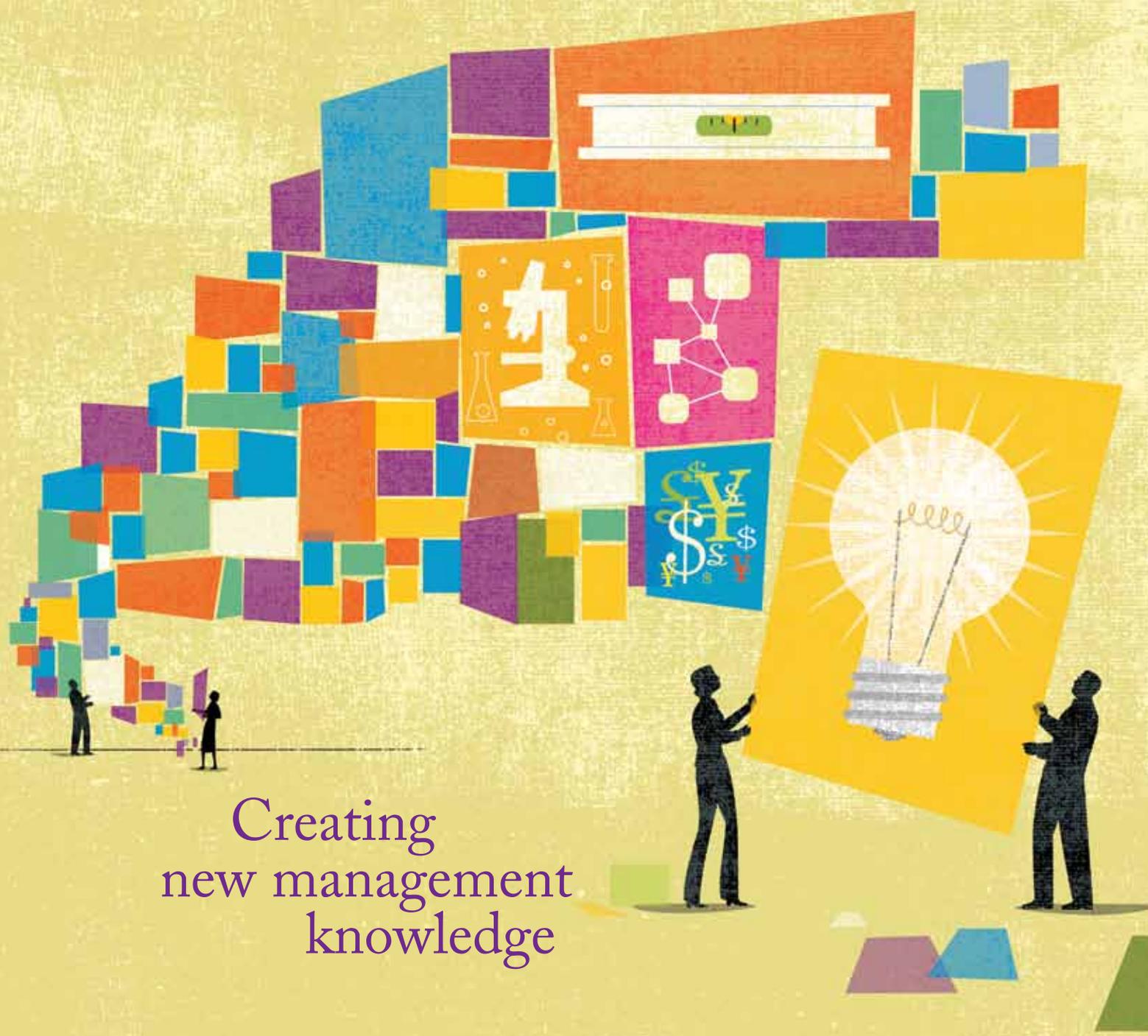


MIT Sloan

News and insights for the MIT Sloan community



Creating
new management
knowledge

MIT Sloan

News and insights for alumni
Vol. 5, No. 1

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MIT SLOAN SCHOOL OF MANAGEMENT



Cover story

14 Creating new management knowledge

For more than 50 years, MIT Sloan has been at the forefront of management, with each generation of faculty breaking new ground in management research and adding it to the foundation others laid before them. In this issue, *MIT Sloan* alumni magazine highlights the latest cutting-edge management research by five of the School's newest faculty.

Feature story

26 Alumni Engagement Study shapes programming, events, and information

In 2009, MIT Sloan solicited alumni feedback with the goal of garnering data-driven information to help the School design programs and activities that create the greatest value for alumni. The responses from 2,500 alumni helped shape a new approach to alumni engagement.

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On the cover

The business world is developing and moving with ever-compounding speed. MIT Sloan faculty members lead the way in creating the most needed new management knowledge. Michael Austin is an award-winning illustrator and designer. He lives in Kona, Hawaii, with his wife, illustrator Jing Jing Tsong; two children, and a lazy cat named Milo.

New resources for new knowledge

OVER THE LAST SEVERAL MONTHS, those of us at MIT Sloan who work directly with the School's alumni have enjoyed a wealth of new insights that have been helping us to better connect the School with you, its graduates.

As many of you know, MIT Sloan conducted an Alumni Engagement Study (see article, page 26) in the second half of 2009, gathering valuable information to help the School better respond to alumni needs and desires, and to find more ways to strengthen the School's ties to its alumni. The study results are helping us build on the existing relationships between the School and its graduates, and offer more of the lifelong learning that MIT Sloan alumni find so valuable.

One of the important things we learned, for example, is how much you want to access continuing learning opportunities, faculty research and reports, and the current best practices in

**“The study results are helping us
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management being taught at the School. In direct response to those requests, last spring we created a place on the School's website where alumni can find faculty research and best practices. The content has been reorganized as **Innovative Thinking** (<http://mitsloan.mit.edu/alumni/innovative-thinking.php>) in the Alumni Portal (<http://mitsloan.mit.edu/alumni/>). Here, you will find the latest news on what our faculty and management leaders are teaching, researching, writing, and publishing. This content is organized into Best Practices, Academic Research, and Books.



Editor
Tom Witkowski

- **Best Practices** (<http://mitsloan.mit.edu/alumni/best-practices.php>) gives you access to articles from the *Sloan Management Review*, podcasts with faculty and researchers at the School, articles from this magazine, faculty blogs, and more.
- **Academic Research** (<http://mitsloan.mit.edu/alumni/academic-research.php>) brings you right back to campus—you can read working papers and recently published papers from the MIT Sloan faculty.
- And the **Books** (<http://mitsloan.mit.edu/alumni/books.php>) section shows you what our faculty members have been writing about: Simon Johnson's *13 Bankers* and Paul Osterman's *The Truth About Middle Managers*, to name just two.

We hope you will visit these pages and continue to utilize the Alumni Portal we introduced in early 2010.

Through the study, you also provided the School with significant data about what is important to you. This issue's cover story (see page 14), which highlights the research of the School's new and newly tenured faculty, is another response to your desire to learn about cutting-edge business and management practices, as well as the most recent faculty research and publications.

We are grateful for your feedback—and hope that all the School has done for alumni this academic year, including the articles chosen for this issue, demonstrates our desire to engage more broadly and deeply with you.

A handwritten signature in black ink that reads "Tom Witkowski".

Tom Witkowski

MIT Sloan: New vitality for 2011

DEAR ALUMNI AND FRIENDS OF THE MIT SLOAN SCHOOL OF MANAGEMENT,

MIT Sloan began this academic year with a great deal to celebrate. Since the first weeks of September, the School's new building, E62, has been abuzz with students and faculty who are energized by the tremendous educational possibilities this new building offers.

With each passing day, the collaborative spaces, fully equipped classrooms, common areas for socializing, and individual study rooms have expanded the educational and professional opportunities for our students, faculty, and alumni.

E62 has quickly taken its place as the heart of MIT Sloan. The 100 Main Marketplace has become the spot for students to meet over lunch. And faculty and students alike have been rearranging lobby furniture and holding impromptu discussions against the backdrop of the Gruber Family Courtyard and the Charles River.

This coming spring the MIT Sloan community will formally dedicate its new building, mark MIT's sesquicentennial, and enjoy gatherings that typically would be part of the annual MIT Sloan Reunion and the triennial MIT Sloan Fellows Convocation. I have the privilege to invite you to return to campus in May for this special series of events, which we are calling *Building the Future*, as MIT Sloan welcomes the world's greatest minds and management leaders—its alumni, faculty, and friends—to this once-in-a-lifetime commemoration.

Alumni Weekend 2011, which will be held May 13 to 15, is an important part of the *Building the Future* events and offers a rare opportunity for all MIT Sloan alumni to network and celebrate with classmates and friends. The formal dedication of E62 and MIT's 150th anniversary celebration provided a confluence of events for the MIT Sloan community that we could not allow to pass us by. To take advantage of all that these occasions have to offer the MIT Sloan alumni community, we moved up the traditional dates of the MIT Sloan Reunion and included MIT Sloan Fellows alumni in these community-wide events.

Alumni Weekend 2011 will include the educational components that bring so many of you back to campus for Reunion and Convocation, as well as social events to enable you to reconnect with your classmates. This year, however, all MIT Sloan alumni, not just select classes, will have the



David Schmittlein
John C. Head III Dean

chance to reunite with one another. The dates of Alumni Weekend 2011 also provide many more ways for you to interact with the School's faculty. You are, of course, invited to attend the classroom sessions with select members of the faculty. Since Alumni Weekend 2011 falls during the academic calendar, you may also find the time to meet formally with other members of the faculty, or at the very least enjoy an impromptu hallway conversation in E62 with one of your former professors.

I know that many of you also look forward to meeting the current classes of MIT Sloan students when the occasion arises. Alumni Weekend 2011 will present that possibility as well, since many students who are on campus for the festivities will be participating in the celebration.

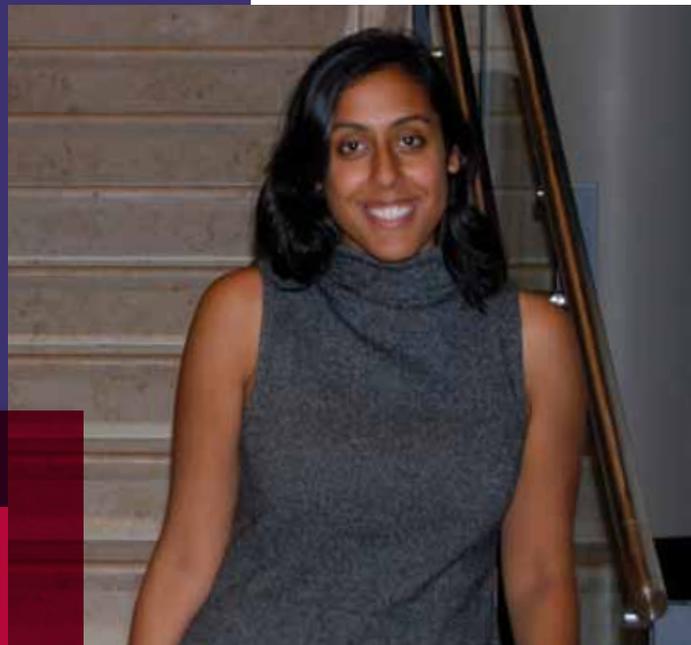
On a wall above the d'Arbelloff Grand Staircase in E62, the MIT Sloan mission statement is proudly displayed. With the benefit of all this new building has to offer, those words—"The mission of the MIT Sloan School of Management is to develop principled, innovative leaders who improve the world and to generate ideas that enhance management practice"—speak to a new vitality, promise, and energy at MIT Sloan. It is an exciting time to be a part of this community, and I hope to see you back on campus in May.

Dave Schmittlein

Erica Dhawan, MBA '12

- Co-founded Supply Change, a startup seeking to eliminate inefficiencies in the food supply chains of developing countries
- Named a 2009–2010 fellow at the Legatum Center for Development and Entrepreneurship
- Led MIT Sloan study tour to India in April 2010

“We wanted to co-create a technology with the people who are using it, not just bring in what we thought would work.”



Fifty percent of the world's produce rots annually, says Erica Dhawan. And in countries where communication is at a premium, small-scale family farmers lose much of their crop to missed opportunities and unforeseen or unknown market fluctuations.

“That’s 1,600 calories per day, per person, that are wasted,” she says. “Every person on this planet.”

With a team of MIT Sloan and MIT colleagues, Dhawan is working to reduce that waste and help farmers send more food to market. She is a co-founder of Supply Change (stoptherotnow.com), which seeks to slash poverty in developing countries by arming farmers with inexpensive technologies to better leverage their place in the market and to make better use of their rice, wheat, mangoes, bananas, and other crops.

“The real goal is creating a mindset shift where farmers are seen not just as receivers of charity, but as entrepreneurs and as customers,” says Dhawan, who predicts a growing market for small farm, organic produce from India.

Supply Change is giving rural farmers more choices to make. The company developed a mobile market aggregator that uses SMS to collect harvest information from farmers and digest it into market updates, which are returned to farmers and cooperatives.

The company is also seeking ways to use fruit that would otherwise be wasted, processing it into high-quality products for U.S. food companies. The group’s slogan is “Stop the Rot Now!”

“We wanted to co-create a technology with the people who are using it, not just bring in what we thought would work,”

Dhawan says. “The idea of the mobile aggregator came out of conversations with farmers.”

Supply Change, currently seeking investors, will launch its first efforts in Paraguay, with eyes on expanding to India.

Indian farmers have never been far from Dhawan’s mind. Raised near Pittsburgh by Indian immigrants, she traveled to India regularly as a child. She was struck by the gulf between the scarce opportunities for her cousins in India and the well-maintained path to traditional success available stateside.

At first, Dhawan followed that path. Earning her bachelor’s degree at Wharton, she landed at Lehman Brothers, even surviving the 2008 bankruptcy there. While living in New York, she connected with Acumen Fund, whose founder, Jacqueline Novitz, left a banking career to confront global poverty with entrepreneurial tools.

Dhawan founded the volunteer group Young Professionals for Acumen Fund (later New York for Acumen) and later quit banking to move to India and pursue solutions to the poverty she witnessed as a child. She helped launch Education Access for All, which takes a for-profit approach to education in rural India. Afterward, she returned to the United States to pursue a dual MBA/MPA at MIT Sloan and Harvard’s John F. Kennedy School of Government.

“I was starting to combine my business education with my desire to link business and social good,” Dhawan says. “I realized that I’ve been an entrepreneur all my life. That’s why I really wanted to come to MIT. Especially having done a business undergrad, it was great to have the opportunity to innovate and focus.”

Rigorous, high quality, and on campus: MIT Sloan's new Executive MBA



MIT SLOAN LAUNCHED A NEW, intensive Executive MBA program last October, welcoming driven mid-career executives to campus for a rigorous 20-month program.

Drawing from the faculty and curriculum of MIT Sloan's vaunted Sloan Fellows Program in Innovation and Global Leadership, the new program is conducted over four one-week modules and 26 weekend sessions, all on campus.

Sixty-three executives and managers from organizations that include Fidelity, General Electric, Genzyme, IBM, JP Morgan Chase, and the U.S. Department of Justice are part of the Class of 2012. The class represents 22 percent of the application pool, and about half come from outside New England.

The Executive MBA helps established managers—who typically have a decade or more of work experience—bring the benefits of a scientific management education back to the workplace. Specially developed for mid-career students, the rigorous curriculum deliberately takes advantage of MIT Sloan's strengths by integrating action-based leadership with data-driven analytics.

"This newest offering provides firms an option to sponsor employees in earning their MBA from MIT Sloan without interrupting their careers," said Donald R. Lessard, faculty director of the Sloan Fellows and Executive MBA programs and the Epoch Foundation Professor of International Management at MIT Sloan. "The program design will provide students with an extraordinary platform for growth by learning because they are working."

Students in the inaugural class are collaborating on the complex challenges they face now—and will face in years to come—within their organizations and within the international marketplace.

Coursework includes a focus on leadership and integrative management, management of innovation and entrepreneurship, managing complexity, and data-driven decision making.

The Executive MBA program features a new course, Organizations Lab, in which each participant leads a full-semester in-company project. Students also team up in the

The Executive MBA helps established managers—who typically have a decade or more of work experience—bring the benefits of a scientific management education back to the workplace.

capstone action-learning course, Global Organizations Lab, during which they work on a consulting project with an internationally operating organization.

The program provides an opportunity to work with MIT Sloan senior faculty, including Lessard; Thomas M. Stoker, the Gordon Y Billard Professor in Management and Economics; and Associate Professor Joseph P. Weber, as well as with top leaders and high-potential executives from a broad range of industries.

"We are excited to offer this new format for exceptional employees who are further along in their careers and seeking a higher level of management education," said John C Head III Dean David C. Schmittlein. "Students in the Executive MBA program will gain a competitive edge through MIT Sloan's deep expertise in global leadership, innovation, and the science of management, while building a diverse business network that facilitates cross-industry learning."

For more information, visit:
<http://mitsloan.mit.edu/executivemba>

Alumni Weekend 2011 is on the way: May 13–15

ALUMNI WEEKEND 2011 IS FAST APPROACHING. The May 13–15 events are part of the *Building the Future* celebration, which includes an academic program developed by MIT Sloan faculty and led by Deputy Dean S.P. Kothari. There will also be a series of interactive workshops, created by both faculty and alumni.

Also planned is the dedication of E62, MIT Sloan's new building; and Alumni Weekend 2011 includes a Friday night C-Function; family friendly activities; and an array of dinners and events.

Register online for the three-day program featuring dialogue and engagement with MIT Sloan's leading thinkers, including faculty, friends, and fellow alumni.

More information, including registration, symposium details and a weekend schedule, is available on the Alumni Weekend website: <http://mitsloan.mit.edu/alumni/alumni-weekend-2011.php>.

Make sure you don't miss updates and new events. Please update your e-mail online: <http://mitsloan.mit.edu/alumni/directory-gate.php> and in the Infinite Connection, <http://alum.mit.edu/>.



For the minutes between meetings, MIT Sloan Management Review iPhone app



MIT Sloan Management Review's new iPhone/iPad app earned a rave review from innovation website Bright Hub, which called it one of the top iPhone apps for managers.

Find the app by searching "MIT Sloan" in the iPhone/iPad app store.

Free for a limited time, the app offers current and past issues of *MIT Sloan Management Review*, formatted for mobile reading. It also features archive search, bookmark and comment functions, as well as a download option for offline reading.

Published quarterly, the magazine launched the app in September. Visit the magazine online at <http://sloanreview.mit.edu>.

Alumni Portal chronicles the latest in faculty research, writing, and ideas

MIT SLOAN'S ALUMNI PORTAL HAS A NEW RESOURCE, *Innovative Thinking*, which includes the latest and most transformative MIT Sloan faculty research, books, and explorations of best practices.

As members of the MIT Sloan alumni community, applying the best in management research and practices in your organizations and around the world, you stand to benefit the most from the MIT Sloan faculty's most recent research, writing, and ideas.

In *Innovative Thinking*, you'll find some of the newest and most useful faculty work including: research by Erik Brynjolfsson, The Schussel Family Professor of Management Science, on the "long tail" of niche products sold online; a new study by MIT and MIT Sloan professors exploring collective intelligence among groups of people; and Sloan Management Review Professor in Management Michael A. Cusumano's new book, *Staying Power: Six Enduring Principles for Managing Strategy and Innovation in an Uncertain World*. (For an excerpt of *Staying Power*, please see page 11.)

Visit the *Innovative Thinking* site at <http://mitsloan.mit.edu/alumni/innovative-thinking.php> for the latest in:

- **Best Practices**—MIT Sloan faculty provide the most relevant and up-to-date management insights based on their research and fieldwork, as well as their interactions with the business leaders of today and tomorrow. In articles, podcasts, and videos, these best practices provide MIT Sloan alumni with the knowledge to be principled, innovative leaders.
- **Academic Research**—Business today is complex, fast moving, and global, and MIT Sloan faculty are providing the thought leadership necessary to successfully navigate this complex landscape. In their working papers and published papers, faculty are putting forth the insights and solutions that will shape the way management is taught—and practiced.
- **Books**—MIT Sloan faculty members are important contributors to the library of management literature. Through their research and their personal business experience, they create some of the must-read management texts of our time.



Looking for a classmate?

Since the Alumni Portal was launched in February 2010, more than 3,300 MIT Sloan alumni have logged in and taken advantage of the School's alumni-focused online offerings, including the MIT Sloan Alumni Directory.

The MIT Sloan Alumni Directory contains more than 20,000 graduates of MIT Sloan, as well as graduates of MIT Sloan's partner schools in the International MBA program. You can search for your former classmates by name, company name, program, job function and industry, or geography.

Stay in touch with your fellow alumni by using the MIT Sloan Alumni Directory. And keep your own contact information in the directory up to date so your classmates can stay in touch with you.

Log in with your Sloan Account:
<http://mitsloan.mit.edu/alumni/directory-gate.php>

Get a Sloan Account:
<https://mitsloan.mit.edu/sloanaccount/alumni/activation>

MIT Sloan E-mail for Life (MIT Sloan alumni only):
<http://mitsloan.mit.edu/alumni/registration>

Nobel laureate Robert Merton returns to MIT Sloan

ROBERT C. MERTON, PHD '70, an architect of modern finance theory and Nobel laureate in economics, has rejoined the faculty at MIT Sloan, where he taught from 1970 to 1988.

“As the world begins to rebuild its financial infrastructure from the ashes of the economic crisis, I believe that MIT is well positioned to play a leadership role in shaping the future of finance practice through its research and educational programs,” Merton said. “It is the right time to return.”

Merton is working with Harris & Harris Group Professor Andrew Lo to develop new methods of understanding and controlling the propagation of macro financial risk. He believes better collection and analysis of financial data will help researchers identify and possibly even anticipate major systematic and institutional problems.

“If you can measure and monitor systemic risk effectively, then one hopes that you can manage it well,” Merton said.

Merton is also pursuing the development of a next-generation retirement savings system. As the global population ages, both public- and private-sector retirement benefit schemes are putting enormous financial pressure on corporations, municipalities, and national governments. Traditional employer-provided define-benefit pension plans are disappearing worldwide, he said, and are being replaced with define-contribution plans, which were never intended as a solution for core retirement needs.

“We have the scientific knowledge and the tools to design an efficient sustainable retirement system,” Merton said. “However, its immense magnitude, long horizon, and immediacy make its design and implementation a challenging engineering problem. It’s something that has to be addressed and if done right, many people will benefit from that for a long time.”

Merton will also teach in MIT Sloan’s new Master of Finance program. This spring he is teaching a class on functional and strategic finance, as well as a class on retirement finance, lifecycle investing, and asset management.

In addition to teaching and research, Merton will be involved in leading conferences and executive education seminars providing financial training for senior managers and regulators.



Robert C. Merton

“Today, no major financial institution in the world, including central banks, can function without the computer-based mathematical models of modern financial science and the myriad of derivative contracts and markets used to extract price- and risk-discovery information, as well as to execute risk-transfer transactions,” Merton said. “It is essential that senior management, board members, and regulators of financial institutions are capable of assessing the performance of the models and their users as a unit, and of understanding the functions and risks of the financial instruments used.”

“One of the things that has become very clear out of this crisis is the need for highly trained people in finance at all levels,” he said. “MIT has a comparative advantage in providing the proper technical training for people going into the industry. We hope to reach a critical mass in our teaching programs where we really can have a global impact, not only in the private sector ... but in the public sector.”

Awarded the 1997 Nobel Prize in Economics for developing a new method to value derivatives, Merton studied under the late economist Paul Samuelson, earning a PhD from the MIT Economics department in 1970. He joined the MIT Sloan faculty that year.

Merton returns to MIT Sloan after 22 years at Harvard Business School, where he was the John and Natty McArthur University Professor. On the Finance faculty, he joins such distinguished professors as Nomura Professor of Finance John Cox, Robert C. Merton (1970) Professor of Financial Economics Stewart Myers, Franco Modigliani Professor of Financial Economics Stephen A. Ross, Mizuho Financial Group Professor Jiang Wang, and Lo, who took Merton’s MIT courses as a student at Harvard.

“He made finance come alive,” Lo recalled. “Much of MIT Sloan’s franchise in finance is attributable to him. Even after 22 years here at MIT, I still feel like a houseguest in the house that Bob Merton built.”

“Website Morphing”—an article by **John Hauser**, Kirin Professor of Marketing; **Michael Braun**, Homer A. Burnell (1928) Career Development Professor; and **Glen Urban**—won a Citation of Excellence from Emerald Management Reviews. The article, co-authored with Guilherme Liberali of Universidade do Vale do Rio dos Sinos in Brazil, was published in *Marketing Science*.

Dean Emeritus **Glen Urban**, David Austin Professor in Management, has been elected a fellow at the Institute for Operations Research and the Management Sciences (INFORMS). Fellows are recognized for outstanding lifetime achievement in operations research and the management sciences, having demonstrated exceptional accomplishments, and made significant contributions to the advancement of their fields in service to their profession and to INFORMS.

Thomas Kochan, George Maverick Bunker Professor of Management, was elected to the National Academy of Arbitrators. Kochan was asked to join the otherwise by-application-only group. He is also the recipient of the 2010 Distinguished Scholar-Practitioner Award of the Academy of Management.

campus snapshots



Katherine Kellogg, Mitsui Career Development Professor, is the recipient of the Best Published Paper Award from the Organization and Management Theory division of the Academy of Management. Kellogg’s winning paper, “Operating Room: Relational Spaces and Microinstitutional Change in Surgery,” appeared in the November 2009 issue of the *American Journal of Sociology*.

China Program Professor of International Management **Yasheng Huang** was selected to be among the first class of Research Associates and Fellows of the National Asia Research Program, a joint project of the National Bureau of Asian Research and the Woodrow Wilson International Center for Scholars.



Bill Aulet, SF '94, senior lecturer at the MIT Sloan School of Management, has been appointed managing director of the MIT Entrepreneurship Center. Aulet had been acting managing director of the Center since August 2009. He began his career at IBM before serving as President/CEO of both Cambridge Decision Dynamics and SensAble Technologies. The latter was a two-time *Inc. Magazine* 500 Fastest Growing Private Company.



Associate Professor **Jared Curhan**, with MIT Sloan doctoral student Ashley Brown, received the Outstanding Theoretical Paper award from the International Association for Conflict Management for “The Other Edge of the Sword: Parallel and Divergent Effects on Objective and Subjective Value in Negotiation.”



MIT Sloan students win MIT \$100K Elevator Pitch Contest

GREEN LOGISTICS, creator of a collapsible air freight crate, won the fourth annual MIT Elevator Pitch Contest, held October 27 by the MIT \$100K Entrepreneurship Competition.

Pitching for Green Logistics, which took home the \$5,000 grand prize, was MIT Sloan student Anand Dass, MBA '12.

“Five billion dollars in jet fuel is spent every year, shipping empty containers around the world,” Dass said in his pitch. “Our invention solves a real problem and will help reduce this expense by 85 percent.”

The aspiring startup Supply Change, pitched by MIT Sloan student Shayna Harris, MBA '11, was awarded the \$2,000 Runner-up and the \$1,000 Audience Choice award. Supply Change seeks to increase food supply chain efficiencies in developing countries. (See profile of Erica Dhawan, MBA '12, on page 4 to learn more about Supply Change.)

More than 300 teams competed in this year's Elevator Pitch contest, representing 23 colleges across the Northeast. The finals were held in front of a live audience on the MIT campus.



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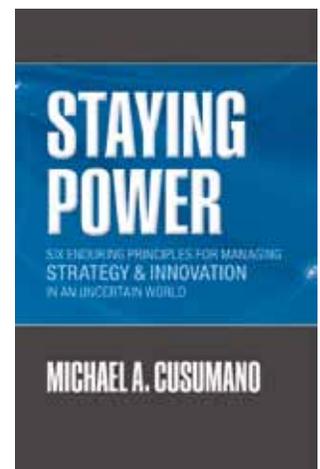


Each and every annual gift matters. Give yours today by visiting <https://giving.mit.edu/sloangift>.

Thank you for your support of MIT Sloan.

The principles of *Staying Power*

ANYONE WHO HAS EVER READ A BOOK about “excellent” companies and managers, or even invested in the stock market, has probably thought about what makes some firms and managers consistently better than others. Whilst some firms do outperform their peers for years and decades, this is a rare accomplishment. Staying power is particularly difficult when managers confront disruptive change in technology and customers’ needs—factors largely outside their control, except for how they may respond. Permanent competitive advantage probably does not even exist—that is, across generations of technologies and customers. Firms that continue to do well usually need to continue reinventing themselves.

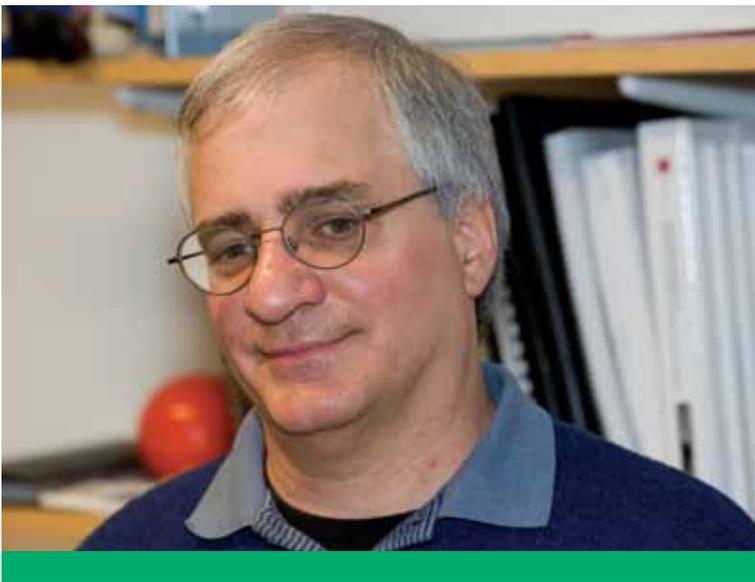


by Michael A. Cusumano

The greatest threat to managers, then, may well be inside the firm. Years of success have the potential to breed complacency or arrogance. Both can plant the seeds of decline and make it more difficult to foresee and respond to change. In fact, steady growth and profitability are likely to encourage firms to become more bureaucratic and less attentive to detail and innovation as they transition to managing a larger number of people, more complex products and services, and a bigger scale of operations. And the more competent managers become at doing certain things well, the more difficult it is for them to think “outside the box” or recognize when they are losing their edge.

This admittedly difficult challenge—to identify fundamental principles of management that may help managers create competitive advantage and staying power for the firm—is the primary purpose of *Staying Power*. Surely one obstacle to sustaining any market position is that managers find it difficult to anticipate change or adapt quickly to change. Whatever “secrets of success” or “best practices” that a firm has mastered for one point in time, these advantages are likely to become obsolete or less effective as conditions and technologies evolve and as competitors improve what they are doing.

Every company and every market will experience ups and downs. Even the best firms are subject to lapses and may encounter disasters due to chance or mistakes of their own making. Moreover, the practices that lead a company to become number one may be vastly different from the skills and mindset needed to stay there. This seems especially true if, indeed, long-term success does breed complacency, arrogance, or inward thinking, and thus the seeds of eventual decline. Many companies have survived product disasters as well as deterioration in their businesses because of radical changes in markets and technologies.



Michael A. Cusumano

With so much unpredictable change, managers must surely wonder which practices, firms, industries, and geographies will dominate two or three decades from now. Who and what have staying power—or not? I argue that it is possible to identify a few fundamental principles that can stand the tests of time and help managers overcome both internal and external challenges to their business. I believe these principles will prove especially effective in markets subject to rapid and unpredictable change, even if the companies that pioneered the

practices I cite have stumbled somewhere along the way or end up being surpassed by their competitors. To construct these principles, I have looked back on 30 years of my research and personal experiences as a teacher, as well as a consultant, director, or advisor for some 100 firms across the United States, Japan, Europe, China, India, and elsewhere, small and large, high tech and low tech.

THE SIX PRINCIPLES

The best way to survive and thrive in such an uncertain, competitive world—particularly in an age of technological disruptions as well as global economic catastrophes—is to understand how best to prepare firms to perform well over years and decades. This means distinguishing short-term fads in management thinking from more lasting principles that can help managers create and re-create value for customers. But, to do so, organizations must be able to respond quickly and effectively to change—such as when dealing with new quality problems, rapidly declining prices, or subtle but steady shifts in value from hardware to software and services.

My research has mainly looked at how managers can balance efficiency and flexibility in strategy, operations, and product development. In reflecting on what I have learned, I concluded that a handful of principles appear to have been essential to the effective management of strategy and innovation over long periods of time.

1. PLATFORMS, NOT JUST PRODUCTS

Managers (at least in industries affected by digital technologies as well as “network effects” more broadly) should move beyond conventional thinking about strategy and capabilities to compete on the basis of platforms, or complements to another firm’s platform. A platform or complement strategy differs from a product strategy in that

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it requires an external ecosystem to generate complementary product or service innovations and build “positive feedback” between the complements and the platform. The effect is much greater potential for innovation and growth than a single product-oriented firm can generate alone.

2. SERVICES, NOT JUST PRODUCTS (OR PLATFORMS)

Managers (at least in product firms or service firms that offer standardized or automated services treated as products) should use service innovations to sell, enhance, and even “de-commoditize” products or standardized services. Services can also be new sources of revenues and profits, such as an ongoing maintenance or subscription stream. The goals of most firms should be to find the right balance between product and service revenue, and then “servitize” products to create new value-added opportunities and pricing models as well as “productize” services to deliver them more efficiently and flexibly, such as by using information technology and service automation.

3. CAPABILITIES, NOT JUST STRATEGY

Managers should focus not simply on formulating strategy or a vision of the future (that is, deciding what to do) but equally on building distinctive organizational capabilities and operational skills (that is, how to do things) that rise above common practice (that is, what most firms do). Distinctive capabilities center on people, processes, and accumulated knowledge that reflect a deep understanding of the business and the technology, and how they are changing. Deep capabilities, combined with strategy, enable the firm to offer superior products and services, as well as exploit foreseen and unforeseen opportunities for innovation and business development.

4. PULL, DON'T JUST PUSH

Managers should embrace, wherever possible, a “pull-style” of operations that reverses the sequential processes and information flow common in manufacturing, as well as product development, service design and delivery, and other activities. The goal should be to link each step in a company’s key operations backward from the market in order to respond in real time to changes in demand, customer preferences, competitive conditions, or internal difficulties. The continuous feedback and opportunities for adjustment also facilitate rapid learning, elimination of waste or errors, and at least incremental innovation.

5. SCOPE, NOT JUST SCALE

Managers should seek efficiencies even across activities not suited to conventional economies of scale, such as research, engineering, and product development, as well as service design and delivery. Firms usually pursue synergies across different lines of business at the corporate level. But scope economies within the same line of business can be an important source of differentiation in markets requiring efficiency and flexibility, and responsiveness to individual customer requirements. These deeper economies of scope require systematic ways to share product inputs, intermediate components, and other knowledge across separate teams and projects. Firms can also eliminate redundant activities and other forms of waste, and utilize resources more effectively.

6. FLEXIBILITY, NOT JUST EFFICIENCY

Managers should place as much emphasis on flexibility as on efficiency in manufacturing, product development, and other operations as well as in strategic decision making and organizational evolution. Their objectives

should be to pursue their own company goals whilst quickly adapting to changes in market demand, competition, and technology. Firms also need to be ready to exploit opportunities for product or process innovation and new business development whenever they appear. Moreover, rather than always requiring tradeoffs, flexible systems and processes can reinforce efficiency and quality, or overall effectiveness, as well as facilitate innovation.

PAUSE FOR REFLECTION: SOME COMMENTS ON THE RESEARCH

Whilst I have tried to describe big, enduring ideas, they are relatively high-level abstractions. Managers must still figure out how to apply these concepts and lessons from the different cases to their particular situations. The contexts can vary widely, such as by timing (early or late mover, before or after imitation); stage of the industry or technology life cycle (early, mature, end of life); nature of the technology or innovation (software versus hardware, product versus process, incremental versus disruptive); “clock speed” of the industry and other differences (fast moving, R&D intensive, or capital intensive); and the environmental or institutional setting (regulated or not, “Japan, Inc.,” or “China, Inc.”).

Managers also need to be aware that each of the six principles comes with different potential tradeoffs, and they need to manage these as well in order for the principles to work for them. I am convinced that the six principles are of enduring importance and transcend specific company examples precisely because they derive from relatively high-level abstractions and detailed cases that cut across very different industries and settings. ● ● ●

*The research of MIT Sloan's
new and newly tenured professors
will influence management for
future generations*

Creating new management knowledge



FROM THE TIME OF ITS ESTABLISHMENT as a School of Management in 1952, MIT Sloan has remained steadfast in its focus on knowledge creation and groundbreaking research conducted by exceptional faculty who serve as leaders in their respective fields of study.

Nearly 50 years later, the bodies of work produced by today's new or newly tenured crop of professors at MIT Sloan continue in the tradition of those who came before them. All have made indelible marks, both at MIT Sloan and in the world at large, in their areas of expertise—from negotiations and corporate taxation to the commercialization of science and the study of social networks, to the economics of entrepreneurship and the university-industry research interface.

Each of the five faculty members profiled—**JARED R. CURHAN**, **MICHELLE HANLON**, **FIONA E. MURRAY**, **RAY REAGANS**, and **SCOTT STERN**—carries on the MIT Sloan tradition of conducting cutting-edge research with widespread implications for management practice worldwide. Collectively, they have testified before Congressional committees, written books that have been translated into numerous languages, and served as authors and advisors to students, corporations, think tanks, nongovernmental organizations, and policymakers alike.

Of this esteemed group, one has returned to the School after nine years away, two have been on campus for nearly a decade, and two are relatively new to Cambridge—yet all now hold the distinction of seeing their teaching and research come to fruition on the campus of MIT Sloan.





JARED R. CURHAN

Associate Professor of Organization Studies

Upon his appointment to MIT Sloan in 2001, **Jared Curhan** began work on a new approach to measure social psychological outcomes in negotiations versus economic outcomes alone. The result was the Subjective Value Inventory (SVI), a pioneering research tool widely used by fellow researchers and developed as a result of insights that he gained as a doctoral student.

“What I observed in my early research was that people could have monetary outcomes from negotiations that were quite poor and, at the same time, have a strong relationship with their negotiation counterpart. In other words, economic outcomes can often be disconnected from social psychological outcomes,” says Curhan, whose work has opened the door for inclusion of social psychological outcomes in negotiation studies. “Until the emergence of the SVI, the vast majority of research on negotiation was measuring only economic outcomes, while social psychological outcomes were going largely under the radar. With the SVI, researchers now can

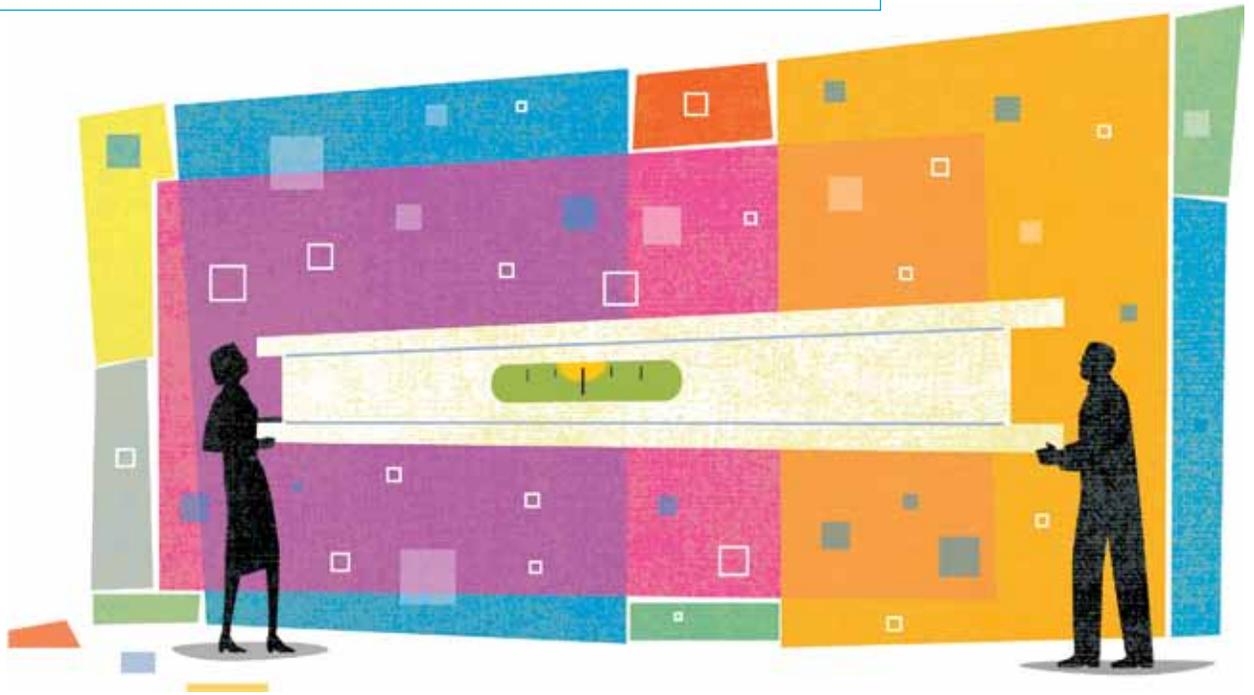
study subjective value with the same level of precision by which economic outcomes have been studied for decades.”

What initially led Curhan to this body of work began during his first year at Harvard University when he “stumbled” onto a freshman seminar and a life’s direction in the form of a decision-making class taught by Howard Raiffa, an acclaimed professor noted for his work in the areas of decision science, negotiation, and conflict resolution.

“He taught such an inspiring course, and it was the first time in my academic life that I was learning something practical enough that it could be used immediately back in the dorm,” says Curhan. “I became so interested in the field that I designed a major in decision making and negotiations.”

Working with this new concentration under the Department of Psychology, Curhan began to study how children

“I became so interested in the field that I designed a major in decision making and negotiations.”



and adolescents naturally develop negotiation skills by conducting simulations with students in the fifth, sixth, and seventh grades at two Cambridge public schools. The work was eye-opening. Curhan realized that as they grew older, the young students were able to acquire the same negotiation skills that graduate-level students do via analogous demonstrations.

“It was similar to the trajectory that we see with graduate MBA students,” says Curhan, whose work at MIT Sloan today continues to focus on the psychology of negotiation and conflict resolution. “My senior thesis evolved into a nonprofit organization, the Program for Young Negotiators, which taught kids negotiation skills instead

of turning to violence. The purpose of the organization was to equip kids with something powerful to help them achieve their goals.”

Curhan’s subsequent master and doctoral degrees in psychology from Stanford—where he received the University’s Lieberman Fellowship for excellence in teaching and university service—led to his current adult-based research as well as his book, *Young Negotiators*, which has been used to train more than 30,000 children worldwide, with translations into Spanish, Hebrew, and Arabic.

With continued recognition of his teaching and research, Curhan says it is rewarding to know that the SVI

is helping fellow researchers to both measure and use subjective value, which “can translate into economic value tomorrow.”

“When someone completes a negotiation, they have an economic outcome and they have some feelings about the outcomes, themselves, the process, and the relationships,” says Curhan, speaking of his longitudinal research. “We can then ask which type of outcome would be more predictive of important consequences. Is it the economic outcome or subjective value that will be predictive of future success? We found that subjective value is highly predictive, and sometimes even more predictive of major consequences than economic outcomes.”

As large American multinational companies speak out against possible changes in tax policies that will impact profits overseas, **Michelle Hanlon** knows, as a result of her long-time research, that any modifications will lead to larger issues. Among them? Where multinationals decide to keep their earnings and how those earnings are ultimately reported.

“Let’s say that a U.S. company has a subsidiary overseas and has earnings in that subsidiary, then those earnings are not taxable in the United States unless the company brings the cash home,” says Hanlon. “So the company can defer the U.S. tax (aka, tax deferral). But the accounting rules require the company to accrue the tax expense because they earned the income and will owe the cash taxes to the United States in the future; recording the expense now reduces current earnings.”

She adds, however, that “an exception is provided in the accounting rules in the case where the company states they are not going to bring the earnings

back to the United States but rather ‘permanently reinvest’ the earnings overseas. Under this scenario, the company is not required to record the future U.S. tax expense for financial accounting, thus avoiding the hit to earnings. The cash taxes and accounting expense for the taxes operate together to provide incentives for companies to move operations overseas and to retain cash overseas. If earnings are earned overseas and declared permanently reinvested, the U.S. cash taxes are not paid currently nor are accounting earnings affected by the potential future U.S. taxes.”

Hanlon’s work at MIT Sloan, which “specializes in empirical research at the intersection of taxation and financial accounting,” is particularly timely as the Obama administration seeks significant changes to tax deferral rules. If the law is changed such that deferral is no longer allowed, companies would have to pay the U.S. tax on the foreign earnings even if the earnings are not brought back to the U.S. parent company. Such a change is staunchly opposed by most U.S. multinational companies.

“The big questions are: How are we going to tax these multinationals, what incentives do the tax code and accounting rules provide for them in terms of location of operations and cash holdings, and how do we maintain some competitiveness for U.S. companies?” says Hanlon. “These are issues that both the administration and companies are focused on.”



MICHELLE HANLON

Associate Professor of Accounting

“In a broad sense, I already knew I wanted to do research on both tax and accounting issues. Some people call my work an intersection of those two things.”

“Anytime you say corporate tax avoidance, people think it’s a bad thing,” says Hanlon. “But you have to remember, these companies are trying to compete in a global market. U.S. companies are competing against companies that may be operating in countries with very low taxes. If you tax them too much, America will lose new business—it will move to where costs are lowest. It’s a risk.”

With prior positions at a public accounting firm, KPMG, Hanlon was well versed as an accountant in tax consulting for both corporations and individuals, but knew that a PhD would be essential for her next step.

“In a broad sense, I already knew I wanted to do research on both tax and accounting issues. Some people call my work an intersection of those two things,” says Hanlon, who earned her doctorate from the University of Washington in Seattle. She then went on to work at the University of Michigan and came to MIT Sloan in the fall of 2009.

Among her additional areas of specialization, Hanlon—whose work has been published in the *Accounting Review*, the *Journal of Accounting and Economics*, and the *Journal of Accounting Research*—looks at “the capital market and financial accounting effects of book-tax conformity, as well as measures of tax avoidance, and the market effects of being labeled tax aggressive.”





FIONA E. MURRAY

*Associate Professor of Technological Innovation,
Entrepreneurship, and Strategic Management*

Associate Director, MIT Entrepreneurship Center

Making the transition from scientist to the study of science commercialization has kept both **Fiona Murray** and her research on the forefront of some of MIT Sloan’s greatest pursuits—namely the role of science in the process of entrepreneurship and innovation as well as its key part in national competitiveness.

“I think it is fair to say that we don’t have a very systematic understanding of how particular policies affect the productivity or direction of scientific research or its impact on the economy,” says Murray, who earned both her undergraduate and master degrees in chemistry at Oxford, and her PhD from Harvard’s School of Engineering and Applied Sciences.

“There are a number of us working in this area of answering, ‘Can we do systematic evaluations of the kinds of policies people have used and bring data to bear on these questions?’ In much of the work I’ve done with Scott Stern (MIT Sloan’s Distinguished Professor of Technological Innovation,

Entrepreneurship, and Strategic Management), we’ve looked at the impact of intellectual property policies on scientific and commercial activity. We asked: ‘Are patents good? Are patents useful to moving science ahead and ensuring its impact?’ The key message of our work is to focus attention on how academia and industry use their patents, and how licenses are structured and access is enabled. Universities, in particular, have to think about those things more clearly, be less reactive, and—rather than waiting for an intellectual property crisis—be more proactive.”

In late September, Murray testified on this topic before the House Committee on Science and Technology and the Subcommittee on Research and Science Education, based on her work on “the science of science and innovation policy.” Murray offered that “as a nation, we spend significant amounts of money on science in basic research in universities. We need to

“How do we build organizations that continue to do leading-edge science, stay deeply connected to universities, and at the same time rapidly move innovations to the market and to customers?”

ensure that the money is used in the most productive way so we can get breakthrough ideas and then build on them. That will have a significant impact in terms of economic growth and job creation.”

As a trained scientist with an entrepreneurial eye, Murray also brings a rare perspective to her research on entrepreneurs and scientists, which highlights the challenge that both large and small companies face when they ask, “How do we build organizations that continue to do leading-edge science, stay deeply connected to universities, and at the same time rapidly move innovations to the market and to customers?”

Her research is tightly linked to her teaching at MIT Sloan—as well as to her teaching in the Sloan Fellows and Executive MBA program. She leads the popular i-Teams, or Innovation Teams, course—a cross-campus collaboration that pairs students from MIT Sloan with students from MIT’s School of Engineering to build commercialization plans from lab to market for ideas developed within faculty laboratories.

Given her own educational background, Murray well understands the power of a hands-on opportunity in shaping future directions.

“MIT is an incredible place,” says Murray, who first arrived here in 1999. “And here I am, 11 years later.”

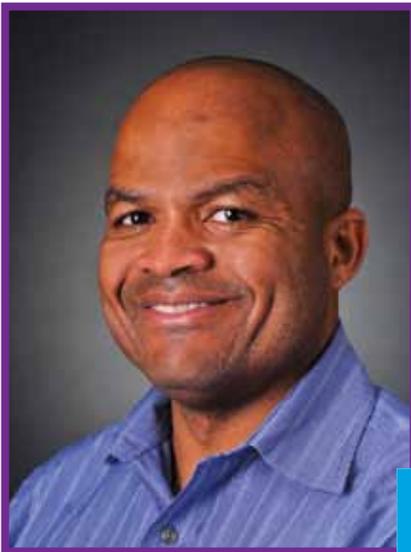


With dual degrees in economics and sociology, the focus of **Ray E. Reagans'** research on issues of social capital allows him to explore the ways demographic factors like race, gender, and age affect the development of networks—and how network structures affect performance outcomes.

“People in the area have developed quantitative techniques for measuring social context, and they are actually linking those measures to a variety of performance outcomes,” says Reagans, who recently joined MIT Sloan from Carnegie Mellon. “Clearly, how I behave is in part a function of who I am as an individual, but it also has something to do with the social context in which I find myself. And while I have always found this to be a very intuitive, attractive idea, until I found people who studied social networks it had always just seemed fuzzy to me. People who study social networks have found a way, at least in my mind, to make context more concrete.”

Seeking such clarifications in the area of social networks has allowed Reagans to consider seriously the question of context—the idea that where people find themselves can determine how they behave as individuals. Most important, his study of social networks and how networks contribute to the performance of individuals and teams speaks to how performance in the workplace can vary and why. His work also points to issues of efficiency and innovation, as well as to how networks affect learning and knowledge transfer.

“I study teams and team performance, as well as demographic diversity, but I study each one from the perspective of a researcher with an interest in network forms of social capital,” says Reagans. “When we think about networks, we have this assumption that they are beneficial, and since they are beneficial, people will seek them out. One of my papers said, ‘Well, maybe.’ We assume that people can accurately see relationships, but there are reasons to see why they can’t—and there are some people who are more likely to make errors when they are trying to learn a network.”



RAY E. REAGANS

Alfred P. Sloan Professor of Management

Associate Professor of Organization Studies

In another paper, Reagans and co-author Stuart Bunderson from Washington University discuss how the presence of a status hierarchy can actually promote learning. As Reagans notes, “Scholars have emphasized the importance of learning for superior team performance. They have also described how the presence of a status hierarchy on a team inhibits learning.” But, as he and Bunderson discovered, “the presence of a status hierarchy on a team can provide the team with focus. The high status members of a team can create an environment that is ‘psychologically safe,’ so team members are willing to take risks. Both activities are essential for learning.”



**“People who study social networks
have found a way, at least in my mind,
to make context more concrete.”**

Reagans’ own academic path was somewhat unexpected, as the high-school honors student had planned to enter the Marines following his graduation. When a snowstorm stranded a recruiter from Brown near his Wichita, Kansas, high school, Reagans’ destiny changed and his dual major at Brown led to his PhD in sociology at the University of Chicago. While there, he shared an office with Ezra W. Zuckerman (MIT Sloan’s Nanyang Technological University Professor), a fellow economic sociologist colleague, friend, and frequent co-author.

It was, in part, the friendship with Zuckerman—as well as fellow MIT Sloan economic sociologist Roberto Fernandez—that brought Reagans to Cambridge from Carnegie Mellon, where he taught for three years and four years, respectively, with a three-year stint at Columbia in between.

“Why MIT Sloan?” asks Reagans. “I reached the point in my career when I said, ‘Why not MIT Sloan?’ We are training people in economic sociology, and I have two good friends here. I also chose MIT Sloan because I wanted to be a sociologist again.”



SCOTT STERN

School of Management Distinguished Professor of Technological Innovation, Entrepreneurship, and Strategic Management

Professor of Technological Innovation, Entrepreneurship, and Strategic Management

Scott Stern says 99 percent of his work falls into three broad areas: understanding how entrepreneurs make money and how technology entrepreneurs commercialize their innovation; thinking about the organization of research-intensive industries and looking at organizations at the university-industry interface; and—building upon the first two areas—understanding the role of location, geography, and regional activity on these processes. This served as a catalyst for his return to MIT Sloan.

“The main research challenge in the economics of innovation and entrepreneurship is to isolate and identify the structural economic and strategic drivers of quite subtle phenomena,” wrote Stern in his research and teaching statement. “The field places a great deal of weight on empirical relevance—subjecting specific theoretical insights to rigorous empirical examination. In addition to insights into the determinants and consequences of technical change and entrepreneurship, this research draws upon and raises new questions

for related fields, including industrial organization, strategy, economic sociology, and growth theory.”

Today, Stern says his research “focuses primarily on how innovation—the production, distribution, and diffusion of ‘ideas’—differs from traditional economic goods, and the implications of these differences for economic behavior, business strategy, and public policy.” To this end, Stern’s ongoing work provides valuable insight and data for entrepreneurs across all sectors, offering an interdisciplinary outlook to those who collaborate on campus to innovators all over the world.

For the Hauppauge, N.Y., native, his boyhood interest in economics only grew with time as he garnered two degrees: a BA from New York University in 1990 and a PhD from Stanford in 1996. Following his graduation from Stanford, Stern published his first paper on the development of synthetic insulin. Referring to himself as “an economist who studies innovation and entrepreneurship,” he notes that his paper has served as the foundation “for a lot of the work I’ve done today.”

“I have done a great deal of work in understanding how entrepreneurs make money and specifically how entrepreneurs technologically commercialize their innovations,” says Stern, who in 2005 received the inaugural Ewing Marion Kauffman Prize Medal for Distinguished Research in Entrepreneurship. “When a young firm doesn’t have a lot of resources, how does it end up making money? Not always through competition, but sometimes through cooperation with established firms.”

Stern's research "focuses primarily on how innovation differs from traditional economic goods, and the implications of these differences for economic behavior, business strategy, and public policy."



His research also delves into how technology entrepreneurs choose from among alternative commercial paths, which, he says, is "central to how organizations evolve." Other work involves thinking about the organization of research-intensive industries and specifically looking at organizations at the university interface, which was prompted, in part, during Stern's first stint at MIT in the mid 1990s.

"I ended up doing a study of 'Do scientists pay to be scientists?'" says Stern, co-organizer of the NBER Innovation Policy Working Group and co-chair, along with close collaborator Fiona Murray, of MIT Sloan's Technological Innovation, Entrepreneurship, and Strategic Management program. "When you look at biotech in the Cambridge area, one of the striking facts is that you see researchers working for private companies who participate and publish in the public literature. We looked at biologists who had just finished their first post-doctorate right at the point when they would choose a job, and many had multiple job offers. Some of those job offers would have more flexibility and freedom in publishing, and some would be more secretive. After controlling for the quality of the individual, each researcher is willing to take a 25 percent wage discount for having the freedom to publish. That finding prompted a whole body of research on how research-intensive firms are organized."

Says Stern, who spent nine years at Kellogg, being back at MIT Sloan "informs my own thinking as an economist. It is really quite remarkable how impactful the MIT environment is to our students, and I am particularly inspired by the School's vibrancy around entrepreneurship." ● ● ●



Alumni Engagement Study shapes programming, events, and information

This past October, more than 50 alumni in Beijing spent an evening with Sloan Management Review Professor Michael A. Cusumano discussing his latest book, *Staying Power: Six Enduring Principles for Managing Strategy and Innovation in an Uncertain World*. (For more on *Staying Power*, see page 11.)

Cusumano was in China on his book tour at the time, and adding the alumni event to his itinerary is just one example of MIT Sloan Alumni Relations acting on the feedback that our alumni gave the School through the 2009 Alumni Engagement Study—specifically the finding that our alumni desire more direct interaction with faculty. The Alumni Engagement Study was completed in late 2009, and since then the MIT Sloan School of Management has been analyzing the results and including the feedback of our alumni in the short- and long-term planning of programming and in-person and online events.



Beginning in spring 2009, MIT Sloan Alumni Relations began the Alumni Engagement Study by soliciting feedback from the Sloan community at large, including from alumni attending Reunion 2009 and members of the School's regional Executive Boards. In addition, the study team collaborated with staff and faculty, including the deans and senior leadership of the School, to outline the content that would be included in the study.

"This study is part of a continuing conversation that many of the School's leaders have been having with our alumni, and that I personally have enjoyed having on my trips when I have met with alumni and with the Executive Boards around the world," says John C. Head III, Dean David C. Schmittlein. "I see significant value in these conversations between the School and our alumni about how we can engage, connect with, and inform our entire alumni community."

All alumni of Cambridge-based degree-granting graduate programs were invited to participate in the study, and the study team was encouraged by the significant number of alumni who chose to respond. Of the more than 17,000 alumni invited to participate—all of those for whom the School has valid e-mail addresses—about 15 percent, or 2,512 alumni, took part in the study. Those who did respond closely represented the demographics, geography, degrees, and programs of the entire MIT Sloan alumni body, making the data easily projectable. In order to ensure the confidentiality of all alumni who participated, MIT Sloan contracted with an outside research firm to run the study.

The goals of the study were clear:

- **Obtain data to drive decisions about designing programs and activities that create the greatest value for the largest number of alumni**
- **Actively involve alumni in the process of assessing and enhancing resources for MIT Sloan alumni**
- **Develop specific, actionable plans to substantively engage alumni with the School**

Among the project's strategic areas of inquiry, questions asked focused on engagement—What types of programs will strengthen the School's relationship with you?, and What types of relationships do you want with the School?

Questions also addressed communications—How do you want to hear from the School?, How do you want to communicate with the School?, What topics capture your attention?, and What tools are effective in engaging with you?

The study consisted of both qualitative and quantitative processes. The qualitative portion included stakeholder meetings with alumni, faculty, and staff; online focus groups with global participation; and a moderated online bulletin board, again with global participation. The information gathered from the qualitative portion informed the questions that were asked in the quantitative portion, an online survey.

"It was essential that alumni help craft the framework on which the study was built. Alumni participants gave us input about which topics to explore and questions to ask. They responded through the research and are helping us to implement the data in ways that will benefit the whole MIT Sloan community," says Patricia St Germain, director of Alumni Relations.

From the qualitative portion, the study team learned that you are especially interested in continuous learning opportunities and in having two-way conversations with the School. You also shared a wide range of topics of interest and indicated that you expect the School to be a partner with you throughout your career.

The quantitative portion, the online survey, provided data that showed you are interested in both in-person and online

activities, and desire more direct faculty interaction, as well as connections with fellow alumni who share your professional interests.

Importantly, you expressed a strong interest in such topics as technology trends and entrepreneurship. You told us you also have significant interest in management best practices, leadership, and career-related topics.

Cusumano's time with alumni in Beijing is one example of how the study results have been put into practice. Other examples include:

- Simon Johnson, the Ronald A. Kurtz Professor of Entrepreneurship, presented his book, *13 Bankers: The Wall Street Takeover and the Next Financial Meltdown*, at an event hosted by the MIT Sloan Club of New York.
- A new section, *Innovative Thinking*, was added to the Alumni Portal, in response to the interest in continuous learning and management best practices. *Innovative Thinking* gathers faculty's academic research, best practices from magazine and journal articles and faculty podcasts and videos, and faculty-authored books in a single online location.
- The cover story of this magazine, "Creating new management knowledge," focuses on the cutting-edge research of the School's newest and newly tenured faculty.
- The School is producing more online video content, bringing alumni valuable management insight in answer to your desire for more online communication.
- The results of the study are driving decisions being made about programming, including events planned during Alumni Weekend in May 2011.

These are but a few examples of how your feedback is informing the ways in which the School responds to your needs and expectations. Indeed, the Alumni Engagement Study was a resounding success in providing this valuable feedback to the School.

"We are very grateful to our alumni for their involvement with the study, and offer special appreciation to the North American Executive Board's Committee on Alumni Engagement," says St Germain. "As we implement the study's findings, my colleagues and I are eager to continue the conversation and hear more formal and informal feedback from all our alumni."

For more detailed information about the study results, please visit the Alumni Engagement Study online at <http://mitsloan.mit.edu/alumni/engagementstudy.php>. If you would like to see a particular member of the School's faculty or staff at an upcoming alumni event in your region, or if you have other thoughts or comments to share about alumni engagement, please e-mail mitsloanalumnirelations@mit.edu. ● ● ●

Emilio Sardi, SM '66

Executive Vice President, Tecnoquímicas S.A.

- Won the title of Colombian Amateur Golf National Champion in 1969 and low amateur in the 1970 and 1978 Colombian Opens
- Helped to establish Tecnoquímicas S.A. as one of the largest companies in Colombia
- Is working to bring the seedless table grapes crop to Colombia



“At MIT Sloan, you learn so much about life and management. My education has benefited me greatly, both personally and professionally.”

Emilio Sardi was a 16-year-old from Cali, Colombia, when he entered MIT as an undergraduate. Six years later, he held both bachelor and master degrees in industrial management from MIT Sloan. His MIT Sloan experience propelled him into a career that spanned the metallurgical industry, the pharmaceuticals industry, and, most recently, the wine business.

After graduating from MIT Sloan, Sardi returned to his hometown of Cali to assist his father, an established entrepreneur. Over the next 10 years, he worked in a computer center (an emerging technology at the time), managed department stores, built furniture, and managed a die-casting plant that made, among other things, automobile parts.

During the time he worked with his father, Sardi also pursued his passion for golf. He had played the sport since the age of 12, and honed his skill at MIT on the Institute's golf team. After returning to Colombia, he began playing competitive amateur golf, in 1969 winning the title of Colombian Amateur Golf National Champion. In 1970, he was part of a team that took the South American Championship; and in 1976, he was part of a South American team that played against Europe.

In 1978, Sardi left his father's businesses to join Tecnoquímicas S.A., a Colombian corporation heavily invested in the pharmaceuticals industry. At Tecnoquímicas, he started out managing a soap-manufacturing plant. By 1980, he was the vice president of pharmaceuticals. Sardi found that his MIT Sloan education was especially helpful in keeping his bearings as he transitioned to pharmaceuticals.

“At MIT Sloan, you learn so much about life and management. My education has benefited me greatly, both personally and professionally,” Sardi says.

Under his guidance, Tecnoquímicas acquired licenses from 10 other pharmaceuticals enterprises, including Merck, helping to elevate the company to number one in the Colombian pharmaceuticals market.

When globalization caused the pharmaceuticals industry to consolidate in the 1990s, the Tecnoquímicas market share dropped significantly. In response, Sardi launched a generic line and shifted the company's focus toward specializing in over-the-counter medication. Within six years, the company gained back its market share and became the fourth-largest company in Colombia.

Recently, Sardi has embarked on a new personal project: bringing seedless table grape production to Colombia. Although the area has never before been a major grape producer, Sardi recognizes how its geography on the Equator and its dry climate provide the perfect conditions for yearlong harvests of grapes. He hired advisors for the project from Chile, which is the sixth-largest producer of wine in the world. “I'm hiring two to three workers per acre,” he shares. “If I can grow the wine business in this region, I can bring more wealth to the people here.” He first brought his grapes to market in August 2010.

Sardi's two daughters, Giovanna and Daniella, both attended MIT Sloan as well, graduating in 1995 and 2001, respectively. “I view MIT Sloan as one of the best places in the world,” says Sardi. “I am so glad that my daughters were able to attend and share that experience with me.”



Elizabeth Edersheim, SM '77, PhD '79

Consultant, New York Consulting Partners

- Was the first female partner in the Midwest for McKinsey & Company
- Sits on an advisory board for S. Lowy overseeing investments in Hong Kong
- Was the founding board member of the Classical Recording Foundation

“Being at MIT Sloan taught me how to integrate across so many subjects.”

Even after authoring biographies on two businessmen she considers “the most influential” of our time—Marvin Bower and Peter Drucker—Elizabeth Edersheim describes herself as a “student of management.” To her, nothing is more important than the future. In order for today’s business leaders to make the best decisions, she believes they must constantly integrate their knowledge of the past with their vision of the future.

After Edersheim graduated from MIT Sloan, she spent 10 years working for McKinsey & Company in Cleveland and New York City. During that time, she worked with Bower, who is considered by many to be “the father of modern management consulting.” She was a co-leader of McKinsey’s operations practice when she left in 1989 to start her own consulting firm, New York Consulting Partners.

Ten years after founding her company, Edersheim sold it. “It had grown too big for me,” she explains. “I was buried in administrative tasks, and that was keeping me from doing the actual consulting.” During the year her company was being sold, she decided to collect stories about Bower so she could share his valuable insights with others. Bower agreed, and she began writing the manuscript. While she was working on the Bower book, management author Drucker, known for his work exploring the intricacies of organizations, asked her to write his biography as well.

Edersheim’s first book, McKinsey’s *Marvin Bower: Vision, Leadership, and the Creation of Management Consulting*, was published in 2003. Her second book, *The Definitive Drucker: Challenges for Tomorrow’s Executives*, was published in 2006. McKinsey & Company bought 5,000 copies of the latter and

continues to provide copies to its new employees as reading material. The former became a top seller in Asia.

Edersheim continues to consult, advising innovative entities such as the United States National Ecology Observation Network (NEON) and other not-for-profits and for-profit companies and organizations around the globe. She uses each consulting engagement as an opportunity to learn more about the past and future of management. “Being at MIT Sloan taught me how to integrate across so many subjects,” she shares. “I came in as a math student and now I am able to confidently look at so many different things with curiosity.”

To help organizations and their managers be more effective, Edersheim is currently working on a system called “The Elements of Management Effectiveness,” which will amass and integrate the knowledge she has gathered over her career. Edersheim is convinced that organizational and management effectiveness is key to strategy relevancy and to results that matter.

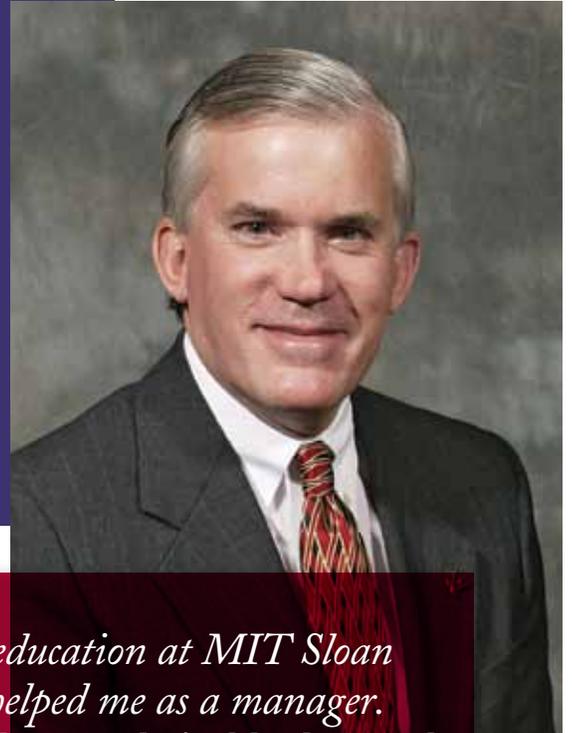
“I think the most important thing is to focus on results and bring our knowledge of the past to the future. What lessons have we learned? What ideas and practices should we hold on to? And what should we let go of?”

As Edersheim continues to teach others about the best management practices, and continues to learn herself, she credits MIT Sloan for the strong foundation it provided her. “I grew up loving academia and was fascinated by factories,” she shares. “Going to the School was a great way for me to bring together the academic and practical worlds. It absolutely satisfied my need and gave me wings.”

Michael Bair, SF '93

Vice President of Advanced 737 Product Development,
The Boeing Company

- Has worked at The Boeing Company for more than 30 years
- Led the Boeing 787 Dreamliner development team, and was responsible for all aspects of the airplane program
- Served as General Manager for Commercial Aviation Services, restructuring the services business for improved competitiveness and performance



“My education at MIT Sloan has helped me as a manager. While my technical background makes me conversant, my positions have really been about managing large groups of people.”

As a vice president at The Boeing Company, Michael Bair has held several different management positions in an organization composed of independent divisions. He credits his experiences among the diverse student body at MIT Sloan for much of his success in managing the large workforce that spans the disparate parts of Boeing.

“Each program values and requires a certain amount of independence to do things in its own way,” Bair explains of Boeing’s infrastructure. “We’re a matrix organization, so we can share common practices and solutions across our programs; but there is a natural tension since some groups may want to operate differently. Our customers often buy across product lines, and that causes dissatisfaction when they feel like they’re talking to different companies within Boeing. It is important that we strike the right balance between the independence needed for the uniqueness of each product and the consistency in operations across all models.”

Bair’s career began in 1979 as an engineer ensuring that Boeing 767s—midsize commercial aircrafts seating 181 to 375 passengers—met industry regulations for noise level. By 1984, he was promoted to senior analyst in Product Strategy Analysis for Commercial Airplanes, researching what newest offerings could be added to the company’s jetliners. Since then, he has held positions in nearly all aspects of the aircraft manufacturer’s business, from marketing to product development.

Bair was originally drawn to Boeing’s focus on education. After a three-year stint in sales, he was sent to MIT Sloan to participate in the Sloan Fellows program. “What really stood out about the School was the breadth of the class and the broader perspective of management provided because of it,” he shares. “Eighty percent of Boeing’s customers are outside the United States, so the international participation, thanks to the diverse student body and faculty, benefitted me greatly.”

Bair returned to Boeing after MIT Sloan to become the Chief Project Engineer for the company’s 777 program, the world’s largest twin-engine jet airliner, which at the time was in its development phase. Although focused on engineering, he managed a workforce of 1,500 people working in departments such as aerodynamics, noise organization, and custom engineering. One of his next assignments was Director of Customer Engineering, running the entire customization organization across all Boeing models.

Currently, Bair is the Vice President of Advanced 737 Product Development. In this role, he determines how Boeing can improve its 737 model, a short-to-medium range airliner, by examining factors such as the possibility of increasing fuel efficiency in its engines or whether the product as a whole should be continued.

In each of these roles, he faces management challenges that require him to call on his MIT Sloan education. “My education at MIT Sloan has helped me as a manager,” he explains. “While my technical background makes me conversant, my positions have really been about managing large groups of people.”



Robert Thirsk, SF '98

Astronaut, Canadian Space Agency

- Spent 204 days and 18 hours in outer space
- Was a member of the first crew to represent all five space agencies that built the International Space Station: Canada, Europe, Japan, Russia, and the United States
- Coaches high school ice hockey

“The Sloan Fellows experience is very much like working aboard a space station. In both settings, teamwork and problem-solving skills are essential.”

Robert Thirsk was practicing rural medicine in New Brunswick when he heard that Canada was beginning a search for its first astronauts. He applied the next day. Two missions into outer space later, he now plans to use his MIT Sloan education to guide humankind's next steps into the final frontier.

In 1983, following a rigorous selection process involving more than 4,000 candidates, Thirsk was named one of Canada's six astronauts. After 12 years of training, he embarked on his first voyage to outer space. With a background in mechanical engineering and medicine, his main objective was to research the effects of weightlessness on the body's various organs.

“Every organ system in the body undergoes changes during spaceflight,” he explains. “In weightlessness, the cardiovascular system becomes weaker, bones demineralize, and muscles lose strength and mass. There are health risks associated with long-term exposure to ionizing radiation, and the isolated and confined environment aboard a spacecraft can impact the crew's psychological well-being and productivity.”

After his first trip into space, Thirsk was asked to become the director of the Canadian Astronaut Program. He came to MIT Sloan to prepare himself for the new role, but soon after

earning an MBA, he was given the opportunity to return to space. In May 2009, he joined the crew of the International Space Station. “The Sloan Fellows experience is very much like working aboard a space station,” he reflects. “In both settings, teamwork and problem-solving skills are essential. Cultural and ideological diversity enriches the experience.”

Thirsk found parallels between practicing medicine in a rural location and aboard a spacecraft. “In space, we don't have a full medical staff or extensive diagnostic facilities,” he says. “Often, we serve as our own guinea pigs.” For bone demineralization research, he tracked his physiological indices to evaluate the effectiveness of nutritional supplements and exercise countermeasures. On his latest mission, he took Alendronate, a medication used by many postmenopausal women to combat osteoporosis. While the study's results are not yet known, Thirsk is optimistic that the medication will help stop bone demineralization and enable humans to spend longer durations in weightlessness.

Since his return from space in December 2009, Thirsk announced he will remain on Earth for the rest of his career to train new astronauts and pursue a management role in the Canadian Space Program. “The future astronauts who will someday walk on Mars are alive today and probably in elementary school now,” says Thirsk. “We have a responsibility to educate these people and instill the personal traits they will need for that two-and-a-half-year mission.”

Admittedly a daunting task, Thirsk believes that his space flight experience and management aptitude are invaluable to pulling together the people and resources needed to solve the technical and budgetary obstacles preventing further exploration of the inner solar system. “The space missions we will conduct in the coming years will be an order of magnitude more complex and riskier than anything we've done in the first 50 years of space flight. The next half-century will be incredibly exciting.”

MIT SLOAN **May 13–15**

Alumni Weekend 2011



As a special celebration of MIT Sloan, all alumni are invited back for Alumni Weekend 2011. Mark your calendar for a weekend of reconnecting with former classmates and the MIT Sloan community.

Join us for:

- Dedication of E62, MIT Sloan's new building
- Celebration of MIT's 150th Anniversary
- *Exchange 62: Now and Next*, a colloquium linking ideas and innovation for what's next in management
- Luncheon with the Laureates
- Faculty- and alumni-created workshops
- Class- and program-specific gatherings and events
- Family-friendly activities

Alumni Weekend 2011, the dedication of E62, the academic program, and a luncheon with the laureates are all part of the *Building the Future* series of School-wide events on May 13-15.

Find the latest news and information about Alumni Weekend 2011 at <http://mitsloan.mit.edu/alumni/alumni-weekend-2011.php>.



**MIT
+150**

*INVENTIONAL
WISDOM*

Ray Leach, SF '02

Founder and CEO, JumpStart Inc.

- Advises President Barack Obama and assists communities across the United States in jump-starting their economies through innovation
- Served as an Entrepreneur-in-Residence for CommonAngels, Boston's largest angel investor organization
- Raised \$60 million in charitable gifts to support JumpStart Inc.



“MIT Sloan also taught me how to use my education in a different way and make a greater positive impact than I ever imagined.”

Although Ray Leach enrolled at MIT Sloan to become savvier in business, the School transformed him into a community leader. Since 2003, he has helped restore the technology industry in the Midwest through his nonprofit JumpStart Inc. Recognized by President Obama for his expertise, Leach now assists communities nationwide as a member of the National Advisory Council on Innovation and Entrepreneurship.

Leach had founded four thriving enterprises by the time he enrolled at MIT Sloan. Coupled with his increased involvement in the Boston community during the aftermath of 9/11, he was amazed at how his education changed his outlook on his career.

“I initially came to MIT Sloan to pivot my career direction and create new venture capital connections,” he says. “I’d never done anything with nonprofits, but learning from the work of Senior Lecturer Peter Senge and the Leadership Center, my eyes were opened to a broader set of firms and facets of leadership. I saw ways to use my education to do things other than just maximize my personal wealth.”

Inspired to give back to the community after graduating, Leach returned to Northeast Ohio to join JumpStart, one of the first venture development firms in the country. Charged with providing resources to entrepreneurs in high-potential, early-stage companies, JumpStart’s mission is to invigorate local technology startups and restore prosperity to the Cleveland area, which was ranked the worst-performing entrepreneurial economy in the United States throughout the 1990s.

“JumpStart is a unique nonprofit in that it operates like a venture capital firm,” explains Leach, who helped raise \$60 million in charitable gifts to be invested into technology-based startups. “We’re different from an angel investor firm in that we invest earlier in the development of a business, and in businesses that are much smaller and riskier. We do the heavy

lifting for young companies that could never get off the ground without us.”

Since JumpStart began its operations in July 2004, it has provided intellectual assistance for over 600 firms and has invested \$18 million into 50 companies that have yielded a collective return of over \$200 million. Recognized for its positive impact on Northeast Ohio, JumpStart forged a formal partnership with the U.S. Department of Commerce in June 2010 to begin developing strategic entrepreneurial action plans for other communities across the nation.

In July 2010, the Department of Commerce also named Leach one of 26 members of the National Advisory Council on Innovation and Entrepreneurship, which will advise President Obama on policies regarding innovation. “MIT has a huge footprint on the council,” Leach says. Former MIT President Charles Vest and Ken Morse, MIT SB ’68, are also on the council.

“The School is the premier place to spend time,” Leach says. “It provides the practical and intellectual frameworks to succeed. MIT Sloan also taught me how to use my education in a different way and make a greater positive impact than I ever imagined.”

IN MEMORIAM

With deep sadness, the MIT Sloan School of Management reports the recent passing of fellow alumni.

- 1931 Mr. Donald S. Loomis, SB — June 10, 2010
- 1934 Mr. William B. Collier, SB — June 28, 2010
Mr. Constantine S. Dadakis, SB — May 25, 2010
- 1936 Mr. C. Mallory Graves III, SB — December 31, 2009
- 1937 Mr. H.L. Shuttleworth II, MO — September 11, 2010
- 1938 Mr. John D. Cunningham, Jr., SB — December 5, 2009
- 1941 Mr. Charles A. Kalman, SB — August 3, 2010
Mr. Mitchell J. Marcus, SB — March 22, 2010
- 1942 Mr. Newman M. Marsilius, Jr., SM — June 14, 2010
- 1943 Mr. Waldo J. Davis, SB — May 8, 2010
- 1944 Mr. Arthur Gray, Jr., BO — December 14, 2009
Mr. Paul M. Heilman II, SB — September 15, 2010
Mr. John W.L. White, SB — April 16, 2010
- 1947 Mr. Morgan H. Cooper, SB — May 28, 2010
Mr. Herman J. Harjes, SB — January 13, 2010
Mr. Robert S. Tamblyn, SB — May 11, 2010
- 1948 Mr. Paul N. Anderson, Jr., SB — May 2, 2010
- 1949 Mr. Stanford H. Hartshorn, Jr., BO — October 17, 2010
Mr. Melvyn J. Mickevich, SB — August 5, 2010
Mr. Louis G. Peloubet, SB — March 23, 2010
Mr. Norman Stolz, SB — March 20, 2010
- 1950 Mr. William C. Bibb, Jr., SB — March 24, 2010
Mr. Leete P. Doty, SF — July 8, 2010
Mr. Leonard I. Lann, SB — May 7, 2010
Mr. Donald R. Miller, SB — June 8, 2010
- 1951 Mr. Martin W. Kraegel, SF — March 11, 2010
Mr. Howard W. Vange, SM — October 28, 2009
- 1952 Dr. Leslie C. Case, SB — July 15, 2010
- 1954 Mr. Herbert J. Scholz, Jr., SB — May 6, 2010
- 1956 Dr. Thomas W. Cleaver, SB — January 10, 2010
Mr. Alan S. Lorber, SB — October 19, 2009
Mr. Robert B. Meeker, BO — August 1, 2010
- 1957 Mr. Herbert S. Amster, SM, SB '56 — October 13, 2010
Mr. James M. Rudolf, SB — March 18, 2010
- 1958 Mr. Thomas R. Fuller, SM — February 21, 2010
Mr. Robert E. Jordan III, SB — May 14, 2010
Mr. Donald J. Ross, SM — May 30, 2010
- 1959 Mr. Malcolm Brocklesby, MO — January 28, 2010
Mr. Robert H. Larson, SM — May 6, 2010
- 1960 Mr. Sivavong Changkasiri, SM — March 8, 2009
Mr. Robert E. Lienhard, SB — June 13, 2010
Dr. Gordon C. Shaw, SM — May 7, 2010
Mr. John A. Wagner, Jr., SF — August 23, 2010
- 1962 Mr. Lawrence R. Roessel, Jr., SF — March 10, 2009
Mr. Steven J. Smith, SB — April 18, 2010
- 1963 Mr. Robert C. Bitting, Jr., SF — August 20, 2010
Mr. Howard F. Miller, SM — September 27, 2010
Mr. Robert A. Morris, SM, SB '62 — February 15, 2010
- 1965 Mr. Frederick V. Martin, Jr., SF — February 17, 2009
Mr. Douglas R. McLane, SM — May 2, 2010
- 1966 Mr. Richard H. Anderson, SF — August 21, 2010
Mr. Donald L. Helfer, SM — September 5, 2009
- 1968 Mr. C. Harvey Wilson, Jr., SB — February 14, 2010
- 1969 Mr. J. Carroll Hastings, SF — May 21, 2010
- 1972 Mr. Charles F. Baxter, SF — August 8, 2009
Mr. Ronald C. Coleman, SF — March 12, 2010
- 1973 Ms. Sandra L. Cohen, SB — August 25, 2010
- 1975 Mr. Stephen G. Anderson, SM — April 23, 2010
Mr. George W. Cherry, SM — October 14, 2010
- 1976 Dr. George T. Smith, SF — March 20, 2010
- 1982 Mr. Robert F. Bayer, Jr., SM — March 19, 2009
- 1984 Ms. Elizabeth Selke, SM — August 14, 2010
- 1986 Mr. Robert E. Williams, SF — August 20, 2009
- 1990 Mr. Daniel S. Naddor, SM, SB '78 — December 28, 2009
Mr. Jean-Pierre Rogala, SM — August 28, 2009
- 1993 Mr. David J. Fanning, SM — June 14, 2010
Mr. Jerry L. Wamsley, SF — September 20, 2010
- 2001 Ms. Helen Elaine Hill George, MBA — August 3, 2010
Mr. Hakeem Olamide Sanusi, MBA — February 23, 2010
- 2008 Marc Trevor Lewis, MBA — October 10, 2010



A partnership for healing

Kanaka Pattabiraman, born and raised in India, came to the United States at age 15 to attend college. Since joining the pharmaceutical field while in graduate school, she has been learning how to push the boundaries of that industry. At MIT Sloan, she is working to develop innovative, low-cost healthcare solutions for underprivileged populations in emerging markets.

In the fall of 2010, Pattabiraman, MBA '11, in recognition of her social leadership and academic excellence, received the McGowan Fellowship, which is awarded to 10 candidates each year from the top 20 business schools.

At MIT Sloan, students are eligible for both need- and merit-based scholarships, but the School is only able to provide this kind of support to less than 15 percent of its graduate student body. Tuition for the 2010 academic year is \$50,353; but when factoring in supplies and living expenses, the total cost exceeds \$80,000. The limited number of fellowships available

at MIT Sloan puts the School at a competitive disadvantage.

“Our ability to attract the best candidates is hindered by the fact that we can’t compete at the same level as other schools where they give almost full tuition,” says Rod Garcia, director of MBA Admissions.

“I ask alumni to think back to the time when they were selecting schools and how some of them were apprehensive about what it would cost them to go through this two-year experience, and consider if there’s something they can give to help alleviate that fear for our incoming students,” Garcia says.

Inspired to make a difference

For Pattabiraman, having the McGowan Fellowship cover full tuition for her second year enables her to continue on the path she started while completing her PhD in organic chemistry at Stanford University. At that time, she invented a drug delivery technology, and founded a startup company with her advisor. Later, she went on to direct pharmaceutical research at Johnson & Johnson and Amgen.

After three years of working in drug discovery research, Pattabiraman came to MIT Sloan hoping to explore other sectors of the pharmaceutical field, but

it wasn't long before she found herself drawn to the large number of healthcare problems emerging in her home country, she says.

"Having grown up in India," she explains, "it is fantastic to see the kind of growth that is going on there. You can feel the optimism in the air; but at the same time, with the increasing population, and you realize there has to be some kind of technological solution to emerging problems like diabetes or cardiovascular disease." Pointing out that most Indians still subsist on less than two dollars a day, Pattabiraman says that many of the health solutions that have worked for similar conditions in wealthier countries like the United States are not viable in India.

The key, she believes, is to treat these diseases in fundamentally new ways—either through preventive medicine, which is economical, or through low-cost innovative products.

"We will need to design for extreme affordability while innovating for these markets," she says, "and that is not something that the United States is focused on. So the idea that innovation happens in the developed world and filters down to emerging markets needs to change. Instead, it could be a win-win situation. These solutions that are developed in emerging markets could be used to serve underserved U.S. populations, such as the urban poor who are priced out of receiving good healthcare currently."

In addition to tuition benefits, the McGowan award requires MIT to provide a mentor who can work with the awardee.

"Through the award, I was connected with Jean Hammond, SM '86," Pattabiraman says. Hammond is an Entrepreneur-in-Residence at the MIT Entrepreneurship Center.

"She is an angel investor and as I tool about with my emerging market and



"Pattabiraman's academic credentials were not the only reason she was such a strong candidate for the fellowship—she is also committed to the empowerment of women around the world."

health care ideas, I can bounce things off of her and get her expertise," Pattabiraman says. This is pretty phenomenal, and it is one of the things that has made this award personally meaningful to me."

Paving the way

Pattabiraman's academic credentials were not the only reason she was such a strong candidate for the fellowship—she is also committed to the empowerment of women around the world. Growing up in a society where women's roles are often narrowly defined, she had to overcome a number of obstacles in forging her own life's path. That's why she has always felt compelled to help other women achieve their goals. At Amgen, she founded a mentoring program connecting new hires at Amgen with senior employees. Her pilot program and the data she gathered from it served as a model for the Amgen Mentoring Program that was rolled out company-wide in 2008. "It was really rewarding to see something that began as a seed of an idea turn into career opportunities for over 10,000 people."

As the vice president of Sloan Women in Management, she recruited alumnae mentors for a mentoring program for female students. The goal, she says, is to foster an open and honest relationship between mentors and mentees, which will allow students to discuss their career goals not only for the two years of the MBA program, but also throughout their lives.

In India, Pattabiraman and her sister founded Vastra, a textile co-op, which provides economic independence for women who are victims of domestic abuse. Started in 2005, the co-op is a profitable venture. They have now received funding to start two new co-ops in the coming year.

With regard to these ventures as well as her work in healthcare, Pattabiraman says the fellowship has been extremely helpful. "To test an idea in an emerging market, you don't really need VC funding," she explains. "You can bootstrap it on your own. So the award has really allowed me to use personal funds for these startups that otherwise would have gone toward tuition."

Giving back to the MIT Sloan community

The award has inspired Pattabiraman to continue to give back as much as possible to the MIT Sloan community. In addition to being co-president of the Healthcare Club, she is also a teaching assistant for core economics, and has organized a number of one-on-one mock interviews to help first-year students compete for summer internships.

"There are many important lessons I have learned here at Sloan that I think should be passed on to the next generation," she says. "I really feel that giving back to the MIT Sloan community and keeping the School's brand name high is all part of living up to the award."

Shared vision: Alumna donor, PhD student explore employee ownership in green tech firms



A team effort

In May of 2008, Mary Ann Beyster, SM '90, president of the Foundation for Enterprise Development, presented a generous gift of \$100,000 in support of the MIT Sloan Initiative for Sustainable Business and Society. With this gift, she not only helped fund important research on the effects of employee ownership in emerging clean and green technology companies, but also formed a dynamic working relationship with MIT Sloan PhD candidate Joe Hsueh.

Beyster, who has years of experience in the clean tech sector, approached MIT because she was interested in developing a model that would help students navigate organizational choices and financial ownership models within the clean tech industry. “I am a big believer in systems dynamics,” she explains. “It seemed a very logical path to see what MIT, a leader in this field, could bring in developing a model to help students think about questions like who they are going to hire, how they are going to compensate people, and who is going to own the enterprise.”

From the start, Hsueh was the ideal candidate for the job. Recommended by Professor John Sterman, Jay W. Forrester Professor of Management, for his analytic rigor and his interest in human well-being, Hsueh began applying his expertise in systems dynamics to a wealth of data on clean tech startups. The end result is a management flight simulator that enables future entrepreneurs to explore a wide range of management strategies as they plan the structure and culture of their new companies.

While this model allows users to simulate business strategies to address long sales cycles, innovative product development, and a competitive market, it is unique in its correlation of decisions made about financing and the direct effect on

human capital—a company’s ability to attract, motivate, and ultimately retain its employees.

Built on Dr. David Miller’s PhD dissertation on clean technology ventures, and serving as Hsueh’s current PhD dissertation project, the simulator has already been used in Sustainability Labs and Sloan Innovation Period workshops at MIT Sloan. There are also plans to make it available for free online to academic institutions across the globe. It is an example of the impact MIT Sloan has on the world, and Hsueh reminds us that the data analysis needed to create the simulation would not have been possible without the support of Beyster’s generous gift.

A shared focus

A key element to Hsueh and Beyster’s partnership is their shared focus on the importance of employee ownership. It is an integral part of the flight simulator, and an idea they both are passionate about.

“One critical insight the model demonstrates is that employee ownership closes the feedback loop from financial performance to employee behavior,” Hsueh says. “Giving a salary conveys a two-way rental relationship: the employee leases her effort to the company, and

the company treats the employee like a commodity. The problem is, no one washes a rental car, right? But when you start giving out stock options or stock grants along with employee participation, people become part owner and that drives up their motivation and productivity. So the more that is shared, the more wealth is created.”

Beyster agrees and hopes that the flight simulator will encourage young entrepreneurs to consider the importance of their human capital investments, pointing out that the choices they make in how to compensate and invest in their employees are just as, if not more, important than other financing choices.

More than a donor

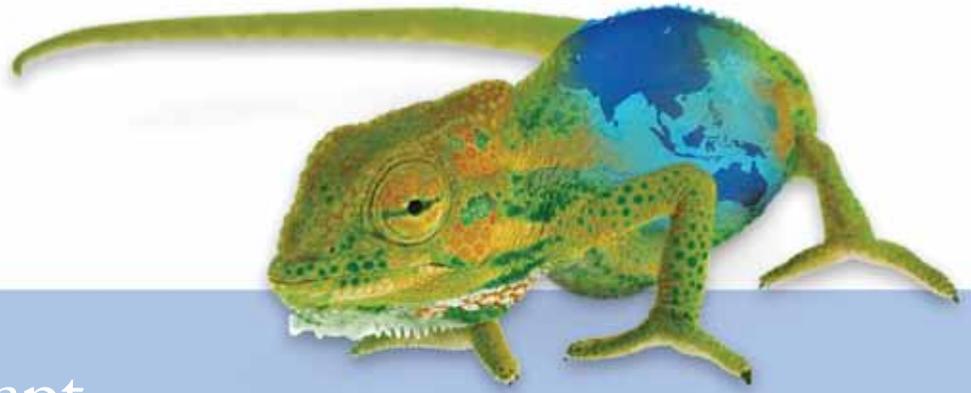
Also key to the success of the project was the strong spirit of collaboration between Hsueh and Beyster. From the beginning, their relationship has been much more than that of donor and recipient.

“I don’t see her as a sponsor,” Hsueh says. “I see her as a friend. I appreciate her for her advice, for linking me to so many prominent people in the employee ownership field, and most of all for encouraging me—for reminding me that the work is important and that it can actually have an impact.”

For Beyster, the admiration is mutual. She hopes the project will continue to allow Hsueh to further his career as a leader in academia.

“It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.”

—CHARLES DARWIN



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These days, even the most successful organizations are facing new and unexpected challenges. Traditional approaches to management that may have worked in a booming economy are no longer sufficient to meet the demands of a changing marketplace. At MIT Sloan, we prepare leaders to address today's complexities and seize new opportunities. Participants in our executive education programs gain the latest insights, strategies, and tools needed to navigate through uncertain times and position their companies for the next evolution.

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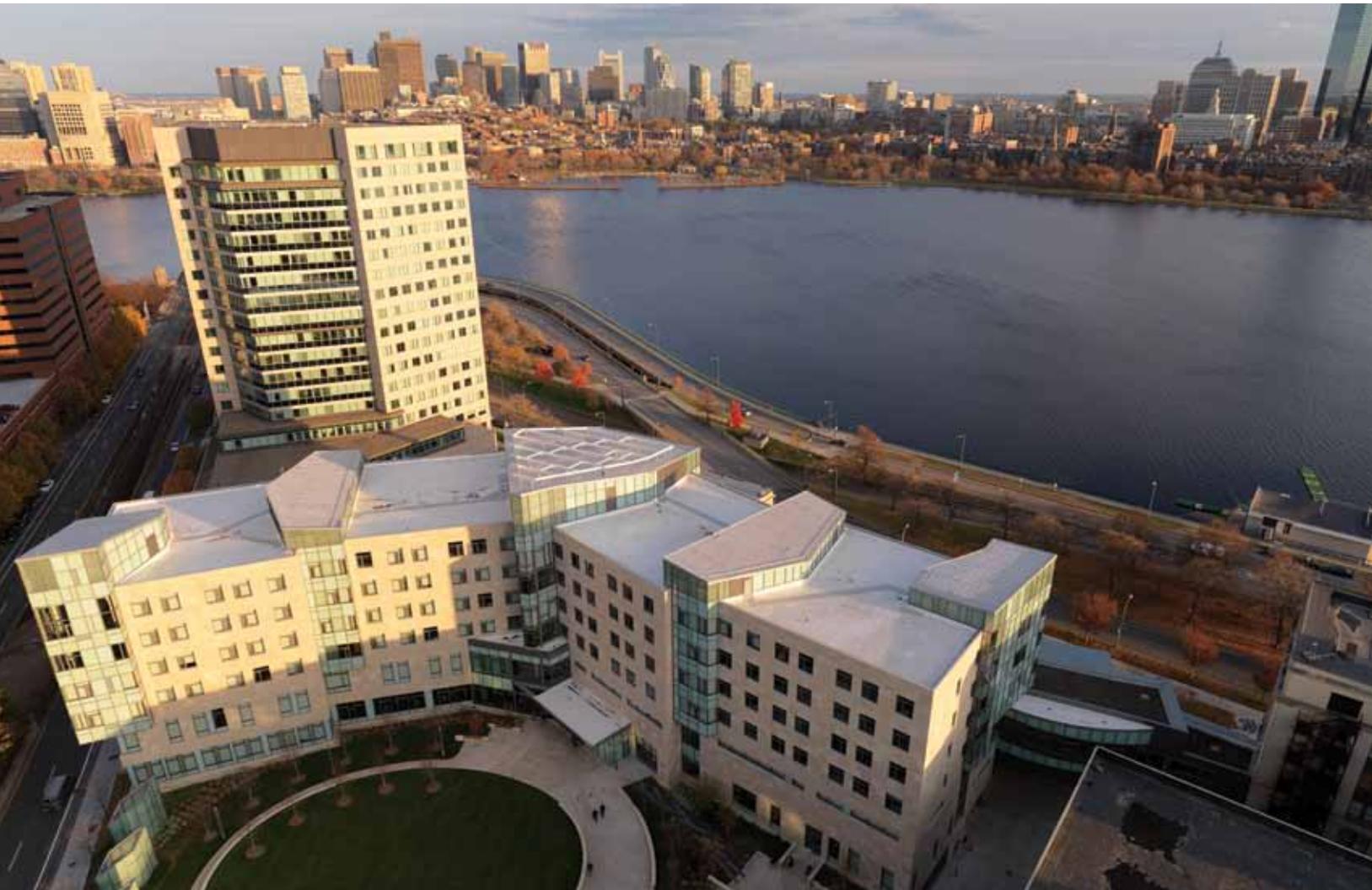
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