of hierarchies. (See an excerpt from the book in the August 2005 issue of *Stanford Business*.) He offered middle managers suggestions about how best to negotiate their way through authoritarian mazes, while maintaining their personal integrity and even finding satisfaction in their work.

An earlier book, *Hot Groups*, coauthored in 1999 with his wife of 20 years, Jean Lipman-Blumen, argued that effective groups helped individuals achieve personal success and contributed to effective organizations. "A hot group is just what the name implies: a lively, overachieving, dedicated group—usually small—whose members are turned on to an exciting and challenging task," they wrote.

Leavitt joined the Stanford faculty in 1966, a time when the Business School was expanding to acquire its current international status. He possessed "the rare quality of being interested in your research and your problems—not just his," said **Robert Jaedicke**, Business School

dean emeritus. "His open door policy welcomed a constant stream of friends-faculty, students, and almost anyone who knew him."

James Van Horne, the A.P. Giannini Professor of Banking and Finance, Emeritus, who arrived at the Business School just before Leavitt, recalled Leavitt propelling fellow organizational behavior faculty members forward at the Business School during the 1970s, attracting stronger doctoral students, and creating more innovative courses for MBA students.

Business School Dean Robert L. Joss said Leavitt was a "great teacher and a prolific writer whose ideas shaped our thinking about managers and organizations."

Born in Lynn, Mass., on Jan. 14, 1922, Leavitt was the Walter Kenneth Kilpatrick Professor of Organizational Behavior and Psychology, Emeritus, at his death.

### Conference Honors Singleton

Kenneth Singleton, the Adams Distinguished Professor of Management, was honored last September along with a coauthor on the 25th anniversary of the publication of a research paper that proved to be the centerpiece of modern dynamic analysis in business and economics. The paper, "Generalized Instrumental Variables Estimation of Nonlinear Rational Expectations Models," published in the September 1982 edition of the prestigious journal Econometrica, has been cited 1,331 times, according to Google Scholar. It established the first general methodology to estimate and test nonlinear dynamic models.

The Tepper School of Business at Carnegie Mellon University honored Singleton and Lars Hansen, a professor at the University of Chicago, by hosting an academic conference in their field. Both economists were at Tepper when their seminal paper was published.

"The path-breaking contributions of Hansen and Singleton provided the foundation for significant advances by themselves and many others in empirical economic and financial research, and in the science of asset pricing," said Kenneth B. Dunn, dean of the Tepper School

### Kreps Recognized for Innovation

David Kreps, senior associate dean for academic affairs and the Theodore J. Kreps (no relation) Professor of Economics, was the 2007 recipient of the second annual Prize in Innovative Quantitative Applications given by CME Group and the Mathematical Sciences Research Institute.

The organizations recognize individuals or groups who contribute original concepts and innovation in the use of mathematical, statistical, or computational methods for the study of the behavior of markets, and more broadly of economics. At a September ceremony at the Chicago Mercantile Exchange, Kreps was honored for his innovative work in dynamic choice and equilibrium. In conjunction with the award ceremony, a seminar titled "What's the Deal with Private Equity?" was held.

Kreps' research in microeconomics has probed deeply into dynamic choice, in both single-person and multi-person settings. In 1979, he was part of a team that placed the concept of risk-neutral asset pricing in the framework of "martingale measures," an approach that is now standard for the pricing and risk management of financial products. He has had influential insights across a host of different topics, including dynamic choice where parties exhibit a preference for flexibility or concern over the timing of resolution of uncertainty; processes of learning both in markets and in games; and models of reputation in repeated games, with applications to corporate culture and human resource management.

### Faculty Publications

### **ACCOUNTING**

An Alternative Interpretation of the Discontinuity in Earnings Distributions

William Beaver, Maureen McNichols, and K. Nelson

Review of Accounting Studies (Vol. 12, No. 4), DECEMBER 2007

The Communication Requirements of Social Choice Rules and Supporting Budget Sets

Journal of Economic Theory (Vol. 136, No. 1), SEPTEMBER 2007

An Analysis of Insiders' Use of Prepaid Variable Forward Transactions

Alan Jagolinzer, S. Matsunaga, and E. Yeung Journal of Accounting Research (Vol. 45, No. 5), DECEMBER 2007

### **ECONOMICS**

**Envy-Freeness and Implementation** in Large Economies

Matthew Jackson and Ilan Kremer Review of Economic Design (Vol. 11, No. 3), NOVEMBER 2007

Opportunity Counts: Teams and the Effectiveness of Production Incentives B. Boning, C. Ichniowski, and Kathryn Shaw Journal of Labor Economics (Vol. 25, No. 4), OCTOBER 2007

### **FINANCE**

The Effect of Dividends on Consumption

Malcolm Baker, Stefan Nagel, and Jeffrey Wurgler

Brookings Papers on Economic Activity (Vol. 2007, No. 1), 2007

Biases in Multi-Year Management Financial Forecasts: Evidence from Private Venture-Backed U.S. Companies

C. Armstrong, A. Davila, George Foster, and J. Hand

Review of Accounting Studies (Vol. 12, No. 2-3), SEPTEMBER 2007

Regime Shifts in a Dynamic Term Structure Model of U.S. Treasury **Rond Yields** 

Qiang Dai, Kenneth Singleton, and Wei Yang Review of Financial Studies (Vol. 20, No. 5), SEPTEMBER 2007

### **HEALTH CARE ECONOMICS**

Performance-Based Compensation in Member-Owned Firms: An Examination of Medical Group Practices C. Ittner, David Larcker, and M. Pizzini Journal of Accounting & Economics (Vol. 44, No. 3), DECEMBER 2007

"Redefining Health Care": Medical Homes or Archipelagos to Navigate? Alain Enthoven, F. Crosson, and S. Shortell Health Affairs (Vol. 26, No. 5), SEPTEMBER/OCTOBER 2007

### MARKETING

Neural Correlates of Adaptive Decision Making for Risky Gains

Joshua Weller, Irwin Levin, Baba Shiv, and Antoine Bechara

Psychological Science (Vol. 18, No. 11), NOVEMBER 2007

The Role of the Need for Cognitive Closure in the Effectiveness of the Disrupt-Then-Reframe Influence Technique

Frank Kardes, Bob Fennis, Edward Hirt, Zakary Tormala, and Brian Bullington Journal of Consumer Research

(Vol. 34, No. 3), OCTOBER 2007

Multiple Roles for Source Credibility Under High Elaboration: It's All in the Timing

Zakary Tormala, P. Briñol, and R. Petty Social Cognition (Vol. 25, No. 4), AUGUST 2007

When the Same Prime Leads

to Different Effects **Christian Wheeler and Jonah Berger** Journal of Consumer Research (Vol. 34, No. 3), OCTOBER 2007

### **OPERATIONS**

Supply Chain Relationships and Contracts: The Impact of Repeated Interaction on Capacity Investment and Procurement

Terry Taylor and Erica Plambeck Management Science (Vol. 53, No. 10), OCTOBER 2007

### **ORGANIZATIONAL BEHAVIOR**

Simulation Modeling in Organizational and Management Research

J. Harrison, Z. Lin, Glenn Carroll, and K. Carley

Academy of Management Review (Vol. 32, No. 4), OCTOBER 2007

Course Correction Roderick Kramer Leadership Excellence (Vol. 24, No. 10), OCTOBER 2007

Relevance and Rigor: Executive Education as a Lever in Shaping Practice and Research

M. Tushman, A. Fenollosa, D. McGrath, Charles O'Reilly, and A. Kleinbaum Academy of Management Learning & Education (Vol. 6, No. 3), SEPTEMBER 2007

Corporate Demography and Income Inequality Jesper Sørensen

American Sociological Review (Vol. 72, No. 5), OCTOBER 2007

An Unconscious Desire for Hierarchy? The Motivated Perception of Dominance Complementarity in Task Partners Larissa Tiedens, M. Unzueta, and M. Young Journal of Personality & Social Psychology (Vol. 93, No. 3), SEPTEMBER 2007

### **POLITICAL ECONOMY**

**Bribing Voters** Ernesto Dal Bó

American Journal of Political Science (Vol. 51, No. 4), OCTOBER 2007

### **STRATEGY**

Let Chaos Reign, Then Rein in Chaos—Repeatedly: Managing Strategic Dynamics for Corporate Longevity **Robert Burgelman and Andy Grove** Strategic Management Journal

(Vol. 28, No. 10), OCTOBER 2007

# Wsmakers

### WHO'S IN THE NEWS: A ROUND-UP OF MEDIA MENTIONS



Andrea Wong, MBA '93

### **Boardroom Dancing**

In her television career, Andrea Wong, MBA '93, has "had some great successes, but I've put on some failing shows, and it's very painful," she told Newsweek. One risk that turned into a success: When she was in charge of reality programming for ABC, she championed *Dancing with* the Stars.

"People thought I was totally out of my mind," she said. "I knew it was a big risk, but it was something I believed in so strongly."

Wong's success propelled her to her current position as president and CEO of Lifetime Network and Entertainment Services. "I think it's really important to be a mentor to people that you think are promising. People did it for me, and it helped me grow and be a better leader."

### **Public Television's Digital Challenge**

WGBH, Boston's public broadcasting station, has a new president, Jonathan Abbott, MBA '88, as it tries to find its place in the digital age. The station produces about one-third of PBS's prime-time programming and many of its children's shows. Abbott is known for his technical savvy, according to the Boston Globe, and has helped the station better use its

growing range of digital channels.

Abbott said he has been looking at the hurdles involved in putting material online as another step in the digital revolution—without forgetting why viewers are drawn to public broadcasting in the first place. "The thing that gives me confidence in the future is that we stand for something in the public's eye," he said.

### Advocate of Higher Tax on Equity Managers

Should Congress change the tax code so private equity fund managers pay taxes on "carried interest"? This seemingly arcane question has made Leo Hindery, MBA '71, something of a black sheep in his own industry. Hindery, who is managing partner of InterMedia Partners, testified before Congress in September in favor of closing what he called "a tax loophole the size of a Mack truck."

"We're not talking about the underlying importance to the economy of private equity," he told Fortune. "It's vitally important. We're talking about properly taxing the management fee of a few people who make so much money and pay a tax rate for which there's no corollary elsewhere in the tax code." Hindery is also advising Democratic presidential candidate John Edwards on economic issues, according to the New York Times.

### Facetime Pays Off

It took a year of work-and clever, inexpensive marketingfor New Zealand-based Bendon to break into the U.S. lingerie market. A billboard on a 16-story building on the Long Island

Stefan Preston, MBA '93, headed a New Zealand lingerie company that finally broke into the U.S. market.

Expressway during New York Fashion Week, for example, created the impression of a larger brand.

"You've got to start out with a bit of recklessness," Stefan **Preston**, MBA '93, who is stepping down as Bendon's CEO, told the New Zealand Herald. "You've got to be willing to get on the plane and give it a go. But you won't get anywhere unless you're fully committed to it. A lot of New Zealand exporters think they can develop their brand overseas through distributors, and not really fly anywhere and not really put any staff on the ground."

Preston's patience and commitment were rewarded: Bendon products are now sold in several U.S. department stores.

### Cheaper Solar Energy

In Fort Collins, Colo., a 70.000square-foot plant that will turn ordinary sheet glass into solar power generators may boost the local economy—and jolt the solar power industry.

AVA Solar will produce its products for about \$1 per watt,

about half the cost of electricity generated by coal-powered plants, CEO Pascal Noronha, MBA '81, told the Northern Colorado Business Report. The veteran of five technology startups has big plans for the company, which, he said, would build its plants in the United States rather than overseas.

"We are not just being euphoric," he said. "My technology background gives me confidence that, over time, we're going to be a much bigger company."

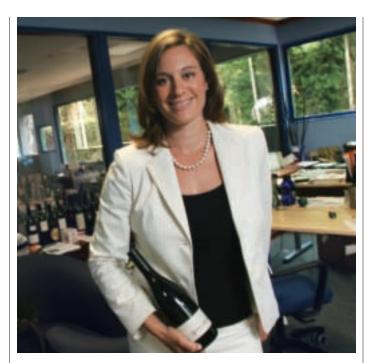
### Where Everybody **Knows Your Name**

When it comes to using the resources of Stanford Business School, "I'm a poster child," Alyssa Rapp, MBA '05, told the San Francisco Business Times. Rapp is founder and CEO of Bottlenotes, an online cluster of customized wine clubs that welcomes new members at Bottlenotes.com.

At the GSB, Rapp was co-president of the student wine club. which introduced her to industry greats like Jack Cakebread, who



PHOTO BY MICHAEL KELLEY, BOTTOM PHOTO BY GLENN JEFFREY,



Alyssa Rapp, MBA '05, calls on her Stanford network.

is now on Bottlenotes' board of directors. Two marketing professors, Jim Lattin and Michaela Draganska, who helped Rapp form her business plan, sit on Bottlenotes' board of advisers. Half to two-thirds of Rapp's employees come from her Stanford network, she told the newspaper, and her company was able to hire a summer intern last year with the help of the School's Entrepreneurial Summer Program.

### **Learning Curve on** Social Investing

Bud Colligan, MBA '83, started a community development venture capital fund in the late 1990s to invest in low-income areas. His plan was to help very small businesses grow, creating jobs where they were most needed. "We thought we could get our money out quickly," Colligan told the San Francisco Chronicle.

He found out, though, that very small businesses couldn't absorb the capital that the fund had to invest, and they also were unlikely to go public. So Colligan's fund, Pacific Community Ventures, changed its focus to companies with \$2 million to \$10 million in revenue.

Colligan hears from skeptics that they would prefer to invest their money for performance than give away some of the profits to benefit the community. "PCV cracks that stereotype since we think we can do both," Colligan said. "We can earn a return—maybe not as great a return, but for that difference we can make a difference in our communities."

### **Funds for Everything** That Floats, Flies, Rolls

Roads and bridges may not inspire passion in many people. But they do in **Janet Kayinoky**. MBA '01, who is the top transportation lobbyist for the U.S. Chamber of Commerce. Recently she has been working to get Congress to authorize spending for projects ranging from flood control to aviation safety.

Kavinoky sees the collapse of the I-35W bridge in Minnesota in August as both a tragedy and



Janet Kavinoky, MBA '01

an opportunity for public education. The collapse "brought public attention to the urgency of the issue," Kavinoky told Politico. "They are now aware that our infrastructure is crumbling."

### Competitive Survivor

When Molded Fiber Glass Cos. decided to implement quality improvement and lean manufacturing processes in order to stay competitive, employees feared for their jobs. "I said, 'No, you'll be concerned with losing your jobs if we don't get better, and I hope you'll trust me on that," said President and CEO Richard Morrison, MBA '68.

Morrison learned a lot about establishing trust with employees. "That's a major component of change. You have to trust your leaders," he told Smart Business Cleveland. Repeated communication was key: "We moved down the road because we insisted on it, and we spread the message, 'This is not to make more money;



Richard Morrison, MBA '68

this is to survive.' You just keep beating the message in."

### China Investor Explores Clean Energy

Silicon Valley is positioned to help China develop technology to meet ambitious energy goals, said Jim Boettcher, MBA '76, of Palo Alto-based Focus Ventures.

Boettcher has for years invested in China's technology and communications market. Now he is turning his focus to clean tech, with 20 deals in the pipeline. One project: research being done by Stanford University and China's Tsinghua University on how to turn coal into energy without emitting carbon dioxide.

"Silicon Valley can provide a lot of input in terms of the technologies China now needs to develop," he told the San Francisco Chronicle.

### Career Advice, Part I

"If you want instant gratification, this isn't the job for you," venture capitalist Jon Isaacson, MBA '98, told eFinancial Careers. "We manage deals over years, not days or weeks."

Isaacson advised anyone wanting to get into private equity to "do anything you can" to work for one of the firms. "Volunteer yourself for minimum wage or do free internships or offer free research for a private equity firm," he said. "If you want to break in you may have to sacrifice dollars in the short term."

### Career Advice, Part II

Tim Berry, MBA '81, wrote in Entrepreneur.com, crediting the lesson to Steven Brandt, MBA '65 and lecturer emeritus at the GSB: "If you really can't get your company going now because you can't pare it down and you can't get it financed, then start down a path that eventually will lead you there. Work in a related business as an employee and keep your eyes open."

### **Promoter of Green Living**

A lot of people are interested in green living, and almost 8 million of them have joined Care2.com, an online network founded by Randy Paynter, MBA '95. Membership numbers generate money: The site is profitable and got \$5.9 million in revenue last year from ad sales and sponsorships.

But it hasn't been easy getting to this point. Although the company was founded with money from angel investors, in late 2001 it couldn't get more investment.

"The challenge of being selffunded is that we've had a fairly near-term focus for a number of years," Paynter told the San Francisco Business Times. "Now that we've built a balance in our bank account we're reworking the design and interface and hiring a marketing team for the first time to get the word out." •

Continued from page 23

between people, and eHarmony expects to add "the click factor," as gut-level attraction or chemistry is called in the internet world, to its service sometime in 2008, Buckwalter says.

The way Dan Abelon sees it, people know who they like—in an instant. "It only takes a few minutes to know if there is chemistry." says the SpeedDate cofounder, who met his current girlfriend "the traditional way-through a blind date."

As he did market research while a student in an entrepreneurship class at the Business School, Abelon heard the same story again and again. "People spend a lot of time [on profile-driven dating sites], but when they meet they find there's no chemistry." And that, Abelon decided, meant there was an opening in the market for a different kind of player. SpeedDate invites participants to fill out a very basic questionnaire, and then sets them up with a series of quickie web video dates. At the end of three minutes, each partner votes thumbs up or down. Then it's on to the next partner. (If both partners agree, SpeedDate supplies contact information for a real-world date.)

The site's first test run attracted 230 people who went on a total of 1,100 three-minute dates in an evening. Within a few weeks, the site had arranged more than 20,000 dates across the country.

Will such speed-dating lead to long-term matches? It's hard to know, but there is some evidence the format can affect the outcome.

It's no news that when it comes to picking a mate, women tend to value traits like intelligence, sincerity, and earning potential, while men are looking for, well, babes. That's obviously an oversimplification, but research generally supports it.

However, when Business School professor Itamar Simonson and colleagues from Columbia and Harvard looked at speed-dating, they found that under the time pressure of a speed date, women go for looks rather than the deeper traits they told the researchers they cared about before the test dates began. "Women do not say that appearance is particularly important to them, but it is, particularly in the context of speed-dating," Simonson says.

Given that it's much easier to judge someone's looks in a four-minute encounter than to grasp their deeper qualities, the results make a lot of sense. The study also found that women tend to be choosier the more options they have. One possible explanation: Women may invest more emotional energy than men in each date and therefore not want to solicit dates from as many potential partners. What that says about the potential for success of sites that give women hundreds of choices in potential mates isn't known but could be very interesting.

It's too soon to draw broad lessons about the significance of online matchmaking, but the enormous number of people attracted to the sites makes one thing very clear: The stigma attached to the computer-assisted date is vanishing rapidly. After all, it was only a few years ago that Beltramo and Cheney didn't want to tell their friends how they had met. And the early days of eHarmony were very rough; the fledgling company almost foundered in 2001.

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