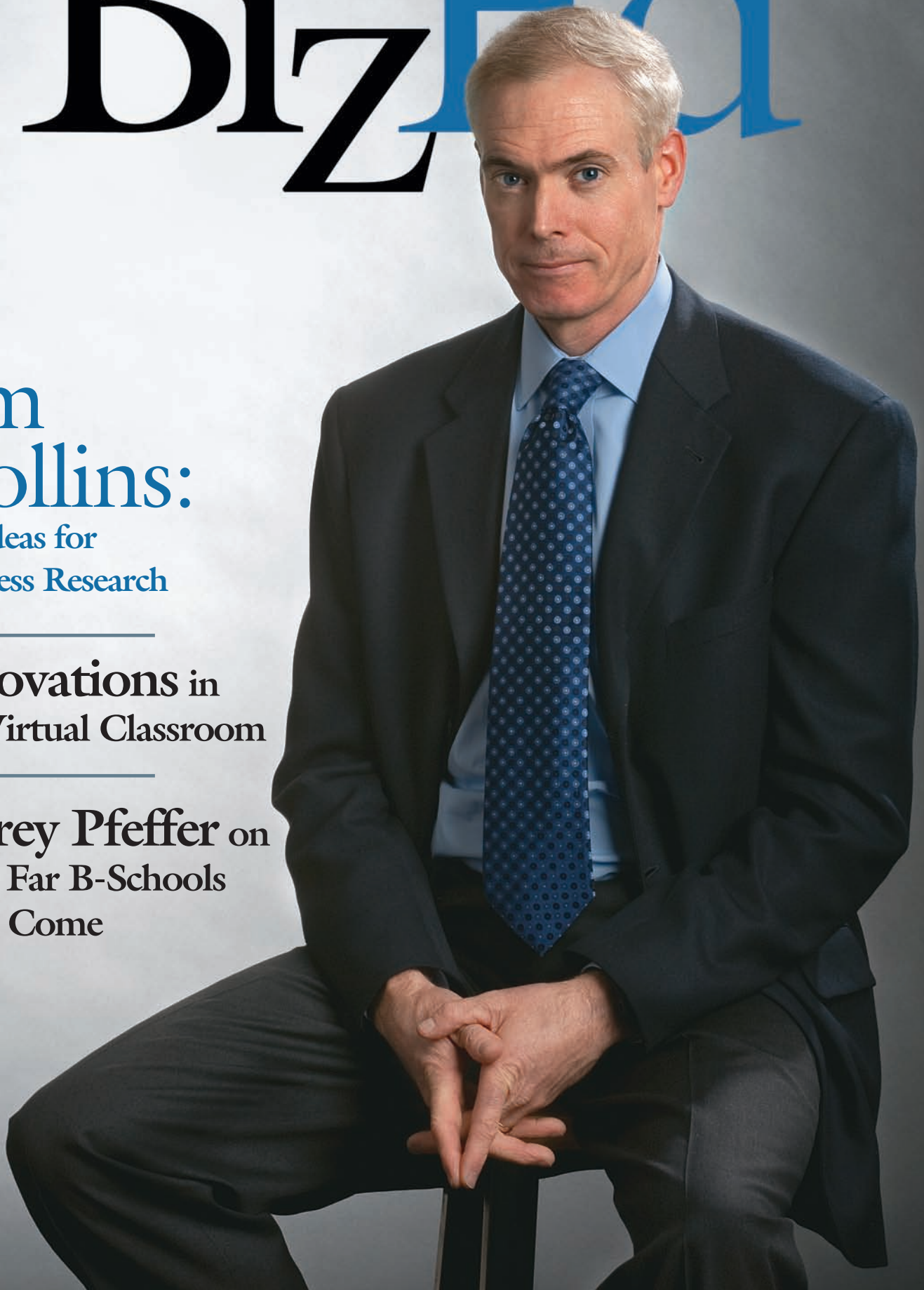
BizEd

JANUARY/FEBRUARY 2007



Jim Collins:
Big Ideas for Business Research

Innovations in the Virtual Classroom

Jeffrey Pfeffer on How Far B-Schools Have Come

BizEd Contents

JANUARY/FEBRUARY 2007 VOLUME VI, ISSUE 1

DEPARTMENTS

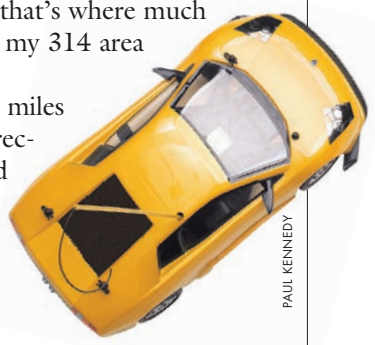
Cover photo:
Stephen Collector

FEATURES

From the Editors

Remote Control

A surprising number of people think I live in Tampa, Florida. Or maybe it's not so surprising. My employer, AACSB International, is based in Tampa, and that's where much of my mail goes. People who phone me and don't recognize my 314 area code often ask about the weather down south.



PAUL KENNEDY

The truth is, I'm based in St. Louis, Missouri, almost 900 miles away. But it's even more complicated. The magazine's art director works out of Washington, D.C., and the printer is located in Little Rock, Arkansas. We all use e-mail, fax, phone, and FedEx to discuss story ideas, share copy, work together on page corrections, and produce this magazine. We're a linked community of professionals working together on a common project, and we rarely get a chance to meet face-to-face.

Plenty of today's businesspeople function under similar conditions. They might live in L.A., report to bosses stationed in New York, be paid by a multinational corporation based in Munich, and consult with team members scattered from London to Shanghai. They have to develop good working relationships with people they've never met as they strive to get their products out on time and without defects.

Many of today's business students are also learning what it's like to accomplish a project from a remote location, especially when they sign up for classes delivered online. They might join dozens, even hundreds, of other students from around the globe to create communities of learning over the Internet. Students can meet, exchange ideas, work in teams, and learn from their professors without ever setting foot on the b-school quadrangle. Not only does such freedom allow them to pursue degrees unrestricted by geography, but the virtual classroom prepares them for the virtual office where they might spend much of their working lives.

Of course, before the first student can enroll in the first online course, distance learning experts emphasize that schools must do some intensive groundwork. To make sure distance programs reflect the same high quality as traditional programs, faculty and administrators must invest time, money, and expertise in developing content and fine-tuning delivery. Sometimes this means training faculty who aren't particularly tech-savvy. Sometimes it means rewriting the curriculum. None of it is easy. But it *is* essential.

As technology evolves and younger students come to class wholly comfortable with all its incarnations, more schools will find themselves pressured to add e-learning components to their curricula. Two articles in this issue explore how they can succeed at that task. In "Going the Distance," Andres Fortino and Paige P. Wolf offer solid suggestions for developing an online program. "The Evolution of E-Learning" focuses on how the digital revolution is transforming the virtual classroom.

BILL BASCOM

Both pieces make it clear that remote learning is being offered right now at a university right next door. Turns out distance isn't really so distant any more.

Sharon Shinn

Headlines

Women Scarce Among U.K. Executives

While women are achieving nonexecutive positions at a slow but steady pace in the U.K., the percentage of women in executive roles on boards is still miniscule in relation to the percentage of women in the workforce, which hovers at 46 percent. That conclusion is presented by Cranfield School of Management in England in its 2006 report on women in the FTSE 100 (Financial Times and London Stock Exchange).

According to the report, of the FTSE 100 companies, only 53 have women on their executive committees, 30 have all-male committees, and the rest do not reveal their senior executive teams. The report indicates that even companies with good records in terms of female nonexecutive directors are still not addressing the lack of gender diversity in their senior executive committees. Also troubling is the fact that the total number of female-held directorships is down from 121 in 2005 to 117 in 2006.

Companies that do deploy women in key positions include AstraZeneca, which has four nonexecutive directors who are women, and British Airways, which has three. Lloyds TSB not only has a board that is 27 percent female, but also has an executive committee that is 33 percent female. Thirty-three percent of the executive committee at Reuters are also women.

Cranfield's Val Singh, co-author of the report, calls the figures disappointing, but she also notes that changes in board composition have recently created tougher competition for fewer executive seats. Co-author Sue Vinnicombe looks on the bright side by pointing to the pool of women on the boards and senior executive committees of the FTSE 250 companies. "The challenge is how to connect these talented women to the many chairmen who are actively looking for high-quality women to join their boards," she says.

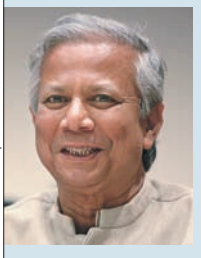
MBAs Want to Make an Impact

The majority of today's MBA students are interested in working at companies that demonstrate a commitment to corporate social responsibility; and while they're in school, they hope to learn about CSR, international development, sustainability, and social entrepreneurship. Those are among the findings of an online survey conducted by Net Impact, a nonprofit student leadership group dedicated to social and environmental business issues. The organization has more than 130 chapters on four continents.

The group surveyed more than 2,000 MBA students—37 percent who are Net Impact members, 38 percent who would consider joining, and 25 percent who are not interested in joining. While those who are or might become Net Impact members tended to show a greater commitment to issues of CSR, even nonmembers showed high interest in the topic.

When asked if, at some point during their careers, they will

Peace Prize for Microfinance



SPENCER PLATT/GETTY IMAGES

The Nobel Peace Prize for 2006 has gone to former economics professor Muhammad Yunus and the microfinance bank he founded, Grameen Bank, for their efforts to spur economic and social development at the bottom of the pyramid. The announcement was made in October, and the award was formally presented in December.

Yunus and Grameen, both based in Bangladesh, have spent the past 30 years battling poverty by securing microfinance entrepreneurial loans for the poorest of people, mostly women. Last fall, Yunus was granted the title of HEC Professor Honoris Causa from HEC School of Management in Paris. He also participated in HEC's conference, "Microcredit: a road toward a world without poverty."

"IN MY EXPERIENCE, TEN MINUTES IS USUALLY ENOUGH TIME TO DECIDE IF AN INDIVIDUAL IS GOING TO BE A GOOD 'FIT' FOR OUR FIRM AND OUR INDUSTRY."

—Bryan Kissinger, PricewaterhouseCoopers

seek work with a company that is socially responsible, 79 percent of all respondents and 60 percent of respondents not interested in Net Impact said yes. Eighty-nine percent of all respondents and 81 percent of respondents not interested in Net Impact agreed that business professionals should take into account social and environmental impacts when making business decisions. Additionally, most students—78 percent of all respondents and 64 percent of respondents not interested in Net Impact—believe that CSR should be incorporated into core business courses. By a margin of 87 percent to 74 percent, women are more likely than men to seek social responsibility than men.

More results of the survey can be found at netimpact.org.

Intellectual Property in China

Judges, policymakers, and enterprise executives from China recently attended a new training program on innovation and intellectual property rights conducted by the Haas School of Business at the University of California in Berkeley. Berkeley's interdisciplinary China Innovation & Intellectual Property Rights Leadership Program features classes taught by professors from the university's schools of business, information, and law. It was organized by UC Berkeley's Center for Research on Chinese & American Strategic Cooperation (CRC).

Participants studied intellectual property case studies on such topics as the Beijing Olympics and met with high-level corporate executives. They also spent a week gaining hands-on training as "interns" at California high-tech companies, IP management firms, law firms, and United States courts.

The training comes as China faces mounting pressure from both the U.S. and the European Union to crack down on piracy of software, movies, and other intellectual property. "In our research we have discovered that the Chinese public misunderstands many aspects of U.S. values and priorities, while Americans surprisingly are even less well-informed about the realities of modern China," says Jihong Sanderson, executive director of Berkeley CRC. "With the program, we are creating a framework where such misunderstanding can be replaced by direct communication in order to enhance cooperation between the U.S. and China."

Recruitment on Speed Dial

Speed dating doesn't always work for individuals looking for love, but it's proving to be a successful technique for matching up b-school graduates with potential employers. Last fall, the Management Information Systems Association (MISA) of Eller College at the University of Arizona in Tucson hosted a recruiting event that connected students—quickly—with corporations.

Students were sequenced through a rotating series of ten-minute interviews with recruiters from companies including IBM, PricewaterhouseCoopers, and Texas Instruments. Participants approved of the novel interviewing process.

"I think the format was an excellent way to meet and talk with a lot of students in a short period of time," says Bryan Kissinger of PricewaterhouseCoopers. "In my experience, ten minutes is usually enough time to decide if an individual is going to be a good 'fit' for our firm and our industry."

"The speed dating provided an unexpected benefit—because we had a predetermined amount of time, my 'date' and I stayed focused on the discussion and not on how to extend or tactfully end the conversation," says Ed Mullins of Texas Instruments. "As a result, the conversations at the speed dating turned out to be much more enriching than conversations at the booth earlier in the day."

Headlines

Quizzing B-School Students

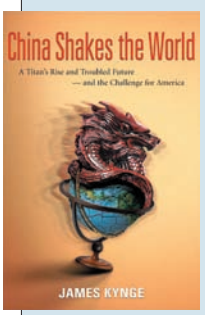
A quiz show competition pitting teams of business students against each other made its debut late last year at the Ohio State University's Fisher College of Business in Columbus. The Fisher Biz Quiz National challenge, which is slated to become an annual event, is sponsored by Nationwide and *The Wall Street Journal.*

Teams from 11 business schools vied to show off their awareness of business news, issues, and trends as reported in *The Wall Street Journal.* Quiz questions were drawn directly from the newspaper's articles in the September and October editions. In three rounds of competition hosted by Ronald Alsop, news editor for *WSJ,* students participated first as individuals and then on school teams. The winning team for the inaugural event was from Michigan State University.

"Fisher Biz Quiz was designed to be intellectually challenging, exciting, and fun," says H. Rao Unnava, Fisher's associate dean for undergraduate programs. "Staying abreast of current events helps students understand their relevance to lessons in the classroom and provides them with an enhanced perspective as graduates embarking on professional careers."

Looking for a Good Read?

James Kynge's *China Shakes the World* has received the 2006 *Financial Times* and Goldman Sachs award for best business book of the year. The author collected the £30,000 top prize (about US$57,400), which goes annually to the book that offers "the most compelling and enjoyable insight into modern business issues." Other finalists were Chris Anderson's *The Long Tail,* Bo Burlingham's *Small Giants,* Charles Fishman's *The Wal-Mart Effect,* and Marc Levinson's *The Box.*



Grooming Entrepreneurs in China

As a business plan competition for Chinese entrepreneurs enters its third year, it has received an extra boost from a reality-TV show called "Win in China." The competition is sponsored by the University of Maryland's Robert H. Smith School of Business in College Park and its Dingman Center for Entrepreneurship. Entrepreneurs from China compete for grand prizes that include all-expense-paid trips to the United States for business training at the Dingman Center. Cash prizes are also awarded. This year, as the competition partners with the Chinese television network CCTV's "Win in China" show, participants in the "Apprentice"-style show can win scholarships to Smith's executive education programs.

"The annual China Business Plan Competition has been a means of showcasing and encouraging the development of entrepreneurship and world-class business ideas in China," says Howard Frank, dean of the Robert H. Smith School of Business.

By January, applicants to the contest must present a business idea focused on technology, communications, or biotechnology. Selected finalists will participate in a final round competition in June 2007, where their ideas will be presented before a panel of venture capitalists and business leaders.

Professors Honored for Building Sustainability

Five business professors were recognized in November as leaders in integrating social and environmental issues into academic research, educational programs, and business practices. The 2006 Faculty Pioneer Awards were given out by the Aspen Institute's Business and Society Program, whose goal is to support business leaders in building a sustainable global society.

The honors presented were the Lifetime Achievement Award for Max Bazerman of Harvard Business School; a Rising Star Award for Ray Fisman of Columbia Business School; an Institutional Impact Award for Byong-Hun Ahn of the Korea Advanced Institute of Science and Technology (KAIST) Graduate School of Management; an External Impact Award for Lawrence Pratt of INCAE Business School; and an Academic Leadership Award to Pietra Rivoli of the McDonough School of Business at Georgetown University. The 2006 European Faculty Pioneer Award, presented in conjunction with EABIS, was presented in September to Nigel Roome of Solvay Business School.

Headlines

SHORT TAKES

NEW APPOINTMENTS

■ **Pang Eng Fong** has been appointed dean of the Lee Kong Chian School of Business at Singapore Management University for a five-year term beginning in June. He has also been named vice provost for academic strategic planning. He has been serving as the school's interim dean since last January.

■ The College of Business at the University of Texas in San Antonio has named accounting professor **Dana A. Forgione** the new holder of the Janey S. Briscoe Endowed Chair in the Business of Health.

■ **Samuel Cupp** has been named the Brian Duperreault/ACE Limited Executive in Residence for Risk Management and Insurance at Saint Joseph's University in Philadelphia, Pennsylvania.

■ **Neil Selvin** has joined The Robert H. Smith School of Business at the University of Maryland in College Park as entrepreneur-in-residence at the Dingman Center for Entrepreneurship.

■ Carnegie Mellon University's Tepper School of Business in Pittsburgh, Pennsylvania, and the Carnegie Bosch Institute for Applied Studies in International Management have announced five endowed appointments. Together, these appointments constitute a new research committee focused on developing insights into strategies and practices for global business. The appointments are: **Sunder Kekre,** Bosch Professor of Manufacturing and Operations Management and committee chair and director of the Center for Business Solutions; **R. Ravi,** Carnegie Bosch Professor of Operations Research and Computer Science and associate dean for intellectual strategy; **Linda Argote,** Carnegie Bosch Professor of Organizational Behavior and Theory, and editor-in-chief of *Organization Science*, as well as founding director of the Center for Organizational Learning, Innovation and Performance; **Don Moore,** Carnegie Bosch Faculty Development Chair and associate professor of organizational behavior and theory; and **Vishal Singh,** Carnegie Bosch Faculty Development Chair and assistant professor of marketing.

■ **Doyle Z. Williams** has joined the Coles College of Business at Kennesaw State University in Georgia as senior scholar in the department of accounting. Williams is dean emeritus of the Sam M. Walton College of Business at the University of Arkansas and past board chair of AACSB International.

■ **Thomas S. Goho** has been named the Thomas S. Goho Chair of Finance in the Calloway School of Business and Accountancy at Wake Forest University in Winston-Salem, North Carolina. A former student endowed Goho with the endowment for his exemplary teaching.

■ **James D. Shilling** has been named the Michael J. Horne Chair in Real Estate Studies at DePaul University in Chicago. The new research and teaching position is funded by a $4 million endowment underwritten by the Michael J. Horne Education & Healthcare Assistance Foundation.

HONORS AND AWARDS

■ The Entrepreneur & Family Business Program at the John H. Sykes College of Business at the **University of Tampa** in Florida has won the Family Firm Institute's 2006 Interdisciplinary Award.

■ The College of Business at the **University of Texas in San Antonio** has received the Brillante Award for Educational Excellence from the National Society of Hispanic MBAs (NSHMBA). The award recognizes educational institutions that strive for a diverse student population and have a proven track record in programs targeted at Hispanic outreach.

COLLABORATIONS

■ **EM Lyon** of France, **Aston Business School** in the U.K., and the **Munich School of Management** in Germany have joined together to launch the European Master in Management. The degree is open to anyone with a European bachelor's degree. During the first year, students will learn management fundamentals for European and global markets. During 2007–2008, the first-year program will be hosted on the EM Lyon campus, and professors from all schools will travel there to teach. During the second year, students will study specialized courses drawn from the specialties of the three participating schools: marketing at Aston, corporate finance at EM Lyon, and organizational consulting and strategy at Munich.

Headlines

SHORT TAKES

■ **IESEG School of Management** of Lille in France has launched a "twinning" program with **Loyola College** in Madras, India. The aim of the agreement is for Indian students to follow the IESEG program in India, thereby receiving a double bachelor of Business Administration degree valid in both countries.

■ With the goal of helping managers recognize and create innovative product lines, **North Carolina State University's** College of Management in Raleigh has announced the launch of the Innovation Management School. The team-based executive development program is a partnership between the school's Center for Innovation Management Studies and the Industrial Research Institute of Arlington, Virginia. The curriculum includes specialized tracks in product design, process, and service.

■ The Tanaka Business School of the **Imperial College London** and the Confederation of Indian Industry have signed a partnership agreement to collaborate on technology and science issues such as pharmaceuticals, biotechnology, healthcare, automotive infrastructure, information and communications technology, energy, and the environment. In addition, the Tanaka School will create and host the Rajiv Gandhi Centre for Innovation and Entrepreneurship.

■ **Claremont Graduate University** in California has announced a partnership with **Ibmec,** a business school in Brazil with campuses in Rio de Janeiro and Belo Horzonte. Claremont students participating in the exchange program with Ibmec are students in the Peter F. Drucker and Masatoshi Ito Graduate School of Management and those in the School of Politics and Economics.

NEW PROGRAMS

■ The Garvin School of International Management at **Thunderbird** in Glendale, Arizona, has unveiled two new master's degrees in global management and in global affairs and management. The degrees will be open to students with little or no prior work experience, including students straight out of undergraduate school.

■ The **University of Texas at Austin's** South Asia Institute has received more than $700,000 from the National Security Education program to establish a National Flagship Language Program in Hindi and Urdu. The program will train students in advanced language proficiency and professional development, communications, and public policy. Students in the four-year undergraduate program will take language and content classes alongside courses in their majors. Third-year students will study abroad at a university in India.

■ **Carnegie Mellon University** in Pittsburgh, Pennsylvania, has launched a bachelor of science in computational finance (BSCF) to train individuals who can develop math-based risk management tools for the finance industry. The BSCF curriculum is a collaboration among the Department of Mathematical Sciences, the Tepper School of Business, and the H. John Heinz III School of Public Policy and Management.

■ This fall, **Vanderbilt University's** Owen Graduate School of Management in Nashville, Tennessee, will offer a ten-month master's degree in accountancy for nonaccounting undergraduates who want to launch their careers with one of the top global accounting firms. MAcc students also receive intensive on-the-job training through a paid ten-week internship, and they are expected to take the CPA exam the summer following graduation.

GRANTS AND DONATIONS

■ The state of Connecticut has awarded **Fairfield University** a $2.3 million grant to cover nearly a quarter of the cost of constructing a combined heat and power plant that will power the majority of the buildings on campus. The grant came from the state's Capital Grant for Customer-Side Distributed Generation Resources program, which awards grants to corporations and schools that are working on "green" projects to provide some or all of their power. Fairfield University is home to the Charles F. Dolan School of Business.

■ A $1 million gift from the BB&T Charitable Foundation to the Bryan School of Business and Economics at the **University of North Carolina at Greensboro** will establish the BB&T Program in Capitalism, Markets and Morality. The program will offer undergraduate and graduate students the opportunity to examine the ethical and philosophical basis for free market economies.

COMPETITIONS

■ The team from **Brigham Young University** won the fourth annual International Ethics Case Competition sponsored by the Eller College of Management at the University of Arizona in Tucson. Designed to challenge students' ethical reasoning and promote awareness of corporate social responsibility, this year's competition included university teams from the United States, China, Canada, and Mexico. Students had to weigh questions of right nd wrong against the need for revitalizing a rundown neighborhood and producing a new revenue stream for an ailing bank. Teams from the **University of Texas at Austin** and **Pennsylvania State University** won the "Bright Line" awards for highly ethical arguments.

FACILITIES

■ The Richard T. Farmer School of Business at **Miami University** in Oxford, Ohio, has celebrated a ceremonial groundbreaking for its new $65 million, 210,000-square-foot building, Richard T. Farmer Hall. Designed by the New York firm of Robert A.M. Stern Architects LLP, the classic Georgian Revival architectural style will blend with the existing buildings on campus and incorporate eco-friendly elements geared to meet Leadership in Energy and Environmental Design (LEED) standards. The new building will feature a trading room, cluster rooms, and breakout rooms open to undergraduates as well as graduates. Part of the funding of the new building was donated by Richard Farmer, founder and chairman of Cintas Corporation.

Thinking Big

Author **Jim Collins** shares his boundless passion for business research, stressing that academic inquiry's reward isn't about answering the big questions—it's about asking them.

by Tricia Bisoux

Let's say that researcher and author Jim Collins *hadn't* teamed up with his colleague and mentor Jerry Porras to write the bestselling business book *Built to Last: Successful Habits of Visionary Companies*. Let's say he and his research assistants hadn't chronicled the histories of 11 phenomenal companies—and their 11 not-so-successful comparison companies—to produce *Good to Great: Why Some Companies Make the Leap…and Others Don't*. Let's say that Collins' research and books had been unremarkable busts, not perpetual best sellers that propelled him to "guru" status.

What would he be doing today?

Collins laughs at the question, but says he'd be doing exactly the same thing he has always done: rock climbing (his personal passion) and business research (his professional one). "I've had some really good luck," he says. "But to me, research isn't a means to an end—it's an end in itself. It's like Christmas when you open up presents to see what's inside. You get to ask, 'Who would have thought this? How do we make sense of that?'"

Collins' propensity for asking questions is his hallmark, so much so that he has created a mascot of sorts of the children's book character, Curious George. In fact, in honor of Collins' admiration of George's energy and ingenuity, his research assistants even took the name "Chimps." Images of Curious George are posted in the conference room at Collins' Colorado-based management research lab as inspiration. "Curious George," says Collins, "is absolutely my hero!"

There's little doubt that his passion for asking questions has had an indelible impact on business. His books not only offer a road map for what it takes to succeed, but also have inspired a new business vernacular. For instance, businesspeople who've read *Good to Great* now often work to find their personal "hedgehog" concepts, in which they strive to be like the hedgehog that does "one big thing" very well, rather than the fox that does many things adequately. They now think, "First, who; then, what"—that is, they get the "best people on the bus" before they choose a direction to drive it. They set "big, hairy, audacious goals" (B.H.A.G.s) for themselves and their companies. They embrace the "flywheel" concept, in which small improvements build so much momentum that one success quickly leads to the next.

Finally, Collins' devotees aspire to "Level 5 leadership"—or try to work for companies led by a Level 5 visionary. In Collins' model, Level 1 to Level 4 leaders often rely on intelligence, organizational skills, charisma, or intimidation to move people in a given direction. Level 5 leaders, however, possess humility, personal conviction, self-discipline, and an unrelenting passion that inspires those around them to care about the organization's mission more than their own agendas.

Last year, Collins created a monograph for nonprofits called *Good to Great and the Social Sectors,* and worked with the Darden Graduate School of Business Administration at the University of Virginia in Charlottesville to create *The Good to Great Experience,* an interactive DVD version of the book for the business classroom. "I would love to personally visit hundreds of classrooms and interact directly with students, but my first priority remains research," says Collins. "The beauty of this technology is that it allows me to go from classroom to classroom in an electronic format."

Collins quickly admits that he's no Level 5. But he also now believes that students can learn to apply Level 5 leadership concepts to their own personal and professional lives. He also hopes that business faculty will throw themselves wholeheartedly into business research's "B.H.A.G.s"—whether or not they find definitive answers.

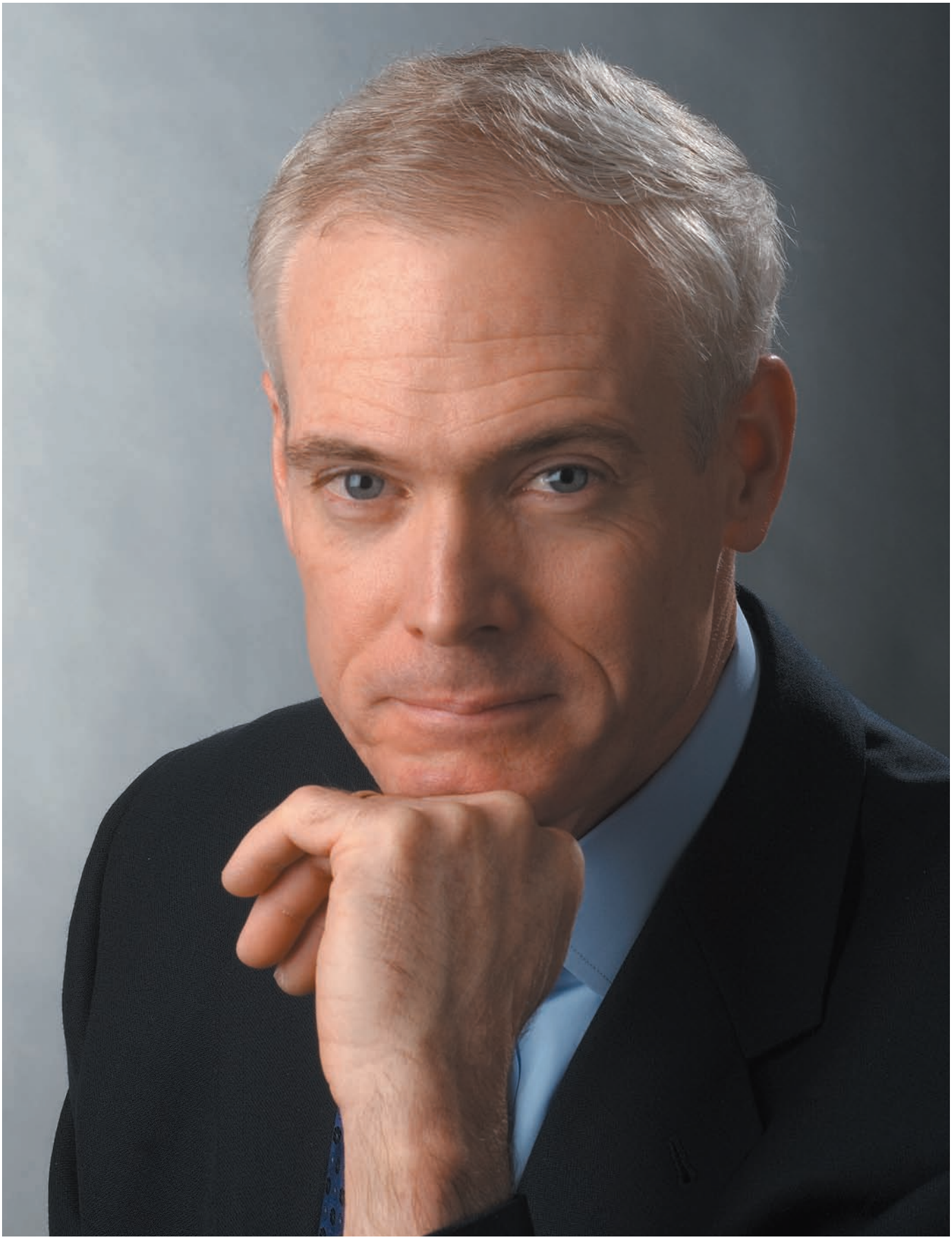


photo by Stephen Collector

"All business students need to learn to **choose their mentors** well. The people they allow to be their mentors will be far more important than the majors they choose, the companies they join, the positions they take, or the salaries they earn."

You published *Good to Great* in 2001. Have your views on its concepts changed at all since then?
I now think Level 5 is a lot more "learnable" than I used to believe.

That's reassuring! Many think that kind of leadership is incredibly rare, and often inborn.
I really do think it's possible to learn. But here's the challenge: At its core, Level 5 leadership is about having ambition for the cause, for the work, for the organization, for the company, for your students, for whatever you're engaged in. It requires all of that, plus an almost brutal stoicism to do whatever it takes to succeed. If you have to fire your brother, you fire your brother.

The truth is that Level 5 leadership is painful—not everyone is up to it. I'm not a Level 5 leader myself, but I know that to be a Level 5 requires pain and sacrifice.

How can business schools help students aspire to Level 5 leadership, even if they don't attain it?
There are two things. First, students need to learn what they're passionate about. When I taught at Stanford, once every quarter I'd walk into class and say, "Pop quiz!" I'd ask my students to take out a blank sheet of paper and write down what they'd do differently if they discovered they only had a short time to live. After they finished, I'd tell them, "Even if you get 90 or 100 years, it's a blink. Life is short. It's vital that you get on with doing what you really want with your life." All students need to ask themselves is, "What am I passionate enough about to endure the pain of Level 5 decisions?"

How can business faculty steer students in that direction?
I'd have every student do the "three circles" exercise. Faculty should ask students to draw three interlocking circles on a piece of paper. In the first circle, have them answer the question, "What am I really passionate about?" In the second, "What am I genetically encoded for? What am I really good at?" And in the third, "What can I contribute that is of value to society that people will pay me to do?" By discovering where these three circles overlap, students can find their own hedgehogs.

The key is to make them start with the first circle. Too many people start with the money circle and say, "I'm going get a job to make a living and hope to goodness that I'm good at it and love it." But chances of that happening are pretty slim. Instead, students need to start with the passion circle, and refine it with the other two. I wish somebody had given me those three circles when I was 22 years old!

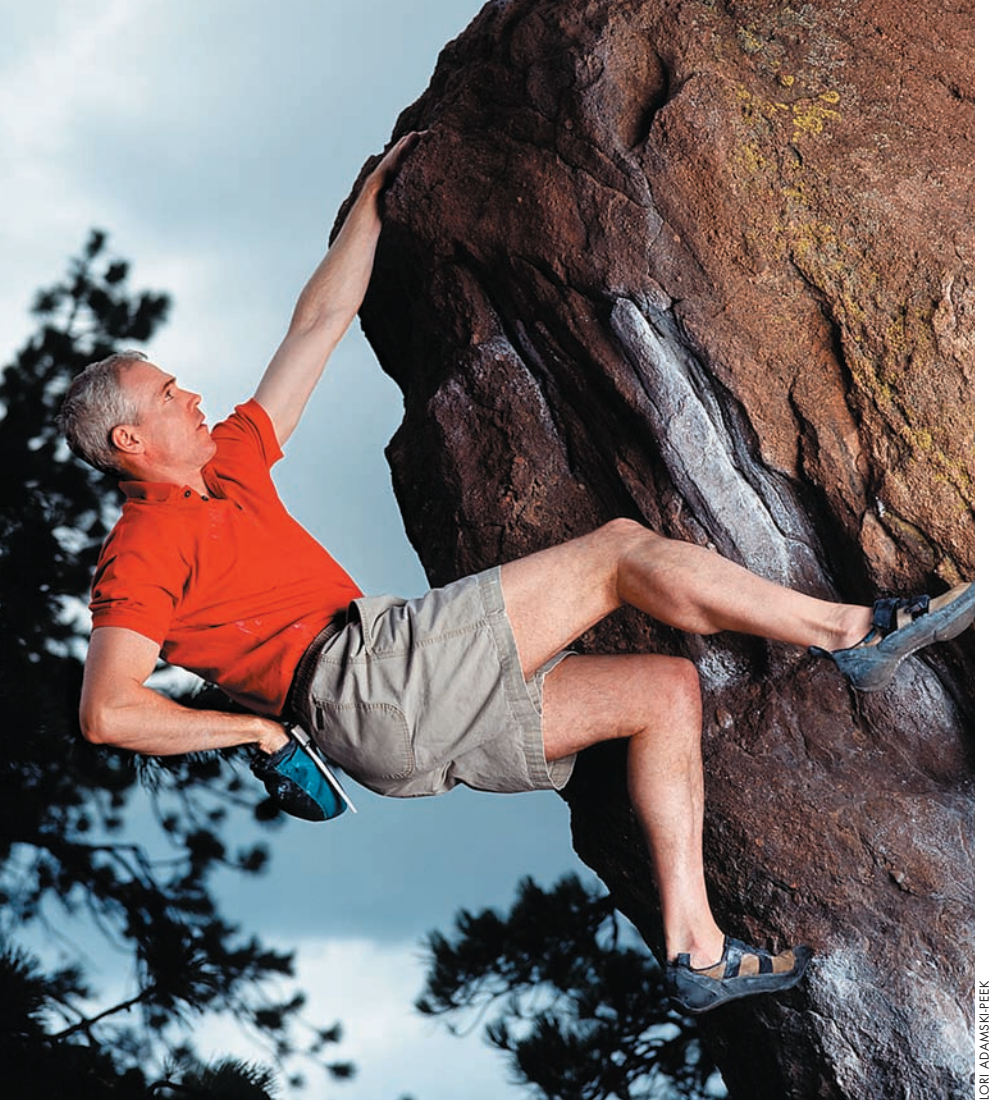
What's the second thing schools need to do?
All business students need to learn to choose their mentors well. Young people always ask, "What's my career choice? What major should I choose? What company should I work for?" But those are the wrong questions. Instead, they need to ask, "With whom do I want to work?" The people they allow to be their mentors will be far more important than the majors they choose, the companies they join, the positions they take, or the salaries they earn.

I advise all students in their 20s to form a "personal board of directors." This board should include people of the highest integrity, with the values and discerning standards the students aspire to. They can use that personal board as a guidepost, like a superego conscience, to help keep themselves on track and shape their values.

You refer to students in their 20s. Is it too late for, say, 40-year-old executives to embrace these concepts?
Not necessarily. But it's just so difficult to change the mindsets of people who've been operating under flawed theories for 20 or 30 years. They still think it takes a charismatic hero or outside savior to lead a company, or that a big acquisition can ignite a leap from good to great. Many still believe that compensation drives performance, or that they need to know where they're going before they find the best people to take them there. These are the misperceptions that we understand better now that we've done the research. But no matter what you teach older students, many retain their engrained habits.

This is why I'm so passionate about reaching young people in the classroom with the DVD I created with Darden. It's great to reach the current CEOs, but I'd rather reach the future CEOs who are 22 years old today. That's the way we're going to have an impact on companies in the future. It's so much easier to teach students these powerful tools early than it is to try to change 20 years of flawed theory. Then, when these 22-year-olds are running companies, they won't have to relearn everything.

You've mentioned that following a passion is essential to Level 5 leadership. I know that you're both a researcher and an avid rock climber. Do you think that it's important for business students to develop both professional and personal passions—to have a work-life balance?
Having both has been very helpful to me. I actually have



LORI ADAMSKI-PEEK

For me, **climbing** has been the ultimate classroom.

three great passions. Passion No. 1 is my marriage to my wife, Joanne. Passion No. 2 is my work, which I love. Passion No. 3 is climbing. For me, climbing has been the ultimate classroom. When I'm hanging off a cliff in Yosemite or Boulder Canyon, I'm focused on the hold in front of me. I'm not thinking a whole heck of a lot about the Walgreens stock chart.

I've been climbing since I was 13. I'm 48 now, and I actually think I'm learning as much about climbing today as I did when I first started. Some of the most difficult climbs I've done have been in my rock gym at home, where I set difficult problems—it might take me two years to do six moves. You've just got to find something you really love to do, and then do it. It forces you to grow and learn new things.

You've said that you're a professor at heart, but you left Stanford to open your management lab. Why did you want to leave the academic environment?

I could have done research in either place, but the types of projects that I like to do are just so massive in scale. For *Good to Great,* the research effort lasted five years, involved 22 research assistants, and required 15,000 man-hours of research. No dean would give me the resources to complete a project like that. It would be very hard to do on a traditional professor's research budget.

Was it difficult to take that leap of faith? After all, the project could have failed.

It was definitely an entrepreneurial approach to research. At Stanford, my original academic area of interest was entrepreneurship. I taught a course on entrepreneurship, and I'd tell my students, "Hey, you don't have to go to work at IBM to be in the technology business. You can start your own company."

Well, one day a student tossed that back to me and said, "Well, you don't have to be at Stanford to be a professor, do you? You could be an entrepreneurial professor." That really stuck in my head. It was riskier, for sure, but I knew that if it succeeded, I'd have the resources to conduct these massive, multiyear projects that I just so dearly love.

That's an unusual concept to apply to academia. Do you think it would be valuable for business faculty to adopt a more entrepreneurial approach in their teaching and research?

I don't know if I would recommend my path to many people! It involves a variable that's way outside of your control, which is luck. I'd love to say, "I knew it would all work out." The truth is, I was really worried. I could have been unlucky, and then we wouldn't be having this conversation.

But there's a less risky way to be an entrepreneurial professor if you choose to use it—it's called tenure! The beauty of tenure is that it's all about freedom. I ended up "self-tenuring," but other faculty can use their tenure as a ticket to entrepreneurial work within the academic environment. They can use it to do the projects they'd do if they were on their own. And even if they aren't tenured, they can become entrepreneurial professors by really following their passions.

You recently released your supplement of *Good to Great* for the social sector. How do you think those principles translate to the business school?

We found that there are different realities. Business has an advantage in that money is a definition of success—such as profit and stock returns. Businesses generate profitability, which gives them access to capital, which allows them to grow, which increases their access to capital—and round and round that flywheel goes.

"The best research has to be open-ended. We have to be **open-minded** about what we'll find. Maybe it will be relevant, but maybe it won't. We have to let the data take us where it takes us."

In the social sector, money's only an input, not an output. So, social sector institutions must build a reputation. Then that reputation becomes the proxy that allows the flywheel to turn. When that's the case, you have to ask, "What *are* our outputs? What is the equivalent of our stock return?" That question is more difficult to answer for an educational institution than for a business.

How does leading a business school differ from leading a for-profit enterprise?

There are two types of leadership skill sets: executive and legislative. CEOs are executive leaders who have concentrated power. Sam Walton, for example, could just decide what he wanted to do with Wal-Mart and nobody could stop him. Business school deans, on the other hand, are legislative leaders. Deans can't just tell the faculty what to do, because they have less than 50 points of power in the system. They have to be more like senators. To be a Level 5 leader in an academic institution, where the power realities are different and much more diffuse, you'd better have strong legislative skills. Too many business leaders step into leadership positions in academia and try to run it like a business—that's the wrong approach. A business school is an academic institution; it's not a business.

The whole question of "who" also is different. You have to be very rigorous about tenure decisions—about who gets to stay on the bus—because once somebody has tenure, it's hard to get them off the bus. Once you've made that decision, you've got a permanent bus rider. That changes the environment.

How difficult do you think it is for a business school to go from good to great?

I don't think it's more difficult to take a business school from good to great than a business. Businesses have the advantage of rational capital markets, but they also can more easily go bankrupt. But social sector institutions have the power of their missions to more easily attract talent, the people who are seeking meaning. When you net it all out, I'd say it's as difficult to build something great in the social sector as in the business sector. It's just difficult in different ways.

I read that your next research project will be about how companies succeed or fail in turbulent environments. What made you want to ask that question?

We're about four years into that research. I'm conducting the research with Morton Hansen, who was a professor at Harvard and who is now at INSEAD. The question comes down to this: If you're at base camp on a mountain at 14,000 feet and a big storm comes in, you can hunker down in your tent and you're probably going to be fine. But if you wake up at 26,000 feet on Mount Everest, where the storms are bigger, faster, and moving more unpredictably, where the environment is more unforgiving and brutal, you just might die. The reality is that executives in all kinds of fields believe that they're all moving higher up the mountain, where there are forces out of their control and tremendous changes that can really hurt them.

We didn't just want to ask the question, "How do you survive?" After all, if that's your environment and it's only getting worse, just surviving could be really debilitating. We really wanted to ask the question, "If the world is turbulent, how do you make yourself enduring and great anyway?" We want to know what separates the great from the good at 26,000 feet.

It sounds like the difference between Southwest Airlines and American Airlines after September 11, 2001.

Oh, Southwest has had 60 consecutive quarters of profitability. They were the No. 1 performing stock of all publicly traded companies from 1972 to 2002. Think about everything that happened in that time period—deregulation, fuel shocks, interest rate spikes, recessions, and then 9/11. Talk about a 26,000-foot environment! You add that up and see bankruptcy after bankruptcy after bankruptcy. And then you look at Southwest. It outperformed Intel, Wal-Mart, Walgreens, and GE from 1972 to 2002—as an airline!

But here's the really interesting thing: There was another company based in California with the same model, opportunities, and access to resources called Pacific Southwest Airlines. Southwest's original business plan was four words: "Copy PSA in Texas." Southwest went to California, copied the PSA model, brought it to Texas, and began building.

Today, PSA doesn't exist as a standalone company. They were also in that 26,000-foot environment, with the same model, and yet they died. Why did Southwest survive at 26,000 feet and PSA, which clearly could have—and, in fact, should have—didn't? That's the essence of the question.

Your research has made a significant impact on business, but business school research in general has been the target of criticism lately—many are debating its relevance to business. Do you think business schools are taking the right approach to research?

I think the real question about business research should

be, "Which comes first, rigor or relevance?" The truth is, research isn't just about relevance. Rigor *and* relevance is the key combination. The great strength of the academic enterprise is that faculty are steeped in the DNA of rigor—and then they hope for relevance. I say "hope for" because, even in my own research, I didn't know whether we'd actually find something relevant. I just got lucky that my research intersected with business so well. The best research has to be open-ended. We have to be open-minded about what we'll find. Maybe it will be relevant, but maybe it won't. We have to let the data take us where it takes us.

If you were to ask me which I'd prefer, rigor or relevance, I'd go with rigor every time. Then, when you come across something that's highly relevant, you know it's solid. Start with relevance, but compromise rigor—and you could end up with something that appears relevant but doesn't stand the test of time.

I think most professors address questions with rigor. As a result, they produce research that is quite likely to be relevant now and in the future. So, I don't really accept that criticism that much.

Why do you think you're so passionate about research? I'm really motivated by the process itself—I love the inquiry. I'm just so excited about the important work that I and other business faculty do. I've never thought of business schools as just offering BBA or MBA programs. They're really offering an MLA—a master of life administration. We're discovering tools for how a capitalist society can be more productive and humane. Business schools may be the most powerful mechanism for shaping the minds of the people who will shape the future. That's very noble work. Business faculty who love that idea can ask a lot of difficult questions and go through a lot of hard times.

And then, I hope they get lucky!

The Evolution of E-Learning

Five experts in online education stress that, to reach a burgeoning community of e-learners, educators need to keep in mind three important **E**'s: **engagement**, **experience**, and **educational** value.

by Tricia Bisoux

Karen Mishra is a doctoral candidate at the University of North Carolina at Chapel Hill's School of Journalism and Mass Communication. Vaida Linartaite works as chief specialist in the Lithuanian government's law and information division in Vilnius. Both wanted to take an e-commerce course taught by Michael Rappa at North Carolina State University's College of Management in Raleigh—but their busy schedules and distant locations made it impossible to attend in person.

Thanks to the Internet and a digitally savvy professor, that wasn't a problem. Rappa includes an extensive online component to his course, "Managing the Digital Enterprise." He designed a comprehensive Web site at digitalenterprise.org, which incorporates course readings, links to online resources, video guest lectures, online student discussions, and podcasts in Rappa's own voice explaining each lecture topic. While 50 students attended Rappa's lectures in person, Mishra and Linartaite were among 15 who took the course completely online.

But did they learn as much as their in-class counterparts? Did they gain as much from interactions with other students? Both say, "Absolutely." While their experience of the course may have been different than those who attended in person, each emphasizes that it was just as educationally fulfilling.

"I found myself getting drawn into extensive online conversations with other students. I know I spent as much time or more on this course as I would have if I had taken it 'traditionally,'" says Mishra. "The downside is that I didn't get in-class time with Dr. Rappa; but with the addition of his podcasts for each module, I felt I still learned a great deal from him." She learned so much, in fact, that Rappa asked her to be his online teaching assistant this year.

Linartaite's job required extensive travel, so she could not take part in the discussions or ask a real-time question. She compensated by delving deeply into the site's resources, reading the discussions, and asking questions by e-mail. "E-learning is not easy, but I don't think I learned less comprehensively by taking the course online," says Linartaite. "What was amazing was how the online course combined theoretical knowledge with practical tasks."

Mishra and Linartaite represent a growing number of motivated, organized, and engaged students who are turning to online classrooms for their educational needs. A recent survey by the research firm Eduventures found that approximately 50 percent of consumers planning to enroll in a post-secondary educational program say they prefer taking courses presented entirely in an online format or balanced between online and face-to-face

illustration by David Cutler

The technology allows educational providers and students to tap into expertise anywhere in the world, without travel expense or scheduling conflicts.

—Som Naidu, University of Melbourne

instruction. A survey of 2,200 U.S. colleges and universities, a joint project of the College Board and the Sloan Consortium, found that nearly 3.2 million students took at least one online course during the fall of 2006—up from 2.3 million the previous year.

A small number of traditional universities have become successful, for-profit providers of online education. Last year, UMass Online, the University of Massachusetts' online education division, announced that its enrollment had increased by 23 percent and that its program revenue had increased to $22.9 million, up from $17.4 million the year before. The University of Maryland and Penn State University also have established successful for-profit online ventures. The University of Illinois at Urbana-Champaign recently announced its plan to launch its for-profit online degree program, The Global Campus, in 2008. Above all, educators are attempting to address common criticisms often aimed at online education providers such as the University of Phoenix—that online education models sometimes sacrifice quality for the bottom line. A number of faculty are working to develop best practices and pedagogy to make online education an extension of the quality found in their traditional classrooms.

BizEd asked five prominent educators and experts in online education to share their thoughts on the accelerating developments in online education: Som Naidu of the University of Melbourne in Australia; Rappa of NCSU; Robert Zemsky of the University of Pennsylvania in Philadelphia; Diana Oblinger, vice president of EDUCAUSE in Raleigh, North Carolina; and Lee Schlenker of EM Lyon in France. They address many questions that now face business educators: How do schools design online courses that keep students engaged? How can educators meet their learning objectives for all their students, both on campus and online, while also adhering to rigorous educational standards?

While these experts see great things ahead for online education, they acknowledge that some caution is warranted. Rappa, for instance, emphasizes that courses without high levels of faculty engagement, interactive activities, and student involvement can provide less-than-ideal learning experiences. Zemsky believes that most faculty have shown little interest in how online technologies and pedagogical structures operate. Until they do, he argues, options in online education may continue to be limited.

Still, stories like those of Mishra and Linartaite indicate that students are not only becoming more accustomed to learning in online formats—many are seeking out these opportunities. It falls to educators, these experts argue, to catch up to where students already are.

'The Right Tools to Learn'

Som Naidu
Executive Editor, Distance Education
Founding Editor, Electronic Journal of Instructional Science and Technology (e-JIST)
Associate Professor, University of Melbourne
Melbourne, Australia

Scientists have long studied the concept of "affordances"—that is, the ways animals, including humans, take advantage of the opportunities their environments provide. A person walking into a forest may see a path and think, "I can walk here." He may see a bench and think, "I can sit on this." The issue of affordances refers to how we find and use the tools at our disposal. When we look at online technologies, the concept of affordances is crucial. What tools are available to us? Which tools will students use? What tools will best help students learn?

One important affordance of online learning is flexibility, which allows students to learn at their own pace, at any time, from anywhere in the world. Another affordance is asynchronous communication, which allows students and faculty to communicate across time zones. I see this in my own experience. I'm a professor at the University of Melbourne in Australia, but I'm also an instructor for the University of Maryland in the United States. I've never seen or spoken to any of my students taking the University of Maryland course. Even so, the technology affords me the opportunity to teach them; it allows educational providers and students to tap into expertise anywhere in the world, without travel expense or scheduling conflicts.

Some of the current affordances of online education, however, are still far from ideal. Many course management systems that schools use to create online learning environments are still developed for the mass market. They are often simplified to the extent that they do not allow for many high-end simulations or modeling activities; they don't allow academics to do what they want or need to do to create the most effective online courses. Very few professors have the technological savvy to step outside these mass-produced systems to create their own, more flexible and interactive platforms. The rest are forced to confine the online component of their courses to lecture notes, PowerPoint slides, e-mail discussion, and other static material.

Even so, I'm seeing promising changes in the software

Instead of taping my lectures for off-campus students, I created 30-minute podcast "conversations," as if I were sitting down with each of them over breakfast.

—Michael Rappa, North Carolina State University

available. Companies like Blackboard are moving toward more customizable, open source platforms. They are thinking of ways to change their platforms to allow academics and others to develop their own simulations and learning tools that they then can operate within the system.

When it comes to online learning, we must overcome two important obstacles: a lack of understanding of the advantages that online technology affords and a lack of training to use that technology to best advantage. Professors who have been teaching their subjects for years often take into the online environment the same tools that they used in the classroom. In effect, they stop at the bench without traveling farther to see what else the forest may have to offer.

As educators, we need to make it our mission to explore all the technology at our disposal and provide the affordances that make online education rich and rewarding. Only then can we design optimum learning environments for students and provide them with the right tools to learn.

'The Future Is Great'

Michael Rappa
Professor of Technology Management
North Carolina State University
College of Management
Raleigh, North Carolina

Eight years ago, I decided to pursue a grand experiment: to explore what it would be like to be a professor 15 or 20 years in the future. I created a course called "Managing the Digital Enterprise," which would not only teach students about e-commerce, but also give them hands-on experience in today's digital media. I also designed a Web site, digitalenterprise.org, that incorporated all of my course materials and links to a variety of online resources.

I also decided not to limit access to the material to my students alone. I made the site open to any professor or student in the world. Today, hundreds of professors and thousands of students visit the site. A professor in West Virginia uses it as a textbook for her students. Professors in Florida and Singapore both put more students through the Web site than I do. Corporations send their workforces through the site and even support the effort monetarily to help us maintain the servers to accommodate the online traffic. It has been an amazing experiment.

I think, as educators, we have little choice but to embrace the technology wholeheartedly. We have to expect that, with each academic year, students will come to us with mindsets that have been increasingly shaped by the Internet. With each passing year, more will wonder why faculty aren't taking advantage of the technology as much as they could.

The good news is that the technology available to faculty is better than ever. More schools are providing additional tech support. There are user-friendly, open-source software platforms available, like WordPress, a free blogging tool. There are easy-to-use Web page editors like Adobe's GoLive, which faculty can use to design, customize, and control their own Web sites. This sets up an interesting paradox: New technologies make it easier for professors to develop online resources; but the longer faculty wait, the harder it will be for them to take the plunge.

New technologies like the audio- and video-sharing capabilities of podcasting and YouTube are especially exciting opportunities for faculty in terms of creating ongoing conversations with students. I discovered that when I taught my course to students at a distance for the first time. Instead of taping my lectures for off-campus students, I created 30-minute podcast "conversations," as if I were sitting down with each of them over breakfast. Students who listened to the podcasts were able to have more personal interactions with me and the material than a recorded lecture could provide; students who attended the lecture could listen to the podcasts to reinforce what they'd heard in class.

Online technologies also offer faculty an incredible analytical advantage when it comes to assessing students' mastery of the material. As a "digital professor," I know how many times students listen to my podcasts and what Web-based materials they return to most often. I know exactly how much time students spend in the online forum. I often joke that, while many professors *think* all students wait until the last minute to do their homework, I may be the first professor who *knows* it empirically. The data is all there. I learned that when deadlines were too close together, students often compromised performance on one project to complete another. So, I separated my deadlines to allow my students to work more effectively on each assignment. It has been exciting to wake up every morning and have a complete view of what's happening in my course.

Businesspeople involved with digital enterprises often report how much insight they have on their customers because of the data they collect. It's no different for academics. We can use the technology to understand our students

I've met faculty who say, "Students want to be on the **receiving** end of information. They don't want to hit '**Send.**'"

—Robert Zemsky, University of Pennsylvania

much better and make better decisions about how we reach them inside and outside the classroom. This is a great turn of events for educators.

The message, then, for business schools is to encourage faculty to move in new directions. If schools set performance criteria for their professors based on the past, they'll get professors who teach in the past. If schools set performance criteria based on the future, they'll encourage professors to move into the future.

And the message to professors is this: The future is great. It's much more fun than you might imagine.

'We're Back to Square One'

Robert Zemsky
Chair and CEO, The Learning Alliance
Professor, University of Pennsylvania
West Chester, Pennsylvania

A 2004 paper I wrote with Stanford professor William Massy outlined reasons why e-learning hasn't had as much impact as expected. Our paper, "Thwarted Innovation: What Happened to E-Learning and Why," points out that many educators expected a "whiz-bang" effect that would inspire whole new ways of teaching. Others believed it would significantly reduce the cost of educational delivery.

Today, however, we've made little progress on the "whiz-bang" front. Moreover, we've found that in some cases online courses actually cost more and take more time to deliver effectively than more traditional approaches.

But perhaps the most telling reason that e-learning has developed differently than we expected is that we didn't take the time to discover how students really use technology to further their educational goals. Today, we're realizing how little we really know about how students learn in online environments.

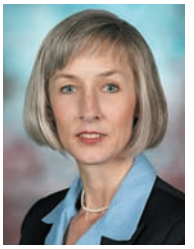
Case in point: The John D. and Catherine T. MacArthur Foundation recently offered $50 million in grants to universities and nonprofits over the next five years to fund research on how children use different technologies. That action is an amazing admission. It says that today, almost a decade into the online revolution, we're almost back to square one when it comes to understanding just how technology helps students learn.

But we are getting there. With the influx of classroom technologies, faculty have changed the way they teach. They've shifted from a lecture style to a more participatory style. They're creating student work groups, whose collaboration is often supported by online tools. They're requiring students to interact more with the material, using tools such as online multimedia and software simulations. However, most faculty are still just having students "bring all the chairs in a circle" and talk, whether in class or in online forums. Students are using e-mail, listservs, and video conferencing to communicate, but they're still not using it extensively to create learning networks. Faculty are using the technology to post course content and encourage online discussion, but many are still not using it to *teach*.

That might be slowly changing. I've met faculty who say, "We're going to do our own version of the Wikipedia," in which students and faculty all actively contribute to and continually update course content in an online format. That kind of project is certainly an intriguing use of the technology as a teaching and learning tool. Then again, I've met faculty who say, "Students want to be on the receiving end of information. They don't want to hit 'Send.'"

These two viewpoints indicate that we're still in a holding pattern when it comes to e-learning. As an industry, higher education isn't yet using the technology to its best advantage. We're not yet creating truly interactive learning environments. Eventually, it will happen, but not anytime soon.

'A Web of Co-Creation'



Diana Oblinger
Vice President, EDUCAUSE
Raleigh, North Carolina

We're seeing a fundamental change in education. Schools have changed, student expectations have changed, and the technology has changed. But the biggest change I've seen is in the way we think about online technology.

In the past, we viewed the Internet as a one-way channel that feeds users information. But that view is incredibly out of date. We now have resources like Wikipedia, YouTube, social networks, online chat rooms, instant messaging, and blogs,

In the past, we viewed the Internet as a **one-way** channel that feeds users information. But that view is incredibly **out of date.**

—Diana Oblinger, EDUCAUSE

where users are creating and sharing information. The online environment has become a web of co-creation and information sharing. This development has empowered all users.

As more schools develop online learning options, they must keep this cultural shift in mind. As students take control over their own learning processes, educators are asking three important questions: How can we make the online learning environment an engaging environment, in which students are active participants in the learning process? How do we create learning activities that help them truly master the information? And how do we adapt the learning environment to suit students' different learning styles?

To engage students more fully in the process, many educators are following a pedagogical concept called "learning to be." This concept is an apprenticeship model of learning that teaches students how to *be* a manager or investment banker or accountant, not just learn the subject matter behind the disciplines. This concept is about more than delivering course content; it's about developing the habits of mind inherent in a professional field.

To design activities that truly teach students "to be," many educators are using a blended model of online and face-to-face opportunities that offer students greater flexibility in when and how they master the material. Students may listen to an expert speaking about a subject online, and then take part in an online simulation that puts them in a situation similar to the one the expert describes. Then, they may do exercises that allow them to reflect on the material or work in small groups to share their observations. Such experiences not only expose students to new ideas, but also allow students to try out the concepts for themselves.

Finally, to address different learning styles effectively, schools need to make sure that the technology they choose for each learning objective is appropriate for what they want to achieve. Too many people attempt to replicate a textbook's content on the computer screen, but this doesn't serve any purpose. Some material is best distributed on paper; other materials, such as video, audio, Web sites, online forums, and blogs, are best presented in the digital environment.

Most of us, including business schools, have not yet grappled with the fact that we're seeing a significant cultural shift. We're moving from the 1990s vision of the Internet as a content delivery system to the present-day vision of the Internet as an immersive environment, where learners have a great deal of control and exercise a tremendous amount of choice.

Business schools need to recognize students' growing empowerment. Schools with the most effective online programs will emphasize faculty development, tech support, and integrated approaches that accommodate different skills and different ways of thinking. They'll set high expectations for student involvement in the process. They'll go beyond content delivery to offer experiences that help students "learn to be," not just watch and listen.

Adopting a 'Work-Based Pedagogy'

Lee Schlenker
Affiliate Professor of Information Systems Management
EM Lyon
Lyon, France

Perhaps the time has passed for business schools to view technology as a cost-cutting measure or as a marketing device to attract new students. The potential value proposition of information technology today isn't found in its features and functions, but in how we can use IT to enhance management education itself.

To a large extent, business educators' reliance on both traditional lectures and classroom settings has distorted their view of management education. We too often focus on models, rather than on reality. We teach to individuals, rather than to teams of people who work together. We offer best practices, rather than explore the behaviors that exceptional managers share. When it comes to technology, we ask our students to work in course management systems and virtual classrooms that have no resemblance or relevance to business beyond their courses. As a result, we're often better at teaching content than challenging our students to develop their own competencies.

With this in mind, my colleagues Adam Mendelson of IESE, Toby Wolf of MIT, and I suggest a model of management education that we call "work-based pedagogy," which focuses on how people actually use technology in the workplace to achieve their objectives. The value of technology isn't in technology itself—it's in how managers use technology to deal with their business challenges. How do we use information technologies to capture client challenges, aggregate the costs and benefits of change, and communicate our propositions to our sponsors, teams, and customers? Whether stu-

dents are using e-mail, instant messaging, blogs, podcasts, or collaborative learning networks, business schools can engage students directly to develop their competencies using the technologies that help shape the modern workplace.

In my master's classes this year, for example, I have asked my students to create podcasts for their final presentations. Their projects are judged on how an audience—one that isn't confined to the classroom and forced to listen—reacts to their podcasts. I want students to realize that using different communication channels requires mastering different kinds of communication skills. This project, of course, has made the students somewhat anxious, because they have been trained over the years to become PowerPoint zombies.

Even so, such projects are valuable because they can help dispel this anxiety. They help students develop a variety of work-based skills and encourage them to *think* about how they deliver value. In business, value often isn't delivered in the classroom, or even in the conference room. Often, it's delivered through online channels to clients who have little time for face-to-face meetings.

Learning technologies are just one piece of the management education puzzle. We must evaluate how technology helps to enhance or extend a business school's larger value proposition. Businesses today want to hire students who possess the behaviors and visions that correspond to the way they'll work in the future. Business schools can use technology to design work environments, online and off, that will help students develop those competencies.

A Great Experiment

Although these experts offer a variety of perspectives, most agree that as time goes on, students' appetite for online educational experiences will intensify. They'll choose online formats not only to suit their schedules, but also to learn the online communication and collaborative skills they'll need to conduct business effectively. Not only that, but some observers predict that in the next decade, online education may become a truly *a la carte* proposition—students might attend one school in person and another online, or choose individual courses from a variety of institutions. As their options increase, students will be better able to build their own personal learning environments.

Online students such as Mishra and Linartaite note that online instruction can be ineffective if instructors do not make the parameters and expectations of their courses clear. Frequent instructor interaction and detailed weekly outlines of instructor expectations are crucial to designing valuable online learning experiences.

As e-learners become more sophisticated, most will gravitate to courses that present information dynamically, use diverse media effectively, facilitate discussion actively, and incorporate high levels of personal interaction and group collaboration. That may be a welcome message for faculty who remain reluctant to investigate what current technologies have to offer. Except for the computer screen and keyboard, these objectives aren't so different from what educators have done in traditional classrooms all along.

Going the Distance

Virtual education is changing the classroom, but schools must plan carefully before implementing their own distance learning programs. Case studies from two successful programs offer templates.

by Andres Fortino and Paige P. Wolf

As higher education evolves, traditional business schools face a multitude of challenges to their standard educational formats. In particular, the full-time, face-to-face class is increasingly giving way to part-time and distance learning models as schools provide more programs with fewer time and location restrictions.

Today, part-time students make up about two-thirds of the MBA population in the U.S., and they account for approximately one-third of the MBA student body in the rest of the world. The ramifications of this growing part-time demographic are clear: Business educators must determine how to offer flexibility in programming while providing all students with a top education. At the same time, they must consider how to deliver quality programs in cost-effective ways that optimize student enrollment.

With many distance learning formats available, a business school's best option is to develop a program that complements its existing classroom formats. Two schools that have developed emerging programs are George Mason University in Fairfax, Virginia, and Marist College in Poughkeepsie, New York. George Mason, a large public state university serving a diverse population in the national capital region, developed its first distance learning course as part of a customized MBA program for a multinational corporation. Marist, a small rural college, used the distance format to enhance student enrollment. While their approaches are very different, their examples show that any school can find the right tools to bring distance learning to its campus.

Keys to the Virtual Classroom

As George Mason and Marist discovered, distance learning programs are more likely to succeed when schools consider three key facets of virtual education: making the business case for adopting online education, designing the ideal program, and carefully managing the transition.

Making the business case: The foray into distance education should be shaped by three important criteria: institutional mission, stakeholder support, and a thorough cost-benefit analysis. The cost-benefit analysis not only will help justify the program, but will aid in bringing more stakeholders on board, so it should be carefully conducted.

In terms of cost, the program should be at least self-sufficient to be attractive. Faculty compensation packages should reflect the fact that professors will need additional time to prepare content for the new format. In terms of benefits, a distance learning program should enhance the school's overall reputation and help it connect with a segment of the market it previously has been unable to reach.

Crafting a successful approach: Some distance learning programs combine face-to-face classroom sessions with Web-enhanced instruction, while others consist of 100 percent Web-based courses. Approaches that fall somewhere between these extremes are called *distributed* or *blended* models of delivery. When a school is designing its approach, it should consider how far its typical students must travel to sit in a physical classroom, what kind of access they have to the Internet, how their work

illustration by David Cutler

The technical infrastructure must be stable, cost-effective, and as simple as possible, and it absolutely must be buttressed by **technical support** for faculty and students.

schedules might affect their ability to attend classes, and what advantages the faculty might gain by using various learning tools and formats.

It's critical that the administration employ the right technology for its distance learning program. Innovative technology will not guarantee an effective course, but misused or unstable technology is almost certain to damage a program. The technical infrastructure must be stable, cost-effective, and as simple as possible, and it absolutely must be buttressed by technical support for faculty and students. Faculty often can overcome their initial concerns about new technology if they're encouraged to form support groups led by experienced colleagues.

Managing the transition: A virtual program cannot be successful without the support of enthusiastic and properly trained faculty. It's rare that a school has the funds to hire new, academically qualified individuals to deliver a distance education program. Thus, the school must focus on faculty development efforts that will reframe current courses and maximize usage of the available technology.

In addition, administrators must convince faculty that changing the course format will not have a negative impact on the quality of education. To alleviate these concerns, the school should design an evaluation system that systematically compares traditional and online delivery formats. Components to watch are quality of the course deliverables, grades, student reactions, and longer-term outcomes.

ClassroomPlus at GMU

A look at George Mason's distance learning program shows how one school integrated these three components of online education. Because George Mason is an AACSB-accredited school, even its virtual education courses had to meet high standards of education. George Mason's first client for distance education was a national corporation that wanted an MBA program for its widely dispersed senior managers.

Making the case: To help make the online approach attractive, administrators priced the virtual program in a way that allowed them to realize significant profit after costs were met. The pricing strategy was an important element in gaining the support of faculty and senior leadership. Faculty also embraced the program because they were allowed to teach it either as part of their regular load or as overload, which paid a bonus of 10 percent of their nine-month salaries.

Designing the program: The online delivery component was essential because the corporate sponsor would only fund limited travel for the students. At the same time, the corporation's primary goal was to promote networking among its executives to create synergies across business units that traditionally had been insular.

George Mason developed a blended model of distance education and named it ClassroomPlus. Each semester began and ended by immersing participants in their courses during eight-hour face-to-face sessions with faculty and students. During the semester, local students and faculty met in four two-hour sessions. Remote students participated through teleconferencing and by viewing shared documents online through platforms such as NetMeeting and WebEx. This resulted in 24 hours of synchronous student-faculty contact time for each course. The rest of each course—which included threaded discussions, chats, and exams—was conducted asynchronously, using the Web-based tool WebCT.

Since many of these technologies were new to professors, technical and general programmatic support was critical in building faculty confidence. A technical support person was hired to train faculty in the use of WebCT and online document-sharing tools, and a full-time faculty member served as the program manager. This person handled all program logistics, planned student orientation, answered student questions, oversaw the technical support staff, recruited faculty, and answered faculty questions regarding the ClassroomPlus approach.

Managing the transition: To interest faculty in teaching in the new ClassroomPlus format, the school convened a Community of Practice made up of professors who wanted to explore advanced learning technologies. Successful, experienced faculty provided guidance. Among the questions other faculty raised were: How do I reproduce classroom learning moments in an online environment? How do I cover the same amount of material in this new format? How are group projects managed and executed? How will students learn from class discussions when synchronous class meetings are limited?

These and other concerns were addressed in monthly colloquia named The Faculty Fellows Program. This program began months before the first blended course was to be delivered and allowed adequate time for faculty to learn and

Balanced Scorecard for Virtual Learning

As business schools integrate distance learning into their programs, they can use the balanced scorecard approach to determine whether they are meeting their goals. The balanced scorecard, introduced in 1996 by Robert Kaplan and David Norton, allows an organization to align its business activities and decisions with its competitive strategies. Balanced scorecards measure how well businesses are doing in four areas: pleasing customers, satisfying stakeholders, organizing internal processes, and maintaining growth.

A business school can use a balanced scorecard to determine the merits of a distance education program and judge the program's effectiveness. Balanced scorecards also allow schools to collect data to help them in their quests for continuous improvement. The sample given here measures multiple critical success factors for two different schools in each of the four categories. Schools can identify the critical components that will help them measure effectiveness in their own programs.

Element	Metric	George Mason University	Marist College
Customers	Robustness of demand	• One cohort per year recruited by sponsor company	• Total demand for online courses stronger than on-ground courses, measured course by course
	Student satisfaction	• Student course evaluations above average • Special survey conducted	• Student course evaluations above average
	Student performance	• Course grade distribution above average • Pre- and post-testing to measure subject comprehension	• Course grade distribution above average • Course objectives judged by independent assessment
Finances	Reaching the breakeven point	• Financial breakeven within 24 months with initial faculty development and technology cost burden	• Financial breakeven on a course-by-course basis based on meeting minimum course enrollment
	Total program revenue	• Gross tuition revenue realized for entire cohorted program	• Tuition driven on a course-by-course basis
	Program costs	• All direct costs, no infrastructure costs	• All direct costs plus IT infrastructure cost per course
Internal Business Processes	Course development processes	• Faculty-driven with program director coordination	• Faculty-driven with central IT coordination and support
	Quality monitoring processes	• Course development reviewed by peers • Student course evaluations monitored	• Development process dictated by e-learning standards of excellence • Student course evaluations monitored
	Adequate program staffing	• Qualified faculty easily obtained to teach • Adequate support staff installed	• Qualified faculty easily obtained to develop and teach courses • Adequate support staff installed
Learning and Growth	New products	• New graduate programs created using developed platform	• New online courses added to program • New online graduate programs developed
	Faculty satisfaction	Measured by: • Anecdotal evidence of satisfaction • Rate of returning faculty • Rate of adoption of new online technologies in regular on-ground classes	Measured by: • Satisfaction survey • Rate of returning faculty
	Community of practice	• During startup phase, attendance mandatory at CoP • In subsequent years, faculty voluntarily attend	• Teaching Effectiveness Committee offers scheduled workshops and presentations

As long as some schools are providing distance education—and providing it well—all schools must be aware of its potential, both to **disrupt** and **enhance** their classrooms.

practice their new skills. Faculty members were compensated to participate in the program, and a Web site was created for the Faculty Fellows that included useful links, workshop workbooks, presentations made at meetings, and other resources for distance teaching.

Student Outreach at Marist

Like GMU, Marist College is an AACSB-accredited school with a strong incentive to devise a distance learning program. Unlike GMU, Marist is located in a rural setting that offers it little chance of drawing a strong commuter population. Thus, Marist instituted a distance learning program to enroll students who might otherwise have no way to attend classes.

Making the case: Online programs were attractive to the administration at Marist College because they could command higher levels of tuition. Such programs were also attractive to professors because Marist offered them a stipend up front to create online courses and an additional stipend each time they taught the class.

Designing the program: Because Marist wanted to reach students outside its rural setting, it launched a distance learning program with no residential requirement. Therefore, it merely converted its existing MBA programs to online versions that could be delivered via course management systems. Only one section of an online course was offered in any one session. A full-time faculty member ran the class for up to 22 students. For every 25 additional students, another instructor was added to assist the primary faculty. The additional instructors were typically adjuncts whose salaries were lower than that of the primary faculty.

Once a cadre of assistants was developed and the faculty mastered the new online approach, this model was cost-effective at a reasonably high quality of instruction. In practice, using more than one or two additional assistants turned out to be impractical. Classes have not been large enough to test out the infinitely expandable mode.

Managing the transition: Financial motivation helped Marist faculty embrace an online format for the MBA program. The administration supported the move to this model, and internal champions—the dean and senior faculty members—led the transition. Eventually, the online program became a collegewide initiative under the leadership of the CIO. A robust set of seminars, workshops, and other faculty development offerings helped faculty acquire competencies in distance education. Now, most faculty enter the online teaching community by developing a course online, and they build capacity through this development process.

After several years, a well-developed system has evolved and is embodied in a set of guidelines called "Standards

A Brief History of the Classroom

While some management educators embrace distance learning, and others reject it, distance learning can be seen as just another permutation of the university classroom. Since the Industrial Age, educational institutions have favored the lecture hall as a way of delivering education to large groups, while organizing small-group seminars to allow elite graduate students to discuss specialized topics with their professors.

By 1900, schools in America had begun to adopt the Carnegie Foundation's definition of a unit of instruction—45 contact hours to equal three credit hours. For many years, the Carnegie model suited American institutions of higher education and yielded millions of college graduates. Now the advent of Web-based communications has freed education from the constraints of both space and time. Schools can offer distance learning programs that satisfy the requirements of the Carnegie model if they focus on units of "instruction," rather than "contact time."

Primarily, this means faculty must move away from the traditional lecture format and find other ways to engage students. This should not be as alarming as it might sound, because faculty have always done far more than simply lecture. As Frank Rhodes, president emeritus of Cornell University, points out, "The professor must be ... able to organize the material, divide it into manageable segments, stress its relationships, introduce its principles, identify its assumptions, explore its ambiguities, reveal its implications, discuss its applications, and explain, challenge, answer, interpret, illuminate, and distinguish between the major and the lesser."

Even in the virtual classroom, faculty still meet Rhodes' definition of a professor as a guide and interpreter. They are most likely to be successful in that format if they treat it less like a lecture hall and more like a seminar room. In the virtual venue, they serve as role models and orchestrate the learning process by acting as coaches or mentors. The lecture hall is replaced by the computer screen, but in many ways, the classroom is the same.

for e-Learning Excellence." The guidelines detail the peer review process for development, the best practices in development and execution of distance classes, the deliverables in the development process, and the payment schedule as deliverables are met. They also describe what the university considers a quality product and outline the intellectual property rights of the faculty. Faculty who develop a course are expected to maintain its currency and train others in its use.

The Future of Distance

While these two models have been successful for specific institutions, distance learning programs can be customized to suit any school or student body. Unfortunately, many business schools are refusing to consider distance education, thus leaving the field to commercial entities such as University of Phoenix and Capella University. But most experts believe business schools can't afford to ignore distance learning.

A paradigm shift is occurring, bringing about the cycle of "creative destruction" described by Joseph Schumpeter and elaborated on by Clayton Christensen. As the theory goes, innovation by one group can destroy the monopoly enjoyed by longtime market leaders, and companies that fail to innovate in turn will fall behind. In the case of management education, distance learning is the disruptive technology that is threatening traditional classrooms. While online programs initially might be addressed to underserved markets—students who cannot meet the time and geography requirements of face-to-face classes—eventually distance programs will become more popular with mainstream segments of the market as well. Schools that don't adapt will suffer, while schools that aggressively embrace distance learning are likely to take leadership positions.

Technology will only become more pervasive in our society, and more individuals will expect it to meet their educational needs. As long as some schools are providing distance education—and providing it well—all schools must be aware of its potential, both to disrupt and enhance their classrooms. The best plan is to discover the right way to turn the virtual classroom into a competitive advantage.

Andres Fortino is associate provost and dean of the Westchester Campus of Polytechnic University in New York, New York. He was formerly dean of the School of Management at Marist College in Poughkeepsie, New York, and associate dean at George Mason University before that. Paige P. Wolf is an assistant professor of management at George Mason University's School of Management in Fairfax, Virginia.

Investment Advice: GO for the MBA

New data based on GMAC surveys suggest that the MBA offers a **significant return** on investment for nearly all students at nearly all schools.

by Brooks C. Holtom and Edward J. Inderrieden

Business school deans have been rushing to the defense of their graduate degree programs ever since Jeffrey Pfeffer and Christina Fong published their 2002 article questioning the value of an MBA. Not only did those authors debate the worth of the MBA in general, they suggested that the degree was only valuable if it was earned from a top-ranked school.

A recent U.S.-based study shows this is clearly not the case. Researchers employed by the Graduate Management Admission Council (GMAC) surveyed thousands of graduates over the course of five years, collecting data that compared the costs and rewards of accredited programs across the U.S. Analysis shows that an MBA yields an excellent return on investment (ROI) for nearly everyone, regardless of the type of program, the race of the student—or even the ranking of the school. Pfeffer himself believes management education has undergone significant changes since his original article was published. (See his viewpoint regarding business schools' possible overemphasis on MBA salaries in "What's Right—and Still Wrong—with Business Schools" on page 42.) One thing that hasn't changed is the enduring value of an MBA.

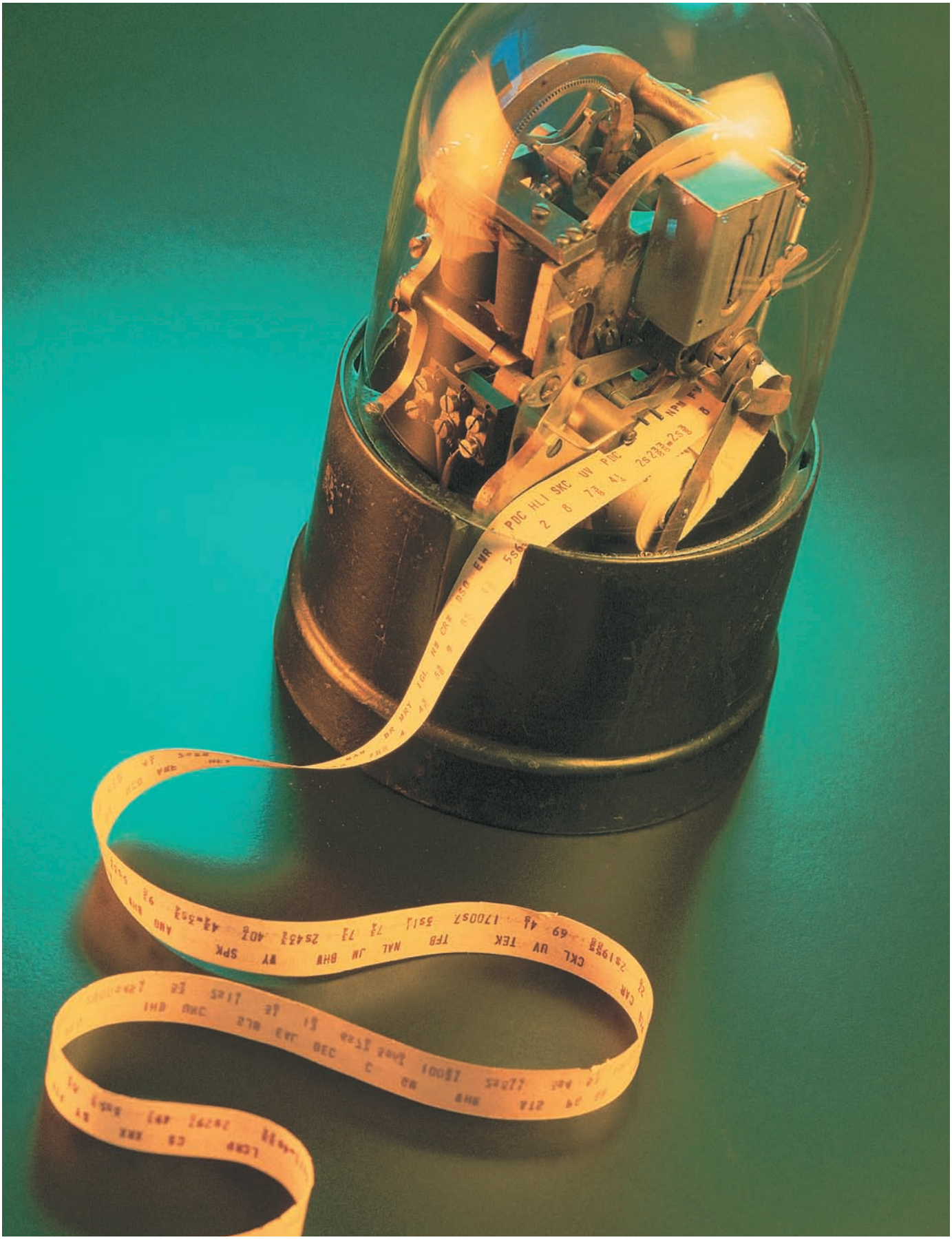
Key Findings

One of the most striking findings from the GMAC data shows that students who attend lower-ranking schools experience a better ROI than those who attend higher-ranking schools. More precisely, the ten-year annualized average ROI for students from a top ten school is 12 percent; for those outside the top ten, it's 18 percent. Students who attend a top 50 school experience a mean return on investment of 17 percent; those who attend a school ranked outside the top 50 have an ROI of 20 percent.

Why the impressive rate of return? It's all about the expense. A highly ranked school costs significantly more than schools with lower rankings. The mean total cost of attending a school in the top ten is just over $198,300, compared to about $123,700 for other schools. Yet the MBA confers so many benefits to graduates of schools across the board that they can take better jobs, earn more money, and quickly recoup the costs of their investments in their degrees.

Unquestionably, there are still advantages to attending a top ten school, particularly over the long haul. Students who graduate from those programs are hired at better base salaries—earning a mean of $96,400, compared to $79,700 for graduates from schools outside the top ten. In addition, top ten graduates most likely will continue to receive higher pay increases and bonuses as their careers progress, keeping them well ahead of their peers from lower-ranked schools. While they have paid a higher price for their top ten degree, the net value of their investment over time will be higher.

Although the salary bump for students who attend top ten schools is also more—a mean salary increase of about $34,500, which works out to 56 per-



cent—students at lower-ranked schools do pretty well, too. Their average salary increase is a very respectable $28,100, which represents a 54 percent increase. When that increase is compared to the substantially lower costs of enrollment, it's no wonder their ROI is so high.

In short, the study is good news for nearly all schools because it means they can honestly proclaim that the MBA provides great value for their graduates. Some schools already are producing their own cost and benefit data to show alumni and other stakeholders that their program compares favorably with other schools across the nation.

Program by Program

The GMAC study didn't just compare the return on investment for schools grouped by ranking. It also examined the relative value of full-time, part-time, and executive MBAs. The data show that students who receive MBAs through a part-time program experience an annualized ROI of 68 percent, while students in executive MBA programs have an annualized ROI of 35 percent. Full-time students lag behind with a 15 percent ROI.

To some extent, these numbers, while accurate, are misleading. Executives and part-time MBA students don't have to quit their jobs to pursue their degrees; the cost of forgone salary is the largest driver in the equation for ROI on the full-time MBA. And while full-time students give up that salary for two years, they're rewarded at the end of the program with a generally higher salary—a mean increase of 59 percent.

At the same time, part-time students are faring quite well, too. While their percentage increase is modest, the paycheck they're actually taking home is slightly higher than that of the full-time MBA—$78,280, compared to $78,220. This can be largely explained by the fact that part-time students tend to be older than their full-time counterparts; they're already earning good salaries that are enhanced by an MBA. That's also true for those seeking executive MBAs.

No matter what the reason, such strong numbers for part-time programs should be welcomed by deans who are

The Value of an MBA

	Mean ROI	Increase in salary	Total cost	Percent salary increase	Post MBA base salary
Top Ten	12%	$34,485	$198,321	56%	$96,420
Non Top Ten	18%	$28,084	$123,712	54%	$79,703
Top Fifty	17%	$30,718	$141,717	58%	$83,736
Non Top Fifty	20%	$22,768	$ 95,777	45%	$73,448

Virtually everyone who earns an MBA degree sees a measurable return on investment, but that ROI is even higher for students who attend programs outside of the top-ranked schools.

Program Differences

	ROI	Payback period (in years)	Percent increase in salary	Post-MBA base salary
Full-Time Program	15%	5.1	59%	$78,221
Part-Time Program	68%	1.6	37%	$78,287
Executive Program	35%	2.8	17%	$91,026

While students who graduate from full-time programs experience a solid return on their investment in their MBAs, students in part-time and executive MBA programs see an even more dramatic ROI. In addition, salaries for those who graduate from part-time programs are on average higher than those for people who graduate from full-time programs.

The social network created by an MBA is essential not just for minorities but for individuals who want to switch careers.

seeing their full-time applications fall while their evening and weekend programs grow. Not only is the total pool of MBA applicants expanding, but those in part-time and executive programs are seeing positive results from their investment in education. Schools can continue to promote their part-time programs in good conscience.

The Ethnic Equation

An MBA offers a satisfactory return on investment for every race, but it's particularly good for Asian Americans. As a whole, they have the highest increase in salary of any group graduating from an MBA program and the largest average post-MBA salary.

While the ROI figures aren't as high for African American MBA students, those students score well on other, less tangible factors, like contacts in new industries. The GMAC survey asked respondents to rate their satisfaction with their degrees according to nine measures, one of them being the opportunity to network and form relationships of long-term value—i.e., improve their social capital. This social capital helps people find jobs and get promoted.

Most MBA programs offer opportunities to develop social capital to all students in their programs, but that capital appears to be particularly beneficial to students of color. Those students rate their satisfaction with opportunities to network and form relationships with long-term value higher than their Caucasian counterparts do. Sociological literature indicates that people of color tend to have close-knit but relatively small social networks composed of people similar to themselves. While these networks might be highly supportive, they are less likely to include a broad range of people who can help group members obtain top jobs.

By contrast, students of color who earn MBA degrees expand their social networks to include professors with consulting connections, friends who work in financial services firms, and alumni at Fortune 500 companies. They also gain access to career services offices that can help them make personal connections with professionals at top firms.

The social network created by an MBA is essential not just for minorities but for individuals who want to switch careers. As these students earn their degrees, they tap into a second network that can help them achieve success in their new fields. There is extensive evidence to show that an MBA degree creates considerable opportunities.

Demographic Differentials

	ROI	Increase in salary post-MBA
Asian Americans	14%	55%
African Americans	15%	38%
Caucasians	16%	46%
Hispanics	12%	47%

Students of every race benefit from obtaining an MBA, but benefits are particularly strong for Asian Americans.

Taking a Step Back

While an MBA has the potential to benefit most students, the study results show that approximately 10 percent of those who earn the degree do not experience a salary increase. The reasons are varied and apply to a very small number, but it's important to understand why these cases exist.

Some graduates who do not see an uptick in salary are international students who move from well-paying jobs in the U.S. back to their countries of origin. There they take private sector or government positions that are prestigious and comfortable in their countries but might not pay well when compared to U.S. salaries. Since the cost of living varies between countries, these graduates could very well be living better on less money.

Other students who see pay cuts are often individuals who leave high-paying but personally unfulfilling careers in fields such as engineering or medicine. For instance, an engineer who is making $85,000 a year might decide over time that she really wants a career in marketing; post-graduation, her new MBA nets her $5,000 less in income, but if she is doing something she loves, then she is likely to be happier overall. In addition, the degree puts her on a trajectory for management positions in the future, so the chances are good she will recover that lost income.

Similarly, an M.D. might want his MBA so he can lead a health-care institution. His first job running a clinic offers him compensation that's less than what he earned as a doctor, but he enjoys the work more and has a broader impact.

The drop in salary comes almost exclusively from people who have earned their MBAs in full-time programs. For the most part, that's because participants in part-time and executive MBA programs tend not to be career switchers. They want better positions within their own companies or their current industries; but to get those jobs, they need to develop better business skills. In addition, many executive MBAs have their tuition paid by their firms, so they have a commitment to remain at those firms, at least for a specified period of time.

An MBA can nullify the institutional effect of the first salary an individual earns after obtaining a bachelor's degree.

Satisfaction with MBA Program

Preparation to get a good job in the business world	2.00
An increase in career options	1.70
Desirable credentials	1.74
Opportunity for personal improvement	1.59
Opportunity for quicker advancement	1.86
Development of management knowledge/ technical skills	1.74
An increase in earning power	1.90
Opportunity to network and to form relationships with long-term value	1.96
Increase in work-environment flexibility	2.04

Survey respondents rated their satisfaction with their MBA degrees on nine specific measures, with 1 being extremely satisfied and 5 being not at all satisfied. While students give excellent marks to the practical training they receive in MBA programs, they also give high ratings to areas that revolve around developing social relationships and expanding networks of business contacts.

Methodology

Student data were collected primarily through two longitudinal surveys conducted by the Graduate Management Admission Council and sent to students of AACSB-accredited schools between 2001 and 2004. Thousands of responses were gathered and used to collect the data. Rankings were obtained from the 2004 *U.S. News & World Report* Business School Report. Tuition and fee data came from Barron's Report 2004.

ROI figures were calculated conservatively: We estimated ROI over a ten-year period, although graduates are highly likely to continue earning value for their MBA degrees over a much longer period of time. In addition, we used only base salary in our calculations, excluding profit-sharing contributions, stock options, and bonuses.

To determine the cost of earning an MBA, we first took the published data for each school's tuition and fees. Then, for full-time students, we added the pre-MBA salaries reported by respondents across two years and added in the average salary increase in the U.S. for the second year. The ten-year gain from an MBA was calculated before taxes and is adjusted for the time value of money. The payback period calculation simply divides total costs by the salary increase and does not adjust for the time value of money.

Final Thoughts

At first glance, it might seem like all these data paint a rosy picture for every form of graduate business education except the full-time MBA. But there's no cause for alarm for schools that rely heavily on traditional two-year programs. It's still true that graduates from full-time programs dramatically increase their salaries, and those higher salaries serve as the base that defines their earnings power for the rest of their careers.

In fact, a paper published by Stanford University economist Paul Oyer finds that an individual's salary at his first job has a strong impact on lifetime career earnings. Many companies request salary history data before making a job offer, so a candidate's wage at a new firm is often predicated on past salary. This trend is so powerful that when people graduate and take jobs during a recessionary economy, they may never quite catch up. Thus, the amount of money that MBAs make at their first post-graduate position can influence the money they will make the rest of their lives.

That's the argument in favor of both full-time programs and top ten programs. But a stronger argument prevails for the MBA in general, whether it's obtained from an elite program or a merely good one. An MBA can nullify the institutional effect of the first salary an individual earns after obtaining a bachelor's degree, especially in lower-paying social sciences fields. Once people graduate with their MBAs in hand, they jump into a new labor market. The salary game begins all over, but this time they have a new benchmark.

Education provides a wide range of opportunities, and it helps to level the playing field. It doesn't perfectly level the field—there will always be people who are able to obtain excellent undergraduate educations, who can afford GMAT preparation courses, or who are genetically blessed. But no matter where an individual is starting from, an MBA degree confers a distinct advantage. Management educators have long believed this to be true, but now there's data that show an MBA is worth the investment.

Brooks Holtom is an assistant professor of management at the McDonough School of Business at Georgetown University in Washington, D.C. Ed Inderrieden is an associate professor of management at the College of Business Administration and academic director of the MBA Program at Marquette University in Milwaukee, Wisconsin. Full reports on the GMAC survey may be found at www.gmac.com/surveys. The authors have relied on funding and data supplied by GMAC's Education Research Institute to conduct their independent research. Their conclusions are the opinions of the authors and do not necessarily reflect the opinions of GMAC.

What's **Right**— and Still **Wrong**— with Business Schools

Business schools have come a long way in the last few years. When it comes to building character, however, this educator believes that there's still room for improvement.

By Jeffrey Pfeffer

In September 2002, Christina Fong and I questioned the effectiveness of business schools in our article, "The End of Business Schools? Less Success Than Meets the Eye." After its publication, the article inspired a firestorm of media attention and debate. Some educators questioned our premise, while others disagreed vehemently with our observations. In both cases, we were pleased that the article started a spirited, widespread, and ongoing discussion about what's right—and what's wrong—with business schools.

As a long-time business educator, I have listened to and participated in this discussion with great interest. I've watched as many things have improved in business school curricula—business schools have clearly made steps in the right direction. Nonetheless, I've found that some of the fundamental issues and concerns we wrote about in 2002 remain. In this issue, for example, authors Brooks Holtom and Ed Inderrieden provide data on the monetary ROI of an MBA. (See "Investment Advice: Go for the MBA" on page 36.) Such numbers show that business schools still use as one measure of their success the size of their graduates' salaries. A better measure of success, however, may be how well they build each student's character and sense of accomplishment.

Better Curricula, Better Students

Our 2002 study maintained that many business schools were plagued with three primary problems: student passivity in the learning process, a decrease in curricular relevance, and a failure to translate business knowledge into applicable business skills. To a large extent, however, schools have addressed these problems, strengthening their programs overall.

First, business schools have tackled the problem of student passivity. Numerous articles have highlighted the problem of viewing students as "customers." Dennis Gioia and Kevin Corley discussed it in their 2002 article, "Being Good versus Looking Good: Business School Rankings and the Circean Transformation from Substance to Image." Christine Quinn Trank and Sara Rynes also explored their concerns with this idea in their 2003 paper, "Who Moved Our Cheese? Reclaiming Professionalism in Business Education." These articles have concluded that, if the problem is left unchecked, students almost inevitably come to see their educations as the responsibility of their professors.

Many schools are rethinking their programs to address the problem of student disengagement—they are even re-evaluating the design of the typical tiered classroom. When I teach in such a classroom, I sometimes ask my students, "What does the design and shape of this room remind you of?" They frequently say, "a theater" or "an auditorium." And what does one expect in a theater or auditorium? To be entertained, of course. This perception may

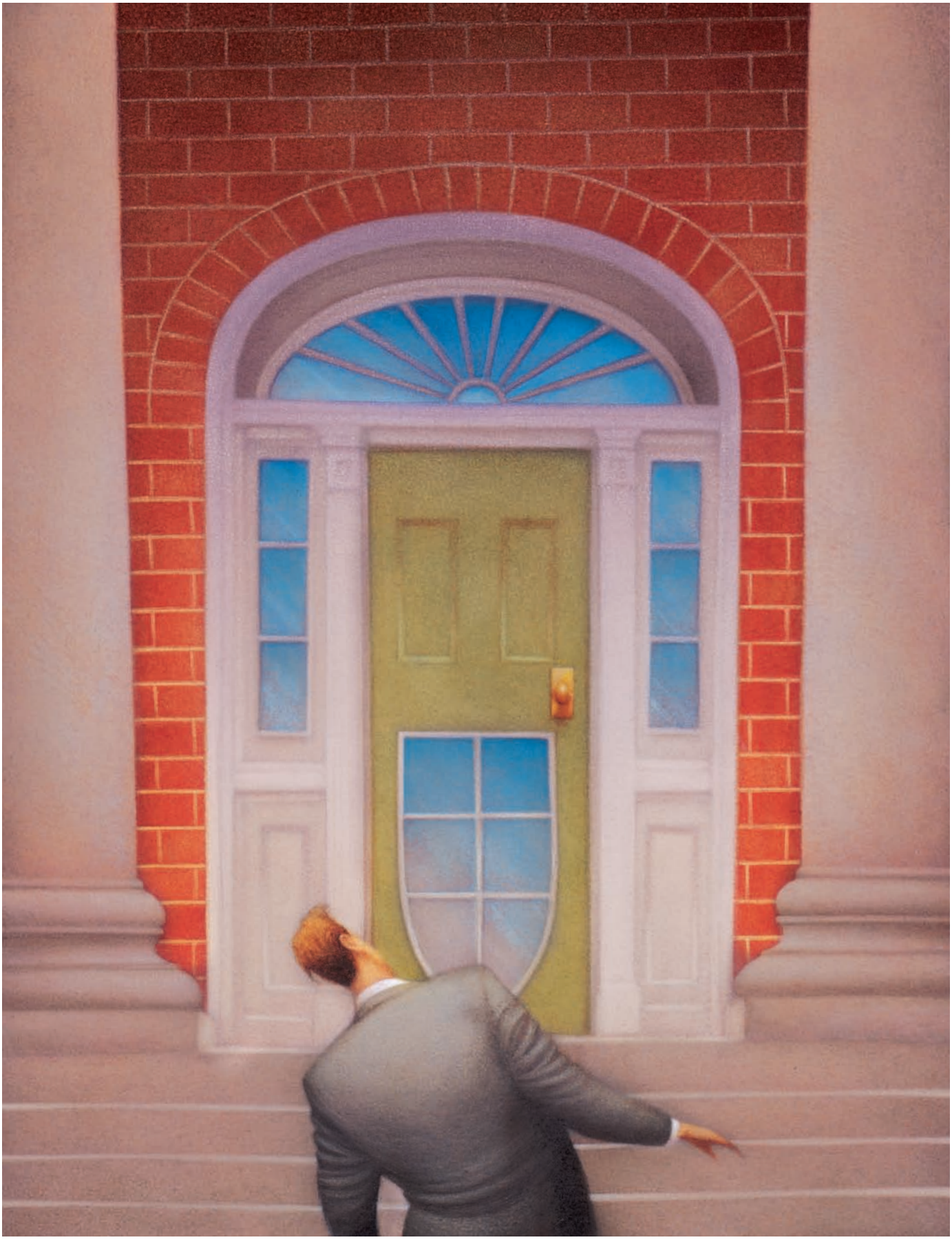


illustration by Neil Brennan

Business schools have continued to offer students more experiential classes, more emphasis on group projects, more contact with the world. These are steps that will positively affect our graduates' ability to turn their knowledge into action.

partially explain why many business schools are moving away from the tiered-classroom model, to more interactive, group-oriented spaces.

Schools are also changing their curricula. Certainly, curriculum reforms at Stanford, and at other schools such as Yale and MIT, have aimed to engage students more directly in the learning process. These programs are giving students much more responsibility in their own education. For example, some schools are encouraging students to initiate courses with faculty guidance and organize study trips. Other programs, such as the LEAD program at the University of Chicago, have designed their currricula so that advanced students coach and help to develop the skills of less senior students.

We know that there is little correlation between instructor ratings and what students learn—teaching and learning are distinct activities. We also know from research that for adult learning to be meaningful and successful, students must be actively engaged in the process. Efforts such as those at Stanford, U of Chicago, Yale, and MIT send an important message about who is ultimately in charge of the students' learning—the students themselves.

Second, in 2002 it seemed almost as if some business schools had made a "devil's bargain" with the market—essentially, they were selling credentials for money. Students often came to business schools with the understanding that if they didn't cause too much trouble for schools or faculty, schools and faculty wouldn't cause too much trouble for them. In addition, curricula often failed to translate business knowledge into applicable business skills. That's quickly changing, as business educators seem to be placing greater emphasis on ensuring that students truly master the material. More educators are tailoring the level of instruction to individual students, taking into account their backgrounds and experience. More are ensuring that students leave their programs intellectually prepared for their careers.

In part, these changes have been implemented in response to concerns raised by employers, recruiters, and alumni who perceived, accurately or not, that business schools had watered down the academic rigor of their programs. And, in part, these changes reflect pressure from faculty who want business to take their work more seriously. In fact, many are making efforts to revisit the idea of the "professionalization" of management, in which the practice of business has its own code and regulations, similar to law and medicine.

Business schools could go even farther in this area. They could not only recognize the academic performance of students and faculty, but also set a tone of rigor and seriousness in everything from class attendance policies to enforcement of the honor code. Still, more schools are taking the content of what they teach—the intellectual substance of business—more seriously.

Third, a number of curricular reforms have also addressed the disconnect in the business school classroom between knowledge (knowing) and the application of that knowledge (doing). A patient would not want to have surgery performed by a doctor who knew all the theories of medicine but had never actually picked up a scalpel. Similarly, corporations don't want to hire business graduates who know the theories of business, but have never applied them successfully in the field.

When we wrote our article in 2002, we believed that business schools needed to do a better job of making sure their students could actually apply the academic and theoretical knowledge that they learned in class in real-world situations. In this regard, business schools have continued to offer students more experiential classes, more emphasis on group projects, more contact with the world. For instance, many of today's business students consult for nonprofits and present ideas and solutions to groups of practicing managers. These are steps that will positively affect our graduates' ability to turn their knowledge into action.

It is quite likely that these curricular reforms will also affect research. In his comment on a book that I wrote with

As educators, we have not changed this perception that students go to business school just for the **money**.

Bob Sutton, physician Ari Heller noted that medical schools have both a basic research and a clinical research component. In his view, that balance would be good for business schools as well. Time will tell if this physician's wisdom will be implemented in management education.

Changing Our Measure of Success

In 2004, Christina Fong and I wrote a second article about business schools and business education, "The Business School 'Business': Lessons from the U.S. Experience." Although that article attracted less attention than our first, we think it actually raises even more pressing issues. It outlines some of the problems that still need to be remedied in business education.

The most fundamental issue is this: How should business schools measure their success? Most ask, "Have we increased our graduates' salaries? Have we assured each of them job offers? And have we climbed in the rankings?" Of all the issues our 2002 article raised, one concern received the most attention. We wrote that we found "scant evidence that the MBA credential [is] related to either salary or the attainment of higher level positions in organizations." Publications ranging from *Forbes* to the *Financial Times,* as well as academics, wanted to know whether this charge was true—whether business schools were ineffective in improving their graduates' careers.

In fact, many business schools base their reputations, in large part, on how well their MBA degrees translate to their students' career advancement. Every business school Web site includes a link that says "Hire an MBA" or "Job Placement." From what I've seen, Web sites for law, medical, and engineering schools place no such prominent emphasis on job placement. This is true even though their students also graduate with student loans to pay and also must find gainful employment. In choosing "economic" standards for assessing their success, business schools reflect the overwhelmingly instrumental orientation of their attendees and the "market-based" ethos of much of their curricula.

Such an instrumental orientation toward the educational also leads to—surprise—cheating among business students. It is no accident that a recent survey by Donald McCabe and Kenneth Butterfield finds that 56 percent of graduate business school students acknowledge that they have cheated, compared to 47 percent of graduate students in other disciplines. In an earlier 1995 study, "Cheating Among Business Students: A Challenge for Business Leaders and Educators," McCabe and Linda Treviño surveyed students at 31 universities and found that 76 percent of students intending to pursue a career in business self-reported having cheated, compared to 58 percent in education and 63 percent in law. Looking at both the proportion of students who cheat and the number of "incidents," they concluded that "business majors report almost 50 percent more violations than any of their peer groups."

The research by McCabe, Butterfield, and Treviño also shows that, independent of major, students who come to business school to "get their ticket punched"—to obtain a credential that will get them a better job or a higher salary—are more likely to cheat. And why not? Too many students aren't there for knowledge, but for the credential, a piece of paper at graduation. The fact that business students cheat more than those in other disciplines is simply a consequence of their motivations for attending school. Business schools have contributed, and continue to contribute, mightily to this problem. As educators, we have not changed this perception that students go to business school just for the money. We have not changed how students then present themselves to the world.

Building Character, Not Salaries

Business schools could learn a lot from the military. For example, the U.S. Army's mantra for leadership development is quite simple, but profound: "Be, Know, Do." The military academies take the idea of character development, as represented in the word "Be," especially seriously. This emphasis does not mean the military doesn't make mistakes and have problems in its ranks—problems are an inevitable part of the human experience. But West Point doesn't assess its success primarily by the income of its graduates, but rather, by their characters and accomplishments.

Research shows us that business schools have the power to profoundly affect the values of their students. In "Where Will They Lead? MBA Student Attitudes About Business and Society," a 2001 publication from the Aspen Institute for Social Innovation Through Business, researchers found that, during their time at business school, many students' values change. They come into business school stressing the importance of the well-being of employees and customers; they leave business school emphasizing shareholder value.

Business schools could reverse that trend. Vigorous discussion on this topic could be sparked by further surveys regarding changes in student attitudes and values, changes in their self-reported ethical behavior during their education, and possibly even assessments by faculty and peers of their character and leadership. Such data could help us better evaluate our impact on students.

Business school leaders can only improve business education by knowing the **facts** of their enterprise, not by listening only to what they **want** to believe or hope to be true.

At Stanford, for example, we now have the tag line, "Change lives, change organizations, change the world." While we don't base every decision on this idea, its fundamental premise of what the purpose of a business school should be is sound. Business leaders touch many lives. Unfortunately, from the surveys I've seen, contemporary business organizations have become amazingly toxic environments, in which a high proportion of employees are disengaged or "actively disengaged." Translation: Some employees are actually trying to sabotage their employers. In addition, a high percentage of employees don't trust management, and workplace bullying is all too common.

A 2004 study from the global professional services firm Towers Perrin, "The Corporate Antitrust Problem," found that 20 percent of respondents believed their companies lie to them. A survey from global consulting firm Watson Wyatt found that 44 percent believe their top management lacks honesty and integrity. I believe that, as educational institutions and educators, we have a responsibility not only to teach our students about the realities of the world of work, but also to reconnect them with their aspirations and a sense of idealism. Many of them once had this positive outlook on the power of business, but they've forgotten it in the day-to-day grind of job interviews, assignments, and daily life.

Leading with the Facts

Leadership matters. We need to collectively assess the leadership of business schools. Following the publication of our 2002 article, I found that many business school leaders didn't want to hear that there might be a problem with business education. For example, when one administrator told me my article "wasn't helpful," I asked him, "Is it inaccurate?" I believe it wasn't. As we have learned from the many corporate scandals, truth-telling, especially when it's bad news, is something that's generally in short supply. All too often, I found business school leadership to be a "fact-free" zone. This serves all of us badly.

On a more encouraging note, I've met corporate CEOs who are adamant about uncovering problems in their organizations. They know that they can only make sound decisions and fix problems when they know the "hard facts." Like corporate leaders, business school leaders can only improve business education by knowing the facts of their enterprise, not by listening only to what they want to believe.

Some senior leaders at the world's business schools have yet to embrace the wisdom of my colleague Bob Sutton, who wrote the book *Weird Ideas That Work: 11½ Practices for Promoting, Managing, and Sustaining Innovation*. Sutton often says, "If two people agree all the time, one of them is redundant." It still seems that few business school leaders are ready to operate their schools like Google runs its business—in an environment where ideas, products, and projects are chosen by consensus, in a way that truly harnesses the wisdom of a highly educated and intelligent crowd.

Whither the B-School Enterprise?

I have not done a study of the pervasiveness of the various curriculum reforms I've described, nor do I know the extent of the academic leadership deficiencies I have observed. I do know, however, that the problems that confronted business schools a few years ago have not been fully addressed. These problems are larger than declining applications and doctoral shortages, larger than the concerns that Fong and I raised, and larger than the criticisms of other educators such as Gary Hamel, Henry Mintzberg, Warren Bennis, and James O'Toole. The overall health of the business education enterprise depends on our continued discussion about where business schools should go next.

In organization theory, the "threat-rigidity" hypothesis argues that one modal response to an external threat is not adaptation, but inertia. When confronted by a threat to the status quo, many people simply continue to do what they were already doing. Many also are driven by a self-enhancement motive, which leads them to want to believe only positive information about themselves and their organizations.

In response to a call for change, some business schools have reaffirmed the value of what they are already doing—which is fine, if they have done so through some measurement or evaluation. But in the absence of such assessment, their response may not work for the long term. Other schools have tried to find the "good news" in the midst of the debate. Curricular innovation, however, requires that we actually use what we teach our students—the ideas from human resources, strategy, organization theory, and entrepreneurship—in our own enterprises, to figure out what we can do to enhance our own institutions.

Many business schools are, in fact, undertaking serious self-examination. They are engaging in the sorts of conversations among their faculty, students, and alumni that can help them redefine and reinvigorate their purpose as business educators. Only through these conversations can we devise the tactics to make that purpose come to life. Z

Jeffrey Pfeffer is the Thomas D. Dee II Professor of Organizational Behavior at Stanford University's Graduate School of Business in California.

Research

Transformative Consumer Research Gains Ground

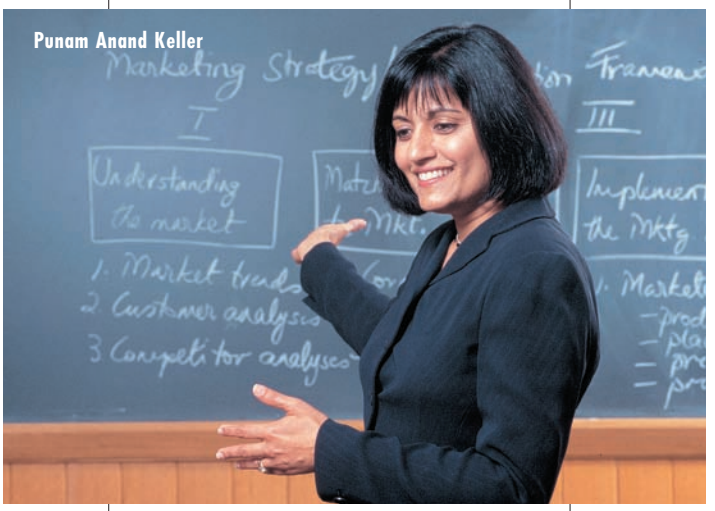
A new movement called "Transformative Consumer Research" (TCR) is inspiring business researchers to explore how scholarship can change consumer behaviors for common and personal good, explains Punam Anand Keller, professor of management at Dartmouth College's Tuck School of Business in Hanover, New Hampshire, and president elect of the Association for Consumer Research (ACR). ACR sparked the TCR movement in the fall of 2005 to foster research efforts that can improve consumers' quality of life.

In her own research, Keller looks specifically at improving consumer welfare. In June 2007, for example, she will design a marketing program for private-sector financial regulatory service provider NASD to market programs on financial literacy. Keller is currently working with the Norris Cotton Cancer Center at the Dartmouth-Hitchcock Medical Center on a project aimed at reducing childhood obesity through the development of a communications program.

Keller's research also has inspired a new, second-year elective at Tuck called "Transformative Marketing: Health, Wealth, and the Arts." The course, which begins in January, presents major marketing challenges around issues such as financial health, obesity, exercise, nutrition, and diet, she explains.

"We developed this course to get students thinking about how marketing can be applied to broader social issues," says Keller. "Instead of restricting our focus to the impact marketing has on one's own goals or organization performance, we illustrate how it can have an impact on both individual and collective social well-being."

Keller will serve as co-chair of the first TCR conference, "Transformative Consumer Research: Inspiring Scholarship for Collective and Personal Well-Being," to be held July 6–8 at Tuck. The conference will champion interdisciplinary TCR projects that combine the work of social scientists and health researchers with that of consumer researchers on topics such as obesity, smoking, gambling, parenting and consumption, the elderly and consumption, and financial decision making.



Punam Anand Keller

JON GILBERT FOX

ACR recently received a $30,000 grant from the Kellogg Foundation to begin funding TCR projects, and the *Journal of Consumer Research* has announced a related issue on consumer welfare. For information about the TCR conference, visit mba.tuck.dartmouth.edu/pages/faculty/punam.keller/conference/.

B-Schools and Businesses: Partners in Exec Ed

Academic research over the past decade has shown a growing preference among corporations for customized executive education offerings over conventional, open-enrollment programs. New research from Pennsylvania State University's Smeal College of Business in University Park indicates that this trend is intensifying—so much so that corporations are seeking not only customization, but also long-term educational partners who will analyze their individual needs, develop customized solutions, and offer ongoing counsel.

Jeffrey Spearly, managing director of Penn State executive programs and senior instructor at Smeal, surveyed 22 executives responsible for executive education at Fortune 500 companies. He found that these executives are seeking "deep partner relationships that include assessment and consultation with education as a by-product."

Some business schools' experiences provide evidence of this trend. The Eller College of Management at the University of Arizona in Tucson, for example, recently partnered with SAP America Inc. to collaborate on two research projects—one to help SAP apply its software code to new technologies and another to improve the company's supply chain efficiency with radio frequency identification (RFID) technology.

THE PRESENCE OF THREE OR MORE WOMEN IN THE BOARDROOM "ENHANCES THE LIKELIHOOD THAT WOMEN'S VOICES AND IDEAS ARE HEARD."

The University of Tennessee's College of Business Administration in Knoxville recently established a long-term partnership with the U.S. Air Force. Under what is called an "indefinite delivery, indefinite quantity" (IDIQ) contract, UT will develop curriculum, teach programs, provide technical assistance, and create cost-saving models. In addition, the Air Force also will turn to UT faculty for research and projects related to its efforts to transform its response to global issues and to increase the efficiency of its operations. The contract is worth up to $25 million over the next five years.


Jeffrey Spearly

One of the school's first research projects will be to work with Air Force acquisition experts for a year to help them streamline their work. Other projects already planned include research on applying a more performance-based approach to managing major Air Force service contracts.

Penn State's Spearly notes that, as agreements such as the one between UT and the USAF become more common, business schools will have to place greater emphasis on applied and experiential learning, relationship management, customer service, and return on investment for their corporate partners. Says Spearly, "Successful executive education initiatives are driven by applied research, rooted in partnerships, and measured by contributions to the growth and success of corporate clients."

Women on Boards Lead to Better Governance

If corporations want another reason to bring more women into the boardroom, a recent study from the Wellesley Centers for Women (WCW) in Massachusetts may give it to them. According to the study, corporations with three or more women serving on their boards have a decidedly different atmosphere in their board meetings—and, as a result, better corporate governance.

The research for "Critical Mass on Corporate Boards: Why Three or More Women Enhance Governance," was conducted by Alison M. Konrad, a professor at the University of Western Ontario's Ivey School of Business in Canada; Vicki W. Kramer, consultant and former academic; and Sumru Erkut, senior researcher and associate director for WCW. After interviewing 50 women directors, 12 CEOs, and seven corporate secretaries from Fortune 1000 companies, the researchers found that a critical mass of three or more women on a board leads to a more collaborative leadership style that focuses on listening, social support, and win-win problem solving. Such an environment allows for more expansive discussion of tough issues and issues that pertain to multiple stakeholders.

The study found that a lone woman on a board can make a difference, and two women are more powerful than one. However, the study found that the presence of three or more women in the boardroom "enhances the likelihood that women's voices and ideas are heard." One or two women may still feel isolated; with three or more, women feel less like outsiders and more like equal participants, the researchers found.

For years, says Kramer, groups such as WCW have worked to increase the number of women in the boardroom, but have been frustrated by the slow rate of change. Catalyst's 2005 report finds that women still hold only 14.7 percent of the positions on all Fortune 500 boards. "This study," says Kramer, "strengthens the case for the importance of moving beyond tokenism."

'Good News, Bad News' For Women in Business

Several recent research studies aim to offer global business a barometer of just how women are faring at all echelons of global business. Although women are making strides in some areas, the studies show that the news for women in business is both good and bad:

Women emphasize long-term growth over short-term profits. For female CEOs, long-term growth trumps shortcuts to success like cost-cutting or quick-exit strategies. That's a finding of a recent study conducted jointly by Babson College in Wellesley, Massachusetts, and The Commonwealth Institute, a Boston-based nonprofit. The study, "Top Women-Led Businesses in Massachusetts: 2005 Results," is a culmination of five years of data from 191 women-run firms in the state.

The study, authored by Nan Langowitz, director of Babson's Center for Women's Leadership, found that 80 percent of female

CEOs in Massachusetts identified expanding customer relationships as more important to their company's future growth than new products, geographic markets, or strategic alliances. Fifty-five percent of their businesses achieved an annual growth rate greater than 5 percent in 2005, approximately double the state and national averages of 2 percent and 2.6 percent, respectively.


Nan Langowitz

Women directors in Britain work more, earn less. In its annual Directors R£wards survey conducted by Croner Reward, the U.K.'s Institute of Directors found that across companies of all sizes, a female director earns an average annual salary of £55,000 (about US $108,500), while her male counterpart earns an average annual salary of £72,100 (US $1,423,000). In addition, women directors worked more hours than men. Those working for medium enterprises worked an average 51.25 hours per week compared to 50 hours for men. Those working for large enterprises worked 57 hours compared to 55 hours for men.

Few women are en route to top spots at U.S. firms. Of 942 U.S. companies, 48 percent had no women in their executive ranks; only 7.2 percent had more than two. These were the findings of the study, "The Pipeline to the Top: Women and Men in the Top Executive Ranks of U.S. Corporations," conducted by Constance Helfat and Paul Wolfson of Dartmouth's Tuck School of Business, and Dawn Harris of Loyola University Chicago. Even if more women have entered the pipeline since the researchers began their research in 2000, Helfat notes that such an increase is "unlikely to have much effect on the number of female CEOs until at least 2016."

Chilean women are embracing entrepreneurship. The Global Entrepreneurship Monitor (GEM) Report on Women and Entrepreneurship in Chile, led by Universidad del Desarrollo in Santiago and supported by Babson College and the London Business School, indicates that entrepreneurship among Chilean women has risen 68 percent in the last three years. This growth has happened despite women's belief that they have less opportunity to become entrepreneurs than men. The report estimates that there are 513,000 women entrepreneurs in Chile, equal to 33 percent of all entrepreneurs in the nation—up from just 20 percent three years ago.

Each year, the number of women-initiated enterprises in Chile increases by nearly 20 percent. If this phenomenon continues, by 2010 women could outnumber men in new enterprises in the country and create more than 50 percent of jobs in new Chilean enterprises.

Women managers are still a minority in Europe. Two recent studies by Viviane de Beaufort, professor of European Community law at ESSEC Business School in Paris, show that a "glass ceiling" is still present for women managers and entrepreneurs. In one study, de Beaufort found that while women occupy 30 percent of managerial positions on average, they hold only 10 percent of all senior management positions. The second study, which de Beaufort conducted with Margaret Milan, founder and director of the European Professional Women's Network, found that only 28 percent of female entrepreneurs receive financing from banks.


Viviane de Beaufort

Like women entrepreneurs in Chile, European entrepreneurs also perceive obstacles in their path to success, according to de Beaufort and Milan. More than 49 percent of women entrepreneurs in Europe feel that they encounter financial difficulties when they try to start a new business.

Although the news isn't all encouraging, studies such as these indicate that women's interest and participation in business is increasing, which may be good news for business and business schools alike. As women continue to enter into business, their influence on companies and communities is most often positive, says Langowitz of Babson. "Women CEOs are committed to building strong and thriving organizations for the long haul," she says. "Their businesses are major engines of growth for the economy and key sources of philanthropy for the community."

Research

STUDY BRIEFS

REACTIONS TO DISCRIMINATION

The study "Diversity Crises: How Firms Manage Discrimination Lawsuits" indicates that a company's reaction to a discrimination lawsuit depends on the type of discrimination involved. Erika Hayes James of the University of Virginia's Darden Graduate School of Business Administration in Charlottesville and Lynn Perry Wooten of the University of Michigan's Ross School of Business in Ann Arbor studied media accounts of firms' reactions to 84 class action discrimination lawsuits. They found that in cases of gender, age, disability, or religious discrimination, firms initially tend to deny culpability but settle out of court about a year later. In race-based cases, most firms move quickly to settlement and adopt internal changes designed to reduce the chances of future discrimination. In sexual harassment claims, firms often deny allegations, retaliate against plaintiffs, and refuse to settle out of court. The study appeared in the December 2006 issue of the *Academy of Management Journal.*

BRAND ATTITUDES

Many researchers define "brand loyalty" strictly by how, and how often, a customer uses that brand; others, by consumer attitudes about that brand. Researchers Subir Bandyopadhyay and Michael Martell of Indiana University Northwest's School of Business and Economics in Gary explore both approaches in their study, "Does Attitudinal Loyalty Influence Behavioral Loyalty?" forthcoming in the *Journal of Retailing and Consumer Services.* In the study, 1,096 people responded to a survey about their use of and attitudes about five toothpaste brands. They fell into three groups: single-time users, multiple-time users, and non-users. The researchers found that non-users had as high an opinion of the top brand as its multiple-users; they also found that single-users of the top brand demonstrated stronger brand loyalty than single-users of lesser brands. The results suggest that lesser brands may suffer not only from a narrower customer base than other brands, but also from weaker brand loyalty among their own users. The study is designed to help brand managers create better, segment-specific marketing strategies.

UPCOMING & ONGOING

DEFINING GLOBAL RESPONSIBILITY

The Centre for Global Responsibility at the Audencia Nantes School of Management in France has won a research contract from the European Foundation for the Improvement of Living and Working Conditions. Conducted in partnership with the European Trade Union Confederation's research institute and the German consulting firm WMP-Consult, the research will examine the international codes of behavior and employee agreements that allow multinational companies to define their global social responsibilities.

USER-FRIENDLY SOFTWARE

William N. Robinson, an associate professor at Georgia State University's Robinson College of Business in Atlanta, has been awarded a National Science Foundation grant of $246,498. The grant will be used to support Robinson's work to simplify software customization in the mass market. Robinson's user monitoring theories and tools are designed to detect the user's needs, he explains. "As the software is used, it does a self-assessment to determine if the user's needs are being met," says Robinson.

GIFT FOR PUBLIC POLICY

A new institute dedicated to tackling public policy issues and improving government effectiveness will soon be created at Clark University in Worcester, Massachusetts. Funded by a $10 million gift from alumni William S. and Jane Rossetti Mosakowski, the Mosakowski Institute will support research on issues such as economic development, environmental sustainability, and education reform.

POLAROID HISTORY

The Polaroid Corporation has donated its corporate archives, which include 1.5 million items dating back to the company's founding in 1937, to Harvard Business School's Baker Library. The collection ranges from printed materials such as annual reports, research and development files, and patent records to artifacts such as photographs, 3D glasses, camera models, and camera accessories. Says Geoff Jones, director of research at HBS, "This collection allows us to view at close range the corporate decisions and activities of an iconic American company."

TOOLS OF THE TRADE

New Tech for the Virtual Classroom

Providers of e-learning technologies promise educators more options to design courses, organize content, and assess student performance than ever before.

Expanded assessment capabilities, more customizable courses, more interactive content. These are features that digitally minded faculty are looking for in e-learning software, according to providers of educational software.

The latest versions of course management systems (CMS) and digital content have enhanced and added features to provide these capabilities and more to their systems. They aim not only to help educators design more dynamic online courses, but also to provide the assessment tools needed to meet today's increasingly rigorous accreditation standards.

Tools for Assessment

Perhaps the biggest concern for business schools today is assessment, says Jim Kourmadas, vice president and director of marketing for the business and economics group at McGraw-Hill Higher Education (MHHE). "AACSB has played no small part in driving the notion of accountability in its accreditation standards. Today's technology helps schools demonstrate that they're meeting their goals," he says.

David Yaskin, vice president of product marketing for Blackboard, agrees that an increased emphasis on learning outcome assessment is one of the most significant trends now influencing the design of e-learning software. "Institutions recognize the need to make decisions based on comprehensive outcomes assessment," says Yaskin. "Chief academic officers are concerned with questions at the heart of educational institutions. Primarily, 'Are students learning what we say they should learn? Are we using student outcomes data as an organization to foster academic improvement?'"

New features that address schools' assessment needs are emerging quickly. For instance, MHHE's Assessment Learning in Knowledge Spaces (ALEKS) allows instructors to record student interactions and closely monitor student performance. ALEKS is also equipped with a Web-based tutor that helps students pinpoint and strengthen their weak areas. In addition, early this year Blackboard will be adding the Blackboard Outcomes System, which will allow faculty to track students' comprehension of material throughout a course.

Another course management system in the higher education market, eCollege, is also adding assessment capabilities to its software. Its soon-to-be-released Learning Outcome Manager (LOM) is designed to help institutions monitor student mastery of material, says Matthew Schnittman, president of eCollege's eLearning Division. "LOM will enable administrators to collect and analyze evidence that goes beyond grades," says Schnittman. "This can help support accreditation requirements and drive program growth."

Increased Customization

While off-the-shelf e-learning software streamlines assessment and educational processes, instructors note that such systems can present some disadvantages. In the past, it was difficult for individual instructors to customize the look and operation of their online courses within the larger system, and external software was often incompatible with many CMS platforms.

Manufacturers are now emphasizing greater customization capabilities within their individual products. eCollege.NExT, the latest software version from eCollege, includes interoperability with third-party and faculty-created software, as well as external simulations. It offers features that allow different customers to offer unique materials to students and create a unique look and feel to their programs.

Blackboard, too, is increasing its platform's flexibility. Its Blackboard Academic Suite is built on an open architecture that allows administrators to integrate third-party applications into its platform.

Much of this customization is driven by an industrywide shift toward more open standards for educational software. In October, the IMS Global Learning Consortium of Lake Mary, Florida, announced that digital educational content and e-learning software will soon follow a new standard of interoperability. The new standard, called "Common Cartridge," promises to enable the exchange of data between learning management platforms and standalone learning tools, such as adaptive tutors and assessment engines. Supporters of

"WHEN WE CONDUCT FACULTY TRAINING, FACULTY WANT TO KNOW HOW TO DEVELOP COURSES WITH STRONG INSTRUCTOR PRESENCE EMBEDDED, CREATE INTERACTIVE COURSES THAT ADDRESS MULTIPLE LEARNING STYLES, FACILITATE AND RESPOND TO DISCUSSIONS, AND GIVE ACTIONABLE FEEDBACK ON ASSIGNMENTS."

—Matthew Schnittman, eCollege

the measure include organizations such as Blackboard, MHHE, and eCollege, as well as open-source software developers such as ANGEL and Sakai. Products following the standard will be available from some manufacturers as early as this spring.

Assistance for Faculty

Manufacturers emphasize that while they work to add more features to their software, instructors are also striving to adapt their teaching styles to improve the quality of online courses. Software and content providers stress that they are adding features that aim to provide an infrastructure that builds faculty engagement with students into online formats.

Says Schnittman of eCollege, "When we conduct faculty training, faculty want to know how to develop courses with strong instructor presence embedded, create interactive courses that address multiple learning styles, facilitate and respond to discussions, and give actionable feedback on assignments."

As a result, eCollege has developed a new and enhanced version of its Content Manager, which is designed to provide faculty greater flexibility in how online course content is authored, managed, and delivered. It also has enhanced its ClassLife synchronous suite to enable greater collaboration among groups.

In response to faculty requests for more interactive teaching tools, Blackboard will launch its Blackboard Beyond Initiative early this year. The initiative aims to accomplish four objectives: provide a global learning objects catalog that allows any user to publish or search for learning resources; develop Scholar.com, a Web service to connect students and faculty across disciplines and institutions; launch "e-Portfolios for life," which allows users to post their learning portfolios to a central site for long-term use; and create a benchmarking service where clients can anonymously share data and best practices.

For its part, MHHE's Homework Manager allows instructors to create and automatically grade homework, tests, and quizzes, and deliver instant feedback to students. For instructors who assign group projects, MHHE's Team Learning Assistant provides advice on managing teams, integrates teams into syllabi, and assists with team grading.

Print Versus E-Print

With so much digital content available, many might think that e-books and online news sources are quickly becoming a mainstay in the business classroom. But while the use of e-print materials is growing, say providers, traditionally printed materials are still the norm.

For example, students and professors still use the print edition of *The Wall Street Journal* much more than its online counterpart, WSJ.com, says Mark Campbell, director of college marketing and sales for Dow Jones & Company. "Many educators have used our print edition in their syllabi for years—or decades. Therefore, changing those habits can be a challenge," says Campbell. "Our educational representatives are charged with demonstrating to faculty the robust features available on WSJ.com and ProfessorJournal.com, which simplify integration of *The Wall Street Journal* into any curriculum."

And while use of MHHE's e-book products has increased, e-books remain only a small part of the company's digital content sales, says Kourmadas. "We've worked hard to educate faculty on the availability of e-books, but in the end, it's largely a student's choice," he says. "While current demand for e-books is still modest, it's increasing substantially every semester."

Toward More Effective E-Learning

E-learning has long been viewed as a lesser educational option than face-to-face learning. Even with all the latest technological advances, few educators would choose a completely online format if face-to-face interaction was possible.

More and more, however, students are choosing online formats for a variety of personal reasons, whether it's a group of executives in India who want to take courses

BUSINESS SCHOOLS CAN BUILD GOODWILL IN THE COMMUNITY AND EXPOSE YOUNG PEOPLE TO BUSINESS CAREERS AT AN EARLY AGE.

TOOLS OF THE TRADE

(continued)

in Europe, or the individual student who chooses an online course because its face-to-face counterpart won't fit in her schedule. With each new version of CMS software and digital content, these manufacturers emphasize that they are trying to make e-learning environments as rich and engaging as possible.

"Kids are now working with computers from the day they enter into the public school system. As they go into higher education, they'll be the driving force in making education more flexible," says Kourmadas of MHHE. "Pedagogy and curriculum are being redefined. We're trying to make things easier for professors, so that they can create more flexible, adaptable, and dynamic courses."

Teaching Tech at High School

More business schools are viewing technol-ogy not only as way to enhance their own curricula, but also as a bridge between their campuses and the local community. Several schools in the U.S., for example, are sending business students to local elementary, middle, and high schools to teach the younger generation just what IT can do. The advantage is twofold, say administrators: Business schools can build goodwill in the community and expose young people to business careers at an early age.

Bentley College in Waltham, Massachusetts, for example, recently sent 16 business students to a local high school to conduct a one-day interactive seminar on Internet safety issues for children. More than 300 elementary, middle, and high school teachers attended the event, which was designed to address growing concerns about the overall impact that Internet technologies can have on a child's development.

The University of Arizona's Eller College of Management in Tucson also conducts technologically driven outreach programs on a regular basis. Last spring, 11 students in the management information systems department at the Eller College spent their spring break mentoring seniors at nearby Howenstine High School in technology-based projects. The business students taught the youths to take and manipulate digital photos, create posters and Web pages, shoot digital film, and put together presentations.

Each summer, Eller's MIS department also holds a weeklong summer programs for elementary school children, titled "TechDivas" and "DigiDudes." Students learn a range of skills, from creating Web sites to researching information online. "We want to encourage a free exploration of IT in order to create awareness of its potential in multiple career fields," says Mohan Tanniru, professor and head of the MIS department.

A student in Eller's MIS department teaches computer skills at a local high school.

Fairfield University's Dolan School of Business in Connecticut introduced 37 local high school students to Wall Street in its Business Education Simulation & Trading (BEST) classroom. The students were divided into teams and "bought" and monitored stocks, aided by Dolan students and alumni. Introducing the students to the BEST classroom helps get young students excited about investing through hands-on experience, says Norm Solomon, dean of the Dolan School. "We're glad to share a glimpse of the modern digital trading floor with students from the community."

All of these projects are designed to increase awareness in the community about opportunities in information technology. Moreover, say school representatives, the projects fill the higher education pipeline with more students who are interested in IT and business careers.

Understanding 'Collective Intelligence'

A proliferation of Web sites such as blogs and Wikipedia now encourage users to share information—and researchers want to understand how these growing repositories of collective knowledge can be harnessed to solve a range of business, scientific, and societal problems. MIT recently launched its Center for Collective Intelligence (CCI), which aims to understand how such open-source communities work.

"The recent successes of sites like Google and Wikipedia suggest that the time is now ripe for many more such systems," says Thomas Malone, CCI director. "At CCI, our basic

research question is: How can people and computers be connected so that, collectively, they act more intelligently than any individuals, groups, or computers have ever done before?"

Wikipedia, the popular online user-written and user-revised encyclopedia, is an especially interesting phenomenon and target of study, says Malone. "Today's publishing industry is built on the assumption that books are written by a single author, or at most, by a few people," he says. "But Wikipedia shows that very different approaches may be possible. What if, for instance, certain kinds of books could be written by large numbers of people with very little central direction?"

CCI has planned just such an experiment, called "We Are Smarter Than Me," conducted jointly with the SEI Center for Advanced Studies in Management at the Wharton School at the University of Pennsylvania and Pearson Publishing. Researchers want to see what happens when thousands of people come online to write a book collectively—Wikipedia-style. They sent invitations to more than a million business professionals and academics to register at the Web site www.WeAreSmarter.org. More than 1,000 people have already registered to begin the collective writing experiment.

"CCI is trying to look over the horizon to see what will be common five, ten, or 20 years from now. Google, Wikipedia, Linus, and eBay are examples that show something interesting and important is already happening," says Malone. In the long run, he adds, "this movement toward more decentralized decision-making in business may be as important a change for business as the change to democracies was for governments."

Your Turn

by Robert E. Mittelstaedt Jr.

It's Not About Grades

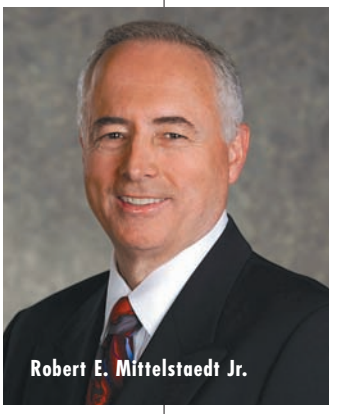
I first wrote about grades 35 years ago for an opinion piece that appeared in the *Wharton Journal*. I was an MBA student reacting negatively to a peer proposal for a pass/fail grading system. I preferred the chance to achieve high marks, which I believed would earn me a premium in the job market. My conclusion went something like this: "If my good grades get me an extra $1,000 a year, and baloney is $1 a pound, I could buy a lot of baloney—which is how I would describe this proposal."

As a dean, 35 years later, I once again find myself asking questions about grades, although now I am worried that they might not be reflective of actual achievement. The subject of grade inflation has been in the news a great deal lately as various reports allege that universities have permitted an inexorable climb in GPAs over the last 30 years. One discussion of this topic can be found on www.gradeinflation.com.

My own philosophy about grades has evolved over the years as I moved through the educational system from student to teacher. I must confess that the high marks I received at Wharton were far from automatic earlier in my life. I finished near the top of my class at a public high school in a state not known for high educational standards. As a freshman engineering student at Tulane University, where standards *are* high, I received a C in Calculus 101 and a D in Calculus 102. Taking those grades as a "message"—I needed to spend more time studying calculus—I retook the 102 course in summer school. I earned an A.

I later realized that if I had not repeated the course and learned the subject correctly, I might not have finished engineering school. The math requirements only got harder. I had to have the foundation to proceed.

Within my public confession lies my philosophy. We do no favors for students by "giving" them good grades. Instead, we provide a tremendous service if we hold them to high standards that will prepare them to succeed in life. It is for this reason that the trend toward grade inflation worries me. I think we are missing an opportunity to honestly evaluate performance in a way that helps students.


Robert E. Mittelstaedt Jr.

WOULD YOU LIKE YOUR NEXT AIRLINE FLIGHT TO BE STAFFED BY PILOTS WHO WERE PASSED AND CERTIFIED ONLY BECAUSE THEY BEGGED FOR GOOD GRADES?

Grades are messages, not merit badges. If students are not performing to high standards in their classes, we should evaluate them accordingly. Otherwise, we are hurting them, not helping them.

When an MBA alumna came back to visit recently, she told a department chair that she had thought her C in statistics was fine when she received it because it got her through the course. However, a couple of years later, her job required her to apply some statistics. At that point she realized she didn't have the skills she truly needed on the job. She found herself seeking help and wishing she had worked harder in class.

I've heard other stories from students emphasizing the need for rigor in grading. In particular, students complain about group projects where individual contributions are not well evaluated, allowing some students to earn high grades as free riders. Honors students sometimes tell me that higher grades are earned across too broad a band, with significant differences in performance from the top to the bottom of the same letter grade. If students share these observations, don't we as educators need to re-evaluate our grading systems?

Part of the problem is that schools offer little consistency in the way they determine grades. At Arizona State University's W.P. Carey School of Business, an internal study revealed that grade assignments are made in distinctly different ways across departments and by individual faculty. Even within departments respected by faculty and students for high standards, there is variance.

This variance complicates what is already a tricky situation any time we try to formalize grading procedures. If we ask a committee to determine what constitutes acceptable performance by course and discipline, some faculty will perceive the analysis as everything from unnecessary to unfair. At the same

time, students perceive any intervention by the administration as an attempt to deflate grades, which is not the issue.

Faculty give all sorts of excuses for refusing to toughen up grading policies. My favorite one is, "The students will trash me in the evaluations if I make the course too rigorous." We asked one of our faculty to run an analysis of MBA grades. She found no statistical correlation between grades and the overall evaluation of the faculty member. We are still evaluating this question for undergraduates.

If we are not rigorous in our courses, we are dishonest as educators, and we are doing a disservice to our students. A competitive world will hold them to high standards. Even if the experience is painful, it is better for students to learn to perform at a high level in university rather than in life.

Moreover, think of how unnerving it would be if grade inflation affected other areas of our lives. Do you want your physician to tell you everything is fine (you get an A), or that you are putting your life at risk if you don't get your cholesterol down (you really deserve a D)? And consider the disastrous consequences if other professions were filled with people who had not learned hard lessons in school.

Would you like your next airline flight to be staffed by pilots who were passed and certified only because they begged for good grades? Would you like to know that they didn't practice instrument approaches in fog because they had too much to do while they were in school? Similarly, would you like your business taxes to be prepared by an accountant who skipped over the material on accelerated depreciation, saying, "I can get the grade I need without studying that stuff"?

The pedagogy experts tell us that individual teachers cannot change the system. They argue that a single university should not buck the trend and take extreme action alone. Unless everyone deals with rigor and grades simultaneously, we only put our students and our institutions at a disadvantage.

I have a simple answer. Get over it. Do what you know is right. It is up to each of us to ensure that all students get personal performance messages about their demonstrated knowledge on a particular subject. What students do with the message is up to them.

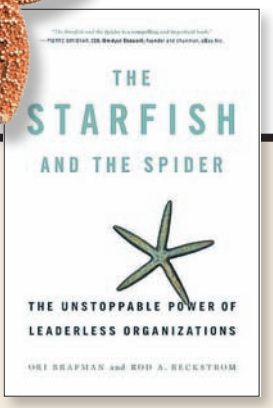
Shortly after I arrived at ASU two years ago, I was visited by one of my former Wharton students. He told me a course I had taught more than 20 years ago had changed his life. That's what we should want as feedback—not evaluations from students in school this semester, but testimonials from successful alumni who appreciate the fact that we held them to rigorous standards and helped them learn.

Let me repeat: Grades are messages, not merit badges. The sooner we reconnect grades to demonstrated learning, the more our students will achieve in life. That's what I learned, beyond the course material, from my calculus teacher 40 years ago. I am still grateful.

Robert E. Mittelstaedt Jr. is dean and professor of management at the W.P. Carey School of Business, Arizona State University. Prior to his appointment to ASU in 2004, he held a variety of posts at The Wharton School, most recently as vice dean of executive education.

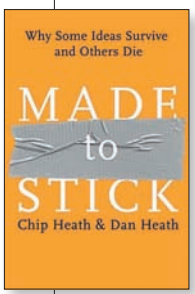
Bookshelf

SPIDERS ARE LOSING A LOT OF BATTLES TO STARFISH THESE DAYS.

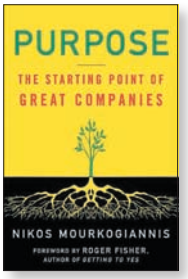


Decentralization is changing the very shape of business. As teens swap pirated music files over the Internet, the music industry is being forced to redefine its own methods of marketing and delivery. As craigslist offers free online advertising to anyone with an Internet connection, newspapers are losing classified advertising revenue. Decentralized organizations are starfish—if you cut off a leg, they grow a new one, and the severed leg becomes a whole new starfish. That's the analogy at the heart of *The Starfish and the Spider* by Ori Brafman and Rod A. Beckstrom. Spiders are traditional hierarchical organizations that are easily destroyed when their heads are chopped off, and spiders are losing a lot of battles to starfish these days. The authors describe a remarkable variety of "starfish," from Apache warriors to participants at Burning Man, and they use these examples to illustrate the resilience and flexibility of community-based organizations. How to fight them? One way is to decentralize key parts of your own organization, or at least turn it into a hybrid of structure and fluidity. Brafman and Beckstrom offer other solutions, but their overall message is clear: Enabled by the Internet, starfish are here to stay. Spiders must adapt or die. (Portfolio, $24.95)

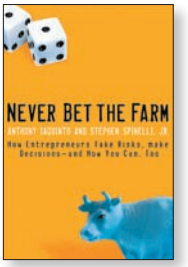
Why is it easier for someone to remember a patently false urban myth than details of his company's critically important financial strategy? Because most urban myths have the power of "stickiness"—that is, they're presented in a way that makes them memorable. In *Made to Stick*, Chip Heath and Dan Heath offer the good news that anyone can learn how to craft an unforgettable idea. Sticky notions rely on simplicity, unexpectedness, concreteness, credibility, emotions, and stories. The Heath brothers—Chip a professor at Stanford, and Dan a consultant at Duke—make their own message sticky by illustrating these six principles with engaging anecdotes and vivid examples. Everyone from teachers to marketers to the junior executive trying to make an effective presentation in the boardroom can learn from this book. (Random House, $24.95)



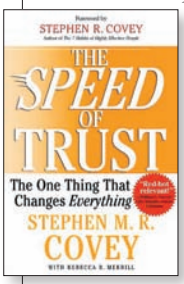
Business experts may argue that corporations should be guided by a strategic business plan, but Nikos Mourkogiannis believes the starting point of all great companies should be *Purpose*. "Aim high, serve others, do well," he says. "All else is commentary." Of course, the commentary is extensive. "Purpose" does not just mean an ethical outlook or a sense of corporate social responsibility, Mourkogiannis explains. It is an essential and overarching set of beliefs that serve as a company's *raison d'etre*. Business leaders with a sense of purpose generally are driven by one of four great moral ideas, he says, which translate into a passion for the new, the excellent, the helpful, or the effective. He offers quick biographies of business leaders who operated under each of these models of purposefulness. Henry Ford, for instance, believed the Model T was helpful; it could improve life for ordinary people. IBM's Tom Watson was dedicated to innovation and new ideas. A company guided by purpose can thrive long after companies motivated only by profit have failed, Mourkogiannis believes—and can adapt its purpose to changing times to stay successful for decades. (Palgrave MacMillan, $27.95)



Must a successful entrepreneur be reckless, ambitious, overconfident, and focused on launching a blockbuster business? Absolutely not, say Anthony L. Iaquinto and Stephen Spinelli Jr. in *Never Bet the Farm*. Both men are entrepreneurs with ties to academia—Spinelli is vice provost at Babson College, and Iaquinto was a visiting scholar at Arizona State—and both advocate caution and good sense in any new business venture. While they clearly recognize the value of hard work and importance of good ideas, they believe that entrepreneurs fare best if they start small, avoid too much debt, invest in familiar products or technologies, resist rushing to market, and have a backup plan in case the venture fails. Not the usual rah-rah excitement to be found in a book about entrepreneurship, but their advice is eminently practical and designed to plant neophyte business

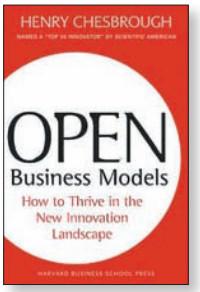


owners squarely on the road to success. (Jossey-Bass, $19.95)



Everyone knows that it's hard to do business with someone you don't trust or work closely with a colleague whom you view with suspicion. But no one has quite explained why as clearly as Stephen M.R. Covey does in *The Speed of Trust.* When trust is low, he says, the speed of business is low and the cost is high. When trust is high, speed is high and cost is low. "The ability to establish, grow, extend, and restore trust with all stakeholders ... is *the* leadership competency of the new global economy," he writes. Covey explains how trust builds outward from the self, to relationships, to organizations, to the market, to society. Quoting extensively from admired business leaders and offering plenty of anecdotes, Covey gives examples of individuals and organizations that have cultivated trust, as well as those that have lost it. He also gives practical advice for how to nurture this valuable commodity. While the book has an almost inspirational feel, Covey isn't content to leave that impression: "Trust is hard," he says. "It's quantifiable." The book makes his points very plainly. (Free Press, $26)

Before 2002, 90 percent of the patents that Procter & Gamble had filed were for items that were never developed and brought to market. All the money, time, and staff effort poured into developing those ideas were simply shelved. Similar patterns exist for pharmaceutical companies, tech companies—indeed, any company that invests R&D in new products. Henry Chesbrough, a professor at Berkeley's Haas School, would like to change that. In *Open Business Models,* he offers the premise that "companies should make much greater use of external ideas and technologies in their own business, while letting their unused ideas be used by other companies." Procter & Gamble now licenses technologies from other companies around the world and also licenses its own technology to others, and a handful of other companies, huge and small, have followed suit. Chesbrough acknowledges and even outlines the risks a company can face by being too open with its intellectual property, but he argues forcefully that hoarding innovations can have a seriously detrimental effect on business and society and that sharing benefits everyone. (Harvard Business School Press, $35)



Software platforms drive everything from cell phones to video games to eBay, yet the average consumer or businessperson gives them little thought. David S. Evans, Andrei Hagiu, and Richard Schmalensee describe them as *Invisible Engines* that are capable of restructuring the way we do business and transforming entire industries. After presenting a history of the computer revolution, the authors closely examine how software platforms bring together a diverse set of users from marketers to consumers, which enables commerce to take place. The way the platforms are designed, priced, and integrated into other systems and products ultimately determines whether new technology thrives or fails. Indeed, software platforms are key components in the "creative destruction" that technology is bringing to so many businesses today. Hagiu is an assistant professor at Harvard and Schmalensee dean and professor at MIT, so it's no surprise that the concepts are detailed and the language is rather technical. Nonetheless, the book offers a thoughtful viewpoint on this overlooked component of the digital revolution. (MIT Press, $34.95)

Quick Look

While elite schools get most of the media intention, the state comprehensive university (SCU), sometimes called the "master's institution," quietly goes on educating thousands of diverse students every year. Although SCUs have key strengths—such as a focus on teaching excellence and easy access for all students—they battle image problems, and their faculty struggle with low status in the academic world. Bruce B. Henderson, a professor at Western Carolina University, tackles these issues head-on in *Teaching at the People's University.* He urges SCUs to emphasize their potential strengths—high-level student learning, regional engagement, and innovative teaching—and encourages faculties and institutions alike to redefine their notions of success. While even-handed and realistic, the book is also a paean to the hard-working, rarely recognized, state-funded school. (Anker Publishing, $32.95)

Spotlight

A modified city bus is the home of GMAC's mobile testing center.

GMAT on the Move

GMAC hopes its mobile testing experiment translates to a larger, more diverse pool of business school applicants.

Twenty-seven U.S. states, 49 stops, and 10,000 miles in six months. That's the schedule for the Graduate Management Admission Council's mobile testing center, which began its inaugural tour on November 1, 2006, at the University of the Pacific in Stockton, California. It will travel across the western U.S. down to the southern states, and then up north and across the Midwest, before ending its tour on May 31 at Washington State University in Pullman.

Although the mobile testing center is traveling to a variety of schools, it's specifically seeking out historically black colleges and universities (HBCUs), Hispanic-serving institutions (HSIs), and military bases, which are often located far from metropolitan areas. "Some areas don't have enough test-taking volume to warrant a permanent testing site, but that doesn't mean we don't want to reach these students," says GMAC's CEO Dave Wilson. "This is a pilot to see whether a mobile testing center will meet this unique need."

A mobile unit allows GMAC to take the GMAT on the road, while maintaining strict control over test administration. To create the center, a city bus was retrofitted with six testing stations; a satellite dish mounted to the roof downloads the test multiple times each day. The unit also is equipped with state-of-the-art security and encryption technology—a must to make a mobile GMAT work. "The GMAT score is a very important piece of personal data. Data privacy is a huge issue," says Wilson. "Each test taker must provide a digital fingerprint and digital photograph, and there is a video camera over every test station. Even on the road, we must assure schools that the person who takes the test is the same person who sends the application."

The pilot is still in its early stages, Wilson stresses. It's too soon to tell how students will respond. However, GMAC already has cleared Canada's data privacy regulations, laying the groundwork for its mobile unit to cross the Canadian border. And going international isn't out of the question, says Wilson. "We have certainly thought about students in regions such as Eastern Europe and Korea, where access is also an issue," he says.

Once the six-month tour is complete, GMAC will begin evaluating the response to the program, to see if its mobile experiment should be made a permanent part of its testing options. Wilson hopes that business schools on the center's testing schedule will help promote its arrival; he also invites them to let GMAC know whether the service was valuable to their students.

> "WE ARE TRYING TO GIVE BUSINESS SCHOOLS A MORE DIVERSE POPULATION OF APPLICANTS."
>
> —Dave Wilson, GMAC

The goal, says Wilson, is to provide business schools with a larger, more diverse student population. "By taking the test directly to students at HBCUs, HSIs, and military bases, we are trying to build the population of test takers," says Wilson. "We are trying to give business schools a more diverse population of applicants, and get more quality students through the front door."

For information about GMAC's mobile test center and tour schedule, visit www.gmac.com.