

# Harvard Business Review



NOVEMBER 2010

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Finding Entrepreneurial  
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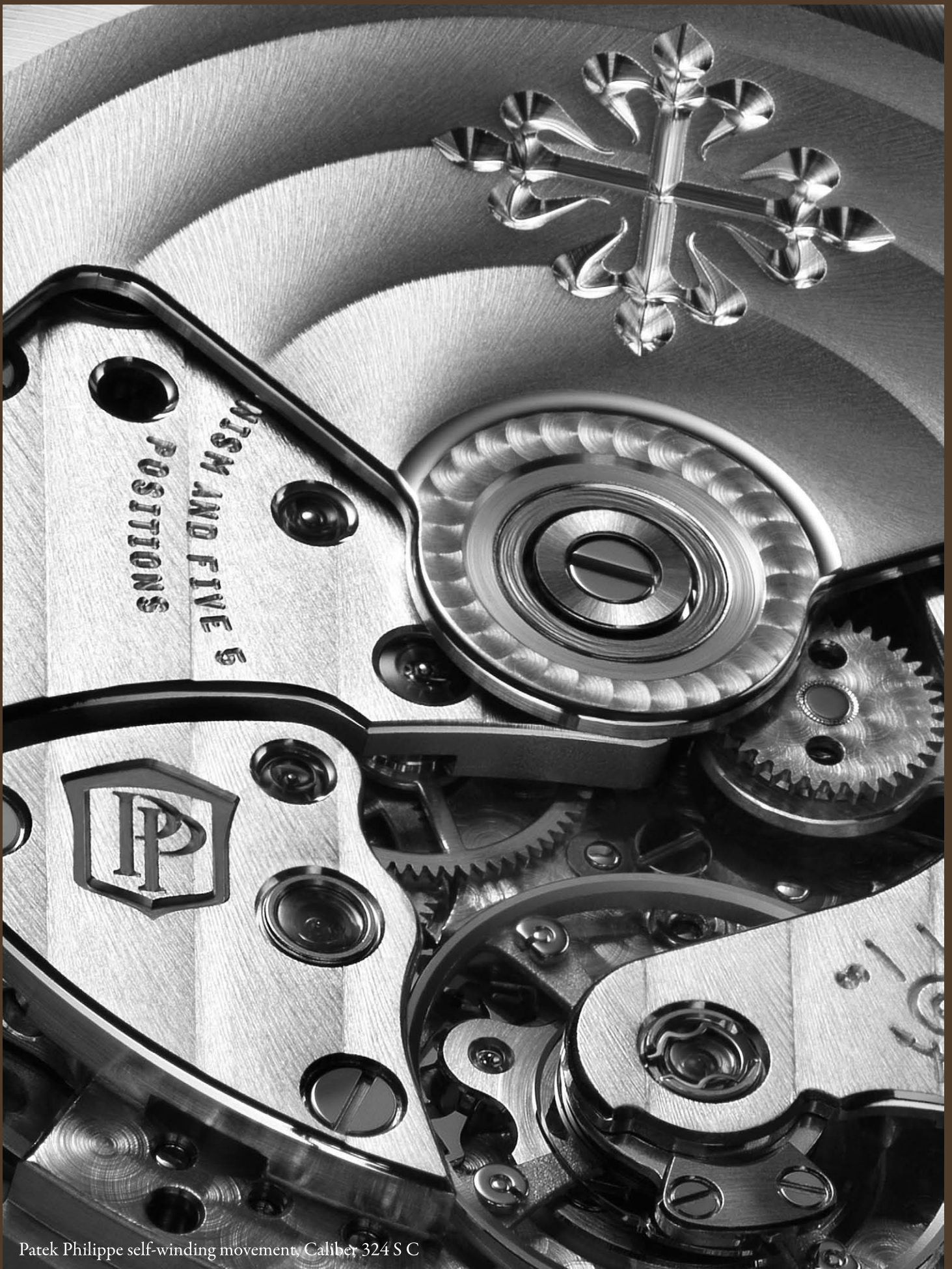
What's Your Personal  
Social Media Strategy?  
Soumitra Dutta

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## Leadership Lessons from The Military

Extreme conditions in Afghanistan and Iraq have become a testing ground for adaptive management skills that every CEO should understand.





Patek Philippe self-winding movement, Caliber 324 S C





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**Cover Artist**

Jeremy Lock

A platoon of Australian soldiers wait for suppression fire and smoke before advancing further.

June 26, 2007  
Shoalwater Bay Training Area,  
Camp Raspberry, Australia

**About the  
Spotlight Artist**

Stacy Pearsall comes from a long line of military men and women. She enlisted at age 17, but before she signed on the dotted line, she made the U.S. Air Force guarantee her a photography gig on the front lines. In 2002, she entered the Combat Camera Squadron without much experience behind the camera. Four tours later, her work has been published widely and her portfolio earned her the National Press Photographers Association's Photographer of the Year Award.

Her combat shots capture an uncanny immediacy and raw emotion; they expose the usually private feelings of soldiers in action. After being wounded by an IED in Baqubah, Iraq, Pearsall retired from service. She now owns and directs the Charleston Center for Photography, in South Carolina.

**SPOTLIGHT ON LEADERSHIP LESSONS FROM THE MILITARY**

**66 Extreme Negotiations** Business leaders trying to forge a tough deal can learn a lot from skilled military negotiators who work in perilous situations. *Jeff Weiss, Aram Donigian, and Jonathan Hughes*

**76 “You Have to Lead from Everywhere”** The national incident commander for the Gulf oil spill discusses what it’s like to lead when an anxious nation is watching in real time—and counting on success. *An interview with Admiral Thad Allen by Scott Berinato*

**80 Which of These People Is Your Future CEO? The Different Ways Military Experience Prepares Managers for Leadership** Create value by finding the right fit. *Boris Groysberg, Andrew Hill, and Toby Johnson*

**86 Four Lessons in Adaptive Leadership** By teaching essential leadership precepts in the context of intense military training exercises, personal discussions with top leaders, and emotional visits to historic battlefields, the military helps students internalize them. *Michael Useem*

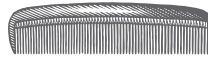
**ABOVE**  
Stacy Pearsall,  
*World of His Own*  
September 27, 2005  
Gulf of Tadjoura

**HBR.ORG**  
MORE ON  
MILITARY  
LEADERSHIP  
Create a “unity  
of effort,” argues  
Thad Allen  
in the HBR  
IdeaCast. Find  
out more at [hbr.org/spotlight/military](http://hbr.org/spotlight/military).



# SOLID. DISCIPLI AND OTHER TITILL

In the spirit of full disclosure, we may not be your first choice of who to spend the entire evening next to at a cocktail party. Not that we aren't charming conversationalists, it's just that we tend to wear our doggedly pragmatic leanings on our sleeve. Which, to be sure, isn't what you would expect from an investment firm. Then again, we haven't exactly done business the way that everyone else has. Our process



*By way of comparison, this comb is not nearly fine-toothed enough.*

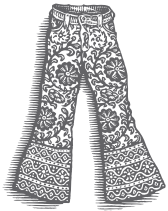
has always been unapologetically deliberate and decidedly unflashy. Our steadfast nature dictates that we choose, at each decision point, an investment path grounded in our core tenets of conservative management and prudent growth. As a matter of practice,

we typically pore over hundreds of potential financial products before finding just the right ones for clients. That's just how we do it. We cast a suspicious eye on excessive exuberance, fads and next big things. Which isn't to say the firm is risk-averse. It's just that we discourage risking capital (clients' or our own) on market trends that seem too good to last. All the while keeping a sharp eye out for the next market turn. But

the real value of our rigorous approach can be seen in what Raymond James financial advisors bring to their clients. It all started with the firm's founder, Bob James, who is credited with being the father of financial planning. He realized there was more to



# NED. THOROUGH. ATING ADJECTIVES.



*We have remained resolutely  
suspicious of market fads.*

a financial services firm than simply just financial transactions. And he understood that people needed a more thoughtful, deliberate approach to their financial affairs in total. And so our unique culture of independence gives our advisors the complete freedom to offer objective, unbiased financial advice based solely on the financial well-being of each client. By building a one-on-one relationship and taking the time to fully understand your personal circumstances, our financial advisors are able to meticulously tailor a long-term plan that's exactly right for you. And as

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## Features November 2010

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## THE BIG IDEA

## The Next Scientific Revolution

Powerful new computer tools can now “mash up” vast amounts of data from many sources, pore through the information, and unearth correlations that lead to breakthrough insights. It just might be the dawn of a new age of scientific discovery.

*Tony Hey*



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## Stress-Test Your Strategy: The 7 Questions to Ask

Master this list, and you'll keep your strategy execution on track. *Robert Simons*

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## Finding Competitive Advantage in Adversity

The entrepreneurs and innovators who make the most of a tough business climate exploit four counterintuitive domains of opportunity. *Bhaskar Chakravorti*



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## Winning in the Green Frenzy

Engage in your industry's debate about sustainability now, or risk being assessed against standards you can't meet. *Gregory Unruh and Richard Ettenson*



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Dow Chemical was all set to buy Rohm and Haas for \$18 billion—and then the market plunged. *Raj Gupta*

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What the surprising success of Spain's global giants can teach us. *Mauro F. Guillén and Esteban García-Canal*



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## SLIDE SHOW

Classic moments in buck-passing history at [hbr.org/slideshows/buck-passing](http://hbr.org/slideshows/buck-passing)

How did Gupta keep the deal alive?





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## ► You have the chance to power your own city.

How will you do it?

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Energyville is a lot more than just a game. It's a chance to better understand and discuss the energy challenges we all face, then find the inspiration and know-how to solve them.

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**Energyville, from Chevron**

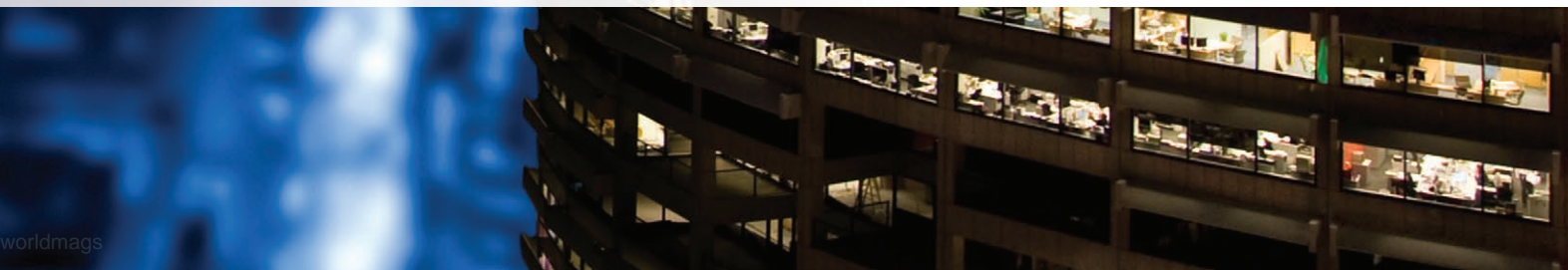
An energy game developed by The Economist Group.

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## Departments November 2010



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**OLIVER SACKS**  
 Read the extended interview at [hbr.org/sacks](http://hbr.org/sacks).

**BEST PRACTICES**  
 Learn how to bounce back from a negative 360-degree review at [blogs.hbr.org/best-practices](http://blogs.hbr.org/best-practices).

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**36 DEFEND YOUR RESEARCH****People Often Trust Eloquence More Than Honesty**

Smooth talkers get away with evasive answers.



When outsiders are hired to lead healthy, growing companies, they underperform.”  
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How and why Michelle Obama creates value

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In the American Century, business growth meant job growth. But this is the Global Century.

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What is both scarce and in demand? Things that are difficult.



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How to use low-cost platforms to build your brand, engage with stakeholders, and learn from their feedback. *Soumitra Dutta*

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When Michael Wallent became Megan Wallent, employees noticed a radical change in her management style. *Daniel McGinn*

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A newly named CFO has been asked to mediate a heated debate over a new product line. Will choosing a side prove her leadership ability? *Trish Gorman Clifford and Jay Barney*

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**Oliver Sacks** The neurologist and best-selling author talks about career crossroads and gaining people's trust through empathy.





I HAD A  
PRODUCT  
CLIENTS HAD TO  
SEE TO BELIEVE.

THANKS TO  
FACE-TO-FACE  
MEETINGS,  
THEY DID.

-Morgen Newman, IdeaPaint co-founder



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**BRITISH AIRWAYS**



hbr.org November 2010

# This Month at hbr.org



## More on Leadership From the Military

In a special six-week blog series, veteran business leaders and military experts debate what companies and executives can learn from 21st-century wars. Go to [hbr.org/spotlight/military](http://hbr.org/spotlight/military).



### HBR IdeaCast

Former Coast Guard **Admiral Thad Allen**, the national incident commander for the Gulf oil spill, discusses how to lead in a complex, rapidly changing crisis. And Allen would know: He also managed the response to the Haiti earthquake and Hurricane Katrina. Listen at [blogs.hbr.org/ideacast/allen](http://blogs.hbr.org/ideacast/allen).



### Free Webinar

On November 9 at 1:00 PM EST, West Point's Jeff Weiss and Major Aram Donigian share the tactics the military uses to negotiate in extreme situations. Learn how your business can benefit at [hbr.org/webinars/extreme-negotiations](http://hbr.org/webinars/extreme-negotiations), or find the archived event, and others, at [blogs.hbr.org/events](http://blogs.hbr.org/events).

### Daily Dose of Management

The *Management Tip of the Day* offers quick, practical advice for your pressing professional challenges. Get useful tips like "Three Ways to Drive Real Change," "How to Make the Right Hiring Decision," and "Two Rules for Successful Presentations." Sign up at [enewsletters.hbr.org](http://enewsletters.hbr.org) or on iTunes.

### Free Chapter

Vikram Akula, the founder and chairperson of SKS Microfinance, has brought together the best of philanthropy and capitalism to help millions of India's poor. Register for a free chapter from his new book *A Fistful of Rice* at [hbr.org/chapters/akula](http://hbr.org/chapters/akula).

### Your Voices

"A poor idea worked on by the right people is salvageable. A good idea worked on by the wrong people is not." Posted by **Kirill Zdornyy** in response to "A Start-up Is Its People" at [hbr.org](http://hbr.org).



### SHARP AND FRESH



**Whitney Johnson**, a founding partner of investment firm Rose Park Advisors, tells you how you can get paid what you're worth at [blogs.hbr.org/johnson](http://blogs.hbr.org/johnson).



**Michael Schrage**, a research fellow at MIT Sloan School's Center for Digital Business, wonders, "Do You Believe in Self-Improvement Myths?" at [blogs.hbr.org/schrage](http://blogs.hbr.org/schrage).

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# Tops in Category: *The World's Most Admired Companies<sup>®</sup>* List

— *Fortune<sup>®</sup>* magazine

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# From the Editor

## From the Battlefield To the Boardroom

This month's Spotlight package is illustrated by the award-winning photographer **Stacy Pearsall**, who is known for her portrayals of soldiers in private moments. She herself enlisted at age 17.



**ABOVE**  
Stacy Pearsall, *Nap Time*  
September 4, 2005

If there's one thing I learned from directing *Time*'s coverage of America's post-9/11 wars, it's this: Military professionals, at least in our era, are rarely cheerleaders for war. They know well the risks involved and appreciate the value, in lives and money saved, of alternative approaches.

So, what can the rest of us learn from our sober band of top military men and women? In this month's Spotlight package we revisit a question that has fascinated generations of thinkers: What are the wartime leadership lessons that can be broadly applied to the world of management?

Once upon a time the takeaways might have focused on discipline, sacrifice, and team building. But our wars in Iraq and Afghanistan have inspired fresh thinking. The lessons from them concern skills like adaptive leadership and navigating uncertain, high-risk situations. Here the military provides a model for business in several ways. Leaders in both spheres must deal with a world of 24/7 information and public scrutiny, cope with perpetual ambiguity, and adjust to ever-changing goals.

One might think that a standoff in Kandahar would have little relevance for a CEO in Omaha or Oman. But in our lead Spotlight piece, "Extreme Negotiations," Jeff Weiss, Aram Donigian, and Jonathan Hughes show that the talents needed to pacify a war-zone neighborhood are ones all managers would do well to deploy. Even in a life-or-death situation, the authors

argue, the only way to negotiate successfully is to use a reasoned, patient, empathetic style. The same is true in any high-stakes business situation.

Can former members of the military translate what they've learned to a business environment? Perfectly well, say Boris Groysberg, Andrew Hill, and Toby Johnson, the authors of "Which of These People Is Your Future CEO?" They find intriguing differences in style and effectiveness, though, depending on which branch of the armed forces those leaders served in.

Most of the Spotlight examples draw on U.S. military experiences, but the findings have value for managers everywhere. From mid-October through the end of November, we'll host a discussion online ([hbr.org/spotlight/military](http://hbr.org/spotlight/military)) that will include ideas from all over the globe.

Also, we interview Thad Allen, the incident commander for the Deepwater Horizon oil spill. In managing that crisis, Allen drew on the wisdom of civilian thinkers, many of whom, including Peter Senge, Peter Drucker, and Warren Bennis, have graced these pages with their writing. Even under extreme pressure, "you're always in a teachable moment," Allen says. "You're mentoring without knowing it." Sound thinking comes from all corners.

**Adi Ignatius**, Editor in Chief





*“Complexity presents  
an opportunity  
and a threat  
at the same time.”*

CEO, Industrial Products Industry

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## STRATEGY & MANAGEMENT PROGRAMS 2010–2011:

Strategic Thinking and Management, Dec. 13–17

Mergers and Acquisitions, Jan. 23–28

Executive Development Program, Mar. 13–25

Strategic R&D Management, Mar. 21–25

Implementing Strategy: Leading Effective Execution, Mar. 28–Apr. 1



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November 2010  
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*“Complexity presents  
an opportunity  
and a threat  
at the same time.”*

CEO, Japan

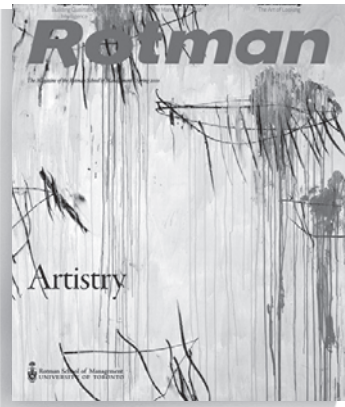
Smarter business for a Smarter Planet:

**Do you know what your CEO is thinking?  
Better yet, do you know what over 1,500 CEOs are thinking?**

The partnership between CIOs and CEOs is more important than ever—and the better CIOs understand what’s top of mind for CEOs, the better this partnership works. The *2010 IBM Global CEO Study: Implications for the CIO* reveals how over 1,500 leading CEOs are managing complexity with creativity, and offers insight into how CIOs can help champion their initiatives. From deploying the latest solutions to applying analytics, this whitepaper—based on the largest CEO study of its kind—will empower CIOs to partner with their CEO to develop creative leadership, build operating dexterity, and ultimately drive business forward. A smarter business needs smarter thinking. Let’s build a smarter planet.

Get the *2010 IBM Global CEO Study: Implications for the CIO* now at [ibm.com/ciopaper4](http://ibm.com/ciopaper4)





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“In Business” and “Global Business”

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# Innovate or Adapt?

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*Scott Anthony is one of the experts who will be leading this interactive discussion around innovation challenges. He is managing director of Innosight Ventures, based in Singapore, and author of The Silver Lining: An Innovation Playbook for Uncertain Times. Here, Scott shares an overview of the innovation challenge.*

When a company is looking to target a new market, it often wonders whether it should simply adapt what it sells in its existing markets or innovate from the “ground up.” The answer, perhaps not surprisingly, is “it depends.”

It never has been more important to target new markets. Continued economic pressure means today's markets are unlikely to be the source of blockbuster growth. Furthermore, competitive advantage in established markets is increasingly looking like a transitory notion. Just look at companies like Microsoft. Ten years ago it was an unstoppable force; now it has lost its luster to the Apples, Googles, and Facebooks of the world.

When answering this question, it's important to recognize that “innovation” goes well beyond the features and functions

of a company's offering. For example, look at the four most successful technology companies of the past decade — Apple, Google, Netflix, and Amazon.com. What made all these companies successful was a business model that disrupted their respective markets.

The most important thing for companies to do is to really understand the needs and structure of the new market they are trying to target. If the needs bear a strong similarity to needs in existing markets and there are robust distributors, suppliers, and support mechanisms, then by all means adapt away. If the needs are distinct and the structure is very different, then companies need to innovate a new solution.

So many people say, “I have this great idea, what do I do with it?” But great innovators say, “This is what this customer in this segment needs to get done — how do I do it?” Jeff Bezos at Amazon.com really gets this. He tells his people, we can keep reinventing what we're good at, but if we know what the customer needs and wants, we have to do that, no matter how hard it is.

Sustaining real competitive advantage means thinking differently and acting differently.

# Interaction



## The High-Intensity Entrepreneur



HBR article by **Anne S. Habiby** and **Deirdre M. Coyle, Jr.**, September 2010

**Habiby and Coyle, cofounders with Michael Porter of the AllWorld Network, predict that “gazelles”—high-growth companies in emerging**

**markets—will continue to generate unprecedented economic value. In their study of hundreds of ventures in the Middle East, Africa, and South Asia that had grown rapidly from 2006 to 2008, the authors found that “while the global economy contracted 2%, most of these companies picked up their pace in 2009—in the majority of cases, growing 20% to 50% faster than they had in 2008.”**

Building an entrepreneurial ecosystem takes thousands of hours of research. You must understand all of the disparate pieces of the puzzle—every macro- and micro-element that could challenge your well-oiled machine. That includes understanding things that cannot simply be documented on a spreadsheet—both the wider culture and the interpersonal

relationships of stakeholders within the ecosystem.

Posted by **Gary Whitehill**, Founder, Whitehill International

I don't think that the Middle East can create 80 million more jobs by 2020.

Posted by **Madhu Gith**, Business Development Manager, Al Fazal General Trading

**Habiby and Coyle respond:** *Creating 80 million jobs will be tough, but we would argue that the only part of the economy creating jobs at a fast-enough pace is fast-growth companies—and we need to support these companies more. The Saudi Fast Growth 100 created more than 30,000 jobs, for example, and the companies we have seen in emerging markets throughout the world scale up quickly—going from 20 to 200 and 200 to 2,000 jobs in a couple of years. That is the type of job growth that will make a difference.*

Africa needs a good boost of entrepreneurship. A colleague and I are looking to kick-start angel investing in the southern region. Any ideas would be welcome.

Posted by **Guy Harris**, Garden Route Greybeard Angel Investors' Venture Capital Fund

**Habiby and Coyle respond:** *All types of investment vehicles are important for developing a robust entrepreneurial ecosystem, including angel investing. Our experience has shown us that investors' rigid criteria often lead them to exclude some of the best opportunities, and Africa is a huge one.*

Entrepreneurship could bring radical change to countries like India and China. The Indian government has several schemes to help entrepreneurs grow and bring prosperity to the country, but the



### How Millennials' Sharing Habits Can Benefit Organizations

HBR blog post by **Andrew McAfee**, August 2010

Experts predict that Gen Ys will continue sharing socially as they age—

and their use of 2.0 tools like blogs, microblogs, and social networking will indelibly affect the workplace.

Millennials' sharing habits on social networking sites are nothing more than a refined and eloquent adaptation to more traditional forms of

collaboration within the organization. The key difference is that their conversations and insights are not hidden in boardrooms and behind office doors.

Digital natives are extremely self-aware and comfortable with the transparency of their actions within the social networks they frequent.

Organizations are failing to recognize the value of encouraging their battle-hardened knowledge workers to participate alongside younger employees in these new environments. Today's digital natives are tomorrow's leaders, and companies need to support frameworks to guide Gen Y's sharing activities. First





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problem is corruption. Once that gets sorted out, I think India's economic condition will change.

Posted by **Nitin Srivastava**, CEO, Velocity Software Solutions

In many emerging markets there is a distinct sense of "I can do better than this" that spurs the entrepreneur to action. In developed economies, you have more well-paid corporate types, so fewer people are willing to go it alone. I've been in Vietnam for 20 years, and entrepreneurship is everywhere, despite the lack of formal government support for start-ups. Digital technology enables today's entrepreneurs in developing countries to have a much greater impact.

Posted by **Rick Yvanovich**, Founder and CEO, TRG International

**Habiby and Coyle respond:** *There is something to be said for entering a market that offers undefended niches—which emerging markets have in abundance. The hypercompetitive, lower-margin markets in the U.S. are hard to penetrate and not as attractive to entrepreneurs. And you are exactly right: Technology has had and will continue to have a huge impact on the success of entrepreneurs in emerging markets.*



and foremost, there needs to be a clear distinction between personal and professional sharing (whether it's articles, videos, or comments) to allow Millennials to choose the appropriate social network and tools that will have the greatest impact on their target audience.

I have narrated my own work on LinkedIn and have been impressed with the results. Asking work-

CONTINUED ON NEXT PAGE

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“One that would have the fruit must climb the tree.”

—THOMAS FULLER



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# Interaction



## The Creativity Crisis? What Creativity Crisis?

HBR blog post by **Michael Schrage**, August 2010

In response to HBR's video blog post "Po Bronson on the Crisis of Creativity in American Business," Schrage lashed out at "aspiring pundits" who assert that American ingenuity is a thing of the past, writing, "Hard times haven't nicked, dented, or damaged this country's creative core competence. To the contrary, they've made more people more interested in being more creative."

Schrage writes, "In markets, creativity—and its value—is determined by consumers." The skill to evaluate choices among creative solutions seems to be a real challenge for many senior managers I've worked with, some at companies known for market innovation. Politics and "experience" seem to rule the day. These managers could learn something from the techniques venture capitalists use to evaluate proposals, adopting ways to encourage creativity within their own organizations. Posted by **Ric Nelson**, Vice President of Business Development, RedCoat Publishing

**Schrage responds:** *We could add successful art collectors and movie producers to your venture capitalist suggestion; you need an eye for the creative ecosystem, not just the talent or the product.*

The impact of teaching creativity in schools from an early age is perhaps overrated. Thousands of Indian graduates who moved

to the U.S. for higher education after passing out of a learn-by-rote academic culture have been able to create new businesses and new ideas.

Posted by **Asit Gupta**, Head of Strategic Planning, DDB China

It's enough to go to the movies to see how low our creativity has sunk. When *Avatar*, a recycled story (Pocahontas, Tarzan) almost wins the Oscar for best picture, there is not much to brag about concerning our creativity.

Posted by **Tamir Efron**, Software Developer, CanPay Software

**Schrage responds:** *The Avatar story is as recycled and predictable as you suggest; however, the technical innovations and alternate ecosystems are—to me—examples of truly creative expression and representation. The question I'm left with is, Is it bad or "uncreative" when a movie's special effects are far superior to its narrative?*



CONTINUED FROM PREVIOUS PAGE

related questions and providing advice to others has led to the cultivation of new partnerships that would not have been possible if the conversation had occurred inside the veiled confines of a boardroom or corner office. Asking questions or providing advice is only half the battle in this new work environment. Knowing where to share valuable content or host a conversation is the key to successfully extracting value and tacit knowledge from your participation on networking sites.

The blurring of lines between social groups and the explosion of niche networks has created confusion not only for Millennials, but for anyone wanting to establish credibility or share knowledge with others in this new digital landscape. **Paul Bleier**, Associate Consultant, Hay Group



## Why Men Still Get More Promotions Than Women



HBR article by **Herminia Ibarra**, **Nancy M. Carter**, and **Christine Silva**, September 2010

**More women than men have mentors, but mentoring does not provide equal career benefits to men and women. To succeed, women need the kind of mentoring that leads to advancement: sponsorship.**

There is a gender gap in leadership, but the reason for it isn't lack of sponsorship; it's the skills we look for in leaders. Leadership values are at the beginning stages of a transformation. We are starting to see a strong appreciation for trust, authenticity, purpose, empathy, devotion, curiosity, and mindfulness—and some argue that these are crucial skills for tomorrow's leaders. They are also innate skills in women leaders, which is why we will see the gender gap reduced in the near future.

Posted by **Dawna MacLean**, Owner, Dawna MacLean Consulting

**Ibarra responds:** *We find little research evidence that women, at least women who choose business careers, have more of these traits than men. What we do find is that men who have these characteristics are more likely to be promoted than women who have the very same traits. Thus, we need to rethink the mentoring programs that were devised to solve the gender gap. In our experience, large organizations are much more uneasy about women's power than women are, and that is why women need sponsors to get to the top posts.*





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*-Morningstar, August 9, 2010*

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Source: “How Expense Ratios and Start Ratings Predict Success,” August 9, 2010. Vanguard provides services to the Vanguard funds at-cost. Other companies charge an average of five times more than Vanguard. \*Source: Lipper Inc., as of 12/31/2009. Based on 2009 industry average expense ratio of 1.19% and Vanguard average expense ratio of 0.23%. For more information about Vanguard funds, including at-cost services, visit [www.vanguard.com/different](http://www.vanguard.com/different), or call 800-505-7182 to obtain a prospectus. Investment objectives, risks, charges, expenses, and other important information about a fund are contained in the prospectus; read and consider it carefully before investing. All investments are subject to risk. Vanguard funds are not insured or guaranteed. Past performance is not a guarantee of future results.

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**FIRST**

## Succeeding at Succession

For too long, boards have relied on rules of thumb and conventional wisdom when picking CEOs. So we took a look at the numbers—and found some surprises.

by James M. Citrin and Dayton Ogden



It's been eight years since the passage of Sarbanes-Oxley, and despite all the work and worry it created for corporate directors, the new regulation did bring about one unambiguously positive change: It led boards to finally wrest control of CEO succession away from incumbent chief executives, who often held too much power over the process.

Today, corporate boards are more proactive about (and simply better at handling) leadership succession, but they still face a significant challenge in picking the

right candidates. That's partly because succession decisions have been guided by too little data and too much reliance on rules of thumb, anecdotes, and even fads. During the mid to late 1990s, for instance, after Louis Gerstner's brilliant turnaround at IBM, boards tended to focus on big-name outsiders as the CEO candidates of choice. In the past decade, the sentiment has shifted, and a procession of thinkers—some of them writing in HBR—have argued forcefully that internal candidates are the better bet.

To give boards guidance based on real evidence, Spencer Stuart conducted an 18-month study of the 300 CEO transitions at S&P 500 companies that took place from 2004 to 2008. (For more on our methodology, see "How We Crunched the Numbers.")

The results contained several surprises. Contrary to conventional wisdom, our analysis showed that insiders and outsiders have performed about the same—plenty of each fell into the highest and lowest performance categories. Whether a company chose a CEO from inside or outside did matter—but whether the choice turned out to be wise depended mostly on the health and competitive position of the company at the time of succession.

Another surprising finding: Board members who stepped in as CEO outperformed all other types of candidates. Often a board member is a last resort, someone who is turned to in desperation when a company can't find other suitable candidates. But in fact, directors-turned-CEOs represent a strong blend of insider and outsider. They have more company knowledge than a pure outsider, but they don't have the constraints of a pure insider when it comes to making unpopular decisions or leading painful changes. Having been on the board, they have deep knowledge of a company's strategy, finances, and organization, and just as important, they understand the dynamics and the expectations of the board. And of course, some have already been CEOs of other companies, which gives them an advantage.

The worst-performing CEOs turned out to be a group we call insider-outsiders—

## IDEA WATCH



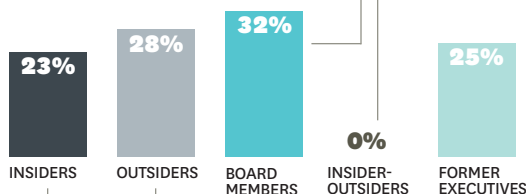
**DELTA AIRLINES** Gerald Grinstein, a former railroad CEO and Delta board member, served from 2004 to 2007.

## WHAT'S THE BEST ROUTE TO THE TOP?

There are no hard-and-fast rules about which types of candidates make the best CEOs. But our analysis found some solid trends. Among them: Board members shouldn't be a last resort, and "insider-outsider" candidates (who are hired from another company and apprentice under the outgoing CEO before taking over) rarely bring success.

### Outstanding Performers

PERCENTAGE OF CEOs IN EACH CATEGORY RATED OUTSTANDING ON THE BASIS OF COMPANY PERFORMANCE AFTER SUCCESSION



0%

In theory, insider-outsiders should work really well, but in practice they don't. Their apprentice role makes them too deferential to the incumbent CEO and too invested in the status quo.



#### Robert Iger, Disney

For years Michael Eisner resisted finding a successor, but since Iger took over in 2005, he's led acquisitions of Pixar and Marvel, embraced technology, and renewed the firm's commitment to storytelling.



#### William D. Perez, Wrigley

After stumbling as an outsider at Nike, Perez became the first non-Wrigley family member to lead the chewing gum company. Within two years of becoming CEO he negotiated Wrigley's sale to Mars, earning shareholders a 28% premium.



#### Charles R. Schwab, Charles Schwab

Like Steve Jobs, Howard Schultz, and Michael Dell, Schwab is a founder who returned as CEO when his company hit hard times. From 2004 to 2008, he led a near-perfect turnaround and groomed a new successor.

outsiders who are hired into a company as president or chief operating officer and promoted to CEO within 18 months. HR directors have favored this approach, and in theory it makes great sense: The candidate has a chance to get acclimated to the culture, learn the company, and settle in before ascending to the top job. But the approach often sets the new leader up for failure. The two-step succession process requires the candidate to "audition" for the top position while serving under the incumbent CEO, and that tends to make him or her beholden to the current chief executive. What's more, the sitting CEO remains the primary conduit to the board—making it more likely that the outside hire will play things safe and be deferential to the status quo. Ten insider-outsider CEOs were appointed between 2004 and 2008, and our analysis found that none of them achieved top-quartile performance.

Our research also found that many of the criteria boards use to evaluate CEO candidates turn out to be unimportant in predicting performance. These include candidates' ages, where they went to college or grad school, what degrees they earned, whether they needed to relocate or commute to take the job, or whether they began

their career at a blue-chip company. Boards should ignore those variables; they simply don't correlate with performance.

In our view, the most important factor in determining which type of CEO candidate to select is the health of the company. Insiders are best when the company is performing well; outsiders do better when the company is in crisis. This may be intuitive, but when we've shown this data to board members, they're surprised by how compelling the numbers are.

The leadership challenges presented by a stable, growing company are fundamentally different from those faced by an organization in trouble. Of the 300 transitions we studied, 218 involved companies that were stable or growing—and in that situation, boards chose insiders more than three-quarters of the time. Those insider appointments, in turn, were three times more likely to achieve outstanding performance than the outsider appointments. When outsiders were hired into healthy companies, they were twice as likely as insiders to suffer poor performance.

Why do insiders do better at healthy companies? For one thing, companies that are doing well tend to attract strong talent in the first place. They also have more re-

sources to invest in management development. High-performing companies often develop cultures that make it difficult for outsiders to fit in, partly owing to longtime employees' suspicion over whether an outsider can adapt to company values. The boards of healthy companies are more apt to devote sustained time to the work of leadership development and succession, because they're less busy putting out fires.

When a company is in crisis, however, the data overwhelmingly show that outsiders outperform insiders: The CEOs in our study achieved outstanding performance at three times the rate of insiders. That's because insiders are more likely to be captive to the culture that got the company into trouble in the first place, while outsiders bring a fresh perspective and have more freedom—even permission—to implement big changes.

Examples of how the health of the company should lead the board to look inside or outside abound. At Disney, longtime executive Robert Iger succeeded Michael Eisner in 2005. Despite the boardroom drama that accompanied Eisner's exit, Disney was fundamentally healthy, and as an insider Iger has proved to be the perfect pick. His re-dedication to storytelling, transformative





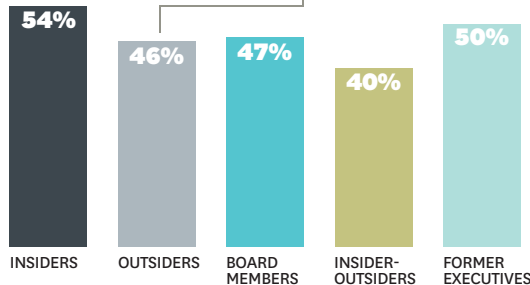
**STARWOOD HOTELS** Frits van Paasschen, former CEO of Coors, had no hotel industry experience.

**SEARS** Aylwin Lewis oversaw the merger with K-Mart and ran Sears until 2008.



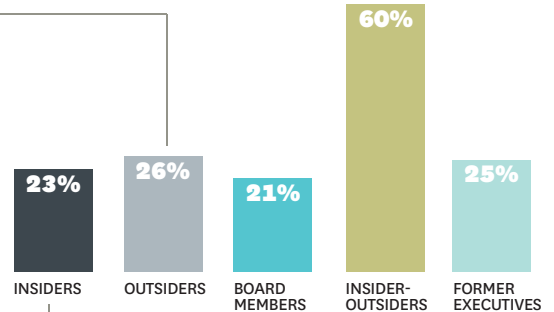
### Solid Performers

PERCENTAGE OF CEOs IN EACH CATEGORY RATED SOLID ON THE BASIS OF COMPANY PERFORMANCE AFTER SUCCESSION



### Poor Performers

PERCENTAGE OF CEOs IN EACH CATEGORY RATED POOR ON THE BASIS OF COMPANY PERFORMANCE AFTER SUCCESSION



# 26%

When outsiders are hired to lead healthy, growing companies, they underperform—partly because these companies often have strong cultures that are slow to accept newcomers.



#### James McNerney, Boeing

He was CEO at 3M and a director at Boeing when the airline manufacturer's chief resigned following a sex scandal. McNerney took over in 2005, winning solid reviews despite delays on the Dreamliner 787 program.



#### John Mack, Morgan Stanley

Pushed out in 2001 by CEO Phil Purcell, Mack returned in 2005 after Purcell's management style led to a talent exodus. Mack, who retired in early 2010, steered the bank through the financial crisis.



#### Philip Schoonover, Circuit City

He presided over the chain's demise, resigning six weeks before it filed for bankruptcy. Most notable move: laying off the chain's most experienced sales associates, which hurt customer service.

acquisitions of Pixar and Marvel, embrace of technology, and strong team-building skills have helped Disney outperform rivals in a tough economic climate.

In contrast, consider Philip Schoonover at Circuit City. Hired away from Best Buy in 2004, he served as merchandising chief and president before ascending to become Circuit City's CEO in 2006. By then Circuit City was in tough shape, with Best Buy and Wal-Mart stealing market share, but Schoonover failed to aggressively shift strategies. To cut costs, he laid off 3,400 of the chain's highest-paid (and most experienced) sales associates, a move that backfired as customer service plummeted. He resigned in late 2008—and a few weeks later, Circuit City filed for bankruptcy. For a company that faced such profound challenges, the fresh perspective of a true outsider may have been a better choice.

CEO selection will always be part art, part science. This data can help guide boards' choices. But the process also relies on intuition—and even experienced directors can make the wrong call. A few years ago, our firm placed a CEO at a large technology company. We did all our due diligence and believed he was the perfect leader for the job. Soon after he was

## HOW WE CRUNCHED THE NUMBERS

We examined CEO transitions at S&P 500 companies from 2004 to 2008. Over this time, 300 new CEOs were appointed. The CEOs fell into five categories: insiders, outsiders, board members, former executives brought back to retake the helm, and insider-outsiders (executives brought in as the number 2 and then promoted within 18 months).

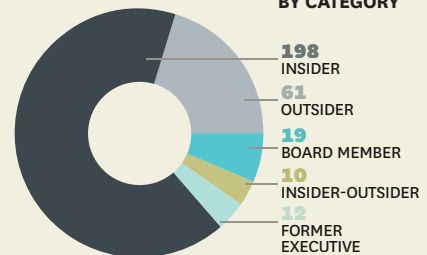
We began our assessment by looking at more than 25 variables, including company condition, industry sector, whether the new leader was a first-time CEO, his or her functional background, whether he or she had prior public-company board experience, and how many direct reports were replaced in the first year of tenure.

We then evaluated the company's performance under the CEO on the basis of three quantitative measures: shareholder returns relative to peer companies and the overall market, revenue growth, and profit growth. To gain a qualitative sense of company performance under the new CEO, we conducted interviews

and examined public information. Specifically, we analyzed changes in the company's reputation, evidence of innovation, and the board's evaluation of the CEO's performance.

We then ranked the CEOs into four quartiles: the top quartile of CEOs were "outstanding," the middle two were "solid," and the bottom-quartile CEOs were "poor."

### CEO TRANSITIONS BY CATEGORY



brought in, however, he began speaking disrespectfully about his predecessor. He quickly launched a hit new product largely developed under the former CEO's watch and then took a disproportionate amount of credit for it. He performed very well for a time, but he wasn't able to get the company to innovate or reignite its product development pipeline. Within a couple of years, the wheels fell off and he tendered his resigna-

tion. It's a sobering reminder that even as boards have become far more engaged and effective in succession issues, making the right decision can still be very challenging indeed. ♥

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**James M. Citrin** coleads Spencer Stuart's North American board and CEO succession practice. **Dayton Ogden**, formerly Spencer Stuart's CEO and chairman, now leads the firm's efforts in succession services.

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for the  
overweight  
server's  
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## STAT WATCH

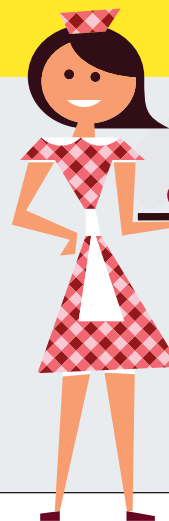
### Do You Want Fries with That?

In a study by **Brent McFerran** of the University of British Columbia and colleagues, dieters in a restaurant-like setting were offered menu suggestions by a thin waitress. She also donned a "fat suit" and made recommendations to a different group of dieters. More diners acted on the overweight server's advice. That's because the dieting patrons identified more with the heavier server, say the authors. This suggests that restaurants may benefit from having greater weight diversity among service providers.

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36%

of dieters  
opted for  
the thin  
server's  
suggestion



**MARKETING** by Anat Keinan, Jill Avery, and Neeru Paharia

# Capitalizing on the Underdog Effect

Everyone loves a scrappy underdog. J.K. Rowling created an appealing underdog character in Harry Potter. In the 2010 World Cup, teams such as New Zealand and Uruguay, and the two finalists—Spain and Netherlands—who had never won before, inspired fans around the world. And both Barack Obama and John McCain positioned themselves as underdogs in the 2008 U.S. presidential election.

Brands, too, can profit from this positioning—in fact, stores are teeming with underdog products. The label of Nantucket Nectars informs us, for example, that its creators started “with only a blender and a dream,” and Clif Bar proclaims that its founder once lived in a garage. Brewery

Samuel Adams reminds us how small it is compared with behemoth Anheuser-Busch—while avoiding mention of how big it is compared with most craft beer makers.

The biographies of underdog brands share two important narrative components: a disadvantaged position (they highlight a company's humble beginnings and portray it as being “outgunned” by bigger, better-resourced competitors) and a passion and determination to triumph against the odds.

To understand what makes underdog brands powerful, we devised online and live experiments that looked at how consumers' self-image and circumstances affect their reaction to underdog and top-dog brands. We hypothesized that consumers not only would prefer underdog brands but would do so because they identified with the brand's underdog characteristics. Subjects did in fact show a preference for the underdogs, most dramatically in a study involving chocolate. One brand had an underdog story: We described it as small and new, competing against powerhouses like Lindt and Godiva. The other brand had a top-dog biography, characterized by experienced founders and a big marketing budget. The result: 71% of subjects chose the underdog chocolate.

And the stronger a subject's own “underdog disposition”—a sense of struggling in tough circumstances—was, the greater his or her preference for the underdog brand. That may be why such biographies appeal strongly to people in traditionally disad-

vantaged segments, such as women, blue collar workers, and ethnic minorities. (This effect held in subjects from both of the cultures we studied—American and Singaporean—though it was stronger in the former because, we suspect, the triumph of the underdog is so deeply embedded in the American Myth.)

**The stronger a person's own sense of struggling is, the greater the preference for the underdog brand.**

Not every brand can benefit from an underdog story. Some brands—Rolls-Royce, for instance—derive much of their strength from their top-dog lineage. Others, such as hospitals, could run into trouble if consumers perceived their disadvantaged position as negatively affecting quality or safety. And for brands like Microsoft that can't credibly claim underdog status, attempting to employ such a narrative could backfire badly.

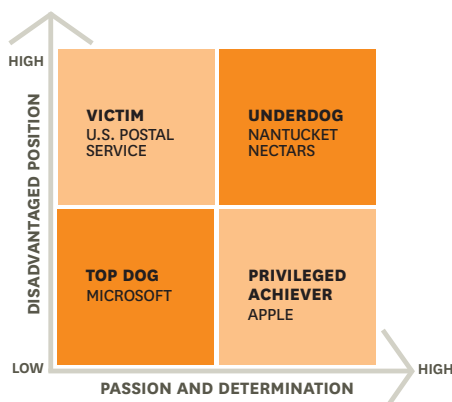
But for brands with a plausible underdog story to tell, the timing is good for rolling it out. Even as the Great Recession wanes, consumers continue to feel under siege. Smart underdogs will turn the zeitgeist to their advantage. ▽

**HBR Reprint F1011B**

**Anat Keinan** is an assistant professor at Harvard Business School. **Jill Avery** is an assistant professor of marketing at the Simmons School of Management. **Neeru Paharia** is the research director at the Edmond J. Safra Center for Ethics at Harvard University.

## WHAT MAKES AN UNDERDOG

Underdog brands share a common narrative that highlights the brand's disadvantaged position, which is overcome through sheer passion and determination. Our research suggests that consumers respond most favorably to brands that contain both of these elements.





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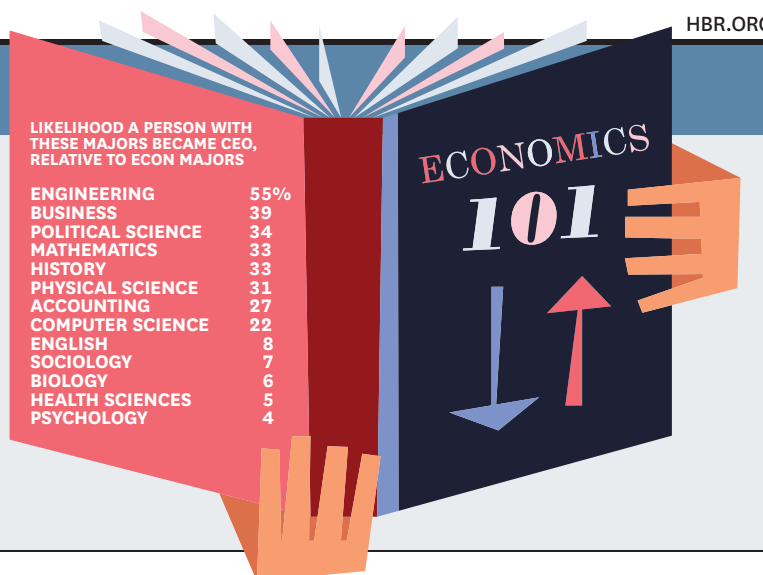


## RESEARCH WATCH

## The Economics Edge

Economics isn't a popular major: Just 1.6% of grads earned a degree in the discipline in 2006. But according to a 2010 study by **Patricia M. Flynn** and **Michael A. Quinn** of Bentley University, economics majors are disproportionately overrepresented among S&P 500 CEOs—which suggests that, historically at least, it's the major that offers the best probability of reaching the corner office. Business administration majors, for instance, were only 39% as likely as economics majors to become chief executives.

 **RESEARCH** Follow HBR's coverage of the latest academic research. <http://blogs.hbr.org/research/>



**MERGERS & ACQUISITIONS** by Guhan Subramanian

## A New Era for Raiders

**C**ompanies are stockpiling cash, stock market valuations are down, and private equity investors are sitting on piles of uninvested capital. Clearly, the economic conditions are right for a new era of corporate takeovers. This time, though, target companies' boards may have a tougher time fending off corporate raiders. That's because the defensive game plan that worked in the 1990s and 2000s is unlikely to work today. The classic antiraid tactic, the "poison pill," is disappearing from companies' arsenals. And my research with Steven Herscovici and Brian Barbetta of the Analysis Group casts doubt on another line of defense: states' antitakeover laws.

Poison pills dramatically raise the cost of unwanted acquisitions, giving target company directors the ability to veto offers from hostile bidders, even if shareholders feel otherwise. But now, after years of shareholder pressure to do away with poison pills, only 28% of S&P 1500 companies have them at the ready, down from 54% in 2005.

Even without poison pills, most U.S. companies have some measure of protec-

tion from corporate raiders through state laws. By far the most important of these is Section 203 of the corporate code of Delaware, where more than half of U.S. public companies are incorporated. Section 203 delays a hostile takeover by three years unless the bidder buys 85% of the target's shares in a single tender offer. No bidder wants to wait three years—an eternity in the M&A world—before gaining full control of the target. Instead, bidders usually negotiate a friendly deal with the target board, which then waives Section 203.

But our research shows that a strong case can be made for invalidating Section 203. When Section 203 was enacted, in 1988, three federal courts upheld it against constitutional challenges on the grounds that the 85% escape hatch gave bidders a "meaningful opportunity for success." However, not a single bidder has been able to make use of the 85% "out" in the past 19 years, which suggests that the statute does not give bidders a meaningful opportunity for success. Furthermore, the original data that the federal courts relied on in making


their constitutional assessment were seriously flawed. The bottom line: The empirical proposition that the federal courts used to uphold Section 203 is no longer valid—in fact, it never was.

That means Section 203 is in play. And if it were to be overturned, similar statutes in 32 other states—which along with Delaware collectively cover 92% of all U.S. corporations—could be called into question.

Companies are taking notice: When convenience-store giant Couche-Tard made its \$1.9 billion hostile bid for Casey's General Stores earlier this year, for example, it cited our study as the basis for its challenge to Iowa's antitakeover statute.

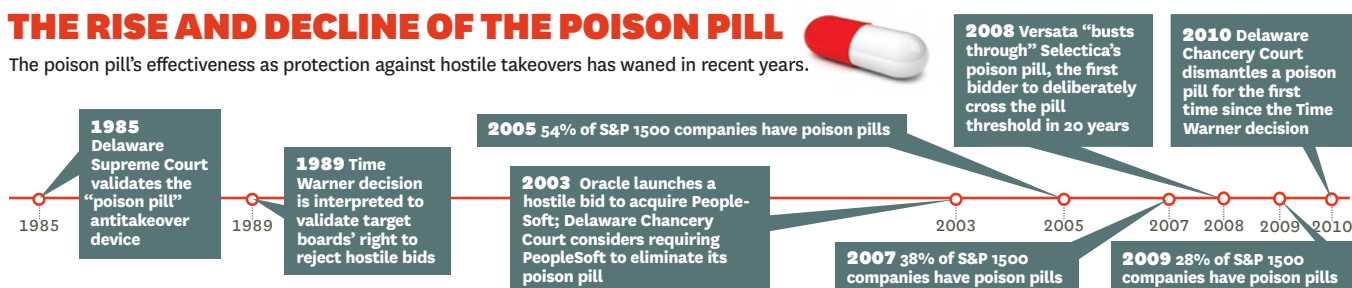
The days when companies could rely on a poison pill and antitakeover statutes to "just say no" to hostile bidders are long gone. The next M&A era will most likely be characterized by fewer artificial barriers to takeovers. Targets will attempt to control the deal process—but in the end, they will not be able to block an offer that their shareholders want to accept. ♥

HBR Reprint F1011C

 **Guhan Subramanian** is the Joseph Flom Professor of Law and Business at Harvard Law School and the Douglas Weaver Professor of Business Law at Harvard Business School.

## THE RISE AND DECLINE OF THE POISON PILL

The poison pill's effectiveness as protection against hostile takeovers has waned in recent years.



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# Defend Your Research

HBR puts some surprising findings to the test



**Todd Rogers** is a senior researcher at ideas42, a think tank at Harvard, and the founding executive director of the Analyst Institute.

**Michael I. Norton** is an associate professor of business administration at Harvard Business School.

## People Often Trust Eloquence More Than Honesty

**The finding:** People who dodge questions artfully are liked and trusted more than people who respond to questions truthfully but with less polish.

**The study:** Todd Rogers and Michael Norton showed subjects different videos of a political debate. In the first, one of the candidates answered the question asked. In the second, he dodged it by answering a similar question. In the third, he dodged it by answering a completely different one. When the candidate answered a similar question, subjects failed to notice the switch. They also liked him better if he answered a similar question well than if he answered the actual one less eloquently.

**The challenge:** Can style really trump substance? *Todd Rogers and Professor Norton, defend your research.*

**Rogers:** In our study, subjects found the candidate answering a similar but different question just as trustworthy and likable as when he answered the original question. What's more, after hearing an artful dodge, subjects had much lower recall of the question asked; in some of our studies, less than half could remember it accurately. If anything, that result is artificially high, since when we asked them to recall the question, we gave them four options, so they had a 25% chance of guessing correctly. But the important finding is that the audience didn't penalize a speaker who dodged a question well.

**Norton:** But you had to be good at it, and you couldn't be obvious. When the candidate answered a completely different question, he was penalized heavily and rated less likable and trustworthy.

Interestingly, people were much better at recalling the actual question in those cases.

After we did this research, we really paid attention to the national elections. We noticed how some politicians seemed to have mastered this skill. Hillary Clinton was phenomenal at dodging questions. Looking back, Ronald Reagan was a master dodger, too.

**Rogers:** Robert McNamara famously said, "Never answer the question that is asked of you. Answer the question that you wish had been asked." Our research suggests that he was onto something.

**HBR: Are there any other famous dodgers?**

**Rogers:** Well, Sarah Palin had a unique approach. She was sort of intellectually honest about dodging questions. She

basically stated her intention to answer a different question than the one asked. **Couldn't ratings be colored by, say, the fact that the speaker reminds me of an uncle I don't like? Or maybe I rate someone lower just because I disagree with their position.**

**Rogers:** It would be interesting to study how factors like ideology affect our sensitivity to dodged questions. Do we, for example, forgive dodging more readily if we agree with someone's view, and penalize it more if we disagree?

**Norton:** The ratings are affected by these other factors. And that's just the point. Once we're in an audience situation, many social cues start competing for our attention. In these audiovisual presentations, substance tends to get underweighted. To put this in a business context: You can read a résumé and then listen to a person talk about their résumé, and have extremely different reactions.

**There's something disturbing about all of this. Aren't question dodgers taking advantage of people?**

**Norton:** It's troubling because we'd like to think honesty would be rewarded, but in fact, people who deftly sidestep questions are rewarded more than people who answer honestly but ineloquently. A leader could rationalize that it's better to dodge well, because his intentions are good and he needs people to like and trust him. But I would say that if you're trying to advance a public discourse, you have a responsibility to not dodge questions.

**Rogers:** There are ways to counteract these effects. A simple way to increase re-

## ARTFUL DODGING: HOW AUDIENCES RESPOND

What will you do about the health care problem?

**DIRECT ANSWER**

"I'm glad you asked me that. We need universal health care in America."



What will you do about the illegal drug use problem?

**DODGE, ELOQUENTLY DELIVERED**

"I'm glad you asked me that. We need universal health care in America."



What will you do about the health care problem?

**DIRECT ANSWER, INELOQUENTLY DELIVERED**

"Uh, I'm glad, you, um, asked me that. We, you know, need universal health care in America."



LIKABILITY RATING FROM AUDIENCE (OUT OF 6)

**3.3**

% OF AUDIENCE THAT RECALLED THE QUESTION

**84%****3.2****68%****2.8****84%**

call of questions and punish dodgers is to post the question on the TV screen while the person answers it. Unfortunately, the networks don't always do this well. They may ask a question like "What will you do to create jobs in the domestic manufacturing sector?" and put "The Economy" as a summary line on the screen. We speculate that this enables dodging.

#### What other techniques can help us suss out dodgers?

**Norton:** It's important to recognize transition devices. The first 10 words of an answer are key to creating an artful dodge. You'll hear phrases like "That's a good question" or "I'm glad you asked that." We think these help prime the listener to accept what comes next as relevant, but we still have to test that.

**Rogers:** We humans have finite attention. The more words there are in a transition, the harder it is to make the cognitive link between the question and the answer. That's the mechanism we think underlies this.

**Politicians need to be liked and trusted to get elected. What if that doesn't apply to business leaders?**

**Norton:** My sense is that politicians train to do this more and may be innately good at it, but it applies to business as well. Think about the leader fielding tough questions about layoffs. Or George Clooney's character in *Up in the Air*. He flies around the country firing people.

They say things to him like "How can you fire me?" And he doesn't answer them. He dodges. He says, "This is an opportunity for you." He's shifting the conversation.

#### Where else could you take this research?

**Rogers:** One direction would be to look at negotiations. If you hold valuable information and don't want to disclose it, how do you avoid disclosure without lying?

**Norton:** The next round might focus on how to stop people from dodging your questions. Whether you're a manager or an employee, it's not easy to say, "You're

**Hillary Clinton was phenomenal at dodging questions. Ronald Reagan was a master dodger, too.**

changing the subject." When is it wise to call someone on it?

#### And how do you call them on it?

**Norton:** I test this when I'm teaching with the case method. I say, "I asked you this, but you answered something else. Try it again." Now, I'm in a position of authority, so it's quite easy. What about the other way around? People talk about speaking truth to power. This would be learning how you get power to speak truth. ♥

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# Vision Statement



**David Yermack** is the Albert Fingerhut Professor of Finance and Business Transformation at New York University's Stern School. **Open** is a design firm based in New York.

## How This First Lady Moves Markets

Data by **David Yermack**; visualization by **Open**

Michelle Obama creates an unprecedented amount of value for the companies that make and sell the clothes she wears. HBR spoke to Yermack to find out why.

**The effect of Obama's fashion choices on stock prices is huge. But is it causation or correlation?**

The stock price gains of the companies whose clothes she wore in public appearances—29 brands in all—are cumulative abnormal returns. That is, the returns cannot be attributed to normal market variations.

**Is the effect temporary?**

The stock price gains persist days after the outfit is worn and in some cases even trend slightly higher three weeks later. Some companies that sell clothes that Obama frequently wears, such as Saks, have realized long-term gains. Her husband's approval rating appears to have no effect on the returns.

**How do the returns compare with those generated by other brand endorsers?**

Few models or celebrities make the kind of impact on company stock price that Michelle Obama does. The First Lady's astonishing influence may be tied to the fact that consumers know she's not paid to wear what she does, whereas they may subconsciously discount models' endorsements as inherently corrupt.

**Have all First Ladies had this effect?**

No. Even fashion icons such as France's Carla Bruni-Sarkozy do not. Bruni-Sarkozy, like many First Ladies, dresses mainly in one brand: Dior. Obama mixes couture with items anyone can buy at a mall—she famously wore J. Crew gloves while holding the Lincoln Bible at the Inauguration. Consumers flock to the stores, and even if they don't buy what she wears, they often leave with something else.

J. CREW

ISABEL TOLEDO

**\$14M**  
average value generated by any public appearance

**2.3%**

INCREASE IN CUMULATIVE ABNORMAL RETURNS FOLLOWING 18 MAJOR PUBLIC APPEARANCES

**0.5%**

AVERAGE INCREASE WHEN A COMPANY ANNOUNCES A NEW CELEBRITY ENDORSER

**\$2.7B**

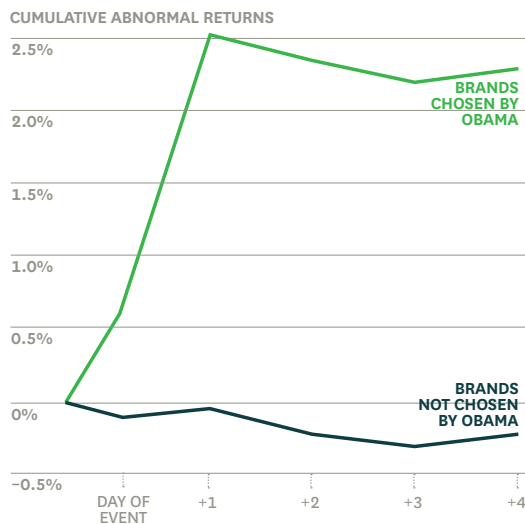
total value created for 29 companies by Obama's wardrobe choices in 189 public appearances

JIMMY CHOO



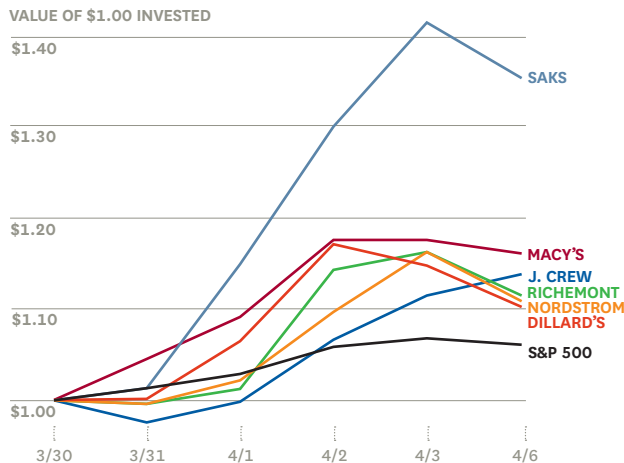
## The First Lady's Fashion Choices Create Winners and Losers

Companies that the First Lady didn't choose (Yermack looked at 27 competitors, 21 of them U.S.-based) paid a penalty for being left out. Following 18 major public appearances, nonchosen companies lost about 0.4% in value. This appears to have been redistributed to chosen firms, which gained more than 2%.



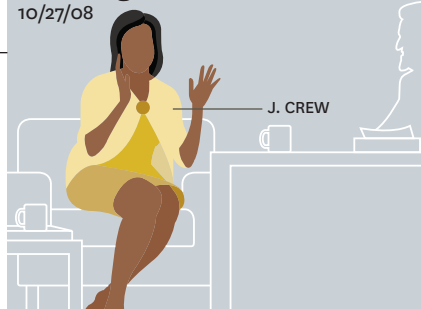
## The "First Lady Index" Beats the Market During a European Trip

Stocks of the fashion and retail companies whose clothes were worn by Obama on a one-week trip to Europe gained 16.3% on average, easily outperforming the S&P 500, which posted a gain of 6.1%.



### The Tonight Show

10/27/08

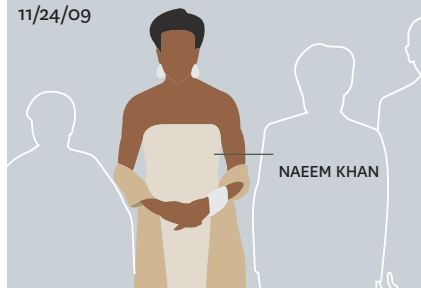


#### J. Crew stock value

prior to appearance	\$16.24	
10/28/08:	\$17.52	+ 8%
10/31/08:	\$20.33	+ 25%

### State Dinner for Indian Prime Minister

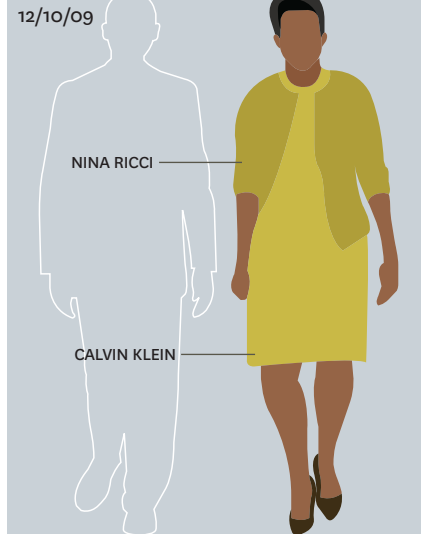
11/24/09



**"It's the gift that doesn't stop giving. My stuff is flying out of stores."** Naeem Khan, 12 weeks after Obama wore his dress. *Wall Street Journal*, 2/18/10

### Nobel Peace Prize

12/10/09



**\$772M** aggregate gains over the two days following the appearance for companies associated with this outfit, specifically Phillips-Van Heusen, Richemont, Macy's, Nordstrom, Saks, and Dillard's

## By the Numbers

Yermack compiled a database from website reports of apparel worn by the First Lady, and then measured stock-price changes for the fashion and retail brands mentioned to see how publicizing her wardrobe affected company value. He controlled for normal market variations, reporting the abnormal returns associated with her wardrobe choices.

**189**

public appearances from November 2008 to December 2009

**245**

items of apparel

**29**

public companies observed, including:

Aeffe S.p.A.  
Cie. Financière Richemont  
DSW  
Gap  
J. Crew  
Kohl's  
Liz Claiborne  
LVMH  
Nike  
PPR  
Saks  
Target  
Urban Outfitters

### Why her? Why now?

The unparalleled robustness of the Michelle Obama effect results from the confluence of three factors: her personal interest in fashion, recognized by consumers as authentic; her position as First Lady and the intangible value it confers; and the power of the social internet and e-commerce. Descriptions and images of what she's wearing spread across the social internet in near-real time, and consumers can buy these fashions almost instantly online. For the first time in history, the cycle of influence is immediate and ubiquitous. ♥

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In the United States, coverages are underwritten by member companies of Zurich in North America, including Zurich American Insurance Company. Certain coverages not available in all



A large industrial component, a massive cylindrical metal structure, is being transported. It sits on a yellow flatbed trailer, which is positioned on a barge. The barge is in a body of water, with a concrete wall and a wooden pier visible in the foreground. Several workers in red safety gear are on the barge and the pier, managing the operation. The background shows a large industrial building with a corrugated metal roof.

**"We had to move this 700 ton component more than 400 miles. Scores of risks, but Zurich made us feel confident we were well covered."**

**Herbert Peters, Managing Director,  
Sasol-Huntsman, Moers, Germany**

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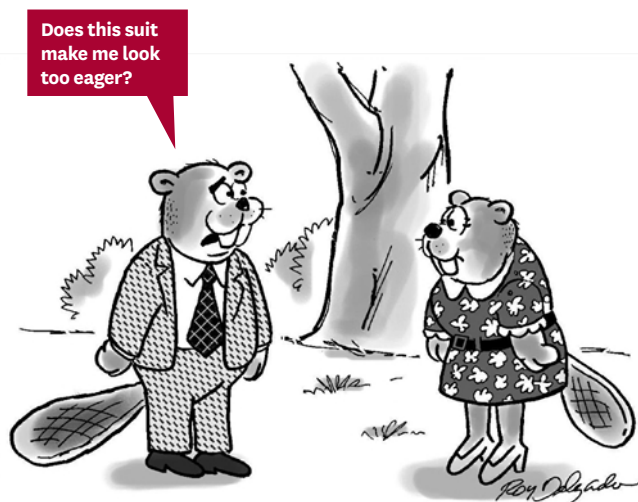
We provided Sasol-Huntsman, one of the largest producers of Maleic Anhydride in Europe, with an integrated insurance and risk engineering solution to address the risks associated with moving a 700 ton factory component across Germany. By helping our customer ensure the necessary precautions were taken, and providing coverage for the entire trip, everyone was breathing easy. It's an example of how Zurich HelpPoint delivers the help businesses need when it matters most. To learn more about this case, visit [www.zurichna.com/risks](http://www.zurichna.com/risks)



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# Strategic Humor



“The more primitive a society, the more precise its etiquette. Cannibalistic tribes, for example, have created elaborate rituals around their feasts.”

A Conversation with Miss Manners, “In Praise of Boundaries,” *Harvard Business Review*, December 2003

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**Nitin Nohria** is the dean of Harvard Business School.

# Wealth and Jobs: The Broken Link

**F**or most of the 20th century, a symbiotic link existed between value creation and job creation. When businesses prospered, employment expanded and communities thrived. This virtuous circle was good for business and good for society.

But now the relationship between value creation and job creation is more tenuous. In the United States, for example, the corporate sector—judging from most companies' earnings reports—is doing well, yet people are struggling to find work. Perhaps job creation will catch up with value creation, as confidence grows in the future of the economy. But what if this is a symptom of a deeper structural issue?

Two factors that once supported the link between business growth and job growth have fundamentally changed. Businesses in the 20th century were both more industrial and more local than they are today. To grow, an industrial firm had to expand mass production and mass distribution. An increase

**A hedge fund trading billions of dollars needs far fewer people than would a traditional bank.**

in the demand for products, whether cars, washing machines, or TV sets, eventually created additional jobs on the assembly line and in the supply and distribution chain.

These jobs were local, and over time they became well-paying middle-class jobs. As a result, in the U.S. for most of the 20th century the rise of business coincided with the rise of the middle class, creating confidence in the system and establishing the American Century.

Fast forward to today. When Google, Facebook, or another of the amazing companies that exemplify the new American economy doubles in size, it doesn't multiply jobs the way fast-growing industrial firms once did. A hedge fund trading billions of dollars needs far fewer people than would a traditional bank handling similar sums. And often new jobs are going to a few skilled, highly paid knowledge workers rather than to many middle-class workers.

Moreover, business is no longer local. Decent production capability is distributed more widely in the world and can be developed more quickly, further weakening the link between business growth and local job growth. This is the Global Century, in which jobs ignore borders and move quickly to lower-cost regions.

To be sure, both these changes benefit society overall, enabling prosperity for far more people around the globe. The rise of a middle class in India and China ultimately

produces many new customers for the likes of Google and Facebook. But these benefits will be realized in the long run. To people worried about finding jobs now, the short run is all that matters—and politicians looking to get elected have no choice but to respond to those short-term concerns.

The stakes are high. I don't have the answers, though government policies and business practices that promote innovation, entrepreneurship, and the formation of skilled human capital seem essential. Executives and politicians must find new ways to link value creation and job creation. If they don't, business leaders will continue to lose legitimacy in society, especially if they keep prospering while people around them are struggling. Instead of a virtuous circle, the relationship between business and society will become a vicious circle.

When society is angry at business, the risk that governments will enforce overreaching regulation is real. Moreover, that anger distances citizens from the source of answers to many of our most urgent issues. None of the major problems confronting the globe today—sustainability, health care, poverty, financial-system repair—can be solved unless business plays a significant role. But to do that, business must restore its stature and help to address the anxiety about job creation. ▽

HBR Reprint F1011E



ILLUSTRATION: AARON LEIGHTON





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**Seth Godin** is an entrepreneur, a blogger, and an author. His latest book is *Linchpin: Are You Indispensable?* (Portfolio, 2010).

# To Win, Create What's Scarce

**M**arketers like to work on the demand side—take what's in demand, make it cheaper, run a lot of ads, make a profit. If you can increase demand for what you already make, a lot of problems take care of themselves. It's the promise of the typical marketing organization: Give us money, and we'll increase demand.

There's an overlooked alternative, though. If you can offer a scarce and coveted good or service that others can't, you win. What is both scarce and in demand? Things that are difficult: difficult to conceive, to convey, to make. Sometimes difficult even, at first, to sell—maybe an unpopular idea or a product that's ahead of its time. In fact, just about the only thing that is not available in unlimited supply in an ever more efficient, connected world is the product of difficult work.

Running a complex factory is no longer particularly difficult. There are people across the globe able to do it more cheaply than you. Opening another big-box store ceased being difficult a while ago. Getting a product made and shipping it out the door? Not so difficult. Raising money? Not difficult.

**If you can offer a scarce and coveted good or service that others can't, you win.**

Commoditization doesn't apply only to making and selling cheap goods. Almost everything they teach in business school is easy to do. It's easy to do the options pricing model. It's easy to analyze a spreadsheet, too. Providing audit services isn't difficult. Neither is running a high-traffic website.

Amazon will do it for you for pennies on the dollar. Even complicated computer graphics effects aren't particularly difficult—you can make a bad werewolf movie cheaper and more easily than ever before.

With a lack of difficulty comes more choice, more variation, and, yes, lower prices (lower margins, too). And so consumers of every stripe are jaded. This puts huge pressure on organizations, because the race to the bottom demands that they either do all this easy work faster or do it cheaper than they did it yesterday. And there's not a lot of room to do either one.

The only refuge from the race to the bottom? Difficult work. Your only alternative is to create something scarce, something valuable, something that people will pay more for.

What's difficult? Creating beauty is difficult, whether it's the tangible beauty of a brilliant innovation or the intangible essence of exceptional leadership. Beauty exists in an elegant and novel approach to a problem. Maybe it's captured in a simple device that works intuitively, reliably, and efficiently or in an effective solution—a “beautiful” solution—to an organizational dysfunction. And it exists in the act of connecting with and leading people.

Leading change is difficult. It's difficult to find, hire, and retain people who are eager and able to change the status quo. It's difficult to stick with a project that everyone seems to dislike. It's difficult to motivate a team of people who have been lied to or had their spirits dashed.

People who can do difficult work will always be in demand. And yet our default is to do the easy work, busywork, work that requires activity, not real effort or guts. That's true of individuals, and it's true of companies. That's because we see our role as cranking out average stuff for average people, pushing down price, and, at best, marginally improving value. That used to be the way to grow an organization.

No longer. The world will belong to those who create something scarce, not something cheap. The race to the top has just begun. ♥

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# How I Did It...

## Rohm and Haas's Former CEO on Pulling Off a Sweet Deal in a Down Market



by Raj Gupta

### THE IDEA

**The sale of Rohm and Haas to the giant Dow Chemical was forged at a premium price in July 2008. The transaction was unconditional. But then the financial markets crashed. Here's how Rohm and Haas's CEO kept the deal alive.**

**S**hortly before Christmas 2008, I left my office at the specialty chemicals company Rohm and Haas for what I thought would be the last time. I had spent much of the year leading up to my long-planned retirement orchestrating the sale of the company—a deal with its former rival Dow Chemical had been forged in July 2008—and there was little left to do but hand over the reins. I had succeeded at one of the hardest goals I'd ever been set: quietly negotiating a friendly sale for \$18 billion. All we still needed was the Federal Trade Commission approval that, per our agreement, would trigger the close of the deal within 48 hours. As I drove away

from the office on December 18, a colleague called to say that, as planned, my office had been essentially demolished in preparation for its new occupant. My assistant had been reassigned to work with our COO. My work with Rohm and Haas was finished.

But it nagged at me that I hadn't heard recently from Andrew Liveris, Dow's chairman and CEO. Market conditions had worsened globally, and the equity and credit markets were in turmoil. Dow had been expecting a large cash influx of \$9.5 billion from a proposed joint venture with Kuwait Petroleum. On December 29 Kuwait canceled the venture. But our deal with Dow was unconditional. And then I got the call.



## HOW I DID IT

## Time Line of the Deal: July 10, 2008, to April 1, 2009



"Raj, you and I need to sit down and go over where we are," Liveris said. Because I didn't even have an office at Rohm and Haas anymore, I had to arrange for temporary space at our Philadelphia headquarters—and a temporary assistant. When we met, I learned that Dow saw no way to get the cash it needed elsewhere, given the state of the financial markets and its own deteriorating financial performance.

I organized an emergency conference call to brief the directors on the situation. We believed that our contract with Dow was airtight. Our shareholders had approved the transaction in October by an overwhelming majority. The board and I had a fiduciary responsibility to complete the deal.

I had led the process from the beginning, and the board was very clear that it was my role to see it to an end—one way or another. My personal credibility was on the line.

### An Unexpected Request

In November 2007, representatives of the Haas family trusts, which collectively owned 32% of outstanding shares, had asked me to explore disposing of all or most of their holdings at a "full and fair" price within 12 to 18 months. The timing and nature of the request were surprising. Until then the trusts had appeared to be very happy with the level of their ownership and the performance of the company. The board and I, perhaps naively, believed that as long as John C. Haas, the 89-year-old son of the founder, was alive, no such request

would be made. We clearly did not read the tea leaves.

Rohm and Haas had been a quiet but steady business since its founding, in 1909. Our performance had been strong, with an average annual return to shareholders of 13.5% since 1949. For the past 30 years we had increased our dividends by an average of 10% a year. The majority of shares were held by the family trusts, several large institutional shareholders, and employees. I was only the sixth CEO in the company's history. In my 10 years as CEO, the board hadn't faced any big, difficult decisions until now.

I took my leadership in the sale very personally, and I was determined to keep the company whole and operating smoothly during this extended period of uncertainty. I spent months exploring options and strategies with the board and our outside advisers. In hindsight, the timing couldn't have been worse. The economy was starting to weaken, and the request that we sell for all cash at a premium price, though entirely reasonable, limited our options. We identified just three companies as strategic buyers—on the basis of their interest, their ability to finance a transaction of this size, and the likely business synergies: BASF, with headquarters in Germany; Dow, based in Michigan; and DuPont, based in Delaware.

I had layers of concern: What if potential buyers didn't show up? What if our discreet outreach to potential buyers was inconclusive, just as the economy was rapidly deteriorating? The worst possible outcome, I thought, would be an aborted process; our

key stakeholders would doubt our strategy and future at a time when we needed steady support and performance.

Rohm and Haas's success rested on building relations for the medium to long term. Our position was downstream in the industry value chain; our customers relied on the performance embedded in our science and our commitment to ongoing technology support. Confidence in our future was essential. A mishandled disclosure or rumormongering would cause chaos among our employees and customers and risk destroying the foundations of the enterprise.

I had invested a great deal of time and effort in forming personal relationships with many of my peers—in particular the CEOs of BASF, Dow, and DuPont. The burden was on me to deliver a buyer, so I arranged individual face-to-face meetings with them to plant the seed. I told them we recognized that financial conditions were not as favorable as they could be, but our board supported my outreach. If they wanted to explore this opportunity, they'd have to get back to me swiftly.

### The Brewing Deal

Within a week Andrew Liveris called to say he was ready to talk. He came to Philadelphia with an all-cash bid of \$74 a share—in the range of value our advisers had sug-

gested. At that time our stock was trading at \$52 a share, and the highest it had ever gone was \$62. His offer was good for only 48 hours.

The board concluded that it was our fiduciary duty to get in touch with BASF and DuPont to see if they wanted to make an offer. BASF's CEO, Jürgen Hambrecht, returned my call within 15 minutes. "Raj," he said, "I was hoping you were calling me to say that this whole process is off, given what's going on in the world." But he promised to get back to me quickly, and he did—with an offer of \$70 a share, all cash, no conditions except regulatory approval. DuPont, however, let us know that its interest was restricted to only part of our portfolio.

The brewing deal was so secret that I virtually lived a double life for months. Only the board, six people within the company, and a few of our outside advisers

knew about it. I was the focal point for all information and decisions. All our meetings were held offsite and during off hours, including many weekends.

We announced the deal with Dow on July 10—at a final price of \$78 a share—and I'm sure that every Rohm and Haas employee in the world was in absolute shock. The shareholders were delighted, however, and the industry press called it the "deal of the century." From July into the fall, the stress of seeing the deal through took its toll on me. We worked hard to keep employees, shareholders, and customers well informed and comfortable about the company's future. But I was getting e-mails at midnight: "Are you awake?" The answer was always yes, I'm awake. There were 22 board meetings and dozens of phone calls with the directors from the time we first explored the idea of selling the company

until the deal closed. I knew it was crucial that I present a calm face to my staff, but I was constantly worried.

In August, totally unexpectedly, I learned that I had prostate cancer, which added a new dimension to my stress. A low point came when I passed out on a flight to Germany and had to be admitted for emergency care. I withdrew from day-to-day operations to focus on my health and had surgery a few months later. My sole responsibility to the company remained seeing the deal through.

When Liveris and I met in January 2009, it was with just one key adviser each. He laid out all his concerns and issues and what he was trying to resolve. I could see that he had a herculean task on his hands. "Andrew," I said, "I understand what you're dealing with, but you have to put yourself in my situation. I need something to take

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## How Did the Deal Work Out for Dow?

On July 10, 2008, when the deal with Rohm and Haas was announced, Dow's share price was around \$35. The following March, as Dow scrambled to find alternatives to a collapsed joint venture with Kuwait Petroleum, it dipped to an interday low of under \$6.

Ultimately, Dow arranged a bridge loan of more than \$9 billion, sold a \$3 billion equity

stake to Rohm and Haas's two major shareholders, and procured investments of \$3 billion from Berkshire Hathaway and \$1 billion from the Kuwait Investment Authority.

The market waited to see if that complex financing would crush Dow under its weight. But Dow paid off the bridge loan ahead of schedule, retired the debt to purchase

Rohm and Haas, and has made a profit in every quarter since. The acquisition "was a pivotal point in the transformation of Dow," says a company spokesperson. Dow's so-called performance businesses, which include the majority of former Rohm and Haas assets, accounted for nearly two-thirds of its sales in the second quarter of 2010.

By mid-September the company's shares hovered near \$26.

The relationship between the two CEOs survived the ordeal as well. "A week after the closing [Dow CEO Andrew Liveris] sent me a case of excellent Australian wine as a thank-you," Gupta says. "And we continue to maintain cordial relations."

—Karen Dillon

to my board. I'd like to tell them that you fully intend to close the deal but you need more time. Give me a deadline, and we can go public with an announcement that this is the situation." I offered to assist with the Haas family trusts to get some kind of bridge financing. Liveris didn't want to pursue that. Ultimately, he offered to let us know by June whether Dow could do the deal or not.

On January 23 we got FTC approval for the deal. According to the contract, Dow had just two working days to close the transaction. That was simply not going to happen. Dow's backup financing lines would expire in June, but I believed that the company had enough resources, given time, to complete the deal under the original terms. Nevertheless, we had to protect our shareholders. With the board's approval, we filed suit in Delaware, asking the court for an expedited hearing to enforce our contract. Everyone was well aware of the significance of that lawsuit: We were essentially asking the court to decide whether Dow—and implicitly any other company—should be held to the terms of a deal regardless of external conditions. Our court date was set for March 9, and we knew the world would be watching.

Our board sent a letter, which we made public, to Dow's board, urging it to take control of the situation and honor the contract. Speculation in the financial press was intense: Would the transaction close? If it didn't, would our share price fall dramatically? Would Dow be forced into bankruptcy or have to sell valuable assets to close the deal?

I spent this period explaining to Rohm and Haas employees why we had to take

this drastic action and why it was in their best interests and our customers' that the deal go through. My energy went into urging employees to stay calm, keeping the board informed, and communicating with key customers, the Haas family trusts, and our large hedge fund shareholders.


On Wednesday, March 4, less than a week before we were set to square off in court, I received an e-mail from Andrew Liveris. "Raj," he wrote, "should we give this one last try?" We agreed to meet in New York the next day, along with our respective advisers. We also decided that each of us would bring one highly respected board member to help facilitate the process. Our discussion focused on two key points: how to obtain bridge equity sufficient to reduce the debt financing required and how to keep Dow's credit rating from being downgraded to junk status by Standard & Poor's and Moody's.

Dow came up with some creative solutions, including working out arrangements with two of Rohm and Haas's largest shareholders, the Haas family trusts and Paulson & Co., to obtain the equity financing. And we participated in calls with S&P and Moody's to persuade them that Dow's situation warranted "investment grade" status. This was all hastily done in the days before our Monday court appointment. At 8 PM on Sunday, Andrew called me and said, "Raj, we're making progress. We don't have all the answers yet, but can you go to the judge and tell him that we are working on it?" In court the next morning we asked the judge for more time, and he said, "You can have all the time you want." I think he was relieved.

By 4 PM that day Dow had arranged its financing and we had an agreement, which we asked the judge to read into the record. The same day—one of the lowest points of the year for the stock market—Dow's directors signed off on the deal. Up until then I hadn't been certain it would really happen. Our stock had been trading down, and at one point it went under \$50 a share. But in the end we got the \$18 billion.

On March 31, I finally left Rohm and Haas for the last time. The deal closed the following day. I hadn't allowed myself to breathe a sigh of relief until that moment. It was a bittersweet victory for me, because I had invested so much of my time and energy in building the organization and managing for the long term that it was hard to let it go. I took solace in the fact that most of the family trusts' proceeds from the sale were invested in charities right away. There's a sense, though, that the company doesn't exist anymore, which is sad for me.

But I concluded that I could move on with my life—the retirement I had long planned. I'm not certain I could lucidly recite that day's events. Certainly I can't offer profound reflections on them. At the time, I was focused on the misfortune of having had to deal with this problem at the end of my career. Now, with the benefit of more than a year's hindsight, I recognize that we had a strong dose of good fortune, too, which allowed us to achieve this nearly impossible outcome. ♥ **HBR Reprint R1011A**

 **Raj Gupta**, the retired chairman and CEO of Rohm and Haas, serves on the boards of Hewlett-Packard, The Vanguard Group, Tyco International, and Delphi Automotive. He is a senior adviser to New Mountain Capital.

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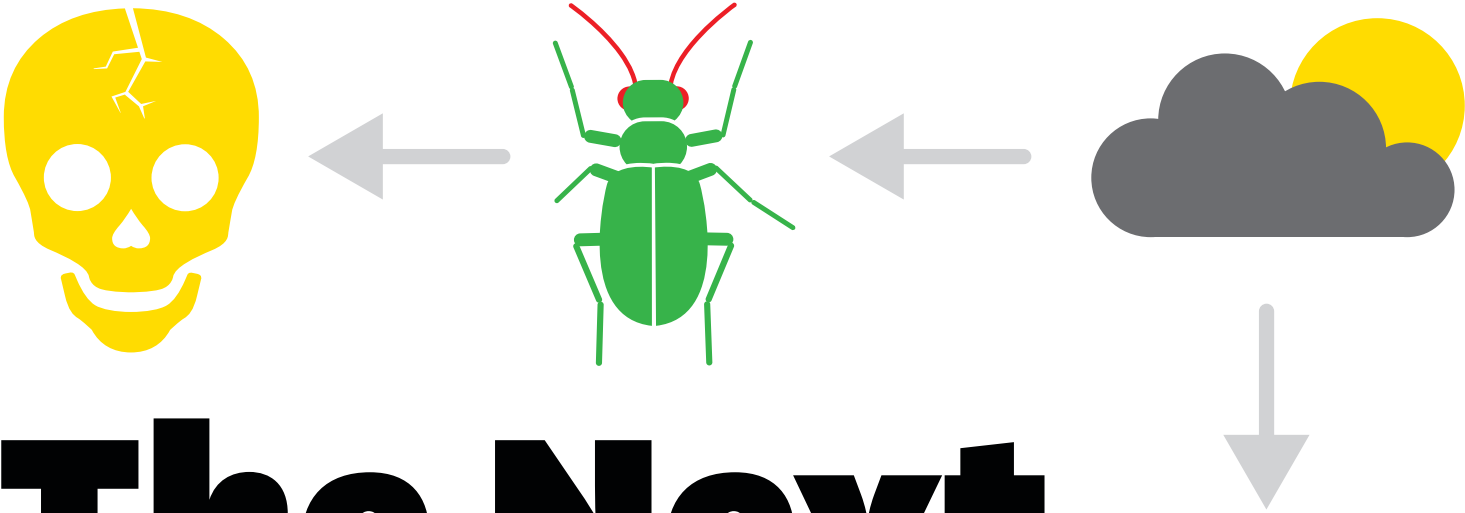
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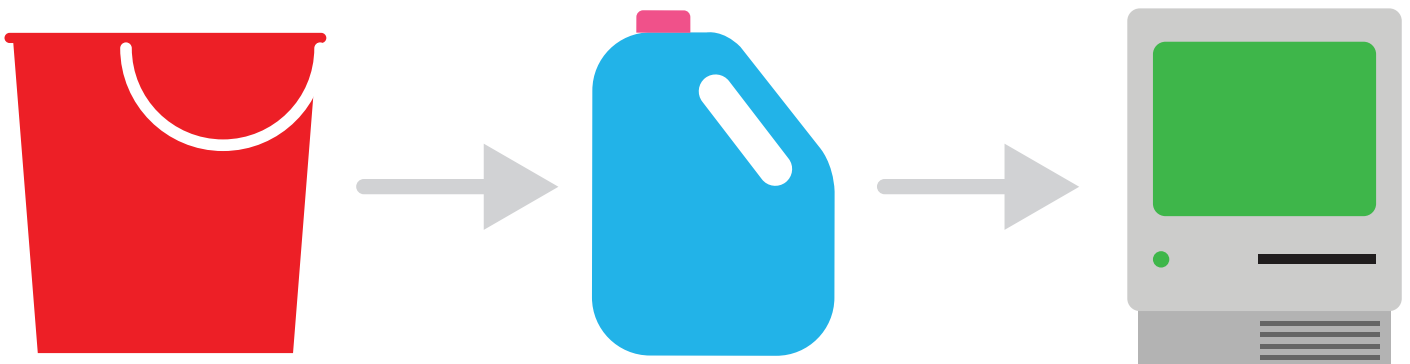


## The Big Idea



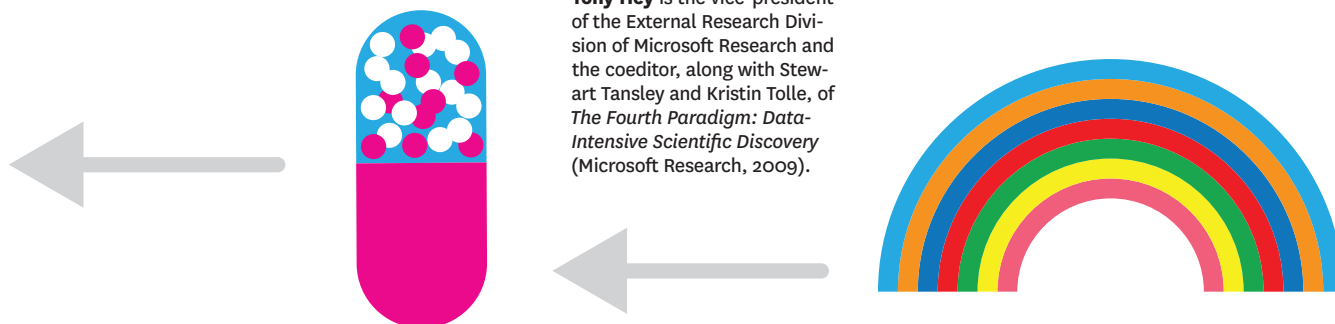
# The Next Scientific Revolution

How data mashups can help  
save the world *by Tony Hey*





**Tony Hey** is the vice-president of the External Research Division of Microsoft Research and the coeditor, along with Stewart Tansley and Kristin Tolle, of *The Fourth Paradigm: Data-Intensive Scientific Discovery* (Microsoft Research, 2009).

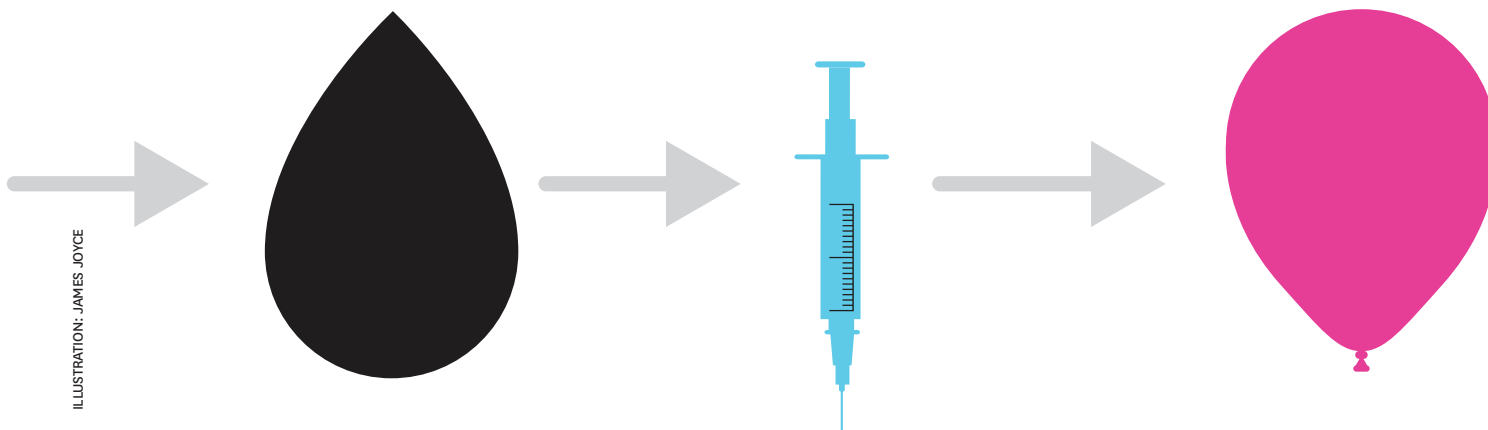
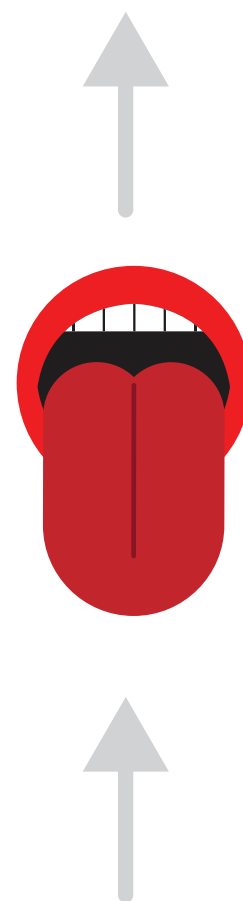


**A VISITOR WALKING** the halls of Microsoft Research's campus in Redmond, Washington, today is likely to overhear discussions not only about computer science but about a surprising variety of other subjects, from which way a galaxy rotates, to a new AIDS vaccine, to strategies for managing the planet's precious supply of fresh water.

What could these issues possibly have in common? And why would Microsoft—ostensibly a software company—be involved with them? The simple answer is data—vast amounts of data. So vast that when we run the programs that analyze some of the databases, the temperature of the building that houses 10,000 microprocessors shoots up several degrees. Today our computer scientists find themselves in partnership with leading scientists in a wide array of disciplines—astronomy, biology, chemistry, hydrology, oceanography, physics, and zoology, just to name a few—working on efforts such as drug development, alternative energy, and health care cost containment. And, yes, even commercial software projects. We believe that a new generation of powerful software tools, which support collaboration and data exploration on an unprecedented scale, are about to enable revolutionary discoveries in these fields.

For decades computer scientists have tried to teach computers to think like human experts by embedding in them complex rules of linguistics and reasoning. Up to now, most of those efforts have failed to come close to generating the creative insights and solutions that come naturally to the best scientists, physicians, engineers, and marketers. The most talented experts not only have a deep understanding of data but also are able to see the possibilities “between the columns”; they can find the nonobvious connections within or between disciplines that make all the difference.

We have reached a point, however, where even the experts are drowning in data. Digital information is streaming in from all sorts of sensors, instruments, and simulations, overwhelming our capacity to organize, analyze, and store it. Moore's Law has for decades accurately predicted that the number of transistors that could be placed on an integrated circuit would double every two years, and until recently, this decrease in transistor size was accompanied by increased microprocessor performance. To increase performance today, we must program multiple processors on multicore chips and exploit parallelism. The multicore revolution has arrived just as we face an exponential increase in data. That increase





## The Four Paradigms of Science

### THEORY

Beginning in ancient Greece and China, people tried to explain their observations through natural laws instead of supernatural causes.

### EXPERIMENTATION

By the 17th century, scientists like Isaac Newton tried to make predictions for new phenomena and would verify hypotheses by conducting experiments.

### COMPUTATION AND SIMULATION

The advent of high-performance computers in the latter half of the 20th century allowed scientists to explore regimes inaccessible to experiment and theory, such as climate modeling or galaxy formation, by numerically solving systems of equations on a large scale and in fine detail.

### DATA MINING

Using more-powerful computers, scientists begin with the data and direct programs to mine enormous databases for relationships. In essence, they use computers to discover the rules by studying the data.

is not a challenge we can address with patches and upgrades; we must rethink our whole approach to data-intensive science. Which is why, several years ago, our colleague and Turing Award winner, the late Jim Gray, proposed what he called “the fourth paradigm” for scientific exploration. Jim’s vision of powerful new tools to analyze, visualize, mine, and manipulate scientific data may represent the only systematic hope we have for solving some of our thorniest global challenges.

The first two paradigms for scientific exploration and discovery, experiment and theory, have a long history. The experimental method can be traced back to ancient Greece and China, when people tried to explain their observations through natural rather than supernatural causes. Modern theoretical science originated with Isaac Newton in the 17th century. After high-performance computers were developed in the latter half of the 20th century, Nobel Prize winner Ken Wilson identified computation and simulation as a third paradigm for scientific exploration. Detailed computer simulations capable of solving equations on a massive scale allowed scientists to explore fields of inquiry that were inaccessible to experiment and theory, such as climate modeling or galaxy formation.

The fourth paradigm also involves powerful computers. But instead of developing programs based on known rules, scientists begin with the data. They direct programs to mine enormous databases looking for relationships and correlations, in essence using the programs to discover the rules. We consider big data part of the solution, not the problem. The fourth paradigm isn’t trying to replace scientists or the other three methodologies, but it does require a different set of skills. Without the ability to harness sophisticated computer tools that manipulate data, even the most highly trained expert would never manage to unearth the insights that are now starting to come into focus.

### Saving Lives with “Machine Learning”

Let’s start with an example of the kind of thinking that drives this type of research. In the 1980s my colleague Eric Horvitz, while training at a Veterans Administration hospital as part of his medical education, observed a disturbing phenomenon. During the holiday season, the hospital experienced a surge in admissions for congestive heart failure. Each year, some patients who had otherwise successfully managed their health despite a weakened heart would

reach a tipping point after a salty holiday meal. That extra salt caused their bodies to retain additional fluids, which would lead to lung congestion and labored breathing—and often to a visit to the emergency room.

Those post-turkey collapses were expensive in every sense of the word. They could be fatal for some patients—sometimes quite rapidly, sometimes by causing a downward spiral of failing physiological systems that took days to weeks. Other, luckier patients were effectively stabilized, but most still required a stay of a week or more that would typically cost the VA system \$10,000 to \$15,000 a patient. (Today those bills would be far higher.)

More than two decades later, Eric and his colleagues at Microsoft Research have developed analyses that can predict with impressive accuracy whether a patient with congestive heart failure who is released from the hospital will be readmitted within 30 days. This feat is not based on programming a computer to run through the queries a given diagnostician would ask or on an overall estimate of how many patients return. Rather, this insight comes from what we call “machine learning,” a process by which computer scientists direct a program to pore through a huge database—in this instance, hundreds of thousands of data points involving hundreds of evidential variables of some 300,000 patients. The machine is able to “learn” the profiles of those patients most likely to be readmitted by analyzing the differences between cases for which it knows the outcome. Using the program, doctors can then plug in a new patient’s data profile to determine the probability of his or her “bouncing back” to the hospital.

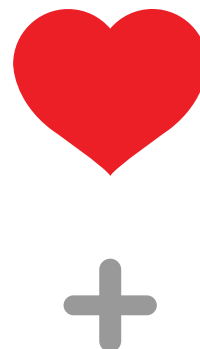
In one sense we owe this project to a human expert spotting a nonobvious connection: Eric not only earned his MD but also has a PhD in computer science, and he realized that machine-learning techniques similar to the ones he and his team had used to analyze Seattle traffic patterns could work for this important health care challenge. In 2003 they had developed methods of predicting traffic jams by analyzing massive quantities of data, which included information on the flow of traffic over highways, weather reports, accidents, local events, and other variables that had been gathered over several years. The team’s new program compared data about patients who were and were not readmitted, and unearthed relationships among subtle evidence in a patient’s clinical history, diagnostic tests, and even socioeconomic factors, such as whether the patient

## Idea in Brief

Because of our ability to collect and analyze vast quantities of data, scientists now have the potential to solve some of the world's biggest problems. But until very recently, we didn't know how to combine the right data sets and see crucial patterns.

**The turning point:** By utilizing 21st-century computing power, human expertise, and a systematic approach to storing and mining information, scientists are beginning to achieve real breakthroughs. They're also opening the process up to other experts—and even the public—by making their data transparent and available.

**A hope for the future:** Today researchers at Microsoft and other organizations are using these methods to attack problems in astronomy, oceanography, health care, water management, and climate change. These tools also have the potential to bring profound improvements to business.



lived alone. This integration was not trivial: Information on a patient's living situation, for example, may reside in a social worker's report, not on a medical chart. It is unlikely that a single clinician involved in a patient's care could ever process the volume of variables sufficient to make a prediction like this.

The economic impact of this prediction tool could be huge. If physicians or hospitals understand a patient's likelihood of being readmitted, they can take the right preventive steps. As Eric explains: "For chronic conditions like congestive heart disease, we can design patient-specific discharge programs that provide an effective mix of education and monitoring, aimed at keeping the patients in stable, safe regimes. Such programs can include visits or calls from a nurse, or special scales that indicate dangerous changes in a patient's fluid balance and communicate them to the doctor. If we can spend even \$500 or \$1,000 on postdischarge programs for patients who have the highest likelihood of being rehospitalized, we can minimize readmissions and actually save money while enhancing health outcomes."

It's no wonder that health insurers and hospital chains are lining up to talk about this. And it doesn't take much imagination to list other types of businesses that could benefit from this kind of data-intensive discovery as well.

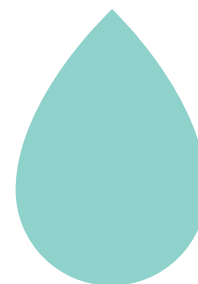
On Wall Street, massive data-mining programs are already tracking "sympathetic movements," or related trading patterns among different investment vehicles. Hedge funds and large money managers are placing millions of dollars in bets every day based on these data-discovered relationships.

On the operational side of business, the possibilities are endless. Companies will be able to do massive analyses of customers and business opportunities using programs that unearth patterns in price, buying habits, geographic region, household income, or myriad other data points. The large quan-

tities of available data on advertising effectiveness, customer retention, employee retention, customer satisfaction, and supply chain management will allow firms to make meaningful predictions about the behavior of any given customer or employee and the likelihood of gaps in service or supply. And more and more, we find companies using data techniques to spot irregularities in payments and receivables. These programs can predict, for example, the revenues that should be collected for a given list of delivered services. One health care provider we have worked with in New Mexico discovered \$10 million in underpayments within the first six months of using such data-mining tools.

The relevance of the old joke "only half of all advertising dollars are successful—we just don't know which half" will be imperiled by the new analytical tools. An electronic entertainment company in the Philippines is using Microsoft data-mining technology to customize its sales pitches to individual customers, based on extensive analysis of such factors as past buying patterns, age, gender, financial profile, and location. Almost immediately after implementing this technique, the company saw its response rate for offers for ringtones and other products double.

With all those business opportunities, some ask why Microsoft Research is working on so many global health and environmental projects. After all, aren't those projects that the Bill & Melinda Gates Foundation might fund? Yes, but the reason Microsoft Research has several dozen computer scientists working on them is that they involve some of the most enormous data stores imaginable and constitute an invaluable testing ground. We need to expand our own thinking and the capabilities of our tools by working on the biggest problems out there, which happen to be of immense importance to humanity. Tackling these problems also opens more opportunities for collaboration and experiments.



# 400

The estimated number of agencies involved in managing California's water supply. Coordinating and analyzing the data they generate can make water management more effective.



## New video and data tools will allow everyday citizens to watch undersea events unfold and even conduct their own experiments.

When there is a compelling incentive for experts in different disciplines to work together and share data in a transparent environment, we're likely to make the fastest progress. As Jim Gray used to say, astronomy data are valuable precisely because they have no commercial value.

### Plug-and-Play Ocean Research

One such ambitious environmental project involves ocean science and is now under construction beneath the cool Pacific waters west of Washington State and British Columbia. It's impossible to overstate the importance of the oceans, which cover 70% of the Earth's surface and make up the planet's largest ecosystem. The oceans drive weather systems; are the source of powerful, still largely unpredictable hazards such as tsunamis and hurricanes; store much more carbon than the atmosphere, vegetation, and soil; and are a critical food source.

And yet, in many ways we understand more about the surfaces of Mars and Venus than about the seafloors. Water is opaque to the electromagnetic radiation that allows us to explore the heavens; that's why the mainstays of our oceanographic research have been submarines, ships, and satellites. That is about to change. On a patch of the Pacific's floor, oceanographers involved with the U.S. National Science Foundation's \$600 million Ocean Observatories Initiative (OOI) have mapped out a network of nodes that is designed to offer what my colleague Roger Barga wryly calls "USB for the ocean." OOI will lay 1,500 miles of cable to and around the patch, providing power, internet access, and the ability to record and time-stamp data on phenomena scientists will study with all sorts of devices, ranging from simple temperature sensors to remote-controlled robots to state-of-the-art gene sequencers.

The project aims to involve scientists from all over the world. The ability to measure and analyze natural processes—such as silt buildup or changes in the density of microscopic organisms—is unprecedented. But the amount of information OOI will generate could swamp the effort if the data aren't cleverly organized and stored. That's why Roger and his

team are using work-flow technology to manage the data collected and are figuring out how to store data in the shared computing cloud, so they don't overwhelm any one facility and so scientists, students, and interested citizens everywhere can access them. The team is working out the data standards that will allow analysis programs to combine findings from different experiments into one larger analysis. That's called "interoperability," and it's crucial to making these scientific mashups work, because researchers will want to combine and compare data generated by predictive models in laboratories, as well as data from other sources, with data from the OOI network on the seafloor.

"This new era draws on the emergence, and convergence, of many rapidly evolving new technologies," Roger observes. The exploration will be focused on finding correlations across ocean events that will enhance our understanding of—and perhaps our ability to predict—land, ocean, and atmospheric interactions. Scientists will be able to measure such previously inaccessible underwater phenomena as erupting volcanoes, major migration patterns of sea life, earthquakes, and giant storms. Real-time video and new data visualization tools will allow students, educators, and the public at large to watch these events unfold and, in some cases, even conduct their own experiments. "The internet will emerge as the most powerful oceanographic tool on the planet," Roger predicts.

OOI is unleashing the creativity of oceanographers worldwide, who are developing new kinds of instruments to plug into this undersea lab. One is a washing-machine-size DNA sequencer designed to operate unmanned and underwater. It will filter in local creatures, capture and sample their DNA, and then send the results to scientists on shore. That ability alone is impressive. Layer on the ability to merge the DNA information gathered with data about pollution levels, acidity, ocean temperatures, or the presence of migratory species that may affect the food chain—all of which are collected by other researchers—and we have the birth of a new era of oceanographic science.

**\$10**  
**MILLION**

The amount one health care provider discovered in underpayments within the first six months of using deep-data-mining tools

# Crowdsourcing in the Heavens

**There's already one field in which citizen-scientists play a key role in guiding discovery: astronomy.**

Is there a business dimension to all of this? Well, for starters, imagine what might happen if a chemist at an energy company who was developing spill amelioration technology could consult a database on these organisms' DNA. He or she would be able to instantly call up genetic profiles of the microorganisms in the waters surrounding a spill and predict how they were likely to interact with the chemicals or solutions under consideration. Today's scientists grappling with the aftereffects of the massive deep-water oil spill in the Gulf of Mexico do not have comprehensive baseline measures of the ocean's health and are relying instead on "downstream" indicators, such as the health of fish. Other interoperability tools refined for OOI could offer more prosaic, but no less important, insights. For example, a retail marketing executive sitting at a desk might receive a daily report generated by a program that combs the data streaming in from point-of-sale terminals throughout the world in real time, flagging anomalous patterns of sales and returns, and make connections that most retailers would never think to look for.

## Solutions for Disease and Droughts

One way the fourth paradigm achieves faster breakthroughs is by allowing the general population to interact with databases and contribute knowledge that will advance discoveries. In the Seattle traffic effort, for example, volunteers with GPS devices in their cars helped gather critical data about local traffic routes simply by driving them. These methods were later extended to the task of predicting flows on all streets in greater metropolitan areas and now enable traffic-sensitive routing for 72 cities in North America, available today in Bing Maps. (See the sidebar "Crowdsourcing in the Heavens" for a description of another effort that's taking place in astronomy.) Soon all sorts of citizen-scientists in different fields will likely use devices as simple as cell phones or laptops to collect specialized information and analyze it.

My research team has a project in India, for instance, that allows nonmedical personnel in remote areas to diagnose certain illnesses with the help of cell phones. Using them, people dial into an enormous database of medical information, fill in answers to a set of questions, and receive valuable diagnoses on the spot. This system could someday be used to track and study the spread of diseases, particularly infectious ones. With large numbers of people performing quick diagnostics that feed into

Most astronomy data today are gathered by charge-coupled devices, or CCDs—through robotic systems that collect far more information than the world's roughly 10,000 professional astronomers could ever evaluate in their lifetimes. However, there are at least one million amateur astronomers, who now have a way to get in on the action and make real contributions.

In 2007 a group of astronomers wrote a web-based application called Galaxy Zoo, which created a clever, gamelike user interface for a database of astronomical information collected by the Sloan Digital Sky Survey. It turns out that people can do certain kinds of galaxy classifications visually that computers are not yet very good at. So the project made it fun for the public to participate in the classifications, which also helped the astronomers test a theory that spiral galaxies tended to rotate clockwise. Galaxy Zoo was launched with a data set made up of a million galaxies imaged with a robotic telescope. Participants looked at the images and classified the galaxies as "right-handed" (meaning they rotated clockwise) or "left-handed" (rotating counterclockwise). With so many galaxies, the team thought that it

might take at least two years for the site's visitors to work through them all. Within 24 hours of launch, however, the site was receiving 70,000 classifications an hour, and more than 50 million classifications were received by the project during its first year, from almost 150,000 people. The effort refuted the idea that most spiral galaxies were right-handed. It turns out that only half of them were. Even more amazing, a Dutch schoolteacher participating in the project found a strange galaxy that so baffled astronomers it ended up getting the attention of the Hubble telescope.

In 2008, Microsoft introduced the WorldWide Telescope and gave astronomers and the general public access to interactive 3-D images of the sky, planets, and galaxies. Visitors can view the images through a standard Explorer browser and visualize the same data that professional astronomers use. WWT incorporates the Galaxy Zoo classifications and allows every stargazer to call up the actual coordinates of remote galaxies, streaking comets, and spidery nebulae. Visualization tools such as WWT can actually transform scientists' ability to gain insights from data, sometimes with the help of ordinary citizens.

—T.H.



## Beyond Microsoft: How Other Tech Companies Help Advance Science

Computer scientists are powering breakthroughs in health care, climate change, and other disciplines.

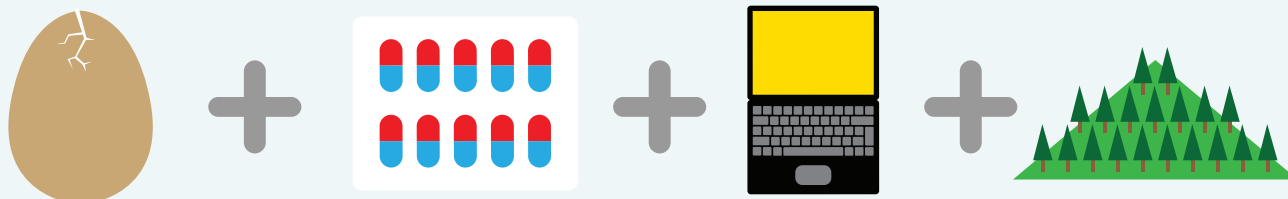
In early 2009 the Centers for Disease Control and Prevention began hearing reports of a severe flu outbreak in Mexico. For help investigating them, it turned to Google.org, the tech company's philanthropic arm. Since November 2008, Google.org has run a project called Flu Trends, which uses a sophisticated algorithm to track aggregated flu-related internet searches and estimate how the illness is spreading through a population. The Googlers didn't have a flu-tracking program for Mexico, but their engineers quickly built an experimental model. The results suggested this new illness—which became the swine flu pandemic—was widespread in Mexico but wasn't nearly as lethal as CDC researchers had originally feared. "In a pandemic, you want as many reliable sources of information

as possible," says Jacquelline Fuller, a top executive at Google.org. "Flu Trends can help health officials draw a picture of what's actually happening on the ground." Google now operates Flu Trends in 28 countries.

It's an example of how companies besides Microsoft are applying data technology to scientific and social problems. At Google.org, the early work focused mostly on grant making. But now, Fuller says, "we've realized that what we can bring to these global challenges is our expertise in technology and our strength in providing information and data." Among the organization's projects: Earth Engine, which uses satellite imagery and analytics to track deforestation, a key cause of climate change. The group also uses technology to assist in crises; after the earthquakes in Haiti and Chile, for instance, Google worked with the U.S. State Department to create an online Person Finder database that relatives could use to search for or post information about missing loved ones.

While most of Google.org's work is altruistic, other companies see revenue opportunities in this space. In 2008 IBM launched its Smarter Planet initiative, which CEO Sam Palmisano has identified as a primary driver of IBM's future growth. Smarter Planet takes IBM's expertise in analytics and integration and applies it to problems like traffic management in Stockholm, water management in Malta, and health care in China. (In one application IBM created technology to help doctors in Guang Dong Hospital test the efficacy of traditional Chinese treatments.) "This is a nice intersection of some very tough societal issues that need the strength and expertise of a company like IBM, but has a nice commercial aspect to it," says Michael Valocchi, an IBM vice president for Global Business Services. And as more organizations become adept at mixing technology and science in new ways, the benefits will go far beyond profits.

—Daniel McGinn



a database, public officials and health care workers can see where outbreaks are occurring, how fast they're moving, and what kind of symptoms are appearing. Machine learning can enter the loop in real time, constantly comparing every new case with every other case of this and other infectious outbreaks—and looking for patterns that might aid prevention efforts.

The stress this kind of ambitious project puts on every aspect of current technology—processing power; demand for parallel programmers; and data storage, curation, and publishing—is enormous. Unless curation of the data is actually built into a project's design, for example, the scientists involved usually try to figure it out ad hoc, which tends to lead to brittle, local solutions that don't scale up. Scientists and policy makers, however, do not have the luxury of waiting until everything is figured out

before taking action on urgent problems such as climate change or water shortages or planning for hurricanes or tsunamis.

Consider the plight of California, where the population is projected to increase from about 38 million today to more than 50 million by 2040. Says Jeff Dozier, a professor in the School of Environmental Science and Management at the University of California, Santa Barbara: "The availability of water drives California's economy. Historically, we've tried to manage the supply of water to meet demand. We may not be able to do that anymore. Everyone would love a reliable, uniform supply, but that's not what nature gives us. We will need much better technology to predict the amount of water we will have in a given year."

Predicting water stores from snowpack is a much more difficult problem than it might appear, Dozier



explains. Satellites collect huge volumes of data on snowpack, but they are still insufficient because they mainly reveal the snow's surface characteristics. To manage runoff, we need to know the "water equivalent," or the amount of water that would result from snowmelt. We can estimate the water equivalent from the weight of the snow, but that is difficult to measure across large stretches of variable terrain. The challenge: How do scientists combine data from satellites and surface measurements with information on economics and governance to better estimate, calibrate, and manage water supplies? In California alone, there are at least 400 different agencies that manage water. Microsoft is working with scientists at the University of California, Berkeley, and the Lawrence Berkeley National Laboratory to acquire and curate historic hydrologic data so that they can be used more effectively with data from new sensor networks to create better prediction models.

In another urgent arena, Microsoft's David Heckerman, another MD with a PhD in computer science, is using data-intensive scientific discovery in the fight against the human immunodeficiency virus. "In several years in a single patient, HIV mutates about as much as the influenza virus has mutated in its known history," he explains. That's why developing a vaccine to thwart it has been so difficult. Moreover, the mutations seen in one individual are quite different from those seen in another, thanks to variability in human immune systems. David and his team are analyzing data about individual viral mutations in thousands of subjects, trying to zero in on the elements of the virus that are vulnerable to attack by the immune system. By creating a vaccine that can trigger a person's own immune system to attack those elements, they hope to stop the virus in its tracks. He and his Harvard collaborator Bruce Walker expect to begin testing the first vaccine based on this work soon.

### Shifting Gears—and Standards

Endeavors like vaccine development or fields like human genomics involve a limited number of disciplines but absolutely enormous amounts of data unique to each individual. In efforts to better characterize an environmental phenomenon like ocean processes or climate change, it's not only the volume of data about any one factor but the number of disciplines and data sources that is daunting. Comprehensive calculations of warming trends might

## Through data analysis, scientists are zeroing in on a way to stop HIV in its tracks.

require factoring in measurements of radiant heat reflected from polar ice sheets, wasting of floating ice shelves caused by small increases in ocean temperature, the health of mangrove forests in tropical climates, global insect-hatching trends, climate changes captured in tree rings, CO<sub>2</sub> levels preserved in stored ice cores—and more. Creating standards for collecting, storing, and mashing together such data will become increasingly important as scientists deploy more and more sensors.

Critically, too, most of us believe scientific publishing will change dramatically in the future. We foresee the end product today—papers that discuss an experiment and its findings and just refer to data sets—morphing into a wrapper for the data themselves, which other researchers will be able to access directly over the internet, probe with their own questions, or even mash into their own data sets in creative ways that yield insights the first researcher might never have dreamed of. The goal, as Jim Gray put it so well, is "a world in which all of the science literature is online, all of the science data are online and they interoperate with each other. Lots of new tools are needed to make this happen."

While the realization of this goal would mean positive changes for society and the planet, the fourth paradigm also will inevitably create great business opportunities. For example, David Heckerman's genomic analysis of HIV is just one small piece of the much bigger agenda of personalized medicine. The pharmaceutical industry is betting that finding out which drugs are most effective for someone with a particular genetic profile will bring a whole new dimension to drug design. Microsoft's Health Solutions Group is integrating medical records and images as a first step in providing a set of smart tools to help the pharmaceutical industry fulfill this vision.

All scientific disciplines, including computer science, need to collaborate to realize the power of the fourth paradigm and solve important problems for humanity. The answers are hiding amid vast mountains of numbers—and it's within our reach to find them. ♥

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by Michael Useem

*Military work is risky, pressured, and fast-changing. It calls for seemingly contradictory capabilities: absolute clarity about the mission at a high level, extraordinary adaptability on the ground, and a knack for managing complex, technically precise systems. These are the same skills that companies today need to prevail in a climate of intense economic uncertainty.*



**ARTWORK** Stacy Pearsall, *Dark Sky*  
April 11, 2007, Buhriz, Iraq



SPOTLIGHT ON LEADERSHIP LESSONS FROM THE MILITARY

## Spotlight

ARTWORK Stacy Pearsall, *Lead the Way*  
March 9, 2007, Old Baqubah, Iraq

# Extreme Negotiations

***What U.S. soldiers in Afghanistan have learned about the art of managing high-risk, high-stakes situations*** by Jeff Weiss, Aram Donigian, and Jonathan Hughes







**It's often not easy to “get to yes,”** particularly given the pace of business and the structure of organizations today. CEOs and other senior executives are under extreme time pressure, managing complex, high-stakes conversations across functional areas and divisions, with alliance partners and critical suppliers, and with customers and regulators. Many report feeling that

they are constantly in negotiation mode—trying to gain approval for deals in which hundreds of millions (and sometimes billions) of dollars are at stake, in the shortest possible time frames, from people who may hold the company's (and even the leader's own) future in their hands. To these executives, negotiation isn't just about transactions anymore; it's about adapting to rapidly changing information and circumstances.

U.S. military officers around the globe confront this sort of challenge every day—patrolling in hot spots like Afghanistan and Iraq, attempting to persuade wary local leaders to share valuable information while simultaneously trying to distinguish friend from foe, balancing the need to protect their troops with the need to build indigenous support for America's regional and global interests.

The business and military contexts are quite different, but leaders in both face negotiations in which the traps are many and good advice is scarce. We call these “dangerous negotiations”—meaning not that they are necessarily aimed at solving an immediate life-and-death crisis but that the stakes involved put intense pressure on a leader.

Clearly, the danger for a business leader who is trying to reach an agreement with a single-source supplier, close a multibillion-dollar deal with a target company before its stock dives any further, or renegotiate prices with a dissatisfied customer differs from that for a soldier negotiating with villagers for intelligence on the source of rocket attacks. But the perception of danger prompts business and military leaders to resort to the same kinds of behavior. Both commonly feel pressure to make rapid progress, project strength and control (especially when they

have neither), rely on coercion rather than collaboration, trade resources for cooperation rather than get genuine buy-in, and offer unilateral concessions to mitigate possible threats.

U.S. military officers serving in Afghanistan have found themselves trying to hold these pressures at bay while engaging, often daily, in dangerous negotiations. Over the past six years or so, we've studied how they resolve conflict and influence others in situations where the levels of risk and uncertainty are off the charts. We find that the most skilled among them rely on five highly effective strategies: (1) understand the big picture, (2) uncover hidden agendas and collaborate with the other side, (3) get genuine buy-in, (4) build relationships that are based on trust rather than fear, and (5) pay attention to process as well as desired outcomes. These strategies, used in combination, are characteristic of effective *in extremis* negotiators, to adapt a term from Colonel Thomas Kolditz, a professor at the U.S. Military Academy at West Point and the author of *In Extremis Leadership*.

Negotiation behaviors tend to be deeply ingrained and are often reactive rather than deliberate, especially in dangerous situations. These five strategies can help business negotiators not only to respond quickly at the bargaining table but also to reshape their thinking *ahead* of the deal. Let's take a closer look at each of them and how they've been implemented by officers in Afghanistan.

#### STRATEGY 1

### Get the Big Picture

**Start by soliciting the other person's or group's point of view. Use what you learn to**

## 1

#### IMPLEMENTING STRATEGY

### Get the Big Picture

#### AVOID

Assuming you have all the facts: “Look, it's obvious that....”

Assuming the other side is biased—but you're not

Assuming the other side's motivations and intentions are obvious—and probably nefarious

#### INSTEAD

Be curious: “Help me understand how you see the situation.”

Be humble: “What do I have wrong?”

Be open-minded: “Is there another way to explain this?”



## Idea in Brief

**Business leaders today report feeling that they must constantly negotiate** to extract complex agreements from people with power over industries or individual careers. Sensing that they're in continual danger makes them want to act fast, project control (even when they don't have any), rely on coercion, and defuse tension at any cost.

**The end result may be a compromise that fails to address the real problem or opportunity,** increased resistance from the other side that makes agreement impossible, resentment that sours future negotiations, a failure to develop relationships based on mutual respect and trust, or an agreement that creates enormous exposure to future risk.

**To avoid these dangers, executives can apply the same strategies used by well-trained military officers** in hot spots like Afghanistan and Iraq. Those *in extremis* negotiators solicit others' points of view, propose multiple solutions and invite their counterparts to critique them, use facts and principles of fairness to persuade the other side, systematically

build trust and commitments over time, and take steps to reshape the negotiation process as well as the outcome.

### shape the objectives of the negotiation and to determine how you'll achieve them.

Negotiators in dangerous situations try to act fast to reduce the perceived level of threat. They often dive into discussions before they've fully assessed the situation, reacting to assumptions and gut feelings—and they tend not to test or revisit those assumptions. So business and military leaders alike end up negotiating on the basis of incomplete or incorrect information—which often leads to conflict, impasse, or a solution that addresses only part of the problem or opportunity. But in fact they usually have more time than they realize to talk, consider, and respond.

When Taliban fighters set fire to an Afghan supply truck less than two miles from his combat outpost, Sergeant First Class Michael Himmel (his and all other officers' names have been changed, as have the locations in which the incidents described in this article occurred) knew that an immediate response was required. But all U.S. units were on patrol, so he decided this was a good opportunity for the Afghan National Police to handle a crisis situation on their own. (Himmel's platoon had been training and patrolling with the ANP for six months.) The ANP chief, a 55-year-old local man with 30 years of police experience, immediately pushed back. He tried to express his concern about performing a solo mission and requested support. "My men are inadequately prepared," he said—indirectly blaming Himmel for this state of affairs. The sergeant, who was locked into the assumptions he'd made about the chief and his team, ignored the request and insisted that all they lacked was "courage and a commitment to hard work." The chief of course felt disrespected. Eventually he sent a poorly equipped team to investigate the fire. Not surprisingly, the men came back with little information.

First Lieutenant Daniel Dubay handled a similar negotiation much differently. While on patrol near

the village of Azrow, Dubay's platoon came under attack from two buildings about 200 yards away. After 45 minutes of fighting, the anticoalition forces disappeared into nearby *qalats* (fortified shelters). The platoon went into assessment mode, checking for injuries among the citizens. Dubay and a squad moved to the building that most of the shots had come from. They discovered 25 women and children huddled in a small room. Without entering the room, Dubay explained through an interpreter that his platoon had just been fired on and he was looking for information that might help identify the insurgents who had been in the compound.

"There are no bad guys here—no one was firing at you," one woman barked, her voice shaking a bit.

Dubay needed information fast. He could have obeyed his instincts and started making harsh demands. But he recognized the women's fear—and his own—and decided to slow things down, test his assumption that the women were collaborating with the enemy, and change his approach to getting the intelligence he needed.

He took off his dark glasses, slung his weapon onto his back, and knelt just outside the room. He reassured the women that their homes were now secured by both Afghan and American forces and said he just wanted to understand why they were all clustered in this one room. Over the next 15 or 20 minutes he talked softly, acknowledging their fright at being caught in the middle of a firefight. Finally, one woman came forward and spoke about the men who had herded them all into this room and then taken up positions. Dubay thanked her. Another woman spoke up. The men were not Afghan, she said; they looked like foreign fighters. Three or four other women offered more details.

Dubay took notes and amended his objective: He would not only gather the information he needed about this particular situation but also develop an

**ARTWORK**  
**Stacy Pearsall**  
*Before the Fight*  
 February 16, 2007  
 Buhriz, Iraq



## A threatening situation makes people want to look strong and more in control than they probably are.

### 2

#### IMPLEMENTING STRATEGY

#### Uncover and Collaborate

##### AVOID

Making open-ended offers: "What do you want?"

Making unilateral offers: "I'd be willing to...."

Simply agreeing to (or refusing) the other side's demands

##### INSTEAD

Ask "Why is that important to you?"

Propose solutions for critique: "Here's a possibility—what might be wrong with it?"

ongoing relationship with these women to get information in the future. He gave them a card providing the phone number of the district center; promised to check in on them two days later, when his platoon would be on patrol in that village again; and asked that they share information with him as they discovered it. He established mutual respect with the people of Azrow—a relationship that paid off in the months that followed.

#### STRATEGY 2

#### Uncover and Collaborate

**Learn the other party's motivations and concerns. Propose multiple solutions and invite your counterparts to improve on them.**

As well as pressuring people to act fast, a threatening situation makes them want to look strong and more in control than they probably are. In this state of mind, negotiators tend to stake out extreme positions and make aggressive demands. Unfortunately, that almost always triggers or exacerbates resistance from the other side. Discussions become contentious and inefficient, and both parties run the risk of a stalemate.

Captain Chris Caldwell received intelligence that the soldiers in his company had inflicted casualties on the enemy. He knew there was only one Afghan medical center in the area equipped to treat the wounded. Seeking to assert his company's control in the region, Caldwell went to the center to interview a doctor who was known to be a Taliban sympathizer. After being denied permission to enter, Caldwell forced his way into the facility, found evidence that the enemy combatants were being treated, and detained the doctor for questioning.

When they heard about Caldwell's actions, the village elders paid an angry visit to the captain. He defended himself, stating that he would respond differently in the future only if the locals began working with, not against, his troops. The elders argued in turn that the villagers would cooperate only when they were given an incentive—that is, when they were shown respect. One such sign, they said, would be a big boost in reconstruction dollars. Caldwell told them that if they wanted anything from him, they would have to give him information about the wounded people at the clinic. This enraged the elders, and the negotiation spiraled out of control.

The skilled *in extremis* negotiator focuses on turning negotiation into side-by-side problem solving rather than a test of wills. Captain Andrew Williams, an artillery battery commander in Ghazni, received a report that his soldiers had seen an improvised explosive device being placed along a roadside. He instructed them not to use force but to monitor the site and identify the men who were planting IEDs. (His team would eventually remove and detonate the devices in a controlled environment.) Once he had this information in hand, Williams went to the village where the men lived, gathered the elders, and told them he wanted IED placements in the area to stop. The elders said that as long as they received money in return, they would make sure the villagers complied.

Given the time and safety pressures he was feeling, Williams was tempted to ask, “How much?” Instead he asked, “Why?” He explained that he couldn’t offer the elders anything unless he understood what they were trying to achieve. Eventually they told him they would need to pay for information about who was responsible for planting IEDs—and money was obviously in short supply. They also wanted to give some of the money to the village, to preserve their status and prove that they weren’t just informants.

Williams made a reasoned counteroffer: His men would do the work of identifying the culprits, and the elders would be responsible for taking them to the nearest American combat outpost. Seeking to draw the elders out and engage them as partners, he asked, “What would be wrong with this idea?”

Surprisingly, the elders liked the plan but expressed concern that the captured men were not extremists, just short on cash and trying to support their families. Williams said that if the elders took the men to the combat outpost and let the Americans enter their names into a database, then they could take the men back to the village. He added that this would help them build prestige with the villagers, because they’d be handling the situation themselves. The elders agreed. Two days later they arrived with the wanted men, whose names were entered into the database. The men were warned about future actions and allowed to return to the village and their families.

Before long, record numbers of weapons caches were being turned in, and locals were warning soldiers on patrol about IEDs that lay ahead and voluntarily reporting information on mortar launch sites.

### STRATEGY 3

#### Elicit Genuine Buy-In

**Use facts and the principles of fairness, rather than brute force, to persuade others. Arm them with ways to defend their decisions to their critics, and create useful precedents for future negotiations.**

Danger often tempts negotiators to play hardball, using coercion to make deals. That typically engenders resentment and leads to future conflict, making follow-on negotiations much more difficult. Of course, a hostile takeover isn’t quite the same as an armed standoff. But the terms presented can be similarly stark or shocking.

Captain Kyle Lauers’s first mission in Afghanistan was simple on its face: Capture or kill Wahid Salat, a Taliban leader who was staying in a nearby village. But he felt tremendous pressure to get his 130 soldiers in and out safely. The main challenge would be negotiating with the local police chief and the village elder for help in securing the building where Salat was staying. When Lauers asked the police chief to apprehend Salat, the chief flatly refused.

“We need to move now,” Lauers told the chief. “If you won’t help, I can’t be responsible for what happens.” The chief said nothing. Lauers ordered his platoon to cordon off the building. As shots rang out, he spotted the village elder approaching from across the street, clearly angry and confused. The elder began to shout at Lauers just as the platoon leader reported over the radio that the suspect and three bodyguards had been killed. The elder demanded to know why Lauers’s company had entered the village and started shooting without any ANP support or discussions with the elder. Lauers explained that the police chief had refused to cooperate. The elder immediately turned the blame back on Lauers and demanded money for damages. Lauers replied that since the Taliban were responsible for the damages, the elder could get reparation from *them*. He then left to check on his men.

Over the next 11 months this village continued to be a problem for Lauers’s company. Regular mortar attacks were staged from the vicinity. Whenever officers wanted information from anyone in the village, they had to pay in either money or supplies—and even then they were often given the wrong names, places, or dates. Threats and force have their place, especially in certain military situations. In this case, however, Lauers’s negotiation strategy compromised both his near and his long-term objectives.

## 3 IMPLEMENTING STRATEGY

### Elicit Genuine Buy-In

#### AVOID

Threats: “You’d better agree, or else....”

Arbitrariness: “I want it because I want it.”

Close-mindedness: “Under no circumstances will I agree to—or even consider—that proposal.”

#### INSTEAD

Appeal to fairness: “What *should* we do?”

Appeal to logic and legitimacy: “I think this makes sense, because....”

Consider constituent perspectives: “How can each of us explain this agreement to colleagues?”



# Offering to trade resources for help almost always invites extortion and breeds disrespect or even contempt.

## 4 IMPLEMENTING STRATEGY

### Build Trust First

#### AVOID

Trying to “buy” a good relationship

Offering concessions to repair breaches of trust, whether actual or only perceived

#### INSTEAD

Explore how a breakdown in trust may have occurred and how to remedy it.

Make concessions only if they are a legitimate way to compensate for losses owing to your nonperformance or broken commitments.

Treat counterparts with respect, and act in ways that will command theirs.

The effective *in extremis* negotiator recognizes that his objectives will almost always be better achieved if he elicits true buy-in rather than grudging compliance from the other side. Upon his arrival in Afghanistan, Captain John Chang found that his company's Afghan National Army counterparts were regularly using threats, especially in dangerous or high-stakes contexts, to change the local population's behavior. Chang knew enough about both Afghan culture and the Koran to understand the value the locals put on respectful treatment. He decided that if he could change the way his soldiers interacted with the ANA, he could affect how the ANA worked with the villagers. He invited ANA soldiers to move into the Americans' combat outpost. The two units began to eat, train, plan, patrol, and relax together, resulting in a true partnership. Within a month the ANA was serving as an advocate for the U.S.-led mission, explaining to village elders that the Americans were guests in their country—operating to help people at the request of the Afghan government—and reminding them of the cultural importance of hospitality in Afghanistan.

When violence later erupted in the area, a precedent had been set. Rather than make threats, Captain Chang and his ANA counterpart solicited recommendations from the village elders about how to provide better security in the valley and asked what justifications the elders would need to defend any pacts the U.S. and ANA forces made. The elders voiced their objections to coalition forces' searching homes, detaining people in the middle of the night, and randomly stopping and searching vehicles. They talked about being afraid to hunt or to let livestock graze in the mountains, where U.S. forces were shooting artillery. Any negotiated agreement about reducing the violence, they advised, would have to show respect for personal liberties and local laws. Most important, it should look like an ANA—not a U.S.—solution. Chang and his ANA counterpart crafted an agreement that the elders could defend to the populace, and Taliban recruitment in the area dropped significantly.

#### STRATEGY 4

#### Build Trust First

**Deal with relationship issues head-on.**

**Make incremental commitments to encourage trust and cooperation.**

When stakes and risks are at their highest, business and military leaders are often tempted to take the quick and easy path of trading resources for help. After all, a dangerous situation doesn't provide the time to develop a good working relationship or to fix whatever stands in the way of one. But making substantive concessions almost always invites extortion and breeds disrespect or outright contempt.

Military officers frequently fall prey to the concession trap. Farrukh, an Afghan, had opened a girls' school outside Baraki and was continually harassed by local Taliban leaders. Intelligence officers discovered that a known insurgent had made a call to Farrukh's cell phone. They seized the phone and found that Farrukh had received calls from several other Taliban leaders. They arrested him, and Farrukh served 12 months in a detention center, waiting for a hearing. Eventually he got his time in court and was found not guilty. But in the meantime, his school had been closed, his reputation had been severely damaged, and he had suffered considerable physical hardship. He had to be compensated.

The Army officer in charge offered a sum of money for lost wages. Farrukh wanted more: an explanation for his arrest and detention, and procedures that could be put in place to avoid such misunderstandings in the future. The officer simply threw in an additional sum for his pain and suffering and sent him on his way, barely offering an apology. Farrukh—who was a leader in his village and had a long history of working with Western peacekeeping forces—left with \$12,000 in his pocket, but he vowed never to trust an American again. Worse yet, as he told his story to others, their distrust grew, making it difficult for U.S. officers to get any sort of useful intelligence or active cooperation from the villagers.

Skilled *in extremis* negotiators never make arbitrary concessions in an effort to buy goodwill. In-

# Training Officers to Negotiate

stead they build trust over time through incremental and reciprocal commitments. Captain Aaron Davis was deployed to Khost Province with orders to settle “quickly and finally” several long-standing disputes with local leaders. Within a week of his arrival Davis headed out to a village where a man named Haji Said Ullah owned what had once been a lucrative gas station. Ullah’s business had all but dried up two years earlier, when U.S. forces closed a road to secure a newly built airfield, preventing people from getting to his pump. For two years, various Army officers had promised Ullah both compensation and aid in finding his brother, who he suspected had been kidnapped by Taliban forces. None of their promises had been kept. No wonder, then, that Ullah greeted Davis with disdain—and a demand for more money. Davis resisted the temptation to throw cash at the problem; this was, at its core, a relationship issue.

Davis visited Ullah several times, listening to his angry tales and asking questions. At no point did he offer compensation. He did, however, tell Ullah that he would look into what had happened and return within three days. The two men sat down for tea three days later, and the captain offered apologies for what Ullah had been through and updates on what he had learned. He asked for Ullah’s help in figuring out how to repair the relationship and, ultimately, rebuild trust with other local leaders. The men talked about ways to get information concerning Ullah’s brother, how to improve communication between U.S. forces and villagers, and how to make the population more secure. Only then did Davis turn back to the question of compensation, sharing his estimate of Ullah’s business losses as judged by local standards. (It was a basic calculation, but no one else had bothered to do it.) Ullah considered the numbers and within a few minutes agreed to what he deemed a fair figure—a small fraction of what he’d initially demanded.

## STRATEGY 5

### Focus on Process

**Consciously change the game by not reacting to the other side. Take steps to shape the negotiation process as well as the outcome.**

In negotiations that they perceive to be dangerous, executives and officers naturally want to avoid harm to themselves or their constituents. Together with the inevitable need to act quickly, that creates pressure for them to give in on critical issues—not a good

## Why do military officers need to negotiate?

For those in Iraq and Afghanistan, the nature of the job has changed. In a 2005 briefing at West Point, one division commander outlined a day in Baghdad for his lieutenants: going on patrol at 0700, helping set up a local market at 0900, working to restore power to a city block at 1200, attending a town council meeting at 1800, and conducting a raid on a suspected insurgent’s residence at 0100. Each of these missions involved some type of negotiation.

## Why don’t demands and threats work just as well?

Sometimes they do; and sometimes they are necessary. But these officers face increasingly complex situations involving multiple parties, issues, and cultures. The stakes can be life and death, physical security, critical scarce resources, or political capital. In July 2010 General David Petraeus reminded our forces in Afghanistan to focus on the decisive human element. That keeps military leaders at all levels mentally agile and adaptable—not just skilled with weapons and combat protocol.

## How do you train in extremis negotiators?

At West Point we focus on applied practice. For instance, the course

Negotiation for Leaders presents case studies for discussion. Each class introduces a bargaining strategy applicable to the case at hand. We systematically review the approach cadets took to each case study—looking hard at how and why they made the choices they did.

We also do one-on-one coaching to help officers examine their own tactics, using probing questions such as: How did you react when your counterpart made a threat? Why did you react that way—what was your goal? What response did you expect? Given the outcome, would you change your approach in the future? If so, how and why?

Interactions with superiors provide further learning. If a commander asks a negotiating officer if he got the other side to back down or if he kept it “happy,” the officer probably won’t develop the strategic thought process and skills *in extremis* negotiators need. But if the commander asks how well the officer understood and addressed the other side’s concerns and motivations, or whether the outcome sets a good and easily explained precedent for others, the officer is likely to begin thinking strategically about negotiations.

Business executives, too, can use these methods to develop the negotiating skills of their organizations’ leaders.



ARTWORK Stacy Pearsall, *Staff Meeting*, April 11, 2007, Buhriz, Iraq

# Giving in on critical issues may create an exposure to risk far beyond the immediate threat.

## 5 IMPLEMENTING STRATEGY

### Focus on Process

#### AVOID

Acting without gauging how your actions will be perceived and what the response will be

Ignoring the consequences of a given action for future as well as current negotiations

#### INSTEAD

Talk not just about the issues but about the negotiation process: "We seem to be at an impasse; perhaps we should spend some more time exploring our respective objectives and constraints."

Slow down the pace: "I'm not ready to agree, but I'd prefer not to walk away either. I think this warrants further exploration."

Issue warnings without making threats: "Unless you're willing to work with me toward a mutually acceptable outcome, I can't afford to spend more time negotiating."

idea. The resulting agreement may create an exposure to risk far beyond the immediate threat.

First Lieutenant Matthew Frye and his platoon had been under rocket attack for eight straight days, at about the same time each day, at the forward operating base where they were stationed. On the ninth day, while his platoon was patrolling, Frye received word that insurgents were preparing another attack on the base and that his group should investigate the vicinity where earlier attacks had originated. He felt intense pressure to quickly determine the current location, description, and disposition of the enemy. After all, one of the last rockets launched had landed only about 400 yards from his tent.

Once in the vicinity, Frye sought information from the elders and asked what they wanted in exchange for giving him the insurgents' names. Not surprisingly, they requested a great deal—primarily in the form of food, water, and clothing. Frye promised to provide this humanitarian assistance, but when he asked for information in return, the elders denied knowing anything about the insurgents. Wanting to protect his men, Frye made further offers: emergency relief funds and assistance from his soldiers on a well project. The elders accepted but again were mum. Realizing that he was being taken, Frye said his promises had been contingent on receiving information. The elders were angry that he was backing away from his commitments and suggested that Frye and his men should be extra careful when they headed back to their base.

Feeling threatened and nervous, Frye agreed to fulfill the one-sided bargain and said he hoped the elders would be a little more cooperative the next time. He came away with neither the information he needed nor a good working relationship with the elders. Intelligence later confirmed that the enemy had watched the Americans throughout their visit to the village—so he had created even more danger for his platoon.

Frye's first mistake, of course, was believing that he had only two options: to refuse the elders' demands, in which case he and his men would remain

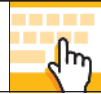
in danger, or to simply capitulate and hope for the best. He should have stepped back from the issues immediately at hand, analyzed the elders' tactics, and considered how to shape the negotiation process to his advantage.

On his first patrol in Kunduz, First Lieutenant Billy Gardner was leading his platoon through a bazaar when he was approached by five men. The men, who represented apple farmers in the local agricultural cooperative, were angry that a previous American unit had given the district several million dollars to purchase land for the expansion of its forward operating base. The person the district subgovernor had paid was not the legal landowner, and the men demanded that they and their fellow farmers be compensated immediately. A crowd gathered, the men began making threats, and when Gardner did not respond, they demanded even more in compensation. They tried to involve Gardner's squad members in the negotiation, angrily directing some of their demands to one while being extremely solicitous of another.

Gardner recognized their divide-and-conquer ploy. He refused to respond to it, and he refused to compromise. If he did either, he would be rewarding negotiating behaviors that he wanted no part of. Instead, Gardner set about changing the nature of the conversation. He sat down, greeted the men in Pashto, took off his helmet, put down his rifle, and listened attentively. He spoke slowly and quietly. In no time, the farmers' body language changed and their shouting diminished. In fact, they were straining to hear Gardner. He began asking questions in a manner that was both respectful (he didn't insist on his point of view) and commanding. He assumed the natural demeanor of a judge—one seeking to impartially determine the appropriate course of action and having the authority to do so.

Gardner asked the men about the nature of their business arrangements, their crops, whom they represented, and how the land sale had directly affected them. Apples were the mainstay of the local economy, he learned. The men were not opposed to





**WEBINAR** Jeff Weiss and Aram Donigian will discuss extreme negotiations in a free webinar on November 9, 2010, from 1 to 2 PM EST. To join in, sign up at [hbr.org/webinars/extreme-negotiations](http://hbr.org/webinars/extreme-negotiations).

selling the land, but they wanted to be recognized as the lawful owners of the parcels in question. Gardner began to propose some possible solutions. Had they approached the provincial subgovernor about their grievance? he asked. Or taken it to the subdistrict *shura* (council)? They said they had not: They didn't trust the subgovernor, and they thought the *shura* was ineffective.

Gardner listened without definitively answering when new demands—by now framed as requests for assistance—were put forth. He began to recognize that the cooperative represented a form of stable civil government; here was an opportunity to strengthen democratic practices and institutions. Gardner explained to the men that once the issues had formally been brought to the subgovernor, the Americans would be better able to help. The farmers ultimately agreed to try what he suggested—especially if he would continue to provide them with advice, which he agreed to do. What had begun as an impromptu, tense situation characterized by aggressive behavior evolved into hours of talking, an invitation to stay for lunch, and a conversation that eventually shifted to the farmers' sharing what they knew about recent insurgent activity in the area.

**PERHAPS THE** most important lesson the *in extremis* negotiator has to teach both executives and military officers is that in the very context where one feels the most pressure to act fast and stake out an unwavering position, it is best to do neither. Control and power can be asserted most effectively by slowing down the pace of the negotiation, actively leading counterparts into a constructive dialogue, and demonstrating genuine openness to others' perspectives. That isn't giving in. It is being strategic rather than reactive. It's thinking several moves ahead about how your actions might be perceived. And it's making tactical choices that elicit constructive responses and advance your true objectives. ♥

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"There's one piece of pie left. I'll share it with you if you agree, in principle, that it's mine."

## Spotlight



# “You Have to Lead From Everywhere”

When faced with a complex, fast-moving crisis, leaders must constantly adapt their mental models and create a “unity of effort,” says **Admiral Thad Allen**, USCG (Ret.), the national incident commander for the Deepwater Horizon oil spill. Allen, an admirer of Warren Bennis and Peter Drucker, spoke with HBR’s Scott Berinato about the challenges of leading when an anxious nation is counting on success.

**HBR:** You get the call: We want you to be the commander of the oil spill response. Is your first thought to approach it as a military operation?

**Allen:** You can’t. In the military you have total unity of command. As soon as recruits go into boot camp or service, they have to memorize their chain of command, from themselves clear on up to the president. In what I would call a “whole of government response”—to a hurricane, an oil spill, no matter what it is—that chain of command doesn’t exist. You have to aggregate everybody’s capabilities to achieve a single purpose, taking into account the fact that they have distinct authorities and responsibilities. That’s creating unity of effort rather than unity of command, and it’s a much more complex management challenge.





**AT LEFT** U.S. Coast Guard Admiral Thad Allen in Mobile, Alabama, following an air tour of Dauphin Island and the Alabama coast, June 5, 2010

**Did you come to the oil spill with a template for how you'd manage the situation, based on your experience in previous crises?**

Yes and no. My first oil spill response was in 1980. A barge full of 3 million gallons of heating oil ran aground in a wildlife refuge on the central Jersey shoreline, where I was the local Coast Guard commander. So I've done these before. And the structure for the Deepwater Horizon response—the authority, obligations, and ability to use money and resources—was dictated by the Oil Pollution Act of 1990.

But the expectations of the country were well beyond what's required or even allowed by law. The challenge of creating unity of effort involves dealing with issues that you're not statutorily allowed to pay for, but that still need to be done for the public. In the Gulf we had to deal with things like seafood safety and behavioral health problems; there were socioeconomic issues in play that were never anticipated by the response doctrine. Those were the problems that required the most leadership.

**What about the challenges of working with a private company—in this case, BP—that's deeply invested in image and damage control?**

Our biggest challenge in dealing with BP was that the public did not understand how the company

**If you're not visible to your people out on the boats in 110-degree heat, you're not a credible leader.**

responsible for the event could play such a large role in the response. But because they're going to have to write checks for buying booms, buying skimmers, to catering companies, and all that other kind of stuff, they have to be on location with you if you're going to be effective. We're used to working that way—it's how the U.S. has organized oil spill responses for 20-plus years—but I don't think that was well understood by the public or a lot of the political leadership.

**When you're dealing with the competing interests of government entities, businesses, and an anxious public, how do you go about creating unity of effort?**

I'm a big fan of Peter Senge, at MIT, who talks about learning organizations and the use of mental models. You have to understand at a very large, macro level what the problem is that you're dealing with and what needs to be done to achieve the effects you want—and you have to be able to communicate that. You also have to create a set of shared values that everybody involved can subscribe to.

For example, with Hurricane Katrina it was clear to me after about 24 hours in New Orleans that we weren't dealing only with a natural disaster. Had the levees not collapsed, ground zero for Hurricane Katrina would have been Bay St. Louis and Wave-land, Mississippi, which basically got wiped off the map. But when the levees were breached and New Orleans flooded, it became a different event, and I'm not sure we recognized that as a nation. We were still treating the entire issue as if it were just a hurricane. Under the hurricane response model, resources are provided to a local government, which applies them and runs the response. But we had lost continuity of government: There *was* no functional local government that could take the resources and apply them to the mission.

So the mental model became more like the response to a weapon of mass effect. When I realized that, things started happening. I sat down with Russel Honoré, who was leading the military forces down there, and we divided the city into sectors and assigned each sector to one of his units. We focused on providing security and creating the capacity of local government to do its job—dewater the city, do the house-to-house searches, and so forth.

**Is what you're describing the decision to go "off book" and depart from protocol—a move that has been lauded as helping to turn the tide of the Katrina response?**

Yes. There were times when we needed immediate action, and I went off book and gave some direct orders, which is not normally done under the hurricane response model. But the fact that

## With social media and the 24-hour news cycle, there will never again be a major disaster that won't involve public participation.

**ABOVE RIGHT** Allen near the Louisiana coast, September 14, 2010



we'd changed mental models to a different kind of disaster made us all understand we couldn't rely on standard hurricane response.

**Do you go so far as to create a mission statement to achieve unity of effort?**

Actually, for the oil spill I did.

**But not for Katrina?**

The challenge of putting together a response without continuity of government required me to take a little different tack. I got to New Orleans on the fifth of September—Labor Day, a week after the storm came ashore. Friday, the ninth, I was called to Baton Rouge and was told by [Department of Homeland Security] Secretary [Michael] Chertoff that I would be relieving Mike Brown, and we had a press conference. A very difficult thing to do.

When the press conference was over, I was in the huge command post in Baton Rouge, which was this Dillard's [department store] warehouse that we had taken over, and we had about 4,000 people assigned to this place. My military aide asked, "What do you want to do?" I said, "I want to have an all-hands meeting." She looked at me like I was crazy, because there wasn't a place in the building where we could put 4,000 people. I said, "Well, find the biggest open space you can and get as many people there as you can." And we found a space on the bottom floor and crowded about 2,000 people into it.

I got up on a desk, with a loudspeaker, and told everybody that I was giving one order: They were to treat anybody they came into contact with who had been affected by the storm like a member of their own family. Their mother, father, brother, sister, whatever. And I said, "If you do that, two things are going to happen. Number one, if you make a mistake, you're going to err on the side of doing too much, and that's okay. Number two, if somebody has a problem with what you've done, their problem's not with you; their problem's with me."

After I said that, a cheer broke out, because there had been so much stress from the pressure that had been exerted on the response and the perception

that it wasn't going well. Just a simple set of core values—a North Star to steer by—was, I think, what they were looking for.

**When you're on location in a crisis, you can get a nuanced view of what's happening on the ground. When you lead from headquarters or an incident response center, you've got the whole picture. In major crises like the oil spill, do you feel it's more important to lead from the front or from the back?**

I think you have to lead from everywhere. A typical week during this oil spill has had me split my time 50/50 between Washington and downrange in the Gulf. You've got to be present with members of Congress, the administration, the media. You've got to talk to people and brief the White House press corps here in Washington. At the same time, if you're not visible to your people out on the boats who are trying to pull a boom in Barataria Bay in 110-degree heat, then you're not a credible leader, because you don't understand what they're going through. You have to manage your schedule to make sure that you're where you need to be, and come back on a routine basis to reinforce what you're trying to do.

**With every new crisis response you've led, the amount of publicly available real-time information has increased. Every citizen could access live video footage of BP's leaking well 24/7. Has this affected how you lead?**

Social media and the 24-hour news cycle are part of a fundamental change in our sociological structure. John Holdren, who's the science and technology adviser to the president, says that there are three ways to deal with climate change: Adapt, manage, or suffer. I believe that what's happening with information is no less profound and challenging, and therefore the same options apply. We all have to understand that there will never again be a major event in this country that won't involve public participation. And the public participation will happen whether it's managed or not. We've chosen to try to adapt and manage. Before the oil spill, I had already started blogging and tweeting.



**You mentioned Peter Senge and John Holdren. Where else do you turn for leadership wisdom?**

Warren Bennis and Peter Drucker. And I like Steven Sample, the former president of USC. He wrote a book called *The Contrarian's Guide to Leadership*, which I love.

**In general, do you think military-trained personnel make good business managers? Does the training translate?**

I think it can, as long as you're not too doctrinaire about anything. If you're too caught up in military protocol, you won't be flexible in dealing with folks who are not in the military. On the other hand, if you're so captivated by the private sector and running everything against a balance sheet, you can become too much of an ideologue. Good leadership requires flexibility, agility, and curiosity. If you have those, I think it's possible to cross over both ways.

**What have you learned about leadership, and yourself, from this decade of managing crises?**

I've learned that leaders are responsible for their own morale. The boss doesn't come in and sit down and say, "How are you doing today?" And I wouldn't say I haven't lost my temper on occasion, but at least I haven't done it publicly.

These are terrible tragedies that befall our society. The human toll is significant. A lot of people are dealing with personal grief; their ways of life are threatened. You need to understand and account for that, but you've also got to keep a steady focus. If you become too caught up in the emotion of the situation, you're not going to be as effective. The calmer you are, the more you're going to get done.

I talk to a lot of senior leaders about this. We'll have a cup of coffee or a drink, and I will ask them how they manage this. You know, who do you call? Who do you talk to? Who do you get feedback from? And then how do you manage the times when you're really frustrated? Because the last thing the country wants to see is you frustrated.

One of the more heartwarming things that's happened to me during this oil spill response is that every couple of weeks the phone will ring, and it's Mike Mullen, the Chairman of the Joint Chiefs of Staff. I did a lot of work with him before I retired as the commandant of the Coast Guard. He'll say, "I'm just calling to see how you're doing." That's pretty neat.

**Have you been able to mentor anyone in these situations, or are they just too fast-moving and complex for that?**

You're always in a teachable moment. There's always somebody watching you, and you're mentoring without knowing it. When I got the call to go down for Katrina, first I had them get a plane ready for me, and then I called four or five people who had worked for me before in very tough situations. One was a public affairs officer who had worked for me in Miami when we had some very significant issues with the Cuban immigrant community and when Elián González came ashore. I got somebody who used to run a command center for me, and I got the person who led our forces to help evacuate New York Harbor after 9/11. I basically said, "Meet me in New Orleans." And they all showed up. I created a nickname for them. I call them the Dogs That Hunt.

You've heard that old saying, "That dog don't hunt." Yeah, well these are dogs that hunt. Everybody should keep a list of dogs.

**Do you think you were born a leader, or do you think it's something you've learned through decades of experience?**

I would side with my good friend Warren Bennis, who says that everybody can be a better leader. You should focus on trying to optimize what you can do with the skills and talents you've got. The more you're a lifelong learner, and the more intellectually curious you are, the bigger the base of potential you'll have to build on when the opportunity presents itself. It also makes you better at recognizing opportunity.

**Will you take the call if there's another opportunity to lead the country through a major crisis?**

Well, my wife and I talked about whether or not I would accept the request to go to New Orleans. We discussed the very distinct possibility that it would not be successful and that I could not appreciably change anything. But I reminded her that over the past 20 years I have been preaching to people that my favorite definition of leadership is the ability to reconcile opportunity and competency. It would be a little irresponsible on my part not to respond, when the opportunity was provided, with whatever competency I could bring. ♥

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# Which of These People Is Your Future CEO?







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**Andrew Hill** (ahill@hbs.edu) is a doctoral candidate in management at Harvard Business School.

**Toby Johnson** (toby.johnson@pepsico.com), a former United States Army captain and aviator, is an executive at PepsiCo.

***The different ways military experience  
prepares managers for leadership***  
by Boris Groysberg, Andrew Hill, and  
Toby Johnson





**F**rom Washington to Grant to Eisenhower, military leaders have long been recognized by Americans for leadership skills that are of great value outside a military environment. In Gallup's annual poll asking Americans about their confidence in various public and private institutions, one has ranked first or second nearly every year since 1973, when the poll began, and has topped the list continuously since 1998: the military. In the 2009 poll, 82% of respondents expressed "a great deal" or "quite a lot" of confidence in the military, whereas only 16% expressed confidence in big business.

This confidence extends to former military personnel in the C-suite. According to a 2005 Korn/Ferry study, former officers make up just 3% of the U.S. adult male population but about three times that of the CEOs of S&P 500 firms. Faith in the leadership qualities of former officers makes sense: They are trained for high-stakes positions at a young age and are sometimes thrown into those roles with no warning. Many are driven by a desire to serve, and success demands working well with others, resilience, and mental agility. But is this the whole story?

Our research argues for a more nuanced view of the leadership skills developed in military service. Drawing on the CEOs with military experience (CMEs) identified by Korn/Ferry, we conducted an in-depth analysis of the performance of 45 S&P 500 companies led by members of that population and interviewed a dozen current and former CMEs. Our object wasn't to compare military to nonmilitary leaders or to suggest that one branch of the service is superior in executive development. But we did discover some surprising differences in the ways that the various branches prepared leaders for business.

To generalize, Navy and Air Force CMEs take a process-driven approach to management; personnel are expected to follow standard procedures without any deviation. This allows the CMEs to excel

in highly regulated industries and, perhaps surprisingly, in innovative sectors. Army and Marine Corps CMEs embrace flexibility and empower people to act on their vision. They excel in small firms, where they are better able to communicate a clear direction and identify capable subordinates to execute accordingly. (Although the Marine Corps is part of the Department of the Navy, we treat it as a separate entity because of its distinctive organizational identity.)

Our findings reflect this basic fact: The military is a diverse institution, and military experience varies widely at the branch level as well as the individual level. The CMEs we interviewed described widely shared lessons, but their histories differed strikingly (we spoke with submarine engineers, fighter pilots, intelligence officers, and others in a variety of roles) and their post-military leadership records echo those differences. This has significant implications for how we should think not only about the relationship between military experience and leadership skills but also about what qualities are a good fit for specific executive positions.

### **How Branch of Service Influences Style**

Much has been said about the general leadership qualities fostered by military experience and how they apply to business. Less noticed have been the branch-specific skills—process management, for instance—that can have significant implications for the success of military veterans in the corporate world.

Each branch of the armed services makes a trade-off between process and flexibility. Navy and Air Force officers operate enormously expensive, interdependent systems such as submarines and aircraft carriers, where deviation from formal procedures can be extremely costly in terms of equipment and lives. As one former Army captain, a combat veteran of Operation Iraqi Freedom, put it: "Misplace a bolt in the Army and you might have a broken-down truck. Misplace a bolt in the Navy or the Air Force, and you might lose a \$100 million piece of machinery." In such an environment, central coordination is emphasized at the expense of flexibility.

## Each branch of the armed services makes a trade-off between process and flexibility.



## Idea in Brief

Conventional wisdom says that military experience is an asset in the corporate world, but new research gives a more nuanced picture. The military is not a monolithic entity: Veterans from different branches demonstrate different strengths. The Navy and the Air Force engender a process orientation; the Army and the Marine Corps emphasize flexibility.

### Some implications for business:

Former Army and Marine Corps officers depend less on familiarity with the firm as they transition to leadership roles.

Executives with Army and Marine Corps experience do better in small companies than in large ones.

Former Navy and Air Force officers perform well in highly regulated industries.

Executives with Navy and Air Force experience excel in firms with a process approach to innovation.

Army and Marine Corps personnel, on the other hand, must constantly adjust to the realities on the ground. Their systems are modular and thus allow for greater flexibility. Subordinates have significant power to determine appropriate actions, always in accordance with the commander's overall plan. Carl von Clausewitz, the famous military theorist, wrote, "Everything is very simple in war, but the simplest thing is difficult. These difficulties accumulate and produce a friction." The danger, physical challenges, and uncertainty that create this friction are particularly apparent in ground operations, where adaptability and flexibility are essential.

Of course these generalizations do not reflect the myriad nuances of the military environment, yet this distinction—flexibility versus process—clearly influences subsequent corporate performance.

**Managing Interdependencies: The Navy and the Air Force.** In 1967, accidental weapon detonations on the aircraft carrier USS *Forrestal* in the Gulf of Tonkin killed 134 crew members, injured 161, and required a costly seven-month repair. The disaster was the product of a deviation from the rules, made in the interest of flexibility. Many of the aircraft on the carrier were fitted with Zuni rocket pods, each equipped with four unguided rockets. Two safety mechanisms prevented an accidental firing. However, to preclude potential delays in launching aircraft, the ship's Weapons Coordination Board had discarded one of them—a requirement that the electrical wiring connecting the pod to the aircraft not be hooked up until the aircraft was in launch position.

As an F-4 Phantom queued for launch one morning, its pilot switched from external to internal power. A power surge to a Zuni pod caused one of its rockets to launch. The rocket tore off the fuel tank of an A-4 Skyhawk, dislodging two 1,000-pound bombs. Fuel from the tank ignited, rupturing other fuel tanks and spreading flames among the closely packed air-

craft. The intense heat quickly detonated one of the dislodged bombs, killing or critically wounding the firefighters who were rushing in to control the blaze. Eight more bombs detonated, rupturing the flight deck and spreading flaming fuel to the interior of the ship, including the aircraft hangar belowdecks, where other armament was stored. The fire raged for hours.

There was a good reason for what seemed like redundant safety mechanisms. In the Navy and the Air Force, small deviations have large consequences. There are few, if any, opportunities to make corrections once an action has been taken. In this environment, personnel are highly specialized, and systems are interdependent and tightly coupled. The organization chart of a naval vessel resembles that of a corporation. Ships, which are centrally controlled, are typically organized into departments (operations, navigation, engineering, supply, and the like), which are further subdivided. *Standard Organization and Regulations of the U.S. Navy* devotes 168 pages to the particular duties and responsibilities of dozens of officer positions. In such a system, changes have unanticipated effects, and a small failure can set off a chain of events that ultimately jeopardizes the entire system. The *Forrestal* disaster represents an extreme example: An apparently minor decision, undertaken to enhance efficiency, had terrible consequences.

In the Air Force, as in the Navy, airmen adhere to a culture of precision and attention to process. The machines are smaller and operated by fewer personnel, but the destructive power of combat aircraft and the distances at which they engage their targets call for strict observance of procedures and frequent communication with other units. Deviations from procedure and breakdowns in the system can snowball, causing accidents and loss of life. The risks are serious enough that Air Force personnel are willing to sacrifice some flexibility.

The process-driven orientation of the Air Force and the Navy is evident in the reading lists for officers and enlisted personnel. Whereas the lists for all branches of the U.S. military include military history, biography, U.S. history, and civics, the Navy and Air Force lists include management books on process and quality, which the Army and Marine Corps lists do not.

How does this process-driven orientation translate to the corporate environment? First, we find that,

## An important lesson that business leaders can learn from the armed services? Fit matters.

contrary to the popular wisdom that a military background is good for execution but bad for innovation, the Navy and Air Force CMEs excelled in innovative sectors, at least in the companies we studied. In those companies—all drawn from the S&P 500 and thus relatively mature and established—innovation follows a predictable “sustaining” path, as Clay Christensen has written. Such firms treat innovation as a process, seeking new opportunities through established products and customer sets. The process-driven approach fostered by the Navy and the Air Force appears to be a good fit for this context.

Second, we find that these executives also do well in regulated industries—their companies earned more than double the cumulative excess stock returns over the five years following the hire, compared with the lightly regulated companies led by Navy and Air Force CMEs. Successful performance in highly regulated industries depends on compliance and the skillful execution of strategy within constraints. Good results should follow firms with efficient and reliable processes, and leaders who promote them.

The length of tenure at a firm before becoming CEO makes a big difference for this group of CMEs. Navy and Air Force CMEs with longer tenure at the firm prior to becoming CEO significantly outperformed those who had been promoted to chief executive as relative newcomers. That fits with the notion that Navy and Air Force executives thrive on

familiarity with processes. It takes time to learn a process, and therefore more time is required to develop a good fit between a process-oriented executive and the firm.

**Adaptive Command and Control: The Army and the Marine Corps.** The Army’s basic operations manual, *Mission Command: Command and Control of Army Forces*, describes an approach dramatically less reliant on procedure. Mission command tends to be decentralized, informal, and flexible. Officers place minimal constraints on coordination, defining the mission but allowing subordinates freedom in execution.

In an Army or Marine Corps operation, an order issued by a commander outlines a general objective, known as “commander’s intent.” Subordinates have discretion to issue orders for their areas of operation, as long as those orders are aligned with the intent. Moving down the chain of command, orders evolve in keeping with the environment. Individual operations may involve aircraft, armored units, artillery, and the like, but they all revolve around the infantry—and infantry operations are subject to rapid and dramatic changes in conditions. A decision to engage the enemy may be made by the most junior member of a unit. As a CEO who served in the Marine Corps in Vietnam put it, “You had to make sure that every corporal and lance corporal and PFC understood the operations order before an attack so that if anybody got wounded above them, they could pick up and not jeopardize the mission.”

He went on to describe his own experience in a helicopter assault, during the first 20 minutes of which two of the three lieutenants and six of the nine squad leaders were killed. Their subordinates had to be able to pick up the slack. He referred to the style as “patient leadership”: Give instructions and let people develop an appropriate course of action.

For example, if a Marine captain leading a rifle company is ordered to secure a neighborhood, he first assigns particular blocks to each platoon in his company. The lieutenant commanding a platoon then determines how to secure his assigned blocks, ordering each of the three 13-man rifle squads in the platoon to clear a particular group of buildings. Each squad leader in turn issues orders to three fire teams of four or five men. Although those closest to the enemy determine what tactical orders and actions to take, the overall objective does not change.

In the Army and the Marine Corps, the leadership environment is inherently messy and uncertain. “No



plan survives first contact with the enemy” is a military aphorism. Forces are modular and relatively independent, and focus on general capabilities (which allows them to make a variety of on-the-spot maneuvers); decisions are flexible, emphasizing local requirements and deviations; officers tolerate outright mistakes, which are inevitable when soldiers have to make unexpected changes; and subsequent corrections are feasible, frequent, and necessary.

According to the Marines’ leadership manual, “[Adaptability] means a willingness to deviate from normal, accepted practices—even from doctrine—if that is what it takes.” It also means that officers need to have absolute confidence in their subordinates.

In keeping with the need for adaptability and agility, Army and Marine Corps personnel are less specialized than their Navy and Air Force counterparts. It’s not that the former branches are populated by generalists, in the purest sense. All officers and enlisted personnel are trained in a “military operating specialty,” and each service has elements with specialized functions, such as artillery, logistics, transportation, communications, maintenance, armor, medicine, and aviation. Nevertheless, the Army and the Marine Corps operate on principles of broad individual competence and flexibility. If a supply convoy comes under attack, it is expected to organize its own defense while awaiting support. Drivers quickly become combat infantry. The Navy and the Air Force could not conceivably function on such a basis, given the complexity of their equipment and operating environment.

This type of leadership experience tends to turn out business executives who are comfortable empowering others to make frontline decisions. The Army and the Marine Corps view management as the ability to clearly and coherently communicate an overall vision, and to identify subordinates capable of executing according to it. You might expect that this approach would be more appropriate in a smaller firm, and that indeed appears to be the case. Over the five years following the hire, Army and Marine Corps CMEs leading smaller firms (in terms of number of employees) earned three times the cumulative excess stock returns of Army and Marine Corps CMEs at large firms.

Furthermore, perhaps because of the emphasis on leveraging people as opposed to processes, the length of tenure at a company prior to becoming CEO doesn’t affect the performance of former Army and Marine Corps personnel. Nor does the level of regulation.

**MILITARY SERVICE** no doubt engenders skills and experiences that are relevant and valuable to corporate leadership. But there’s something else businesses can learn from the armed services: Fit matters. The military is, for many, a leadership crucible that leaves a profound imprint. Yet different military experiences generate different leadership perspectives and styles. When individual human capital matches the firm or industry, it creates value. However, we looked at only a few categories of fit. We encourage individuals and organizations to understand their “fit” categories and think carefully about applying their human capital more productively.

When it comes to considering who should lead an organization, the best advice we can offer is to avoid a monolithic view of the military—or, for that matter, the general management population. In any organization, different circumstances demand different leadership skills. Hire the person who fits the job. ♥

HBR Reprint R1011E



“I want enough money to realize that it will not make me happy.”



## Spotlight

ARTWORK Stacy Pearsall,  
*Leg Up*, March 22, 2007  
Fort Jackson, South Carolina







**Michael Useem** is a professor of management and the director of the Center for Leadership and Change Management at the University of Pennsylvania's Wharton School in Philadelphia.

# Four Lessons in Adaptive Leadership

*by Michael Useem*

**T**he armed services have been in the business of leadership development much longer than the corporate world has. For more than two centuries, America has trained its officers to be effective leaders in combat and beyond—

the U.S. Military Academy at West Point dates to 1802. But warfare has changed, and so has business.

Military leaders need new tools and techniques to face a fast-changing and unpredictable type of enemy—so the armed services train their officers in ways that build a culture of readiness and commitment. Business leaders need just such a culture to survive and succeed, given that they, too, face unprecedented uncertainty—and new types of competitors.

That's why my colleagues at Wharton and I incorporate military leadership principles into our MBA and executive MBA programs, through direct contact with members of the U.S. Army, the U.S. Marine Corps, and the Department of Defense. Students have the opportunity to engage with top leaders from the armed services, participate in military training exercises, and visit historic battlefields. Most events are brief—one or two days long—but all are intense.

Anchoring learning moments in such experiences, we believe, brings the leadership precepts to life. In this article, I focus on four of them: Meet the troops, make decisions, focus on mission, and convey strategic intent. Most managers understand that these are essential for leadership. But seeing them embodied, experiencing them personally, and witnessing where they made a difference is what drives them home.

## Meet the Troops

### Creating a personal link is crucial to leading people through challenging times.

An important facet of our business leadership program entails bringing military officers to campus. Here's how one day played out when the Chairman of the U.S. Joint Chiefs of Staff visited our MBA classrooms.

It is 10 minutes before class time, and many of the 65 first-year students are taking their assigned seats in a tiered classroom. The general strides into the room—four stars on his epaulets and a half-dozen staffers and security agents close behind. He walks straight to the first row and introduces himself to the nearest student. He shakes hands, exchanges a few personal words, and then moves on to the next student. He's working the room, and after several minutes he reaches a student from Moscow in the third row.

A handshake, a brief look in the eyes: Those small actions make an indelible impression.

Normally animated before class begins, the students are eerily silent as they witness what unfolds. The Russian student says that his father was a general in the Red Army and served on the other side of the Cold War. The general pauses and then replies that he and the student's father undoubtedly had many similar experiences and that he would welcome the chance to have a round of vodka together if the Russian general were to visit the U.S. The students are visibly relieved to see the chairman instantly find common ground across a historic divide.

In another classroom on another visit to the school, a student reports that as an active Marine reservist, he has been called up to fight in Iraq and will soon have to take leave from his MBA program. The student asks the general what he thinks about the deployment and the disruption. The general responds simply, "Congratulations!" The students are reminded that in the world of the armed forces, national service is the calling, whatever the personal

costs or benefits. By implication, the organization should be put first in business, whatever the individual calculus, and it is important for leaders to repeatedly affirm that.

Earlier in his military career, the general was responsible for some 92,000 troops ready for assignment to hot spots including Bosnia and Somalia, and he adopted a policy of having a personal interaction with everybody under his command every year. Sometimes he would meet with a few troops in a small venue; more often he'd attend a gathering of thousands in an airport hangar. But always he strove to make the events as personal as possible. An individual handshake, a brief look in the eyes: Those small actions make an indelible impression, serving to focus attention and ensure retention of the mission and message that a leader seeks to convey.

## Make Decisions

### Making good and timely calls is the crux of responsibility in a leadership position.

Twice a year, we arrange for 90 MBA students to participate in a learning exercise with the U.S. Marine Corps's Officer Candidates School at Quantico, Virginia. On arrival, a Marine officer explains the training program; then drill instructors take charge. The next day our students begin the school's Leadership Reaction and Combat courses.

Dawn is brightening at the base, and we are ready to go. Feeling the effects of the drill instructors' harsh tutelage and little sleep in the Marine barracks the night before, the students form five-person "fire teams" for one of the most intense learning experiences any of them are ever likely to endure. At one point, for instance, the instructor explains that they have ten minutes to solve a seemingly unsolvable problem: Move a weighty steel drum from one side of a 10-foot near-vertical barrier to the other side without stepping on the red paint here and there that signifies explosive devices.

One of the teams strategizes and then acts, cleverly managing to move the drum as prescribed. The high fives are short-lived, however, when the Marine instructor berates the team for taking so long to integrate members' suggestions for surmounting the barrier. They moved too slowly, he lectures, and the enemy would most likely have occupied the other side before the students got there. Though stung by the criticism, the students absorb the point. They deliberated too long with too little team leadership before getting into the game.



## Idea in Brief

**A culture of adaptability is vital to survival in the armed services. As business executives cope with increasing unpredictability, they can take a page from the military's book.**

Create a personal link with every employee—individually or in gatherings. A direct connection reinforces your message.

Act fast—don't shoot from the hip but don't wait for perfection.

Make organizational interests your top priority—don't let others falter as you prosper.

Set a direction but don't micromanage—give people the freedom to improvise.

The ability to make fast and effective decisions that draw quickly upon the insights of all those on the front lines is among the defining qualities of combat-ready leadership. It is encoded in a Marine dictum: When you're 70% ready and have 70% consensus, act. Don't shoot from the hip, but also don't wait for perfection. Of course, the 70% is not a strict metric but, rather, a metaphor for the need to balance deliberation and action.

The lesson is directly applicable to the corporate boardroom or executive suite: If you can't learn to make good and timely decisions under ambiguous conditions, you've chosen the wrong calling.

### Focus on Mission

**Establish a common purpose, buttress those who will help you achieve it, and eschew personal gain.**

After dinner at the Quantico officers' club, a Marine general explains to the MBA students that in combat a commander must unequivocally commit to two objectives: (1) Accomplish the mission, and (2) Bring all your people back from the battlefield, whatever their condition. Mission first, then team, then self.

That central point was underscored in another program that we helped conduct with an executive team from one of America's biggest financial institutions.

The participants are ensconced early in the day in a classroom at West Point as two of the academy's instructors offer their views on military leadership and its implications for corporate leadership. Then, donning Kevlar helmets and camouflage paint, the senior bankers dive into the physical trials of a leadership reaction course similar to the one the MBA students experienced at Quantico. A series of demanding tasks—such as bridging a gap with little time and few materials or slithering across a set of wobbly, widely separated chains with no obvious

path—await them. The teams tackle problem after problem, their ranks steadily depleting as individuals step on those deadly splotches of red paint.

An after-action review—the military's lauded method for assessing a mission to improve future performance—is held as the participants motor back to a company conference center. One of the senior managers speaks forcefully. Too often at the bank, he observes, managers are unfazed when colleagues step on a red splotch, committing a career-damaging mistake by, say, taking on too much risk. Many secretly believe that their own careers will prosper as others' falter. But what is good for the individual manager is not necessarily good for the company. Mission must come first, self-interest last. Creating company value, not the pursuit of private value, he says, should drive leadership actions.

On the West Point combat course the bankers learned the hard way to warn fellow "soldiers" about the red paint. Only after several had already touched the explosive devices and were taken out of action did the lesson hit home. The bankers voiced a visceral need in the review session to build a more preemptive culture at their own company. They came home with a strengthened resolve to forewarn one another when they are getting close to making a career error, even when others' errors may result in their own gain.

### Convey Strategic Intent

**Make the objectives clear, but avoid micromanaging those who will execute on them.**

With both company managers and MBA students, we frequently visit a Civil War battlefield to learn from the history of the armed services, not just its current practices. The armed services have long termed such experiences "staff rides." Military officers in training visit battlefields such as Gettysburg and Normandy



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to sharpen their strategic thinking by witnessing how others exercised theirs during moments of great significance.

In one case, we traveled to the Gettysburg battlefield with 50 MBA students, a banker, a private equity investor, and a battlefield guide. We gathered on the hill that anchored the far-left flank of the Union army line that formed on July 2, 1863, to defend against the Confederate army. General Robert E. Lee's men

ter what may come. The commander did not say *how*, but he unequivocally conveyed *what*.

Within minutes of the order, the anticipated attack commenced, and after two hours of intense fighting, Chamberlain's unit had nearly exhausted its ammunition. He knew his position would soon be overrun, but he also knew he must think creatively if he was to carry out to his commander's intent. In the heat of combat he ordered a rarely used tactic

## What is good for the manager is not always good for the company. Mission must come first, self-interest last.

had invaded the North to bring the Civil War to an end on Southern terms, and President Abraham Lincoln had sent the Yankee army to prevent just that.

In the exercise, we relive the moment in which a Union commander placed a subordinate officer, Joshua Lawrence Chamberlain, and his 400 soldiers at this end point of the Union line. The commander told them, If the line is overrun by Confederate attackers, the entire Union army will disintegrate. The subordinate officer must hold the left flank, no mat-

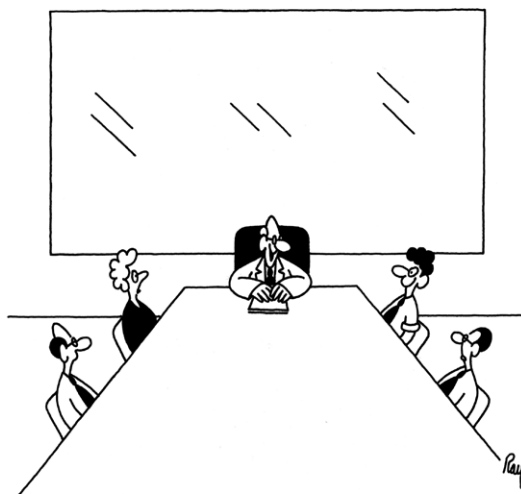
ter what may come. The commander did not say *how*, but he unequivocally conveyed *what*.

Chamberlain received the nation's highest military recognition, the Medal of Honor, for his valor and inventiveness. Our group stands on the very same ground where he led the charge. As we visualize the moment, we are reminded of just how important the clear expression of strategic intent can be for achieving any mission. Without his commander's compelling communication of what must be done and without the freedom to decide how to do it, Chamberlain's actions on that history-making hill might have taken a very different turn.

Both the banker and the investor accompanying the MBA students reinforced the message: Conveying strategic intent is one of the skills essential to aligning people across an organization to reach a common goal—and leaders must then rely on the people's ingenuity for getting there.

**AT WHARTON**, we have turned to the armed services to learn leadership precepts like these. Personally observing microcosms in which we can appreciate the precepts in action enables us to carry them with us for application when we face our own times of great ambiguity, urgency, and stress.

We fight very different battles in business. But the armed services provide exceptionally powerful schooling for engagements that are likely to make a difference. By looking far afield, we can often better see what is close to home. ♥



"We all roll up our sleeves.' I like it, Jenkins!"

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CARTOON: SAM RAY



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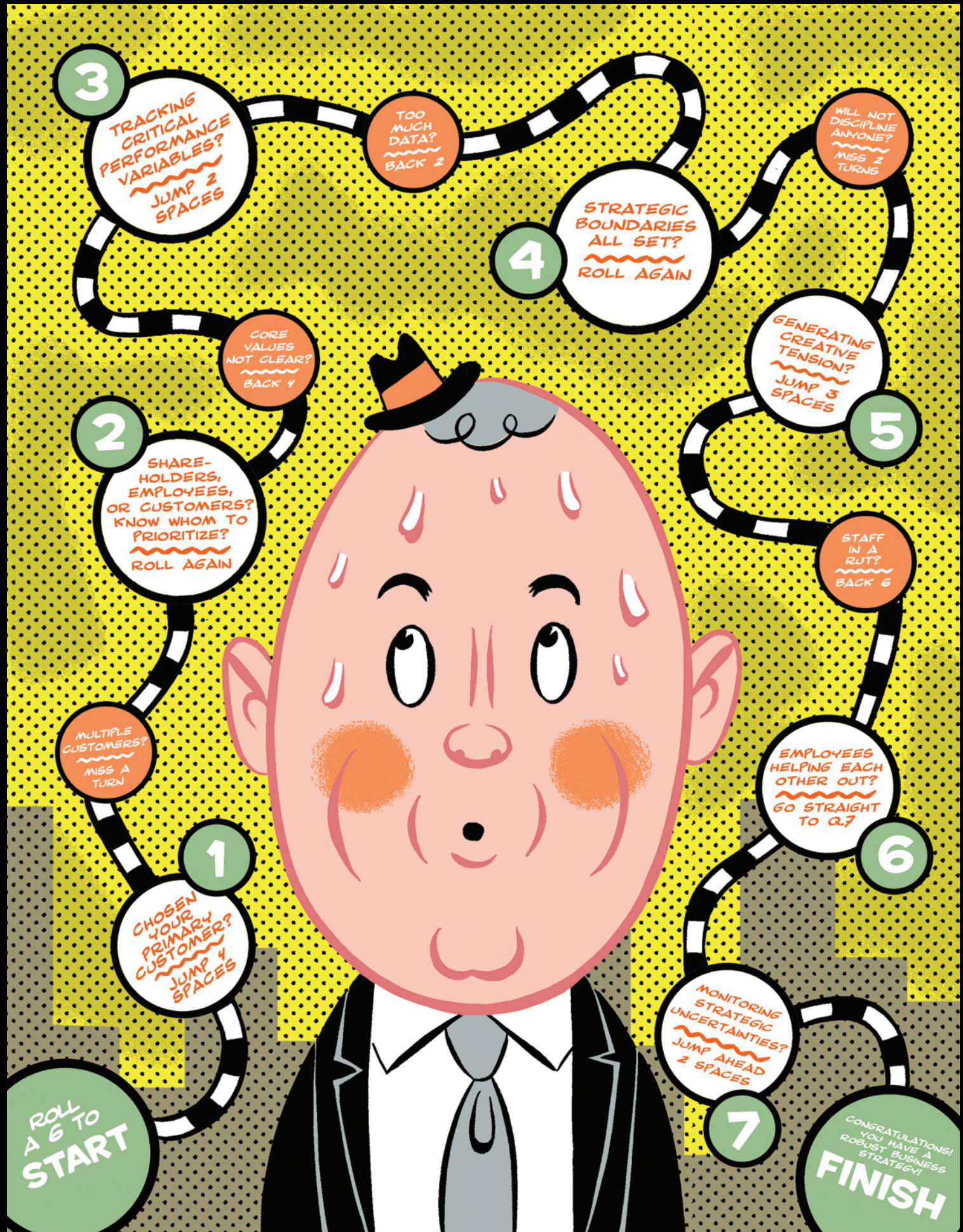
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**Robert Simons** is the Charles M. Williams Professor of Business Administration at Harvard Business School. This article is adapted from his book *Seven Strategy Questions: A Simple Approach for Better Execution* (Harvard Business Review Press, 2010).

# Stress-Test Your Strategy

## The 7 Questions to Ask

*by Robert Simons*

**AN ECONOMIC DOWNTURN** can quickly expose the shortcomings of your business strategy. But can you identify its weak points in good times as well? And can you focus on those weak points that really matter?

A stress test—an assessment of how a system functions under severe or unexpected pressure—can help you home in on the most important issues to address, whatever the economic climate. By asking tough questions about your business, you can identify confusion, inefficiency, and weaknesses in your strategy and its implementation.

As Peter Drucker once warned, “The most serious mistakes are not being made as a result of wrong answers. The truly dangerous thing is asking the wrong questions.” For the past 25 years I have researched the drivers of successful strategy execution in a variety of companies and industries. Through this work I have identified seven questions that all executives should ask—and be able to answer. Master this list, and you will keep the fundamentals of your strategy execution on track.

The questions may seem obvious, but the choices they represent can be tough, and their full implications are not always immediately clear. The first two questions compel you to set strict priorities. The next two assess your ability to focus on those priorities by designating critical performance variables and constraints. Questions five and six investigate whether you are using techniques that will enhance creative tension and commitment. The final question deals with your ability to adapt your strategy over time.

Let's take a look at each question, so that you can see how you—and your strategy—measure up.

### Who Is Your Primary Customer?

Choosing a primary customer is a make-or-break decision. Why? Because it should determine how you allocate resources. The idea is simple: Allocate all possible resources to meet and exceed your primary customer's needs.

Consider McDonald's, whose 32,000 restaurants feed more than 58 million customers each day. The company's growth over its 50-year history has been described as the greatest retail expansion in the history of the world.

What was the fast-food chain's key to success? A clear choice of a primary customer and an understanding of when that choice needed to change. In the 1980s and 1990s, McDonald's considered its primary customers to be not the people who ate in its restaurants but multisite real estate developers and franchise owners. By focusing most of its resources on those customers through centralized real estate development, franchising, and procurement functions, it opened as many as 1,700 new stores a year.

But by 2003 same-store sales were declining. Worldwide markets were saturated, and people were

### WHO IS A "CUSTOMER"?

**Don't use the word "customer" to refer to anyone inside the organization. Internal people are never a company's primary customers, and treating them as such may cause you to lose sight of your true focus.**



tiring of the chain's standardized fare. This crisis prompted the new CEO at the time, Jim Cantalupo, to make a tough decision: "The new boss at McDonald's is the consumer," he announced.

The company's subsequent changes in resource allocation reveal the profound implications of this decision. Consumers' tastes differ widely by region and throughout the many countries in which McDonald's operates. To satisfy these varying tastes, McDonald's reallocated resources from centralized corporate functions to regional managers, who were encouraged to customize local menus and store amenities. In the United Kingdom, McDonald's now serves porridge for breakfast; in Portugal, it offers soup; in France, it sells burgers topped with French cheese. The Paris design center provides franchisees with nine different design options, allowing them to customize the decor for their clientele.

As of last January, McDonald's had delivered 81 consecutive months of increasing same-store sales around the world. Its customer satisfaction scores rose each year from 2005 to 2009 (they faltered slightly in early 2010, as more upscale customers began to choose McDonald's over pricier alternatives). It's no accident that McDonald's was one of only two companies in the Dow Jones Industrial Average to end 2008 with a gain in stock price.

Unlike McDonald's, many companies resist choosing just one customer. Executives often attempt to avoid the adjective "primary" by announcing, "We have multiple customers." This is a sure recipe for underperformance. Allocating resources to more than one customer results in confusion and less-than-optimal service.

Trying to accommodate multiple kinds of customers led to trouble at Home Depot. After taking

## The Seven Questions

**1**  
Who is your primary customer?

**2**  
How do your core values prioritize shareholders, employees, and customers?

**3**  
What critical performance variables are you tracking?

**4**  
What strategic boundaries have you set?



## Idea in Brief

How do you identify the weakest parts of your strategy? Asking tough questions about your business—seven key questions in particular—will help you understand where confusion and inefficiency lie.

Have you identified a primary customer? Who is first among your stakeholders—shareholders, employees, or customers? Have you narrowed down which performance variables you track? Set critical boundaries? Do you generate creative tension? Promote coordination among your employees? And

finally, what questions keep you up at night, thinking about how the future will change your business?

over as CEO in 2000, Bob Nardelli concluded that the consumer home improvement business was saturated, and shifted significant resources away from consumers in order to cater to professional contractors. Consumers would no longer be the primary customers—but it wasn't clear that professional contractors were filling that role, either. Home Depot laid off customer service employees—the ones walking the aisles in orange aprons at its 1,900 stores—and spent the savings on an \$8 billion acquisition spree, snapping up 30 wholesale housing-supply companies.

The acquisitions nearly doubled company revenue, but even so there weren't enough resources to meet the needs of two such different types of customers (there never are), and neither group was well served. During Nardelli's tenure Home Depot's consumer satisfaction scores suffered the biggest drop of any U.S. retailer ever. At the same time, the wholesale supply operation was not getting the support required to obtain the efficiencies needed for a low-margin business.

It took a new CEO, Frank Blake, to refocus the business. In 2007 he announced that home owners

would again be the primary customers. Home Depot sold its wholesale businesses, increased the number of orange aprons on the floor, and rehired master trade specialists to offer consumers how-to advice. Consumer satisfaction scores and same-store sales and profits have begun to rebound.

Of course, your choice of primary customer may change over time—recall what happened at McDonald's. But you need to recognize that such a change will probably require restructuring your business.

The flip side of maximizing resources for your primary customer is that you should minimize the resources devoted to everything else—including all external stakeholders and all internal units that do not create value for your primary customer. They should receive enough to meet the needs of their constituents, but no more.



## How Do Your Core Values Prioritize Shareholders, Employees, and Customers?

Companies that execute strategy well define their core values to reflect the relative importance of shareholders, employees, and customers. Value

**How are you generating creative tension?**

**How committed are your employees to helping each other?**

**What strategic uncertainties keep you awake at night?**

## Ask the Whole Team

The seven questions are intended to be tools for stimulating engagement. Everyone in your business, from the CEO to the front line, must be actively involved in discussions about the key factors that will enable the successful execution of your strategy. Therefore, *how* you ask the questions is crucial. These commonsense principles will help you involve your whole team.

**You must pose the questions face-to-face.** “Look me in the eye” interaction is essential. You cannot get real engagement remotely or by e-mail. You must be able to see the subtle body language that can tell you when to challenge, probe, and push and when to offer encouragement and support.

**Discussions must cascade down the organization, not stay stuck at the top.** The tone you set will echo throughout the business.

statements that list aspirational behaviors aren’t enough. *Core* values must indicate whose interests come first when difficult trade-offs must be made.

At some companies, customers come first. At others, it may be shareholders. At yet others, it may be employees. There is no right or wrong choice. Each choice is based on a different theory of value creation. But making one and communicating it effectively are essential.

A case in point is Merck’s costly decision to withdraw Vioxx, its blockbuster Cox-2 pain suppressant, from the market. On September 24, 2004, then-CEO Ray Gilmartin got a call from the head of Merck’s research labs, informing him that the preliminary results of an ongoing clinical study indicated that Vioxx caused unexpectedly high numbers of heart attacks and strokes after 18 months of continuous use. Gilmartin had three options: Merck could carry the study through to its planned conclusion to gather more data. It could ask the FDA to approve a “black box” label warning doctors and patients about the newly discovered risks. Or it could take the drug off the market, forgoing \$2.5 billion in annual revenue.

On September 30—six days after the phone call—Gilmartin convened a press conference to announce the worldwide withdrawal of Vioxx. He explained his decision by citing the company’s core value: “Merck puts patients first.”

In contrast, Pfizer executives put shareholders first when faced with a similar situation. After discovering that Celebrex—the Cox-2 inhibitor Pfizer acquired when it bought Pharmacia—sometimes caused cardiovascular problems, they decided to keep manufacturing the drug. But they did so responsibly, adding a black box warning that allowed patients and doctors to make fully informed decisions. Shareholders thus avoided losing billions of dollars in profits.

A third option is to put employees first—a choice that can actually keep customers and shareholders content as well. As the former Southwest CEO Herb Kelleher has argued, “If employees are treated well, they’ll treat the customers well. If the customers are treated well, they’ll come back, and the shareholders will be happy.” To drive this point home, Kelleher regularly appeared in national newspaper ads under the caption “Employees first. Customers second. Shareholders third.” Other companies have made and communicated a similar choice.

Each of these rankings worked because the company made a clear decision and implemented it consistently. This is not always the case. Confusion about core values was at the root of the recent Fannie Mae debacle. Company executives, acting at politicians’ behest, dedicated \$1 trillion to democratizing home ownership by offering mortgages to disadvantaged customers. However, they were also trying to maximize shareholder value. To boost short-term profits, they built up and sold increasingly risky loan portfolios—until the housing market collapsed, leaving taxpayers with a \$100 billion bailout bill.

### What Critical Performance Variables Are You Tracking?

Many managers complain that they’re overwhelmed by how many things they’re asked to keep track of in all-inclusive lists of performance measures. It’s not uncommon for companies to create scorecards with 30, 40, or more variables, in the mistaken belief that adding measures results in a more complete—and therefore better—scorecard. Information technology enables us to gather more and more data at lower and lower cost. But we cannot keep tracking so many variables. Effective managers monitor only a small number—those that could cause their strategy to fail.

The problems generated by trying to track too much data became evident at Citibank in the late





**Your operating managers are key to the process.** Staff groups can play a useful role in data input, facilitation, and follow-up, but operating managers are the ones who can commit to action and who are responsible for results.

**The debate must be about what is right, not who is right.** People should check titles and office politics at the door. You should encourage everyone to take risks, state unpopular opinions, and challenge the status quo.

**You must root every discussion in the challenge “What are you going to do about it?”** Think of the seven questions as a means to an end. Their purpose is to inspire decisions and, ultimately, action.

1990s, after executives introduced a new scorecard in their consumer bank. In addition to traditional financial measures, the card included new metrics for such things as strategy implementation and customer satisfaction.

As one district manager was pondering the award level for her top branch manager, conflicting signals from the new scorecard stopped her short. Although the branch manager had delivered outstanding financials, his customer satisfaction scores were sub-par. The system would not permit a full bonus unless every measure was rated at par or above. Making an exception for one person could destroy the integrity of the system. But the branch manager might leave for a competitor if the scorecard undervalued his contribution. In the end his manager fudged the scorecard to ensure that he received an acceptable bonus. Because of similar problems involving other employees, the bank soon dropped the new scorecard.

Apart from avoiding this sort of dilemma, there is a simple but often overlooked reason to measure just a few variables: Management attention is your scarcest resource. As you add metrics to your scorecards, you incur an opportunity cost, in that people have less time to focus on what really matters. Think of Amazon, where inconvenience for buyers tops the list of factors that could cause strategy to fail. Executives there focus relentlessly on making purchasing as easy as possible: They concentrate on revenue per click and revenue per page turn, not on long lists of measures that have little to do with the customer's purchasing experience. At Nordstrom customer loyalty is key, so executives keep their attention on sales per hour and revenue per square foot. At Marriott the crucial metrics are associate satisfaction, guest satisfaction, revenue, and RevPAR (revenue per available room).

There's another reason to limit your focus: If you add too many measures to your scorecards, you will

drive out innovation. In the old McDonald's—the one that prioritized franchise growth and standardized food—field consultants visited each store to measure its compliance with prescribed operating standards. They analyzed 500 metrics, producing a 25-page report on each store. With all the constraints imposed by these measures, store managers had no opportunity to innovate or respond to consumer preferences. Standardized mediocrity was the result.



### What Strategic Boundaries Have You Set?

Every strategy carries the risk that an individual's actions will push the business off course. The risk intensifies when managers feel pressure to hit growth and profit targets.

There are two ways to control such risk: You can tell people what to do, or you can tell them what *not* to do. Telling people what to do helps assure that they won't make mistakes by engaging in unauthorized activities. This is the prudent approach if safety and quality are paramount concerns—if, say, you're running a nuclear power plant or overseeing a space launch. In such cases you want employees to follow standard operating procedures to the letter.

However, if innovation and entrepreneurial thinking are important, you should follow a different course: You should hire creative people and tell them what not to do. In other words, you should give them freedom to exercise their creativity—within defined limits.

Steve Jobs followed this principle when he declared that Apple would not develop a PDA. He later argued that without such discipline, the company wouldn't have had the resources to develop the iPod. “People think focus means saying yes to the thing you've got to focus on,” he later said. “But that's not what it means at all. It means saying no to the hundred other good ideas.”

Setting clear boundaries also lets organizations avoid the waste and risk that inevitably accompany undisciplined growth. To take one dramatic example, Wells Fargo weathered the 2008–2009 financial crisis because it strictly forbade its employees to venture into structured investment products and low-documentation mortgage loans. Unlike most of its competitors, Wells Fargo also refused to court future business from Warren Buffett by lending money to Berkshire Hathaway at below-market rates. This decision actually won Buffett's respect. "I got a big kick out of that, because that was exactly how they should think," he told *Fortune*. "The real insight you get about a banker is...what they don't do. And what Wells didn't do is what defines their greatness."

But remember: Boundaries are powered by punishment, not rewards. You must be willing to discipline—and fire, if necessary—anyone caught stepping over the line. If you follow up forcefully and consistently, word will travel throughout your organization, reinforcing the importance of your prohibitions.

### How Are You Generating Creative Tension?

As a business leader, one of your primary jobs is to make outside market pressures felt inside your business. This can motivate employees to think and act like winning competitors, rousing them from comfortable ruts. The bigger your business, the more insulated people are from market pressures, and the more imperative this becomes.

Here is a menu of techniques that can generate creative tension and spur innovation. In this instance, unlike when defining a primary customer or ranking your responsibilities, you needn't choose just one; choose whichever and however many are right for your company. In fact, the more innovation you desire, the more techniques you should consider.

**Assigning stretch goals.** The most common way of motivating people to innovate is to set stretch goals—sometimes called challenge goals or big hairy audacious goals. Conducting business as usual or making incremental improvements is not enough. The only way to meet aggressive targets is to do something completely different.

**Ranking according to performance.** Many high-innovation organizations rank employees on the basis of demonstrated performance. The rankings affect who is promoted, who is placed on probation, and who is asked to leave. The challenge, of

course, is to prevent the competition from becoming negative and destructive.

GE's Jack Welch is unapologetic when he argues the merits of this approach. The ranking system at GE was "very controversial," he has said. "Weed out the weakest....It's been portrayed as a cruel system. It isn't. The cruel system is the one that doesn't tell anybody where they stand."

You can take this approach a step further by ranking the performance of teams and business units. This will unquestionably produce adrenaline to compete—and to innovate. Nike's CEO, Mark Parker, likes to fire up friendly rivalries by posting each footwear division's performance scores after every season. "People see each other's scores, and they huddle and really look at how they can make it better next season," he has explained.

**Setting spans of accountability that are greater than spans of control.** If you want people to innovate, try holding them accountable for measures that are broader than the resources they control. This is the well-worn path followed by every successful entrepreneur, and you can use it to foster entrepreneurial behavior within your business.

Tom Siebel, of Siebel Systems, understood this principle well when he based his managers' bonuses on customer satisfaction measures, even though no one manager controlled all the resources needed to make a customer happy. His action forced the managers to innovate their way to success. As one business unit head put it, "To do my day-to-day job, I depend on sales, sales consulting, competency groups, alliances, technical support, corporate marketing, field marketing, and integrated marketing communications. None of these functions report to me.... Coordination happens because we all have customer satisfaction as our first priority."

**Allocating costs.** The way in which you charge corporate overhead costs can also stimulate creative tension. Jamie Dimon, the CEO of JPMorgan Chase, insists on full allocation of overhead—everything from legal to marketing expenses—to the parts of the business that use them.

The purpose here is twofold. The most obvious goal is to generate accurate cost data. But often the more important one is to motivate managers to become actively involved in discussions about the value of corporate services provided. When operating managers have skin in the game, they will generate ideas about how units can work together to do things better, faster, or cheaper.



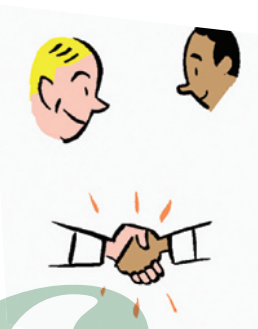


# One way to force employees to think outside the box is to assign them to a second box.

**Creating cross-unit teams and matrix accountability.** Another way of forcing employees to think outside the box is to assign them to a second box. New perspectives emerge when people are forced out of their routines. When they attend cross-unit team meetings, employees not only serve as emissaries for their home units but also return with ideas and innovations from their new colleagues.

You can push this approach to an extreme by adopting a matrix design, in which every manager has two bosses. One may be a regional head, the other a product market head. Everyone in the matrix is then accountable for conflicting priorities. Many global companies, including ABB, Novartis, and P&G, have at one time or another used this approach.

As with each of these techniques, you must be careful to balance the benefits and costs. On one hand, you will generate creative tension as people present and negotiate multiple points of view. On the other hand, you risk having the added bureaucracy slow down decision making. When P&G adopted a matrix structure, global product leaders had to get approval from the relevant regional head whenever they wanted to introduce a new product. Too many people had veto power. So in 2005 P&G abandoned the matrix in favor of global business units.



## How Committed Are Your Employees To Helping Each Other?

Although you want your employees to achieve their personal best, they must also work together toward shared goals. To create the high levels of commitment that requires, leaders must build an organization that has the following four attributes:

**Pride in purpose.** If people are proud of their organization's mission, they will assume shared responsibility for its success. The sort of pride embodied in the Marine Corps slogan "Semper fidelis" ("Always faithful") is echoed in Merck's "Putting patients first" and Amazon's "Earth's most customer-centric company." In each case the tagline inspires and motivates members of the organization.

**Group identification.** Belonging to an elite organization is itself a source of pride, one that carries with it a sense of responsibility toward others in the group. In the Marines ("The few. The proud"), the

first loyalty of every member is to the unit—to helping those in it no matter what.

The same principle can apply to businesses. Employees of Southwest Airlines, for example, take pride in a rigorous selection process that admits fewer than 2% of the 100,000 annual applicants. To reinforce their identification with the company, employees from different departments are encouraged to interview job candidates and veto those they feel would not be a good fit. Applicants who are hired know they are part of an elite team whose members go above and beyond to help one another.

**Trust.** When you trust your colleagues, you're willing to make yourself vulnerable—to put your reputation on the line to support them. Trust is vital if you want people to work collaboratively. At Nucor, the industry-leading steel company, employees are encouraged to propose innovations to improve efficiency. Nucor shares the resulting savings with its employees, rather than increasing production targets. This policy has built trust among the workers, who are confident that they and the executives are working together toward the same goals.

**Fairness.** The final requirement for collaboration is fairness. Disparities in compensation among peers pose the most obvious challenge: Nothing is more certain to kill the desire to help a colleague. In themselves, inequities in pay are easy to fix; far more insidious are perks signaling that those at the top are more deserving than everyone else. To guard against this danger, Southwest's highest executives work out of small interior offices that have been described as only slightly nicer than janitors' closets.

Vertical pay inequity is also an issue; if you want people to commit to helping one another, you must share rewards fairly up and down the organization. Southwest has operated with a rule that executive pay increases cannot be larger, proportionately, than other employees' raises. And in bad times executives take pay reductions along with everyone else. An industry analyst once calculated that as a result of these practices, Southwest generated 10 times more revenue for every dollar of executive compensation than some of its big U.S. competitors.

If you want your employees to embrace your vision of shared success, you must be perceived as putting fairness and equity above self-interest. When Sam Palmisano took over as IBM's CEO, he asked the board to reallocate half of his bonus to the executives who would be leading his new, team-based strategy. And early last year, when he announced



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that 250,000 IBM employees would be getting raises, he added, “The executives won’t—but that’s fine. We make enough money!”

### What Strategic Uncertainties Keep You Awake at Night?

At the root of every failed strategy is a set of assumptions about the future that eventually proved false. We assumed housing prices would never fall simultaneously across the country. We assumed asset diversification would eliminate risk. We assumed the migration to digital media would be slow and orderly. We assumed customers wouldn’t accept fewer features in exchange for a lower price.

Only three things in life are certain: death, taxes, and the fact that today’s strategy won’t work tomorrow. At some point your products will become obsolete, your customers’ tastes will change, or technology will render your business model uncompetitive. Today’s successes will be tomorrow’s old news. The question is not if, but when.

To adapt successfully, you must constantly monitor the uncertainties that could invalidate the assumptions underpinning your current strategy. Your entire organization must continually scan the competitive environment for changes and send intelligence up the line. And because everyone watches what the boss watches, if you want your employees to focus on specific issues, focus on those issues yourself.

The most powerful way to signal what’s important to you is to use your business control systems as interactive tools. Pay close—and visible—attention to the data they produce, and use them to generate questions that will activate the search for information throughout your business.

By using its P&L system interactively, Goldman Sachs avoided the mortgage-backed securities debacle that brought most of its competitors to their knees. A Goldman executive has described the process this way: “We look at the P&L of our businesses every day. We have lots of models that are important, but none are more important than the P&L, and we check every day to make sure our P&L is consistent with where our risk models say it should be. In December [of 2006] our mortgage business lost money for 10 days in a row. It wasn’t a lot of money, but by the 10th day we thought that we should sit down and talk about it.” The talk quickly turned into action: Goldman issued an order to reduce exposure to mortgage-backed securities and hedge remaining

positions against future losses. This early move allowed the firm to prosper as competitors were forced to liquidate.

Depending on your business, the system you choose to use interactively could be a profit plan, a new-business booking system, or a project management system. Any performance measurement system will do as long as it contains easy-to-understand information, requires face-to-face interaction among operating managers, focuses dialogues on strategic uncertainties, and generates new action plans.

Once you’ve chosen a system, you must not only ask your employees to challenge deeply held assumptions, including your own, but also reward those who have the courage to tell you bad news. When Alan Mulally arrived at Ford as the CEO, he discovered that executives were afraid of admitting failure. Their presentations at Thursday morning meetings highlighted only successes (color-coded green), never problems (color-coded yellow and red). Mulally asked how everything could be so rosy when the company was losing billions. Mark Fields, the head of the Americas division, finally gave a presentation noting technical problems with the new Ford Edge. Everyone waited to see how the new boss would react. “The whole place was deathly silent,” Mulally recalled in an interview with *Fortune*. “Then I clapped, and I said, ‘Mark, I really appreciate that clear visibility.’ And the next week the entire set of charts were all rainbows.”

### A Checklist for Executing Strategy

Executing strategy successfully requires making tough, often uncomfortable choices based on simple logic and clear principles. But we frequently avoid making choices, in the mistaken belief that we can have it all. Instead of focusing on one primary customer, we have many kinds of customers. Instead of instilling core values, we develop lists of desired behaviors. Instead of focusing on a few critical measures, we build overloaded scorecards.

There is no magic bullet that can zero in on the pitfalls of your business strategy. There is only one route to success: You must engage in ongoing, face-to-face debate with the people around you about emerging data, unspoken assumptions, difficult choices, and, ultimately, action plans. You and they should be able to give clear, consistent answers to the seven questions posed above. Only then can you be confident that your strategy is on track. ▣

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## LET'S PASS ENERGY ON TO THE NEXT GENERATION. **LET'S GO.**

The Yoshida children have a lot of energy. But the country they're growing up in doesn't. Japan, like many other countries, needs a reliable source of energy. That's why Shell is helping to deliver natural gas to more countries than any other energy company. Not just for tonight's bowl of warming noodles, but for years to come, when the children may have children of their own. Let's build a better energy future. Let's go. [www.shell.com/letsgo](http://www.shell.com/letsgo)











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# Finding Competitive Advantage in Adversity

Difficult business environments can offer rich opportunities to entrepreneurs. *by Bhaskar Chakravorti*

**J**onathan Bush saw the opportunity to dramatically change how obstetrics practices function. He and his partner set out to build a medical business whose objective was to incorporate both traditional and holistic care options for mothers-to-be. Their aspirations were grand, and demand for their services rapidly grew. But when reliance on slow-paying insurers strapped the practice for cash, Bush's vision got tangled in red tape.

In this failure, however, Bush envisioned what would ultimately become his truly innovative business idea: a health care IT service that spares its clients bureaucratic purgatory. That service, athenahealth, is now a \$189 million business.

Unlike many managers whose instincts are to hunker down and play it safe during difficult times, entrepreneurs like Bush hear a call to action in the

oft-repeated advice of Machiavelli: "Never waste the opportunities offered by a good crisis." Even as the global economy lurches toward a new normal, long-term crises demand solutions in a variety of domains: geopolitics, the environment, health care, education, infrastructure, poverty and inequity juxtaposed with rapid growth, and broken business models in multiple industries. In fact, instead of the waves of expanding frontiers that defined the 20th century, constraint and restraint may define the 21st.

For entrepreneurs with an eye for counterintuitive solutions, extreme problems and seemingly insurmountable adversity can be a crucible for creativity and business-model innovation. In studying hundreds of companies that were created or reinvented in difficult circumstances of many stripes, I have identified four key types of opportunities that innovative entrepreneurs see and seize upon in a climate of extreme adversity. Those who face today's tumultuous business environment can learn from their example. First, let's learn about the business climate of adversity.

## Adversity as a Context for Business

Considerable evidence shows that periods of extreme adversity foster innovation and the building of companies. For example, 18 of the 30 firms currently on the Dow Jones Industrial Index were founded during economic downturns. The Kauffman Index of Entrepreneurial Activity showed that the rate of

new-business creation was higher during the deepest part of the 2009 recession than it had been in the 14 previous years, including the 1999–2000 technology boom.

Moments of crisis have historically served as a powerful impetus for innovation, whether a Manhattan Project, a moon shot, or industry-transforming “green” consciousness and its related initiatives. The entrepreneurs who thrive in the face of adversity are a different breed from those who flourish when resources are unlimited, such as in Silicon Valley during the 1990s.

What are the factors that distinguish entrepreneurs, corporate innovators, and investors who successfully harness adversity to gain competitive advantage? My research has shown that they tune in to the particular opportunities that characterize challenging times. Unmet need and high entry barriers clearly help to thin out the competitive field, but that’s also true for other entrepreneurial circumstances. I instead focus on the opportunities that are unique to situations of adversity and to success in such times. I label the opportunities according to how adversity-attuned entrepreneurs act on them—something they do quickly.

#### OPPORTUNITY 1

#### Match Unneeded Resources To Unmet Needs

**A**dversity comes in many forms—acute, cyclical, long-term, and systemic. It sometimes affects individuals or single firms; other times it cuts across a wide swath of entities. However, its pathology is consistent: Adversity constrains a key resource, which then depresses demand, supply, or both. That gives rise to unmet need and releases other resources that become redundant. An opportunity emerges for inventive entrepreneurs who can reroute the redundant resources to fill the unmet need.

Consider, again, Jonathan Bush. He was committed to having an impact in health care, but it didn’t happen right away. He drove an ambulance as an EMT, took a break from college to become an army medic after the launch of Operation Desert Storm, and eventually raised \$1.6 million (with Todd Park, a former colleague from Booz Allen Hamilton) to buy a San Diego obstetrics practice in 1997.

The partners found that both government and private health insurers would take weeks or months to reimburse the practice, which had little negotiat-

ing power, for patients’ medical claims. Indeed, physician practices everywhere were struggling with outmoded forms of capturing and storing patient information on paper and Dictaphones. The industry structure and interlocking behaviors across the health care delivery chain had cemented a highly inefficient status quo.

Despite growing revenues, Bush was running out of cash and had to shut down the practice. But he and Park recognized an opportunity in a web-based service, called athenaNet, which they had developed to keep track of patients and their constantly changing insurance information. In 1999, they switched from being a clinical service to deploying athenaNet as a billing tool that would help physicians manage their revenue cycles more efficiently and track changes in insurance rules and provisions. The new company,

## Entrepreneurs who identify unlikely candidates are able to get a leg up.

athenahealth, became a pioneer in revenue-cycle management tools delivered over the internet. It subsequently used its web-based assets to deliver electronic health-records capabilities to its clients and, thereby, also address their need for information efficiency.

The company turned profitable after 2004, when revenues were \$36 million, and went on to earn \$189 million in 2009. Athenahealth’s physician base has grown 30% per year since 2005, with a 97% retention rate. It has the largest, most comprehensive, continually updated database on payer-reimbursement rules—the key drivers of claims payments and denials—in the United States. It also has consistently ranked number 1 or 2 in several key ambulatory and billing scheduling categories. Athenahealth stands alone in the field as the only internet-based provider of such services and was named among *Fast Company*’s 50 most innovative businesses for 2010.

Athenahealth ingeniously repurposed a resource made redundant by adverse circumstances to meet a basic need that the adversity had exposed. It’s a phenomenon that other sectors have witnessed as well. For example, once-redundant polysilicon has been repurposed by a host of solar energy entrepreneurs. And nascent IT companies in India redeployed plen-





## Idea in Brief

**Crisis breeds opportunity, as the history of business shows in spades.** The most innovative entrepreneurs know how to turn adversity into competitive advantage.

**Capitalizing on adversity means finding solutions in unlikely places:** resources that nobody seems to need, people and partners who don't fit the usual bill, elegantly small answers to big dilemmas, and multidimensional platforms that transcend narrowly defined products.

The innovators who succeed as the "new normal" takes root will be those who discover opportunity in the seemingly inopportune. **Call them the "new abnormals."**

tiful, underutilized, highly trained programmers to respond to the Y2K crisis. Both of these experiences became foundations for the growth of major industries.

### OPPORTUNITY 2

#### Round Up Unusual Suspects

**A**dversity is also characterized by missing or inadequate elements at critical points in the business system. These may include key inputs, capital, technologies, or partners in the supply, distribution, and marketing chains. Entrepreneurs who can creatively identify unlikely, alternative candidates are able to get a leg up. However, the art of aligning the incentives of an unorthodox coalition and maintaining equilibrium among the members is no small challenge.

Some people, such as investment banker Iqbal Quadir, manage to do it. He set out to pursue an outrageous vision: bringing universal telephone service to his native Bangladesh, which in 1993 had only one phone per 500 people. One of the world's most resource- and infrastructure-poor countries, Bangladesh also had 80% of its population dispersed across 86,000 villages. Quadir was obviously facing gaps in the supply, distribution, and marketing chain sufficient to kill the best of business plans. How could he possibly implement wireless technology in a cost-efficient way and then market affordable service in this context?

Quadir's real inspiration came when he realized that success would require enlisting the unlikely of allies. To benefit from economies of scale, he sought GSM (global system for mobile) digital-wireless technology as the cheapest long-term solution, even though it would be the most expensive at the outset. This took him across the world to Telenor, the Norwegian telecommunications company that is a global leader in GSM.

To scale up sufficiently, Quadir had to solve two additional problems. On the demand side, closing the marketing and distribution gaps meant turning to another unlikely ally, Grameen Bank, the micro-finance pioneer that had a deep network among rural women in Bangladesh. Quadir saw an opportunity to repurpose the Grameen business model by encouraging the women to do business in telephones rather than cows and then use the money they made to pay back their microloans from the bank. On the supply side, Quadir had no assurance of interconnection facilities, which would be a barrier to Telenor's attempt to stitch together a nationwide network. To overcome the obstacle, Quadir turned to a third unusual suspect: Bangladesh Railway. The dark fiber along its tracks could be activated to provide the interconnection.

Each player was motivated by the appeal of participating in a new growth opportunity that used existing capacity and technology. Without the simultaneous involvement of the others, however, each ally might have backed away. In effect, the unusual suspects' interlocking incentives had been exquisitely aligned. By orchestrating a counterintuitive coalition, Quadir has made his venture, Grameenphone, the largest telephone provider in Bangladesh today. One in three Bangladeshis now has access to a phone.

Other entrepreneurs have taken different approaches to breaking from industry orthodoxy by seeking out unlikely partners. Take R.P. Eddy, whose clients needed on-the-ground research on hard-to-access markets, such as Iraq. Eddy did not have the capability to send analysts there, so instead he recruited a network of local in-country experts as open-source analysts. The consulting firm, Ergo, was thus born using a radically new model. Alternatively, others have turned to contests and prizes to harness the skills of previously unknown allies to address



## FINDING COMPETITIVE ADVANTAGE IN ADVERSITY

**Adversity: A Disruptive Ingredient For Corporate Innovation**

For established companies, adversity engenders urgency, focus, and an efficient harnessing of resources in the service of innovation and growth. Consider the examples of Cadbury and P&G.

**Cadbury in India**

Cadbury found opportunity in its predicament as a purveyor of chocolate in the hot climates of southern Asia, where the product melts easily. A new innovation platform was born: Cadbury Bytes and Chocki, added to the familiar Eclairs. Each product has melted chocolate in its core but is not vulnerable to hot outdoor temperatures. The innovations have been very successful in India, and their popularity is spreading globally.



incredibly tough situations of adversity. According to a recent McKinsey study, the total value of all prizes worth \$100,000 or more has grown 15-fold over the past 35 years. Before 1991, 98% of these prizes were for recognition; since then, 78% have been awarded for problem solving.

**OPPORTUNITY 3**  
**Find Small Solutions To Big Problems**

**T**he more severe the adversity, the harder it is to change the status quo. Comprehensive solutions that require many changes can appear to be dead on arrival, leaving only tiny cracks as points of entry to break the mold. The message for the intrepid entrepreneur: Small innovations can be huge. First, they are potentially more affordable and can be produced with less initial outlay. Second, they economize on features and complexity and may be just good enough to fulfill an unmet need. Third, their size can help minimize environmental effects or other negative externalities. Finally, they may be easier to integrate into the current model, with only minimal adjustments. In fact, four characteristics that, according to Trendwatching.com, define future consumer priorities may be the tiny cracks to look for: affordability, simplicity/convenience, sustainability, and design informed by local knowledge about product usage. Small solutions that fit within these tiny cracks represent major opportunities.

A case in point is Cameron Powell, an obstetrician in San Antonio, Texas, who faced a common prob-

lem in his field: potential liability related to failures in communication between the physician and the nursing staff at the expecting mother's bedside. The structural obstacle was that obstetricians are usually on the move—from the office, to the ER, to various hospitals—making continuous bedside coverage cost-prohibitive.

When software engineer Trey Moore asked Powell to wish for his fantasy smartphone application, Powell realized that being able to see the baby's heart tracing and the mother's contractions anytime, anywhere would be a huge help to him and his staff. Powell and Moore figured that avoiding even a single lawsuit, with a median \$2.5 million award, could make the investment worthwhile to a health care provider. Together they founded AirStrip Technologies, whose first product was a smartphone app called AirStrip OB. The app was easy to install on devices that physicians were already carrying, required very little behavioral change from users, and would be offered to hospitals on a software-as-a-service model, thereby minimizing their monetary commitment. In short, Powell had found a small solution to a very big problem.

AirStrip OB was celebrated by attendees at the Apple Worldwide Developers Conference in 2009, where only eight apps were chosen to be presented. Since then, more than 100 hospitals have adopted it. Among a highly select handful of inventions in wireless health care, it has been lauded by "rock star cardiologist" Eric Topol and David Pogue, technology columnist for the *New York Times*.

**An unused billing tool from a failed obstetrics practice was transformed into a \$189 million business.**



## Mr. Clean Car Wash

As the Great Recession of 2008 brought new pressures on P&G, the company allied itself with an unusual list of suspects who had been displaced from their employment and were looking for new businesses to start up. This human resources opportunity coincided with several unmet needs in the market: consumers seeking affordable luxuries in a tough economy, aging Baby Boomers prone to outsourcing services, and commu-

nities that value water conservation. The collective result: P&G franchised its 51-year-old Mr. Clean brand to individual car wash entrepreneurs and launched a national chain, Mr. Clean Car Wash. This small entry into service innovation for P&G could lead to other national franchises that leverage P&G's vaunted brands.



Small innovations such as AirStrip OB aim for major breakthroughs in contexts of extreme adversity. They are not designed simply to make incremental change and are proving to be part of a broad global trend. We now have, for example, cheap and space-efficient sachet packaging of consumer goods in developing markets; microfinance or software-as-a-service to fit limited business budgets; smartphone apps and Twitter for mobile consumers with fragmented attention capacity; and frugally engineered products (from vehicles to appliances to health care items) that ensure affordability and access in the fastest-growing markets, which still face much adversity.

### OPPORTUNITY 4

#### Think Platform, Not Just Product

In general, the underlying factors that constrain one situation of adversity also constrain others. This offers an opportunity to invest in a meta-solution that can address several unmet needs simultaneously, either in multiple market segments or various product markets. The multifaceted character of the opportunity also hedges the entrepreneur's risk and helps the venture grow beyond the initial point of entry. Clearly, entrepreneurs can expect varying levels of success, but the broader the venture's reach is, the greater the value to be unlocked. The profit potential comes from the capacity to enhance the business model at three possible leverage points: customer value, cost management, and growth-vector creation.

Fred Khosravi and Amar Sawhney are an excellent example of a team who thought creatively about platform. Described by *In Vivo* as the "dynamic device development duo," these biomedical entrepreneurs banded together to create Incept. They wanted the company to have no physical offices, only two or three employees, and an annual

budget of less than \$1 million. But Incept was a powerhouse. It held the rights to a "secret sauce" that would be responsible for nine start-ups in 11 years (none of them failed). Of the three spin-offs from these companies, the first, Confluent Surgical, was sold to Covidien for \$245 million. The sauce was hydrogel, a harmless and highly versatile biodegradable polymer.

Sawhney, the inventor of hydrogel technology, foresaw many applications, each solving a dilemma for physicians who performed complex or minimally invasive surgeries in medical specialties as varied as cardiology, gynecology, neurology, and ophthalmology. Current uses now include sealing organs and other parts of the anatomy (such as the lungs, brain, spinal cord, and blood vessels) that are at risk for leakage during surgery. Hydrogels can also be used to separate a damaged organ from an adjacent organ in order to avoid interference with healing.

The duo had clearly tapped into an opportunity with long-term potential for improving surgical procedures. Hydrogel technology was a true platform that could be applied to many parts of the human anatomy and, therefore, in multiple surgical "markets." Ordinarily, venture capitalists and acquiring companies invest in a business whose core technologies are bundled with the products they sell in specific markets. Sawhney and Khosravi resisted convention, however, and focused on keeping the platform—and a stream of applications to address multiple problems—alive. They knew that bundling the hydrogel technology with its application could allow an acquiring company to own it, apply it only in a narrow market segment, and not use its full potential. Instead, they organized Incept so that it would own the patents on the hydrogel technology and license them to independent spin-off companies that Incept would incubate. It was a novel risk-management plan: an entire portfolio of application

## SELF-ASSESSMENT

Opportunity  
In Adversity

Use these five questions to help you unearth the competitive advantage that adversity can offer:

1. What underlying customer needs in your target market are being curtailed by adversity? Have new needs emerged because of the adverse circumstances?
2. Look broadly across your business and in completely unrelated areas. What resources—products, people, materials, technologies, or intellectual property—are being displaced or underutilized because of the adversity?
3. Can you see a way to use resources from your answers to question 2 to fulfill a need you identified in question 1?
4. What is the minimum change that customers or your value chain require to adopt your offering? Then, what subsequent changes are likely, and how far could the adoption spread?
5. Can you repeat your success with questions 1 to 4 in additional markets, such as new customers or new products?

## Incept held the rights to a versatile polymer that gave rise to nine start-ups in 11 years.

spin-offs targeting different markets but centered on a common core technology.

The notion of platforms need not be limited, though, to technologies and processes. Consider the case of the performance act Blue Man Group. As artists, they found the 1980s to be a particularly depressing decade. In New York City's Central Park in 1988, they performed "Funeral for the '80s," during which they buried a Rambo doll and a piece of the Berlin Wall. For two decades since that unique debut, they have drummed, splashed paint, caught gum-balls with their teeth, and smothered their audiences in toilet paper. The formula for the act was nothing short of a creative mission. Now that they are older and have children, the members of the group have turned their creative attention to another institution they find depressing: primary school education. They founded an alternative elementary school, called the Blue School, predicated on the same mission-driven platform as that of their original entertainment business: "to inspire creativity and connect people with their primal exuberance."

### A New Twist on Adverse Selection

To ground your thinking about the benefits that adversity can offer, go back to Michael E. Porter in *The Competitive Advantage of Nations*: "Competitive advantage emerges from pressure, challenge, and adversity, rarely from an easy life." Necessity, coupled with four key opportunities, can indeed be the mother of some serious inventions.

During the 20th century, many breakthroughs took us to uncharted and unimagined territory. But now we are discovering their unintended consequences: unbalanced growth and self-limiting orthodoxies, which may well be the predominant features of the decades ahead. For example, the once-booming high-tech and auto industries are now in search of radically new business models to avoid obsolescence. Widespread discovery and use of nonrenewable resources are revealing their true environmental and geopolitical consequences. Health care innovations bred unsustainable cost structures, demographic imbalances, and limitations in pharmaceutical and health care delivery. Globalization

has created myriad challenges of rapid growth in unevenly developed economies (such as Brazil, China, and India) and the potential that regional crises will spread throughout the world. And financial innovations led to uncontrolled speculative bubbles in some sectors. In the past few years alone, we have experienced some of the effects, including the Great Recession and its still-uncertain recovery, an unprecedented crisis with the euro, and the largest accidental oil spill in history. Clearly, the "new normal" is not short on adversity.

None of this will weaken entrepreneurship and innovation. The "new abnormals"—the entrepreneurs who survive—will be those who harness the competitive advantage of adversity. The present century holds a treasure trove of bottlenecks, constraints, and other major difficulties that will be with us for a long time. It would be a shame if—as entrepreneurs, managers, and investors—we were to let such an abundance of serious crises go to waste. ♥

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"Remember, time management is very important for us."

CARTOON: DAVE CARPENTER



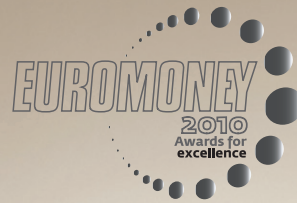
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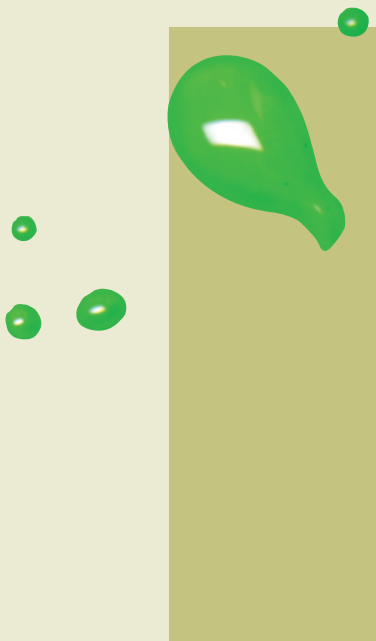


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# Winning in the Green Frenzy

Don't let your competitors control what  
"sustainable" means in your industry.

*by Gregory Unruh and Richard Ettenson*



**RIGHT NOW SOMEBODY**, somewhere, is defining what sustainability means for your industry, business, and products. Almost everywhere you look—textiles, communications, agriculture, autos, high tech—green competition is shifting from a race to launch ecofriendly products to a battle over what constitutes a green product in the first place. The definition can vary from one industry, business, or product class to the next. But whatever your business, if you're not engaged in the debate and in shaping the rules, you risk being assessed against sustainability standards you can't meet. Worse, you may be left

behind by a shrewd competitor that has strategically positioned itself as a certified paragon of the new green ideal.

Producing sustainability standards is a multiplayer melee we call the green frenzy, because it is like a feeding frenzy in the wild—a tooth-and-claw competition among a growing pack of stakeholders including environmental activists, think tanks, bloggers, industry associations, consultants, and your rivals, all clamoring to establish and impose their own green standards.

In the coffee industry, for example, more than a dozen standards currently







compete, affecting everything from pesticide use to workers' housing to bird friendliness. (Just one of these, the Rainforest Alliance sustainable agriculture certification for coffee production, has some 100 criteria.) Each of the various standards has a constituency working to define the benchmarks for "sustainable coffee." Some are backed by nonprofits such as the Audubon Society and TransFair, others by companies such as Starbucks and Nestlé.

How should companies confront the green frenzy? As part of our research on green-product strategy (see "Growing Green," HBR June 2010), we've developed a framework based on in-depth case studies and interviews with leaders in sustainability stakeholder groups. As we explain below, how you engage depends on your company's capabilities, the competitive landscape, and, most important, the degree of sustainability standardization in your industry.

In our experience, executives are of two minds regarding sustainability standards. Some view them as distractions from the important work of running a business and avoid the discussion altogether. But that won't make the standards go away, and simply claiming you're green when you're not destroys

## Like a feeding frenzy in the wild, the green frenzy is a tooth-and-claw competition among a growing pack of stakeholders.

credibility. Other executives want to engage in the standard-setting process but are uncertain where or how to begin.

Our recommendation: Leverage opportunities to position your company as an influential—or, better, dominant—force in the green-standards battle. Before choosing a strategy to accomplish that, you'll have to make assessments in two areas, one external and one internal. The former involves reviewing existing sustainability standards in your industry, the issues surrounding them, the forums in which they're discussed, and the roles of key stakeholders—including competitors—in driving the debate. Your aim is to determine how much standardization exists in your industry and what opportunities you have to engage in or even reshape the sustainability discussion.

For the internal assessment, evaluate your organization's green capabilities, including technical competencies; its ability to generate superior green innovations in products and operations; its credibility as a green company; and current or potential partnerships. The central question you need to answer is "Do we have the right resources and competencies to set the sustainability pace for our industry?"

### Four Strategies to Choose From

Once you understand both the situation in your industry and your company's capabilities, you can determine which strategy is best: (1) *adopt* the existing standards; (2) *co-opt* and modify them to suit your capabilities and processes; (3) *define* standards for your industry; or (4) *break away* from existing ones and craft your own. (See the exhibit "Assess Your Possibilities.")

**ADOPT.** If your industry has well-established standards and your sustainability capabilities are minimal, you should probably employ this strategy. Consider the situation in the building sector, where the opportunity to set standards has largely passed because the market and stakeholders—including builders, nonprofits, and governments—generally agree that LEED (Leadership in Energy and Environmental Design) certification constitutes the definitive standard. That has important implications for architects, designers, construction companies, suppliers of office-interior products, and a host of others. Because the LEED rating system offers four levels of certification—certified, silver, gold, and platinum—that depend in part on greener building materials and furnishings, suppliers are scrambling to maximize their products' LEED scores.

Likewise, suppliers to Wal-Mart, Tesco, McDonald's, and even the U.S. government are pressed to adapt their operations and offerings to meet the standards set by their major customers. In July 2009 Wal-Mart announced plans to develop a worldwide "sustainable product index" for everything it sources from its more than 100,000 suppliers. The index measures product-related energy use and waste and evaluates impact on natural resources and communities. Many companies will have no choice but to adjust their supply chains and operations if they want their goods to remain on Wal-Mart's shelves.

Companies that adopt industry standards should not underestimate the strategic value and marketplace advantage this option can give them. Adhering to Wal-Mart's sustainable fisheries standards made



## Idea in Brief



Green competition is shifting from a race to launch ecofriendly products to a battle over what actually constitutes a green product. Unless you're engaged in the debate and in shaping the rules, you risk being assessed against sustainability standards you can't meet.

Successful companies leverage opportunities to become an influential or dominant force in the green-standards battle. That requires understanding the standards that exist in your industry and also your own green capabilities.

Once you have that understanding, you can determine which of four strategies is best for your company: (1) *adopt* the existing standards; (2) *co-opt* and modify them to suit your capabilities and processes; (3) *define* standards for your industry; or (4) *break away* from existing ones and craft your own.

The Fishin' Company a trusted partner in its customers' sustainability efforts. It became Wal-Mart's largest sustainable seafood supplier, winning unprecedented purchase orders and long-term contracts. And adopting industry standards need not make you a bystander in the debate. On the contrary, adoption legitimizes your participation as your industry's sustainability standards evolve.

**CO-OPT.** Green standards may be far along in the building sector, but the frenzy is just starting in most industries. The noncorporate stakeholders that are engaged in standard setting all want to see their own standards widely adopted—which means they need to find corporate partners to champion the standards and commercialize them. That fact gives companies an important but limited window in which to co-opt the standards of a credible sponsor—to negotiate modifications that will accommodate both commercial realities and social and environmental considerations.

The banana producer Chiquita forged such a partnership with the Rainforest Alliance, an NGO that had long criticized Chiquita and its competitors, including Dole and Del Monte, for the environmental and social problems associated with banana production. In the early 1990s RA developed sustainability standards for rain forest banana farms and shopped them to the major banana companies. Only Chiquita agreed to pilot the standards, and thus began a long collaboration to bring its farms into accord with them. RA representatives worked with Chiquita to find innovative ways of achieving the standards' goals while meeting the company's commercial needs. The process of boosting its green credentials helped Chiquita in other ways as well. By incorporating operating discipline and other business criteria, Chiquita's implementation of the standards increased farm productivity by 27% and reduced costs by 12%. The company also improved employee satisfaction—

and in 2004 it received the OAS Corporate Citizen of the Americas Award.

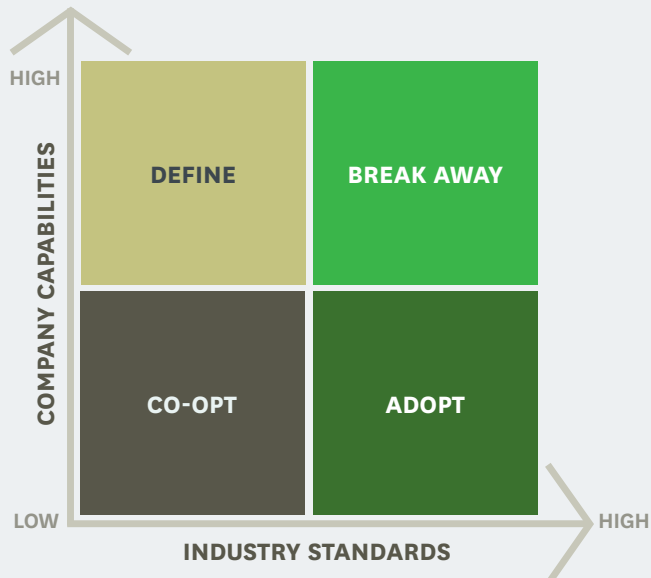
Starbucks has pursued several green-standards strategies, including co-option. Looking to green its retail stores, the company recognized that although LEED standards dominated the green frenzy for new buildings, they were less well developed for existing structures and failed to account for the unique challenges of greening them. So Starbucks partnered with LEED to develop and implement a certification protocol for green retrofitting. The adaptations brought Starbucks recognition for its greening efforts while advancing LEED standards in a new market segment.

**DEFINE.** Some companies find that their industry has either no established standards or no consensus across competing standards. If it has the necessary capabilities and clout, a company may set out to create industry standards. Success requires specialized knowledge, competency in dealing with sustainability issues, credibility among savvy stakeholders, effective communication, and willing partners. Indeed, partnership with an NGO, a university, or some other reputable authority is often fundamental to an effective strategy.

There are compelling reasons to try setting your own standards. For example, certification protocols are often written by activists who have particular concerns. In the coffee industry, Fair Trade certification focuses on establishing a minimum price for growers, whereas the Audubon Society aims to protect migratory-bird sanctuaries. From a business perspective, of course, sustainability lies in finding a strategic balance among social, environmental, and commercial goals. Activists may assert that commercial success is part of the equation, but for them it usually takes a back seat. And many activists have little understanding of particular companies' business issues and capabilities.

## Assess Your Possibilities

Your responses to the two sets of questions below the figure will help you choose a strategy for winning in the green frenzy. The more times you answer “yes” in column one, the farther to the right you are on the figure’s horizontal axis. The more times you answer “yes” in column two, the higher you are on the vertical axis.



### THE CURRENT STATE OF INDUSTRY STANDARDS

Do standard-setting forums exist in our industry or product class? **Y/N**

If competing standards exist, is there agreement on the issues they address? **Y/N**

Have our competitors adopted existing standards? **Y/N**

Have governments proposed or supported specific standards? **Y/N**

Have the marketplace and customers accepted specific standards? **Y/N**

### YOUR COMPANY'S ABILITY TO CREATE STANDARDS

Do we have the technical expertise needed to develop credible standards? **Y/N**

Do we have the R&D and product-development assets for sustainability innovation? **Y/N**

Can we influence members of our supply chain to become more sustainable? **Y/N**

Do we have good relationships with credible third-party sustainability organizations? **Y/N**

Do we have buy-in from customers and other stakeholders? **Y/N**

Starbucks initially chose to establish its own standards for sustainable coffee. The company felt that coffee quality, which is essential to the brand, was poorly addressed by the existing standards. So in 2004 it created the Coffee and Farmer Equity (C.A.F.E.) Practices, which support both coffee quality and equitable sourcing goals. To enhance C.A.F.E.'s credibility, Starbucks enlisted Scientific Certification Systems, a respected third-party standards consultancy, as its global partner.

At about the same time, Nestlé partnered with the Rainforest Alliance to launch the AAA Sustainable Quality Program for its high-end Nespresso brand coffees. Like Starbucks, Nestlé wanted both high-quality coffee and greater sustainability. Both companies are working with external stakeholder groups to build critical mass around their own standards. Nestlé's Coffee Forum, for example, has expanded to include the International Finance Corporation, INCAE Business School in Costa Rica, several sustainability consultancies, and more than half a dozen coffee suppliers.

Cutting through a clutter of proliferating standards requires investing in partnerships, developing trust, exerting political influence, and managing conflict, among other leadership challenges. But Starbucks and Nestlé are seeking to establish the benchmarks against which their brands—and potentially their competitors' as well—will be judged.

To date, sustainability has not been a relevant differentiator in the pay-TV industry, but DISH Network is attempting to change that. As the number three brand in the category, facing brutal competition from market leaders Comcast and DIRECTV, the company hopes to generate competitive advantage by defining the green standards for its sector. To this end, it is seeking ways to leverage the environmental friendliness of its satellite network relative to cable and telecom infrastructures and is looking into alliances with and endorsements from credible sustainability partners.

**BREAK AWAY.** What can a company do if it's confronted with established standards that don't play to its strengths, are inconsistent with its strategy, or actively undermine its competitiveness? We know of only a few organizations that have gone on the offense when faced by such a challenge, but we suspect that more will do so as bystander companies are increasingly blindsided by new standards. Apple, for example, confronted this problem in its typically iconoclastic way.



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**RUN  
BETTER.**



**RUN**

**SAFER  
BRIGHTER  
FARTHER  
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THINNER  
QUICKER  
LOFTIER  
FLUFFIER  
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Although it had positioned itself as the revolutionary leader in its industry, in 2006 Apple found itself glaringly out of step with the sustainability movement. In August of that year Greenpeace released its sustainability rankings of computer manufacturers, and Apple was conspicuously near the bottom of the list. At first the company dismissed the rankings, saying, “We disagree with Greenpeace’s rating and the criteria they chose.” Analysts initially viewed that reaction as simple defensiveness. But a deeper strategic move was under way. Apple subsequently turned the tables on Greenpeace by calling its criteria not green enough and pledging to set a new and higher standard for green computing. In short, it out-greened the greens.

Apple contends that Greenpeace and, more important, its own high-tech competitors are ignoring the most blatant environmental impact of computers: the energy they consume and the carbon emissions they generate. In classic style, CEO Steve Jobs said the rankings were “like asking a cigarette company how green their office is.” By expanding the definition of sustainability to include product use, Apple aims to break away from the existing standards and highlight a dimension—power conservation—on which it can excel. The initial results of its efforts can be seen in the performance of the iPad, which is so energy efficient that one T. Rowe Price analyst compared its battery life to “black magic.”

A gambit like Apple’s will work only if the proposed new standards are measurable, relevant to customers, and demonstrably superior to the existing criteria. And the old standards will probably not disappear; companies trying to break away will have

## Apple turned the tables on Greenpeace by calling its criteria not green enough.

to address them as well as their own. Despite its criticism of Greenpeace’s rankings, Apple has climbed from the bottom of the list to the middle, which shows that it has responded to the issues Greenpeace raised. But Apple clearly intends to shift the debate about sustainability criteria to its advantage. Whether it will succeed in the long run remains to be seen.

**THE RACE** to shape sustainability standards will transform the competitive landscape and the social and environmental practices of companies in every industry. The risk that your business will be left behind or marginalized in the growing green marketplace should serve as a wake-up call. Tackling the standards challenge head on provides an opportunity to differentiate your offerings, bolster your reputation as a responsible enterprise, and influence sustainability standards well into the future. Is your organization poised to seize that opportunity? ♥

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## The Hazards of Charting Your Own Course

Companies that create their own sustainability standards risk accusations of greenwashing—positioning “dirty” products or policies as environmentally friendly.

Thus they should not try to break away from standards or define new ones unless they’re sure they can credibly demonstrate their commitment and capability.

Monsanto learned this the hard way in the 1990s, when it claimed that its innovations would fuel sustainable agriculture by reducing reliance on pesticides and fertilizers

and conserving water. In 1996 the CEO, Robert Shapiro, announced that its genetically engineered crops would “help immensely in closing the gap between hungry people and adequate food supplies.” But following the announcement, the company faced protests by activists worldwide who were concerned about the environmental and health impacts of

gene splicing. Monsanto had to back down from its claims, and its biotech business has since taken a far lower profile.

**Monsanto had to back down from its sustainability claims.**





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# The Globe



## How to Conquer New Markets with Old Skills

The surprising global success of Spanish companies proves the value of good old-fashioned networking.  
by Mauro F. Guillén and Esteban García-Canal

**ABOVE** The world's biggest bridal-wear maker, Pronovias, is one of Spain's 2,000 multinationals. It sells 480,000 dresses each year and has a presence in 75 countries.

Countless companies from emerging economies hesitate to jump into international markets—especially those in the developed world—because they see themselves as hopelessly flawed. While many are every bit as savvy and profit-oriented as traditional multinationals, they're painfully aware that they don't have cutting-edge technologies, dominant brands, or novel products. And the process of building those kinds of advantages looks long and daunting, even for companies that possess the necessary capital. So they remain at home, profitable but unable to live up to their full potential—and vulnerable to foreign competitors.

Yet there's really no good reason they should sit on the sidelines of global competition. Our research shows that companies lacking strong technological knowledge or brand assets can still succeed in overseas markets by drawing on other capabilities.

If they're smart about how and where they venture abroad, global hopefuls can succeed by harnessing mundane capabilities, such as people skills and operational know-how, that they've been honing at home for years. A look at some of Spain's multinationals shows how. Although the Spanish economy soured during the worldwide downturn, with GDP declining and unemployment hovering around 20%,



many of the country's approximately 2,000 multinationals are thriving abroad, even in wealthy economies, without technological or brand-related advantages.

In examining the international expansion of Spanish firms over the past 25 years, we found that the leaders used acquisitions to extend their reach but focused them on just a few industries and geographic areas. They then strengthened their positions by drawing on their homegrown political and networking skills, project execution knowledge, and vertical integration expertise—capabilities that many companies in emerging markets also possess.

In the process, the Spanish firms were able to bypass the slow, incremental expansion strategy that multinationals have traditionally pursued. As we will see, speed was a critical factor in the international success of several Spanish companies—something other companies looking to go global should keep firmly in mind.

## Late Bloomers Become Global Giants

Spanish companies made few significant investments abroad until 1986, when the country's integration into the European Economic Community began dismantling the barriers to trade and competition with the rest of Europe. At that point, Spanish companies in electricity, water, oil, gas, transportation, telecommunications, and banking started making major cross-border acquisitions. The pace of acquisition picked up after Spain's adoption of the euro in the late 1990s gave Spanish companies increased access to capital for ventures in other parts of the world.

Some of today's best-known Spanish multinationals are offshoots of that first burst of globalization. As of 2009, Telefónica was the world's fifth-largest telecommunications provider in terms of revenue, and Santander the fourth-largest bank. Four Spanish firms (ACS, FCC, Ferrovial, and Abertis) topped the list of the world's largest transportation-infrastructure de-

velopers and managers; Iberdrola was the largest producer of wind power; Acciona the largest developer of wind farms; and Sol Meliá the biggest resort-hotel chain.

Look more deeply, and you'll find Spanish firms among the world leaders in the food-processing and apparel industries. Viscofan is the largest producer of artificial casings for the meat industry, and Freixenet has been the world's number one maker of sparkling wine for more than two decades. In textiles and clothing, Spain is the home of global denim leader Tavex (now merged with Brazil's Santista); and Pronovias, the planet's largest bridal-wear designer and manufacturer. Though Spain has never produced global contenders in capital-intensive industries such as chemicals, metals, electronics, and automobiles, a handful of Spanish companies are formidable competitors in related niche markets such as automobile components (Grupo Antolin), stainless steel (Acerinox), and wind turbines (Gamesa).

As they went global, Spanish firms tended to avoid the risky and expensive strategy of opening their own facilities abroad, instead favoring alliances, joint ventures, and acquisitions. Banco Santander, for example, used acquisitions to build its position as Latin America's largest retail bank, then purchased the UK's Abbey and other major institutions in Europe and the United States. And acquisitions in Europe, Asia, and the Americas made Grupo SOS the world's biggest olive oil company and Ebro Puleva the world's largest producer and marketer of rice and second-largest producer of pasta.

Spain's multinationals also tended to focus their foreign expansion efforts by geography. Nearly 90% of Spain's outward foreign direct investment has been aimed at Latin America or Europe. This targeted approach to expansion helped companies balance their desire for global reach with the need to upgrade their capabilities—

The world's fourth-largest bank, Santander, built its position through acquisitions in Latin America, Europe, and the United States.

a dual challenge emerging-economy competitors now face. Latin America was a region where Spanish companies had natural advantages, such

as cultural similarities, shared language, and connections, and nearby markets elsewhere in Europe afforded opportunities to increase sales and develop new capabilities. After establishing a beachhead there, Spanish firms then made selective investments in other advanced countries, such as the United States, to sharpen their technological and marketing skills. Through every phase of expansion, they relied heavily on old-school, time-honored business abilities.

## Parlaying Political Skills Into Growth

Historically, many industries in Spain, such as banking, utilities, highway construction, and transportation, have been heavily regulated, with high-ranking officials holding the authority to make or break deals. As a result, numerous Spanish companies became adept at navigating what at times was a highly complex process of obtaining licenses. They learned not to react passively to policy risks but to actively manage relationships with local officials and forge personal connections to gain information that allowed them to anticipate shifts. That political savvy has helped them achieve remarkable success outside the Iberian peninsula. In transportation-infrastructure management, for instance, seven of the world's 10 largest private companies are from Spain. In fact, our research reveals, some Spanish firms have deliberately chosen to operate in countries where government officials possess broad powers to grant licenses and issue regulations, precisely because of their political expertise.

Take the bus-service company Automóviles Luarca, SA (which is now part of the UK company National Express). Founded in 1923 in a fishing village, ALSA grew by gradually adding routes around the country, obtaining new licenses or buying companies that owned licenses in

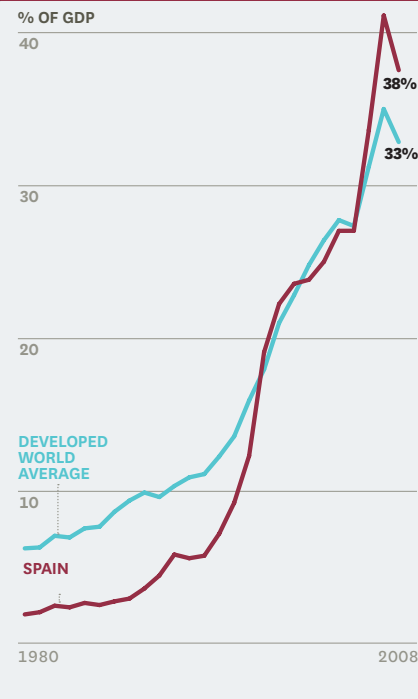
The world's fifth-largest telecom company, Telefónica, raced ahead of rivals by rapidly executing installations.

the process. In 1964 it began extending its business model to other countries, establishing an Oviedo-Paris-Brussels route. As demand rose and highways improved, ALSA started to add international routes elsewhere in Europe. Acquisitions played a key role in the company's growth, but so did other factors, including operating efficiency and service innovation. The firm invested heavily in training and bus maintenance and established a Supra nonstop intercity service, offering luxury coaches with larger seats and more legroom.

In the 1980s, ALSA sought to apply its know-how to running bus routes in distant countries. Its first important foray was into China, though the choice was somewhat serendipitous. On a trip to investigate importing an innovative Chinese toothpaste into Spain, founder José Cosmen discovered another opportunity, in the form of China's underdeveloped transportation services. (The toothpaste turned out to be less promising than it had appeared.) Through a joint venture, the company began offering taxi transportation services near Hong Kong, where foreign investors were allowed to operate as minority partners. ALSA considered this joint venture a good platform from which to learn how to operate in China and build relationships not only with local partners but also with government administrators, who have to approve every project developed in the country.

By the time the Chinese government gave foreign investors the freedom to operate bus services, in 1990, ALSA was fully prepared to be the first mover. It created a new joint venture to run a route between Beijing and the rapidly industrializing coastal city of Tianjin. It offered services that China had never seen before, such as regular schedules and modern coaches with comfortable seats. New joint ventures were set up to operate routes between Beijing and Shanghai. The company then moved to smaller cities. Step by step, it replicated its business model, eventually introducing special services like the Imperial Class, a version of Supra. To overcome the

### CUMULATIVE OUTWARD FOREIGN DIRECT INVESTMENT, 1980-2008



subpar infrastructure, ALSA formed more joint ventures, which built bus stations, assembled buses, and developed and managed maintenance facilities.

Political skill and expertise in licensing were critical to the company's success in China, where the process of obtaining licenses is far more complex than in other countries. One of the joint ventures promoted by ALSA, for instance, required four years of preparation and approval. China is by far the most successful international expansion project ALSA has undertaken. The company has become such an expert on the market that it has established an import-export subsidiary that helps other multinationals operate in China.

Cynics might ask whether Spanish companies are drawn to certain countries chiefly by the ease of lobbying or bribing officials, but a strategy based on targeting malleable government agents isn't sustainable. Spanish firms have shown that they are willing to use every possible resource to defend their interests abroad, sometimes even battling foreign governments in court over decisions and regulations.

The downside of operating in places where government officials are free to negotiate the terms of a foreign corporation's

entry is that those officials also have the authority to renege on such agreements without opposition from the legislature or the judiciary. A few Spanish firms learned this lesson the hard way and, once bitten, became noticeably shy. For example, the water-management company Aguas de Barcelona (now part of France's Suez) invested heavily in Latin America in the 1990s but withdrew from certain countries there after facing increased regulatory problems.

### Adding Capabilities Through Networking

Many Spanish companies have shown a knack for piggybacking on the operations of established multinationals. That approach allows firms to build vertical and horizontal networks that help them penetrate foreign markets, deepen their knowledge, and gain access to competitive resources.

Gamesa, in wind energy, is a case in point. Founded in 1976 as a maker of auto parts and military ordnance, it developed expertise in aerodynamics and electrical machinery and transformed itself into a wind-energy company. It has managed to become one of the world's largest wind-turbine manufacturers, with an operational presence in 20 countries and throughout Europe, Asia, North America, and Northern Africa—and yet it has never been a technology leader. Instead, Gamesa has used its networking skills to grow, relying on alliances for both capability building and market access.

Contrary to appearances, generating electricity from wind is an exceedingly complex activity, involving turbine manufacturers, farm developers, distributors, and regulators. The viability of wind power depends on a number of factors, ranging from technology to demand, and from regulation to the structure of competition.

During the 1990s, Gamesa signed an agreement with the Danish firm Vestas, the world's leading wind-turbine manufacturer, under which Vestas took a 40% equity stake in Gamesa and the Spanish com-



pany obtained technological licenses for sophisticated components. By the time the companies parted ways, in 2002, Gamesa's engineers had managed to acquire the experience needed to design its own turbines. Within six years the company obtained or applied for 118 patents.

Gamesa has also used its networking skills to become more active in wind-farm development, forming agreements with local partners in the UK, Japan, India, China, and Australia. This strategy has diverted financial and managerial resources from R&D and manufacturing, but it has boosted Gamesa's growth abroad. About 20% of Gamesa's installed capacity and 60% of its new installations are now outside Spain. In 2009 Gamesa ranked fourth in the world in cumulative wind-power turbine installations. It is the biggest foreign wind company (as measured by cumulative installations) in China, its largest market.

### The Execution Edge

One of Spanish enterprises' most potent global weapons has been project execution—specifically, the ability to set up plants or complex facilities quickly and at low cost.

Telefónica exemplifies this capability. It was a state monopoly until the deregulation that followed Spain's entry into the European Economic Community. At that point, competition from new entrants forced the company to rapidly improve its service and meet demand that had gone unsatisfied for years. Between 1986 and 1999, Telefónica installed about 10 million new residential and business lines in Spain, more than doubling its infrastructure.

The company was quick to target Latin America for expansion. It established operations in Chile first and, by the end of the 1990s, had entered Argentina, Venezuela, Puerto Rico, Peru, and Brazil. Telefónica's project-execution skills served it well in its new markets. As it took over privatized and acquired companies, Telefónica knew how to make rapid and cost-effective investments in infrastructure, fill unmet demand, and improve service, just as it had done in

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Spain. Its competitors from North America, accustomed to a more mature market, were less prepared to take advantage of these opportunities.

“When it comes to installing a million access lines in record time, no one can beat us,” former Telefónica Internacional chief executive Iñaki Santillana once told the *New York Times*. “We have the best ditch-digging technology around.”

Once it had established a solid base in Latin America, Telefónica expanded throughout Europe, eventually becoming the fifth-largest telecom operator in the world. Through an equity stake in China Netcom (now China Unicom, after a 2008 merger), it has become a player in China as well.

## Achieving Efficiency with Vertical Integration

In the area of operational organization, Spanish multinationals have demonstrated an uncanny ability to integrate vertically and deliver a wide variety of new products quickly to global markets. The Spanish retail chain Zara is a well-known example of a business that combines innovative design, manufacturing flexibility, seamless distribution logistics, and marketing savvy.

Another apparel company, Pronovias, likewise illustrates the advantages of vertical integration. Founded in Barcelona in 1922, the company languished until the 1960s, when the success of its first prêt-à-porter wedding collections encouraged it to position itself as a global player. With annual sales of 480,000 gowns, it now leads the market, ahead of U.S. firms Mori Lee and Alfred Angelo and the French firm Pronuptia. Flexibility, responsiveness, and innovation were crucial to Pronovias’ success. As the company went global, it had to factor in national differences in customs, tastes, marriage age, and body shapes.

A staff of about 70 designers comes up with as many as 650 wedding and party dresses and some 2,000 accessories each year. Although the manufacture of acces-

sories and intimate apparel is outsourced to China, most branded items are made in a factory outside Barcelona. Pronovias distributes through a network of 150 company-owned stores—it arguably created the world’s first chain of bridal shops—and 3,800 other points of sale in 75 countries. It has franchised stores in Spain, Portugal, Greece, Turkey, Saudi Arabia, Egypt, Mexico, and Japan. Controlling the value chain from design and production through distribution

allows Pronovias to swiftly address changing fashion trends and speed new products to customers, as well as lower its operating expenses so that it can offer sophisticated dresses—with all manner of laces and flounces—at affordable prices, despite Spain’s high labor costs.

Another outstanding example of the benefits of integration is Freixenet, the Spanish sparkling-wine maker. This family-owned firm overcame its prestige and quality disadvantage relative to French champagne producers by focusing on the middle segment of the market, where prices are relatively low but volumes are high. To make money, it needed to produce more than 100 million bottles annually and sell half of them outside Spain. So it had to internally develop and manufacture equipment that would allow it to produce in large quantities. To control costs but maintain quality, Freixenet automated the daily task of turning each bottle to shake the yeast sediment that accumulates in the neck. Without such an innovation, the company would have found it difficult to become the world’s largest sparkling-wine maker.

Viscofan, too, used vertical integration to operate efficiently on a global scale and become the world leader in its industry—artificial casings for meat. Among the firm’s many advantages are its capital-intensive extrusion and labor-intensive finishing operations, which it has built in the optimal locations for labor costs. Its proprietary

operations also have given Viscofan an understanding of the intricacies of the overall manufacturing process that its competitors cannot match. Nowadays, roughly two of every three frankfurters manufactured in the United States use Viscofan’s cellulose casings.

## Full Speed Ahead

Speed was once denounced as a sure way to ruin a company attempting to internationalize. According to a conceptual framework developed by experts at Uppsala University, well-managed multinationals thought carefully about foreign market entry and built their presence gradually. Spanish multinationals, however, have demonstrated the value of moving quickly on more than one front.

Entering developing countries helps a company gain size and operational experience and generate profits, while expansion in developed markets contributes primarily to its capability-upgrading process. Santander understood this principle better than most. It adopted an orientation toward learning in the U.S. and Europe and toward acquisitions in Latin America, and started buying banks in developed markets only after it became large in size and rich in experience.

Companies with overseas ambitions should attain scale quickly, gaining invaluable experience and building stronger competitive capabilities. In a fast-paced international economy, the risks of falling behind or failing by waiting too long to break out of the home market exceed the hazards inherent in any process of globalization. ♥

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The world’s fourth-largest wind-turbine company, Gamesa, used networking to gain technological know-how and access to markets in 20 countries.

The first foreign transit provider in China, ALSA, grew because of its shrewdness in local politics and licensing.

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# Helping Businesses Help Themselves

## The IT Mandate for the Future



The changing business landscape creates new challenges for technology. Business leaders want technology to drive immediate results, and IT leaders must do so while promoting long-term interests. But there is a way to ensure that your IT organization delivers enterprise-wide capabilities and operates efficiently while focusing on the innovations that are the building blocks of the future. Susan Cramm talks about how to rethink the rules and roles of IT and use simplification and self-sufficiency to secure the future of your business.

### Why do you say that technology has opened new doors for innovation, yet our capacity for innovation is constrained?

All innovation is now driven by technology in some way. And it's happening much faster, as the Internet levels the playing field. The potential of IT-enabled innovation is mind-boggling. This next wave of innovation will come from the power of quickly connecting companies, processes, people, computers, and other devices to collaborate in new ways.

The capacity for innovation is severely constrained today. Over 70 percent of IT resources are dedicated to supporting yesterday rather than working on creating tomorrow. They are focused on maintaining existing hardware, software, and telecommunications. This means that on average only 30 percent of IT resources are available to work with the rest of the enterprise to experiment with different applications of technology. Demand for technology outstrips supply—the result is that business leaders stand in governance breadlines waiting for their meager share of the IT resources. Success in the

“connect and collaborate” marketplace requires massively increasing the capacity for innovation.

### So how do we change this imbalance and unleash the innovation?

The real opportunity is to tap the innovation capacity outside the IT organization—the more than 90 percent of employees who don't work in IT but definitely work with IT. These people are a key source for innovation because they are on the front lines, interacting with customers.

This group is increasingly tech-friendly, with high expectations for what technology can do and how quickly it can be delivered. Many are power users and they want more control over IT. Users have always wanted more control over IT, and given commercialization of technology, increasingly they are creating shadow IT organizations and selecting technologies without involving IT.

In the future, IT's role should be to help businesses help themselves, to give business partners the tools they want and need to innovate.

### How can IT — and the rest of the organization — move to this new role?

We can tap into this innovation capacity by making sure that IT no longer does things for business partners that they can do for themselves. If you poll CIOs, they will tell you between 20 to 30 percent of their work is focused on things their business counterparts could and should do themselves. Things like reporting, training, and support including managing passwords and—if an “app storefront” is provided—whether users can install and access only the applications they need. Through self-service, business users can receive high levels of service and IT resources can be freed up to further promote innovation.

We also need to increase the utilization of the existing technology—much of the current technology is underutilized. The cost of operating IT can be reduced by, for example, applying the concept of virtualization to end user computing devices, allowing applications to be hosted on centralized servers, making it easier and cheaper for IT to provide new mobile computing services and increase the utilization of licenses.

The key to dramatically increasing innovation capacity is to shift IT from low to higher value-add activities so that they can enable the IT capabilities of the rest of the enterprise. IT should help businesses help themselves to IT. This is the new IT mandate.

**Susan Cramm** is president of Valuedance, an executive coaching and leadership development firm specializing in information technology, and the author of *Eight Things We Hate About IT: How to Move Beyond Frustrations to Form a New Partnership with IT*.



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## MANAGING YOURSELF

# What's Your Personal Social Media Strategy?

by Soumitra Dutta



**T**he CEO of a global technology firm was invited to lecture at a local university on the future of the internet. After his presentation, a student in the audience asked him for his views on network neutrality: the idea that internet service providers shouldn't base their prices on the content their customers access. The CEO answered candidly, arguing in favor of price discrimination based on content; there was an engaging exchange; and he left satisfied with his visit.

Little did he know that, in the coming days, his semiprivate comments would enter a very public realm—the blogosphere—unleashing a storm of controversy around him and his company. (For confidentiality, names have not been revealed.)

The executive had no active social media presence—no profile on Facebook or LinkedIn, no Twitter account, no blog on the company's website. He had decided that social media weren't "his thing." In fact, he became aware of the buzz over

his comments only after some people in the company had alerted his communications group. There were lengthy discussions about whether and how to respond. Customers and other stakeholders were participating in the debate online, arguing strongly in favor of net neutrality. Employees were watching. Should the company issue an official response to comments made in a private setting? Could the CEO wade into the public discussion when he had never been active in the blogosphere and had no other social media platform? In the end, he and his team did nothing, leaving everyone feeling frustrated and helpless.

For a comparison, consider the ease with which Tom Dickson, founder and CEO of small U.S. blender manufacturer Blendtec, uses social media. Until 2006, few people had heard of Dickson; today, there aren't many business owners who haven't. That's because Dickson is the star of the *Will It Blend?* series of YouTube videos, in which he subjects a host of objects (marbles, computer games, an iPod, an iPhone, an iPad) to the sharp blades of his products. Thanks to the campaign's popularity (the iPhone-blending video has been viewed more than 9 million times), Blendtec's sales have increased sevenfold in the past three years—impressive when you consider that each video lasts only about two minutes and is produced for a few hundred dollars.

Dickson, a grandfather, had no idea what YouTube was when his marketing director pitched the video idea. Now he is an internet rock star—a popular radio and television guest (with appearances on

*The Tonight Show* and *Today*), a sought-after speaker on viral marketing, and a frequent participant in music videos and other companies' advertising campaigns. Thanks to the internet's global reach and his affable, down-to-earth manner, Dickson has developed a strong personal brand. Employees are proud of the recognition Blendtec has received, and thousands of fans have sent suggestions for his next video. How many CEOs of the *Fortune* 500 can claim such connection with the people they want to influence?

## Through a series of YouTube videos, Tom Dickson, CEO of a small U.S. blender manufacturer, has built a strong personal brand.

### A Connected World

It's no secret that social media—global, open, transparent, non-hierarchical, interactive, and real time—are changing consumer behavior and workplace expectations. As a result, the best businesses are creating comprehensive strategies in this area to support their goals. However, my research on the organizational implications of social media and consulting work with dozens of companies in America, Europe, and Asia suggest that it is taking longer for corporate leaders to consider what the new paradigm means for them personally.

Take the world's leading CEOs as a sample. According to data from Fisheye Analytics, the top 50 chief executives (as identified by Morten T. Hansen, Herminia Ibarra, and Urs Peyer in "The Best-Performing CEOs in the World," HBR January–February 2010) are increasingly discussed in online venues, but few are using social media to spread their own messages: Only 19 were on Facebook, only six had a LinkedIn page, and only two—Google CEO Eric Schmidt and former Norilsk Nickel CEO Mikhail Prokhorov—were tweeting or blogging (although some used their corporate pages for blogs). Anecdotal evidence suggests that the story

is the same for leaders below the CEO level and that even those who have a social media presence aren't using it strategically. That is a mistake.

Today's leaders must embrace social media for three reasons. First, they provide a low-cost platform on which to build your personal **brand**, communicating who you are both within and outside your company. Second, they allow you to **engage** rapidly and simultaneously with peers, employees, customers, and the broader public, especially younger generations, in

the same transparent and direct way they expect from everyone in their lives. Third, they give you an opportunity to **learn** from instant information and unvarnished feedback. Active participation in social media can be a powerful tool—the difference between leading effectively and ineffectively, and between advancing and faltering in the pursuit of your goals. You can use this tool proactively, as Dickson did, or reactively, as the technology CEO could have done.

In addition to exploring the benefits of a personal social media strategy, I offer here a framework for developing one that fits your goals, desired audience, and resources, and I outline the challenges of wading into this developing territory.

### The Three Realms of Social Media Leadership

Social media (as defined by social media website Wikipedia) are "media for social interaction, using highly accessible and scalable publishing techniques [and] web-based technologies to transform and broadcast media monologues into social media dialogues." Virtually everyone has heard of such global platforms as Facebook, YouTube, and Twitter, but there are others popular in particular countries

or regions—such as Orkut in Brazil and Tuenti in Spain—as well as company- and industry-specific networks, such as Medscape's Physician Connect and Epernicus, for medical researchers. All social media platforms have grown in size and importance in recent years, as exemplified when Facebook, the most successful, hit 500 million members in July 2010.

Tom Dickson's success shows the tremendous value of social media for personal branding. Starting from relative obscurity, he used a low-cost, accessible, no-barriers-to-entry platform to become, for lack of a better word, famous.

Branding can also be more limited—within an industry, for instance. Consider Robert Scoble, a technology executive currently working for Texas-based web-hosting company Rackspace. When Scoble worked in sales support at NEC Mobile Solutions, he set up a blog to provide technical help to customers and solicit their feedback. Microsoft took notice and hired him to be a professional "spokesblogger." But he used this corporate platform in a personal way, not only promoting Microsoft but also sometimes criticizing it and praising its competitors. In 2005, he started his own blog, Scobleizer, and he has since been poached by PodTech, *Fast Company*, and then Rackspace. He tweets, too (an average of 21 times per day, according to a 2008 study) and is now so well known that he is parodied—an April Fools' spoof on British tech-news website The Register claimed he was an IBM bot.

Perhaps the easiest way to build your brand among colleagues is through internal corporate networks. In their book *Empowered*, Forrester Research's Josh Bernoff and Ted Schadler point to the story of Frank Goudsmit, an underwriter in Chubb's life sciences unit who was one of many employees to submit a business idea to Idea Central, an internal site launched by the company to spur innovation. Out of 608 suggestions, his was one of the few pursued, earning him new respect from colleagues and superiors and the op-



## Finding the Right Presence

### PERSONAL & PRIVATE

Family & Friends	
<b>MESSAGE</b> I want to keep in touch with you.	<b>GOALS</b> <i>Brand:</i> Show commitment to your relationships. <i>Engage:</i> Strengthen your ties. <i>Learn:</i> Keep abreast of changes in your social network.
<b>SAMPLE SOCIAL MEDIA TOOLS</b> Facebook	

### PROFESSIONAL & PRIVATE

Work Colleagues	
<b>MESSAGE</b> I am a team player, and I want to collaborate with you.	<b>GOALS</b> <i>Brand:</i> Enhance your image at work. <i>Engage:</i> Collaborate; boost productivity and effectiveness. <i>Learn:</i> Leverage your colleagues' input.
<b>SAMPLE SOCIAL MEDIA TOOLS</b> Yammer and other corporate platforms	

### PERSONAL & PUBLIC

Society	
<b>MESSAGE</b> I am passionate about ideas and want to share them with you.	<b>GOALS</b> <i>Brand:</i> Become known for your ideas. <i>Engage:</i> Find new outlets for your passions. <i>Learn:</i> Leverage others' ideas and viewpoints.
<b>SAMPLE SOCIAL MEDIA TOOLS</b> blogs, YouTube, Twitter	

### PROFESSIONAL & PUBLIC

Professional Peers	
<b>MESSAGE</b> I am competent and growing professionally.	<b>GOALS</b> <i>Brand:</i> Build peer recognition. <i>Engage:</i> Find new opportunities; show commitment. <i>Learn:</i> Boost industry knowledge; develop yourself.
<b>SAMPLE SOCIAL MEDIA TOOLS</b> LinkedIn, Twitter, and sector-specific communities	

portunity to work with the IT group on a million-dollar project.

Social media also help executives engage with an array of contacts—both internal and external—in order to strengthen and leverage relationships; show commitment to a cause, profession, company, or product; and demonstrate a capacity for reflection instead of just action. With 70 million members, LinkedIn is known as a place for job seekers to find employment and for entrepreneurs to raise funds. Jeff Epstein was hired to be the CFO of Oracle after a recruiter found him on LinkedIn, and Ger Hartnett, founder of Irish software company Goshido, and his team used the network to send 700 messages to potential investors, raising \$230,000 in eight days.

Executives can also use social media to engage with employees, customers, and investors. In 2008, when Ben Verwaayen was appointed CEO of Alcatel-Lucent, he started blogging on the company's internal website, asking for input from all 80,000 staff worldwide and responding to their comments. He describes the blog as a "fantastic tool" that allows him to get beyond "corporate speak" into a direct dialogue with employees. Verwaayen believes that this open and clear communication positively influences their motivation and support for him.

The third reason for using social media is learning. Verwaayen, for example, has used his blog to seek feedback from more than 9,000 employees on his company's strategic plan. This not only improved the strategy but also helped bring everyone

on board, thereby smoothing the implementation process. André Schneider, COO of the World Economic Forum, uses LinkedIn discussion groups and the postings of Facebook friends to learn about emerging trends and issues, filtering the feedback to retain the "few gems." He has also used local social media tools to learn about potential partners for events in China.

Padmasree Warrior, CTO of Cisco, uses Twitter to take learning one step further. A social media pro—whose tweets range from news and thoughts about her company to short poems she has composed—Warrior has often considered the views of her 1.4 million followers when developing industry presentations.

### Your Next Steps

Now that you understand the benefits of developing a social media presence, where should you start?

**Make sure that your online profile does not contradict your activity in the "real world" and that your messages are authentic.**

It helps to look at the two spheres of social media activity—personal and professional—against the target audience—private and public. These dimensions are represented in the exhibit "Finding the Right Presence." If your goals are in the far left box, you aim to build stronger bonds with friends and family members. If you're reading this article, you probably

want to do more than that, but even this limited presence can help you as a leader by strengthening your social network. In the next box, the focus is on representing yourself as a team player through collaboration and communication with colleagues. In the third box, the purpose is to build a personal brand by engaging with people in your community and in society at large. And the goal in the far right box is to win recognition within your profession, building networks and broadcasting your competence. This exhibit also outlines how branding, engagement, and learning can be achieved in each area, and lists some social media tools that can help.

To formulate your personal social media strategy, you need to answer the following sets of questions:

1. Are your goals personal, professional, or both? Are there conflicts between how you want to present yourself in the two spheres? If so, you must decide which is

more important. Think about the three realms of social media leadership—branding, engagement, and learning—and what you are hoping to achieve in each. Make sure that your online profile does not contradict your activity in the "real world" and that your messages are authentic.

2. Is your desired audience private (a limited set of friends, family, and col-

leagues) or public (your industry or even the world)? Social media activity will necessarily increase your presence and make it easier for others to Google you. How big do you want that presence to be?

3. What resources do you have? Does this project require your own time and money, or can it justifiably be done using office time and tech-team support? (For example, Blendtec helped Dickson reach a large audience by building a dedicated Will It Blend? website and creating a YouTube channel.) Please note that outsourcing is not an option. In social media, authenticity in your message is key, and only you can provide that.

The answers to those questions can help you choose the right combination of platforms and decide how much time to devote to each. For example, if you want to strengthen relationships with colleagues and industry peers, get active on a company social network and LinkedIn. If you want to share your ideas with the broader community, start a public blog and use Twitter. Your platforms should also suit your location—for example, local networks may be more appropriate in Asian countries.

Continuity is important, so set aside enough time for each activity you want to pursue. A blog might require an hour every fortnight for writing and an hour or so every week for reading comments and posting responses. Twitter requires less time per interaction, but the frequency must be high for you to establish a meaningful presence.

## The Risks of an Online Presence

The risks of using social media can be grouped into three categories.

The first risk is how you manage social capital. With whom do you connect? The boundary between personal and professional spaces, and between private and public audiences, is blurry. For example, should work colleagues be your Facebook friends? If so, how do you ensure that your nonwork friends don't post pictures or comments that could hurt

## Social Media Must-Dos

### Google yourself

It sounds obvious, but do it regularly and then compare your results with those you get from searching your peers.

### Protect your identity

Purchase an internet domain in your name and use it to open accounts on Facebook, Twitter, and other platforms.

### Create a business profile

Choose a broad network such as LinkedIn or an industry-specific one. Join relevant groups and communities.

### Use what you have at work

Contribute to platforms set up by your employer. Reach out to colleagues.

### Post public content

Update your Facebook and LinkedIn pages; participate in a discussion group thread; tweet; upload a presentation to YouTube.

you professionally? If not, how do you tactfully decline requests to connect? No one should assume that a private social media presence will stay that way. On the flip side, opening yourself up to the public poses its own risks. How do you vet the people with whom you are connecting? How do you respond to inaccurate or abusive posts? My advice is to build your audience slowly and be selective about your contacts.


The second risk is about managing intellectual capital. What do you communicate about? Corporate communications and legal departments tend to worry about employees who are active online. One concern is that the company's message will be muddled; another is a possible breach of industry guidelines or government regulation. Still another is concern over intellectual property: The law is tricky when it comes to ideas developed on a social network. The personal/professional and public/private divides also come into play. Seventy-five percent of U.S. recruiters and human resources professionals say they research candidates online, and tales of employees

fired by bosses who disapproved of their Facebook or blog content are common. What you say online matters, especially because it can be very difficult to erase (at least until the future that Eric Schmidt envisions—the one in which people can start fresh with new profiles at age 21—becomes reality). Set some guidelines about what information you should and should not disclose. Be authentic and consistent across spheres, online and in other media. And remember that anything you want to keep private and maintain control over should not be posted on a social media platform.

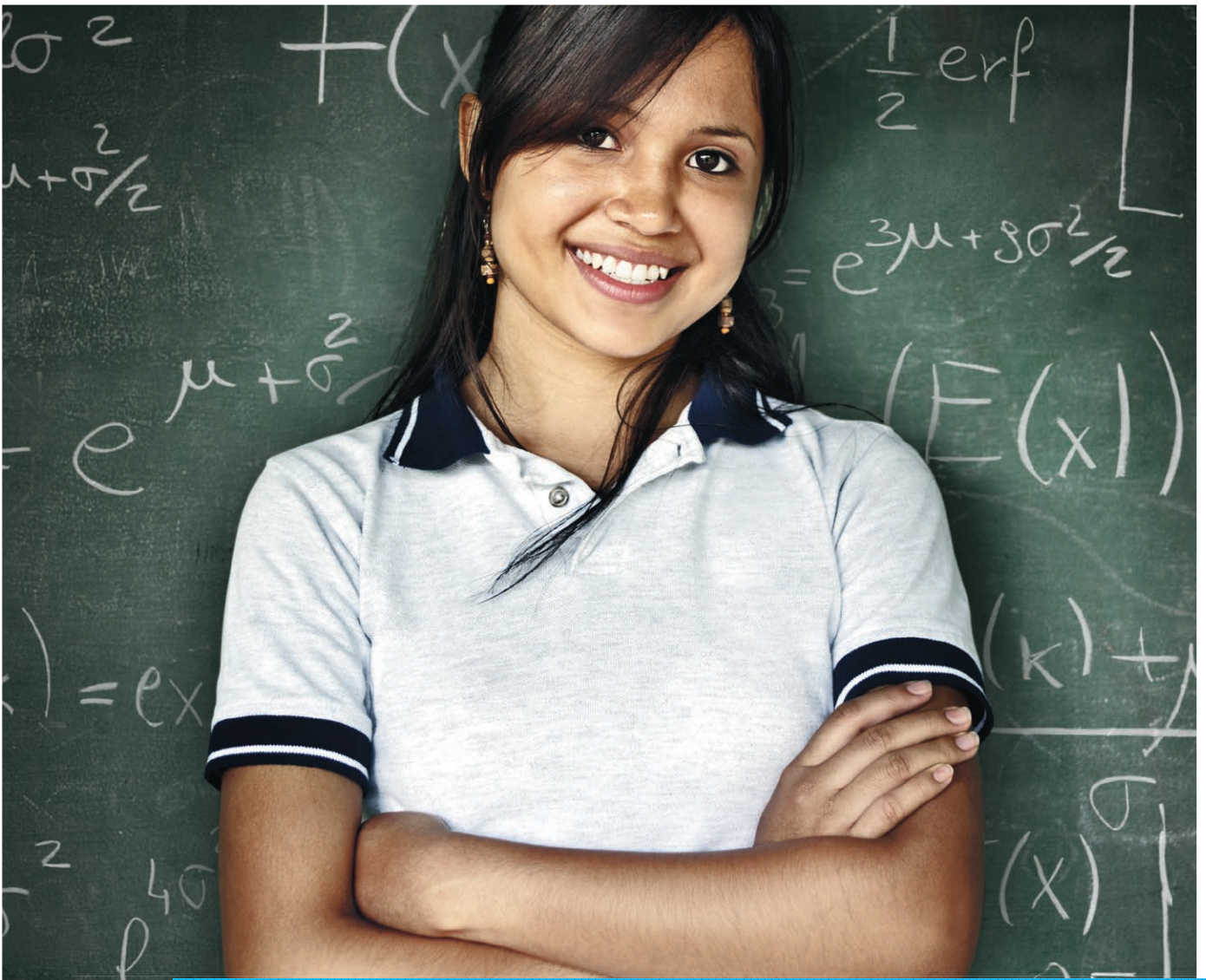
The third risk is managing your progress. How do you maintain momentum? The success of your social media strategy will depend on your resources and the quality and authenticity of your message. But how do you ensure you're not wasting your time? It's easy to tell how many Facebook friends and Twitter followers you have, but, depending on your goals, you should also consider social media monitoring tools, such as Google Alerts and TweetDeck (both are free) or Radian6 and Fisheye Analytics (both charge a fee). To evaluate whether you're engaging and learning effectively, keep track of how many useful connections you make each month or the number of ideas you develop as a result of social media interaction.

Social media are here to stay. They are changing the way we do business and how leaders are perceived, from the shop floor to the C-suite. And they give leaders a new, low-cost tool for personal branding, engaging in conversations with stakeholders, and learning from new sources. By looking closely at your goals as a person and a professional, your target audience, and your resources, you can choose the platform that's right for you and head off any risks. ▀

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# Empowering Technology Entrepreneurs

**At Intel, we believe in innovation. We're driven by it. We live by it.**

Intel was created on innovation and entrepreneurship—from the invention of the microprocessor in 1971, the way the world uses technology was changed and the foundation was set in place for the personal computing revolution, the Internet and much more.

Based on our history, Intel believes that entrepreneurship plays a key role in driving innovation and enabling new business development, which is crucial to economic growth. That is why we are passionate about fostering entrepreneurial culture around the world. We also understand that big challenges cannot be solved alone, so we collaborate with universities, governments and the investor community to help transform technology innovation into new businesses.

Intel has a vast portfolio of programs aimed at enabling entrepreneurship. The entrepreneurship curriculum, training workshops and leadership seminars help transform entrepreneurial teaching, culture and learning worldwide. Intel's student innovation contests and business plan challenges encourage student innovators

to become tomorrow's entrepreneurs by creating solutions to meet real needs of the local and global communities.

The Entrepreneurship Seminars, the Global Entrepreneurship Leadership Symposium (GELS) and the student business plan competitions are all part of the program aimed at inspiring the entrepreneurial spirit to thrive.

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Through partnership with the Lester Center for Entrepreneurship and Innovation at Berkeley's Haas School of Business, Intel provides Entrepreneurship Theory to Practice Seminars at universities around the world.

The Theory to Practice Seminars train academic faculty about the concept and value of technology entrepreneurship, and demonstrate how to build entrepreneurship programs that drive new uses of technology and promote successful technology commercialization.

## Global Entrepreneurship Leadership Symposium

Aimed at developing a supportive entrepreneurial ecosystem around the world for technology startup companies, GELS offers in-depth training and know-how along with tools to enable entrepreneurial training and development.

The symposium provides concepts, processes and tools to enable qualified individuals to effectively mentor emerging entrepreneurs. It offers the unique hands-on experience of observing and practicing mentorship and facilitated leadership.



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## The Innovative Entrepreneurship Competitions

### Intel Challenge

Aimed at encouraging entrepreneurship and rewarding ideas that have potential to become a new business or even a new industry, the regional Intel Challenge competitions showcase business opportunities with the greatest potential for a positive impact on society through the commercialization of new and truly innovative technologies.

### Intel + UC Berkeley Technology Entrepreneurship Challenge (IBTEC)

Winners of the regional competitions compete in the culminating IBTEC event, where the best engineers and scientists present their business plans showcasing technology usage to create new businesses that could change economic paradigms, support our next generation security needs, or just solve key social problems and create more jobs or personal income. Not only does the winning team receive USD 25,000 and the winning title, it also has direct visibility and interaction with over 20 leading venture capitalist firms.

In emerging markets, innovation and entrepreneurship are particularly important. The Technology Entrepreneurship Challenge showcases the global business opportunities that have the greatest potential for a positive impact on society through the deployment of new and truly innovative technologies.

Through this event, Intel and UC Berkeley are working to ensure that universities provide technical and business curricula that support entrepreneurs and help them make their dreams a reality.

**To learn about this year's winners, visit [www.intel.com/about/corporateresponsibility/education/ibtec](http://www.intel.com/about/corporateresponsibility/education/ibtec) after November 18.**

### The winners of the 2009 Innovative Technology Entrepreneurship Challenge were:

#### FIRST PLACE

**Ihealth**, Tsinghua University, P.R. China

Ihealth Group aims to improve quality of life for people with bone injuries. The Ihealth plan focuses on its revolutionary new product — MPH B biodegradable bone screws. Ihealth has developed MPH B bone screws in light of bionics, which have been granted a national patent in China. The product overcomes the disadvantages of the existing materials and provides a better solution for the rehabilitation and fixation of bone injuries.

#### SECOND PLACE

**CaptchaAd**, Technical University Munich, Germany

CaptchaAd GmbH is the world's first company to combine enhanced SPAM protection with interactive video advertising and thus increase the security on websites and facilitate visitors' use while at the same time ensuring a more conscious perception of advertising on the part of the user. Instead of distorted codes, conventional CAPTCHAs (an anti-SPAM function used more than 250 million times a day worldwide) can be used to differentiate between humans and machines. CaptchaAds can be used to increase the interest and involvement of ad viewers.

#### THIRD PLACE

**Zimplistic**, National University of Singapore, Singapore

Zimplistic is a Singapore based startup that has designed and developed the first-ever, fully automatic "Rotimatic." Roti is the diet staple of 800 million Indians, with 2.4 billion rotis consumed everyday. Making rotis is a time-consuming tedious task that requires skill. Since there is no fully automatic home appliance that makes rotis, people resort to unhealthy and expensive alternatives like frozen rotis. The Zimplistic is like a coffee machine. It is the size of a small microwave oven. The user enters the number of rotis desired and the Zimplistic measures, kneads, flattens, roasts and puffs finished rotis.

# Crucible

Transformative events that shape leaders



## Changing Gender On the Job

**A Microsoft executive describes her difficult decision to “transition” at work—and the unexpected benefits.** by Daniel McGinn

**A**s an up-and-coming manager at Microsoft, Michael Wallent had a reputation for being a tough boss—at times, a bit too tough. He had joined the company in 1996 and advanced quickly; by 1999 he was overseeing a team of 300 engineers who worked on developing Internet Explorer. Like Microsoft’s founder, Bill Gates, who met with Wallent to review his team’s work each quarter, Wallent focused on data and facts, not employees’ feelings, and was known for delivering withering criticism in product-review sessions. His typical comments: “This is stupid.” “This is wrong.” “This is what you need to do.” Debra Chrapaty, his former boss (who’s now at Cisco), says, “Michael was known



to be aggressive, a little bit condescending, harsh—he had an arrogant engineering mind-set.”

That’s in stark contrast to the style of Megan Wallent. She’s also one of Microsoft’s best and brightest, who as a general manager ranks among the top 1% of the company’s 89,000 employees and oversees 350 engineers developing user interfaces for server software. Her employees praise her as a boss with high emotional intelligence. She speaks softly and asks probing questions to help them find solutions on their own. “Megan is relaxed,” says Angel Calvo, a director of test engineering who’s been at Microsoft for 19 years. “She really thinks about how people are going to feel about particular decisions.”

Two bosses, two styles—but only one person. In 2007 Michael Wallent told colleagues he was transgendered, took a six-week leave to undergo breast implantation and facial feminization surgeries, and returned to Microsoft in early 2008 as Megan. “Going through the transition was tremendously complicated,” she says, but she tried to approach it like a standard business problem. “I told my managers this was going to happen and that I was going to partner with them on how to make it successful for the company.” Although her bosses were supportive, says Anh Hoang, Wallent’s wife (and a former Microsoft employee), the process was fraught with anxiety. “We knew this could be a career-limiting move for her,” Hoang says. “She’s probably one of the most senior people at any company to go through this, so she was essentially breaking new ground.”

Looking back, Wallent says that her transition from man to woman transformed her approach to management, which may ultimately help her career. “I’ve gotten better at my job,” she says, “just through being more open, honest, and transparent, and learning how to better communicate with people.”

Like many people with gender identity disorder, Michael Wallent always had a vague sense that his anatomy didn’t match up with his sense of self. But that inner

conflict stayed in the background as he studied engineering at Worcester Polytechnic Institute, married, and moved to Seattle to join Microsoft. By 2005 he’d had two children, divorced his first wife, and remarried. He’d shifted from running the Internet Explorer group to overseeing a team that helped design the look and feel of the Windows Vista operating system. In 2007, at age 38 and just two months after he and Hoang had had a child, he told her he was transgendered. A few months later—and with her support—he decided he would transition to living as a woman, and scheduled surgery for late that year.

A few months before the surgery, Wallent asked his boss for a meeting. Chrapaty had been complaining about Microsoft’s struggle to recruit and hire women, so Wallent broke the ice by saying, “Debra, I’ve decided to do something to increase the diversity of the team, and I’m starting with me.” Although Chrapaty had helped lead Microsoft’s coalition of gay, lesbian,

## At most companies the HR department takes charge of announcing a transition to employees. Wallent rejected this approach.

bisexual, and transgendered employees, she was shocked. “I was trying to place it in the context of this superpositioned male executive who’d just come off paternity leave with his wife and baby,” she says. But after a moment of confusion, she offered her help.

Over the next few weeks, Wallent held one-on-one meetings with his dozen direct reports to let them know about his coming change. (As he did when telling his family, he started with those he expected would be most supportive and worked his way up to the harder cases.) He sent e-mails to several key Microsoft executives, including Gates and CEO Steve Ballmer, both of whom replied offering encouragement. Then he sent a message to all 100 members of his team, its unusual contents flagged with a simple subject line—“Re: Me.”

Gender transitions at work remain relatively rare. Jillian Weiss, a consultant and an associate professor at Ramapo College who’s studied the issue, says there are no reliable statistics, but her work suggests that companies with more than 2,000 employees located in places with tolerant populations are likely to face it at some point. Still, some transgendered employees encounter so much resistance from coworkers that they end up leaving their jobs. (That’s a particularly unfortunate outcome, since transgendered people typically have a harder time finding new work, Weiss says, in part because of their appearance.) At most companies the HR department takes charge of announcing the news to employees, usually by holding a meeting without the transitioning worker in attendance in order to encourage a frank discussion of concerns. Weiss compares the process to announcing a layoff. “If you’re going to do something that creates anxiety for people, you have

to give them information to ease their sense of anxiety,” she says.

Wallent rejected this standard approach. “It was critical for me to own the communications process,” she says, citing two reasons: First, relying on others might suggest she was ashamed of the decision, which she wasn’t. Second, she believed that brutal honesty—and a willingness to answer questions, no matter how personal—would shorten the time it took for the news to stop being watercooler gossip.

The process wasn’t entirely smooth. Gender identity disorder is classified by the DSM as a mental illness and is considered immoral by various religions. Even at a progressive employer like Microsoft, it was inevitable that some workers would be uncomfortable with Wallent’s

transition. One employee mentioned that discomfort when he resigned, though it's unclear how big a role it actually played in his decision to leave. Wallent, who'd promised to hear all employee questions, had to face some tough ones. In team meetings prior to his surgery, he was asked whether he planned to stay married (yes), whether he was attracted to men or women (women), how he intended to deal with his hairy arms (laser treatments), and which bathroom he would use upon his return to work (the ladies' room).

Although the sessions were difficult, Wallent now views them as a crucial part of her transition. "A lot of people came back to me with these incredibly personal stories about things that had happened to them that were equally transformative," she recalls. Ultimately, she thinks her new management style has little to do with the estrogen pills she takes daily. She believes that it's a by-product of those intimate conversations with her colleagues. "They really brought home the value of authentic leadership, and of letting the people on your team in to see your whole self," she says. "It makes them more comfortable in their jobs."

For employees who never knew Megan as Michael (now the majority of her team, owing to job changes and the passage of time), her transition feels like a nonevent; what they know about it comes only through secondhand observations and recollections. "I've heard she speaks with a quieter voice now," says Angie Anderson, a project unit manager who's worked for Wallent for two years. "People think she's a better manager."

But employees who worked for both Michael and Megan say they continue to notice the change. Calvo, the director of test engineering, recalls that when Michael offered feedback on prototype software, "people would leave the room paralyzed—'Wow, I almost got fired'—because of his directness, his bluntness." But, he says, "Megan has a completely different approach. She still comes to the same conclusion, but she drives people in



## "The New Normal"

**FROM:**  
MICHAEL  
WALLENT

**SENT:** TUESDAY,  
SEPTEMBER 11,  
2007

**TO:** GFS  
MANAGEABILITY  
SERVICES GROUP

**RE:** ME

Hi, All—

I've been at Microsoft now for more than 11 years, worked with hundreds (if not thousands) of people, worked on some great stuff. I'm not usually a fan of mixing personal and work, but sometimes when personal impacts work, it has to be discussed. So...

After a lot of internal struggle and soul-searching, I've come to the conclusion that I'm transgendered. In the simplest of terms, what this means is that while I was born male in the traditional sense, this doesn't match how I feel, or how I will live the rest of my life....I'll be taking some time off after Thanksgiving, and will be living and working full-time as female after the first of the year. In the end, I am and will be the same person that I've been, but will just look a little different. So, in January, still "mwallent," just "Megan" instead of "Michael."

What does this mean for work? Well, I hope nothing. I was committed to the company before this started, and if anything, I'm even more committed now. I want to continue to contribute and make a difference. Going through this process has helped me work on things that I hope will make me grow to be a better and more valuable employee (communication, openness, dealing with change, etc.). As my wife and I say all the time, the middle is the hardest—and that's where I am right now. I hope that in January it's just "The New Normal."

So far, when I've told people what's going on, initially there's surprise (normal) and then lots of questions.... I'm happy to answer (most of) them. I strongly encourage you to ask. At this point, this news is "out," so I'm not asking anyone to keep it confidential. However, if you have questions or concerns, come by, set up time for coffee, send mail, whatever works for you. If you don't feel OK asking me, please ask Debra, Amitabh, Lisa, Val, Catherine, or Cheryl. They are all here to help as well.

Sincerely,  
Michael

## Wallent, who'd promised to hear all employee questions, faced some tough ones prior to his surgery—such as, did he plan to stay married?

a more emotional way. "Have you thought about this?" She's becoming more of a coach, instead of a general."

On most days, Wallent looks upon her gender transition as a closed chapter in her professional life. Still, she continues to worry about whether she'll "pass" as a woman while representing Microsoft on customer visits and whether clients who recognize her as transgendered will react badly. (So far they haven't, she says.) There are also periodic reminders of her unique status: For instance, she's still officially listed as a man for HR purposes, partly to avoid tax and legal problems.

Her worries about imperiling her career, however, seem to have been unfounded.

She is currently one level below vice president, and on the basis of her performance reviews, she thinks she's on track to eventually be promoted—perhaps faster than Michael would have been, because of her evolving leadership style. Whereas Michael relied on technical expertise as the key to his authority, Megan says her focus is people. "I want to be the type of leader that helps people achieve their full potential, and to get the most out of them every day," she says. "That's been part of my transition—learning how to lead from the people." ♥

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**Daniel McGinn** is a senior editor at *Harvard Business Review*.



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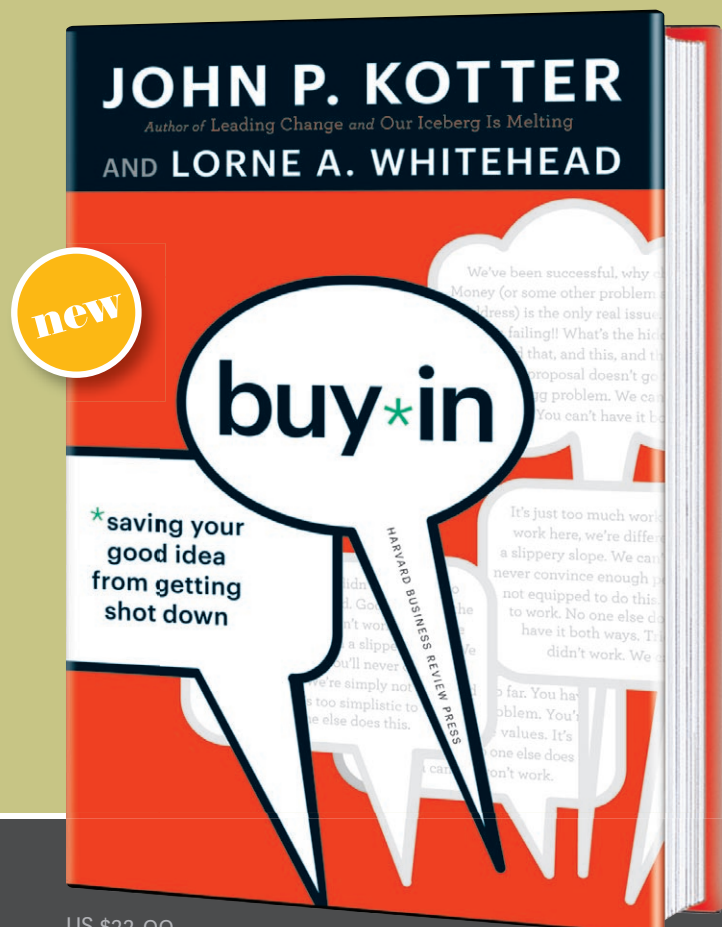
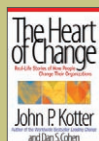
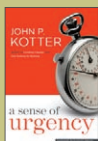


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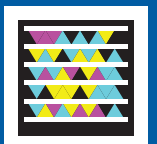


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# Case Study



## The Experts



**Blythe McGarvie** is the CEO of LIF Group and serves on the boards of Accenture, the Travelers Companies, Viacom, and Wawa. She was previously the CFO of Société Bic and of Hannaford Brothers.



**Mia de Kuijper** is the CEO of the strategy advisory firm de Kuijper Global Partners, a fellow of Cambridge University, and codean of the Duisenberg School of Finance in Amsterdam.



The CFO charged with analyzing the pros and cons of a new product line wonders whether it's time for her to stop facilitating—and start leading. *by Trish Gorman Clifford and Jay Barney*

# Play It Safe or Take a Stand?

**S**hirley Rickert sighed as she realized that she had no hope of making the 7:10 express tonight. She turned back to the reports she was reviewing at the request of her CEO, Carl Switzer.

As the chief financial officer of HGS, a large plastics and packaging materials company, Shirley was accustomed to having the occasional fire drill disrupt her routine. This time it involved an increasingly heated internal debate that Carl wanted her to help moderate.

The good news was that HGS's research-and-development department had stumbled upon a new plastic polymer that was stain-resistant, wrinkleproof, and virtually indestructible, and yet looked, felt, and draped just like cotton—a perfect material for making men's dress shirts. The bad news was that senior executives in the company were bitterly divided over whether and how to use the fiber—now referred to internally as “Plastiwear”—as a means to enter the apparel industry.

Shirley allowed herself a moment to stretch. As she rolled her neck, wincing, she heard voices in the hallway outside her office.

“He’ll tell you he’s an 11 handicap. You can bet on that. Hey, I’ll catch you later, Carl. Just need to grab Shirley for a minute.”

She looked up to see Scott Beckett, the vice president of HGS's most profitable division, Oil and Gas Products, filling her doorway. “Hope I wasn’t too abrasive today,” he opened. “It would be a shame to get people all riled up just when we need a balanced and rational review of the facts.”

“Oh, Scott, we expect straight talk from an old oil and gas man. I think you made your position on Plastiwear quite clear—again.” Shirley motioned for him to sit.

“I’ll keep saying it, but I don’t get the feeling everyone is listening.”

“Well, some people around here like the idea of investing in a patented technology that could open up new and exciting

businesses for us. But I understand your reluctance to wade into the unknown.”

“It’s not the unknown. It’s an intensely competitive market!” Scott scoffed. “Look at the forces at work in men’s shirts. The suppliers are an oligopoly, buyers are large and ruthless about pricing, and there’s no way to create any customer loyalty in such a crowded playing field. Even if we partnered with an existing shirtmaker, our patent on the fiber would be ridiculously expensive to defend, so in no time we’d be in price wars with copycats all over the place.”

“Well, that certainly sounds like a textbook no-go. I’m sure the VC firms that turned down Starbucks came up

the ground—and doing amazingly well, I might add. Preorders are already in the tens of millions, and we make even more if we deliver early. And don’t forget about the Cleveland plant expansion. Do we really want to divert our people, our time, and our money away from these projects? And, longer term, if we chase this Plastiwear pipe dream, how many other opportunities in our existing—I’ll say it again—*successful* B2B businesses, investments with less risk and more reward, will we miss out on?”

Scott rose and moved to the door. “I don’t want to keep you, Shirley. I just want to make sure a few of us have our heads screwed on straight and won’t be

Albright, VP of research and development. Both were highly influential at HGS, and she’d once heard Carl remark to a board member that he could see either man in the CEO seat one day.

Shirley shook her head as she tossed her laptop, BlackBerry, and files into her oversize handbag. If she hurried, she would just make the 7:45 train.

### A Miracle Opportunity

In the lunchroom the next day, Walter Albright and Jerry Tucker, one of the senior R&D scientists, were seated and deep in conversation when Shirley set her tray on the table and circled back for salad dressing and extra napkins. When she returned, they were eager to draw her in. “So glad you suggested we meet to discuss Plastiwear,” Walter began. “The models you were asking about are quite conservative, as you probably noticed.”

As Walter paused to sip his coffee, Jerry nodded and chimed in. “The revenues could easily be twice our projections, and the growth rapidly accelerates as you goose up marketing. Even with a much tougher hurdle rate and a higher initial investment, the payoff is terrific.”

Shirley smiled. A few years ago she would have rolled her eyes at the lab-geek enthusiasm. But these guys knew what they were talking about. The last time she’d questioned one of their new-product proposals—and indeed shown Carl where she thought they’d gone wrong in their estimates—they’d secured approval for a pilot anyway and outperformed even their own expectations. Walter wasn’t the “I told you so” type, but Shirley had worried about offending him ever since.

“I noticed that you built the dynamics into the spreadsheet,” she said. “Nice work. But my questions aren’t about the mechanics of the model. I want to hear more about the commercialization process. Now that you’ve invented this miracle fiber”—she nodded to Jerry, who was commonly acknowledged as the genius behind Plastiwear—“do you

## “If we chase this pipe dream, how many investments with less risk and more reward will we miss?”

with a similar analysis of the coffee shop industry.” Shirley said this with a smile, but Scott still grimaced. “Look, I do understand your point of view. We’d struggle to compete on our own in retail, and it would be tough to manage outside partners in a business we don’t know. There’s no question it would be an uphill battle. But some people think it’s a battle we should fight. And not just inside these walls. You know MG Management has been buying up our shares, and a lot of people think it’s with a takeover in mind. They’re meeting with Carl next week to discuss taking two board seats and addressing our ‘failure to leverage new technology,’” she said, making air quotes as she cited the letter the private equity firm had sent Carl. “Don’t you think they’ve somehow learned enough about Plastiwear to smell money?”

“Those guys might see themselves making billions with shirts—or some other Plastiwear-based product line. And maybe they could take us over and pull it off. But at what cost? Everyone is already working flat out to get GreenPlastics off

squandering our shareholders’ money on a doomed venture. Good night.”

Shirley let him go, neither confirming nor denying that she’d oppose the Plastiwear project. In fact, she could easily make a case either way, and she’d asked her team to model a break-even scenario. But Carl wasn’t requesting that she take a side. As always, he was relying on her to give him levelheaded, rigorous analysis, to vet the due diligence, and to clearly articulate the different points of view.

She excelled at this sort of facilitation, and in every review she’d had since joining HGS, Carl and other colleagues had told her it was what they valued most about her. She was fair and balanced, without any agenda except the financial health of the company.

Sometimes, of course, the answer to a question was so obvious that presenting the facts was tantamount to making a recommendation. But the Plastiwear decision wasn’t clear-cut, and there would be serious political fallout for backing either Scott or his opponent on the issue, Walter



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foresee any difficulties in scaling up production?"

"Commercialization should be easy," Walter said. "You know we've got a great track record of moving new ideas from the lab to full production. To us, this isn't much different. We have a winning formula, and the prototypes are terrific."

"But this is obviously a very different type of product for us," Shirley replied. "So, looking back, what's the closest precedent we've had?"

The two men didn't answer directly but instead spent the next 20 minutes sharing stories of their various experiences turning new discoveries into highly profitable business lines. "And so," Walter concluded, "the point we're trying to make by giving you all these examples is that—even though it's a totally new market for us, given our history—we think we can do the same thing with Plastiwear."

Jerry glanced at his watch. "Sorry, I have to run to a meeting, but let me know if I can get you any more information."

"Thanks. I'll be in touch," Shirley turned to Walter. "It sounds like you two have been really thorough in your cash-flow projections. I'll admit I thought they might be overly optimistic, but your logic seems solid. Of course, you know that Scott Beckett has concerns about our managing an apparel business. He projects substantial losses if we go down the path you suggest."

Walter gave her a patient smile. "Yes, I realize that if you load up the front end with environmental regulation compliance; big investments in property, plant, and equipment; and sales that are slow to ramp up, the net present value you get will indicate that this is a losing bet. And I know it's hard to imagine a plastics and packaging company doing fashion well." His honest appraisal took Shirley by surprise. "But you know Scott has an agenda. There are ways to make it work, and we really don't see how it could play out badly."

"Besides, beyond the numbers, you must realize this is a great opportunity to

reenergize HGS. We stumbled upon this fiber, and it really is near perfect, with so many possibilities for us. Imagine stainproof shirts that look as good as anything you get at Thomas Pink. Imagine indestructible canvas tents. Imagine..." Walter caught himself and looked at Shirley. "I'll stop. But I hope you and Carl understand how important this could be for us."

"I see what you mean," Shirley said, rising to bus her tray. "Thanks for taking the time to chat."

### Upping the Stakes

Shirley clicked off the timer on her BlackBerry more brusquely than she'd intended and drew a deep breath. "Can we sum up for today? I think we've made some good progress."

Brian Hanrahan, a senior financial analyst and Shirley's go-to number cruncher, volunteered. "In summary, MG Management wants to acquire a substantial stake, and we have no direct way to block them. However, if we make a public announcement of a revised dividend policy, an acquisition in one of our core areas, or a large near-term investment decision, they might back off a bit. We could also quickly sell off the rights to Plastiwear or jump into a joint venture."

Shirley's regularly scheduled meeting with her staff had been co-opted to discuss the private equity firm's recent share purchases and the possibility of a takeover attempt. "Keep this discussion quiet," she reminded the group, "and take care you don't leave these documents out where anyone might see them, in or outside this building."

She left the room last, walking slowly and thinking about Plastiwear. Deciding what to do was complicated enough, with some of the most powerful people at HGS making strong, albeit self-interested, cases on both sides of the argument. MG's involvement only increased the stakes, and she had no doubt that Carl would want her analysis of the situation on his desk first thing in the morning.

Back in her office, she sat down at her computer and began typing out a neutral executive summary page. After a minute she stopped.

Was her usual impartial approach really adequate in these circumstances? Wouldn't it be better to not only evaluate the options and provide perspective but also make a recommendation about a course of action? Wouldn't it be better to show Carl and the other senior executives that she could make tough choices, too?

The problem was, the models weren't giving her an answer. All the outcomes (profit, loss, breakeven) were feasible. This was a difficult strategic decision, fraught with political risks. Supporting either faction would mean alienating the other, perhaps irreparably damaging relationships and, as a result, limiting her career options at HGS.

Besides, even if she did offer Carl advice, there was no guarantee he would take it. He was famous for "going with his gut."

Would he respect her more for going with hers? Or for presenting both sides of the argument so that he could make his own decision?

With gnawing unease, she looked at her screen and deleted the text she'd drafted. Should she rely on her traditional strengths or demonstrate new skills?

 **Trish Gorman Clifford** is the managing partner of Clifford Strategic Services and an adjunct professor of management at the Columbia University School of International and Public Affairs. **Jay Barney** holds the Chase Chair for Excellence in Corporate Strategy at the Fisher College of Business at Ohio State University. They are coauthors of *What I Didn't Learn in Business School: How Strategy Works in the Real World* (Harvard Business Review Press, 2010).

**Should Shirley simply moderate the debate or recommend a course of action?**

See commentaries on the next page.



## EXPERIENCE

## The Experts Respond



**Blythe McGarvie** is the author of *Shaking the Globe: Courageous Decision-Making in a Changing World* (John Wiley & Sons, 2009).

**THIS CASE** reminds me of a situation I once faced. When I worked at Sara Lee, the president and CEO wanted to make an acquisition in Finland to secure a major share of the Scandinavian underwear and hosiery market. After finishing my due diligence on the deal, I realized that the company would be better off forgoing it. I did what my boss asked me to do—the financial analysis—but I also wrote a 10-point memo clearly explaining why I thought the acquisition would damage our long-term value.

Shirley should also do what Carl, her boss, asked—analyze and explain the financial and market implications of the possible scenarios: (1) not doing anything with Plastiwear, (2) finding a partner to enter the business with, (3) entering it without a partner. She already has her team creating a model for what would be required to break even, but she should spell out very clearly which three to five key assumptions drive the model (such as pricing; cost of raw materials, which in plastics depends on volatile oil prices; and distribution and marketing costs). Most important, as part of her analysis, she should indicate what

## At Shirley's level of management, her job involves coming to informed conclusions. She needs to have a point of view.

the company could learn if it did go into a test market. If HGS makes a small investment now to learn how consumers respond to Plastiwear, it will avoid a big write-off later or will obtain valuable information for a successful product launch. Competitors might learn of the product but would not be able to duplicate the technology if it is patent-protected.

Carl expects Shirley to play a certain role, and doing his bidding will build trust between them. But at Shirley's level of management, her job involves coming to informed conclusions. She is not a functionary but a thinker, a chief financial officer expected to offer smart recommendations to the leadership team. As such, she needs to have a point of view. If she disagrees with powerful colleagues or even her boss, but does it politely and with finesse, she won't lose her job. But she needs to present her case in a persuasive manner,

covering the assumptions, the analysis, the company's competitive situation, and its vision for future growth in her arguments.

Shirley should also have her staff provide what I call "bookends"—two other scenarios, which look at what the worst and best cases will be if the key assumptions happen to be wrong. Her boss may not follow her advice—that's his prerogative—but Shirley will at least know that she tried her best by presenting a thorough, logical argument to support her position.

It appears that Walter and Scott have their own agendas. Yet the only agenda that matters is finding a way to build the business and getting others to buy into the strategy or explain why it won't work. If Plastiwear isn't the answer, what are the alternatives? If the company's senior executives can't articulate how and with whom they might prosper, the company deserves to be taken over!



### WHAT WOULD YOU DO?

SOME ADVICE FROM THE HBR.ORG COMMUNITY

**CARL DEPENDS** on Shirley to find and organize important data regardless of lobbying from opposing factions. She shouldn't undervalue the importance of that. Her impartiality allows her to be credible in her role, and she's in a unique position to facilitate brainstorming by the management group and examine blind spots in the group's thinking. I'd hire her in a heartbeat.

**Roz Dieterich**, consultant and psychotherapist, *In Your Corner Coaching and Consulting Services*

**I CAN SEE** Shirley taking a stand on something she really believes in, but that doesn't seem to apply in this case. Given that, why should she take a strong position here when it's not her job? She could easily lose out, even if the boss goes in the direction she recommends, because that's apparently not what people want from her.

**David Dillard**, software engineer, *Symantec*

**SHIRLEY'S RETICENCE** most likely stems from her own insecurities about venturing into the murky and uncertain human side of decision making; she seems more comfortable behind a spreadsheet. It seems that most of the facts are on the table. Now it is time for her to step up, share her perspectives, and encourage others to come together in seeking the best solution.

**Betty Shotton**, partner, *Berkana Consulting*



**Mia de Kuijper** is the author of *Profit Power Economics: A New Competitive Strategy for Creating Sustainable Wealth* (Oxford University Press, 2009).

**SHIRLEY RICKERT** must stop vacillating. As chief financial officer, she is morally (and legally!) obliged to safeguard shareholder value and the financial health of HGS. Her success will be measured by her ability to lead others toward actions that strengthen those two aspects of company performance. Merely moderating a debate between self-interested management team members is not good enough. Scott and Walter might want to throw temper tantrums at each other in the boardroom (I've seen many in my time as a corporate executive and adviser), but Shirley must move the conversation to focus on value creation.

Two issues demand her immediate attention:

First, it is imperative that she take a position on the investment in Plastiwear. The short-term political risk of angering powerful colleagues does not stack up against her accountability to shareholders

**Shirley's leadership is required on potential responses to the looming takeover of HGS.**

**SHIRLEY'S PRINCIPAL** role is to manage risk. She will display leadership by focusing on her strengths (regardless of her personal opinion in this circumstance), respecting boundaries, and allowing others (such as Carl, the CEO) to fulfill their own roles with their own strengths. It is incumbent upon all of us, no matter what our rank or position, to lead where we are.

**Paul Tzanos, CFO, Sports Science Institute of South Africa**

and her reputation as a leader in the long run. Shirley needs to evaluate the potential profit power of the new project against that of other opportunities in the pipeline. However, there is no way that she can take a stand at this point, because she has failed thus far to aggressively gather insights from outside the company. CFOs (and CEOs, for that matter) cannot rely only on "facts" and spreadsheets offered up by in-house factions promoting their own agendas. Shirley and her team must reach out to external experts in the apparel industry to get their take on the challenges and opportunities offered by Plastiwear and to test the assumptions and projections made by Walter and his team.

As Scott pointed out, she must also take note of the competitive forces at work in the apparel industry. In particular, she should understand HGS's "power nodes"—the sources of profit power that make the company indispensable to and give it leverage over its suppliers, partners, or buyers. Power nodes can be a variety of things: unique skills, special ingredients, hubs or network dynamics, brands, the ability to distribute. They allow companies to retain the largest share of profits and manage their risks while making sure that the broader group of players with whom they interact also benefit. In today's transparent business environment, where competitive information is free-flowing and even large companies have the freedom to play with their business models, HGS needs to concentrate its activities on its power nodes.

Second, Shirley's leadership is required not only on the Plastiwear decision but also on potential responses to the looming takeover of HGS. It appears that buyers of a minority stake may be getting undue influence. With a solid understanding of the profit power of her company, Shirley can play a leading role with Carl Switzer and the HGS board to devise a posture to safeguard the interests of all shareholders. ♥

**HBR Reprint R1011N**

**Reprint Case only R1011X**

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Uncovering information about taxpayer eligibility about flexible tax payment options related to the Gulf Coast oil spill isn't easy. Dow Jones today published a phone number for the Internal Revenue Service hotline. **You can search** for information on-line, or call the hotline and we'll tell you if you are eligible for a suspension of tax collection or examination actions. Taxpayers who request a suspension, however, will still be required to pay interest **or** outstanding balances. The IRS is also offering victims additional flexibility for missed payments offers to taxpayers with a clean payment history. The IRS acknowledged that even if it's been hard to get help, they would now point you to information **you can find.** The IRS will offer taxpayers direct access to federal employees who can work to resolve tax issues related to the oil spill.



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# Synthesis

A review of emerging ideas in the media



## From Lone Hero to a Culture of Leadership

Three books show how best to create effective partnerships at the top. by Charles J. Palus and John B. McGuire

**T**he imperative for human development is much like the one for successful innovation: Push the existing model until it breaks. In leadership terms, the broken model is the “great man” theory. Thanks to the increasing complexity of work and society—augmented by the rising influence of the internet and growing global commerce—lone heroes simply

can’t wield power the way they used to. In politics and business, among other spheres, individual leadership is proving to be inadequate when moving from projects and products to large enterprises and cross-border networks. Organizations, therefore, are learning to embrace coleadership—in dyads, small groups, and larger collectives.

Leadership expert Warren Bennis shifted his focus from great men to great groups in 1997. In *Organizing Genius*, he and coauthor Patricia Ward Biederman argue that “most nontrivial problems require collective solutions,” so the individual must work both with and for the many.

However, our research over the past 15 years at the Center for Creative Leadership shows that there are significant challenges in moving toward this new model. Leaders often struggle to cope with their feral competitiveness, desire for power and control, and gut-level inclination toward personal triumph over collective achievement. Bennis might have put it best in his 1997 *Leader to Leader* article “The Secrets of Great Groups”: “How do you get talented, self-absorbed, often arrogant, incredibly bright people to work together?”

Three new books cast fresh light on the topic. Is the solution to ensure that coleaders have complementary knowledge, skills, and personalities? Or is it to unite diverse people within a collaborative leadership culture?

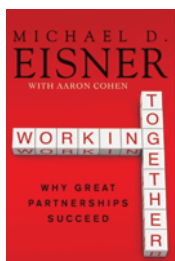
Eleven years after Bennis and coauthor David A. Heenan described successful executive pairs in *Co-Leaders: The Power of Great Partnerships*, former Disney CEO Michael Eisner chimes in with *Working Together: Why Great Partnerships Succeed*, a collection of vignettes about duos at the top of organizations. The shift from one leader to two is the first step of coleadership, and the lesson from both books is that success requires a strong ego to complement and restrain a big one.

Strong egos are open, flexible, and connective. Big egos are rigid and controlling. Strong egos pay attention. Big egos draw attention. Eisner himself falls firmly into the latter category; he’s reading this and smiling. His partner, Frank Wells, on the other hand, was happy to play second string for the good of the partnership. One suspects that Aaron Cohen, who contributed to the book, is willing to do the same.

Eisner offers nine other examples as well, from investment managers Warren Buffett and Charlie Munger to restaura-



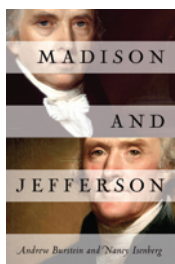
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**Working Together:  
Why Great  
Partnerships Succeed**  
Michael D. Eisner with  
Aaron Cohen  
HarperCollins, 2010



**Trio: Inside the Blair,  
Brown, Mandelson Project**  
Giles Radice  
I.B. Tauris, 2010



**Madison and Jefferson**  
Andrew Burstein and  
Nancy Isenberg  
Random House, 2010

teurs Susan Feniger and Mary Sue Milliken. In the process, he uses almost every cliché possible to emphasize that opposites attract and thrive—"fire and ice," "night and day," "yin and yang," "the odd couple"—and the point he makes is as simplistic as his metaphors. Indeed, *Working Together* is little more than a pale addendum to Bennis's *Co-Leaders*. Eisner seems intent on polishing his own star, and the great-man theory shines through.

For a more nuanced consideration of coleadership, this time with three heads, turn to *Trio: Inside the Blair, Brown, Mandelson Project*, by Giles Radice, a member of the House of Lords. This is a well-researched but at times heavy-going story about the UK's New Labour movement, led by back-to-back prime ministers Tony Blair and Gordon Brown and behind-the-scenes power broker Peter Mandelson. And although it has received less attention than Blair and Mandelson's own memoirs, it is undoubtedly a more neutral account.

Unlike the successful coleader pairs described by Eisner and Bennis, however, this partnership is troubled. Radice describes a battle royal of big egos often fighting bitterly but periodically rediscovering their deeper bonds. Blair was, of course, the brilliant and charismatic golden boy with bright moral convictions that led him to both success (in Ireland) and failure (in Iraq). Brown was a strong chancellor who waited for his turn at the top job but watched a widely assumed private deal for early succession crumble into an interpersonal war with his coleader. Mandelson, with arguably the strongest ego, was a consummate party organizer who helped the others succeed but was himself plagued by scandal, ethical failings, and political maneuvering, which earned him the sobriquet "Dark Lord." These three men kept New Labour in power for 16 years not because they had complementary personalities and talents but because they collectively invented a "third way" between the Thatcherites and the Social Democrats. Time after time the party's modernized principles and values shored up the weaknesses of its leaders.

One sees similar themes in *Madison and Jefferson*, a laser-sharp view of the first 50 years of the American political experiment. The two leaders of the title were in some ways like Eisner's duos—one

free thought, and the power of unity in diversity—the Founders insisted that great ideas dwarfed great individuals. The book's frontispiece quotation from Benjamin Rush in 1808 makes that clear: "There is very little difference in that superstition which leads us to believe in what the world calls 'great men' and in that which leads us to believe in witches and conjurors." Madison and Jefferson led alongside a host of peers, and the Declaration of Independence was followed by a declaration of interdependence—the Constitution.

This idea of a great group supports the findings of our own research: In the face of long-term, complex challenges, it is the larger context of a shared cause and culture that binds together big egos. They're still there, of course. But mutual trust, collaboration, and accountability serve as the restraining strong ego.

The same holds true in business. Louis Gerstner didn't transform IBM into an integrated, customer-friendly organization by partnering two leaders at a time. He knew he had to galvanize all his senior managers. So, for instance, he challenged his top 200 executives to make face-to-face problem-solving visits to at least five customers each, and then got personally involved in every visit report. As he later explained in his book *Who Says Elephants Can't Dance?*: "I came to see... that culture isn't just one aspect of the game—it is the game."

As Bennis has written, leaders are as much created by the group as the other way around. Picture M.C. Escher's pair of hands drawing each other on a grand scale. Organizations that successfully shift from great leaders to great groups practice coleadership throughout their culture. That's where the real strengths reside. Madison and Jefferson got it right. What's needed is complementarity, not sameness, and an evolving common cause stronger than the biggest egos. ▀

**"Their personal exploits  
[were] made into  
something more nobler  
than they were."**

*Madison and Jefferson*, by Andrew Burstein and Nancy Isenberg

(Jefferson) attracted more attention while the other (Madison) provided quiet strength and stability. But authors Andrew Burstein and Nancy Isenberg go beyond conventional wisdom to reveal a larger culture of coleadership during that remarkable period. Aligned along Enlightenment values—including equality, elitism,

**Charles J. Palus** and **John B. McGuire** are senior faculty members at the Center for Creative Leadership in Greensboro, North Carolina.



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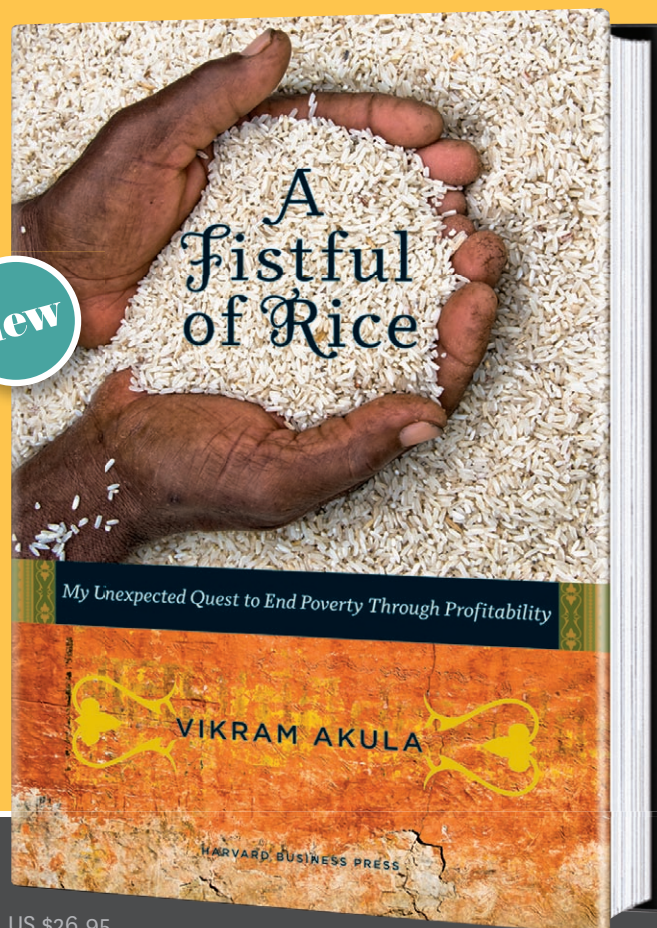


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# Executive Summaries November 2010

## SPOTLIGHT ON LEADERSHIP LESSONS FROM THE MILITARY



Military work calls for a variety of leadership traits: adaptability, composure under pressure, the ability to keep a high-level mission in mind at all times, and an understanding of complex, technically sophisticated systems. Those are exactly the skills that today's business leaders need, as well.

### NEGOTIATIONS

#### Extreme Negotiations

Jeff Weiss, Aram Donigian, and Jonathan Hughes | page 66

CEOs and other senior executives must make countless complex, high-stakes deals across functional areas and divisions, with alliance partners and critical suppliers, and with customers and regulators. The pressure of such negotiations may make them feel a lot like U.S. military officers in an Afghan village, fending off enemy fire while trying to win trust and get intelligence from the local populace.

Both civilian and military leaders face what the authors call "dangerous negotiations," in which the traps are many and good advice is scarce. Although the sources of danger are quite different for executives and officers, they resort to the same kinds of behaviors. Both feel pressure to make quick progress, project strength and control (particularly when they have neither), rely on force rather than collaboration, trade resources for cooperation rather than build trust, and make unwanted compromises to minimize potential damage.

The authors outline five core strategies that "in extremis" military negotiators use to resolve conflicts and influence others: maintaining a big-picture perspective; uncovering hidden agendas to improve collaboration; using facts and fairness to get buy-in; building trust; and focusing on process as well as outcomes. These strategies provide an effective framework that business executives can use to prepare for a negotiation and guide their moves at the bargaining table.

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### CRISIS MANAGEMENT

#### "You Have to Lead From Everywhere"

An interview with Admiral Thad Allen by Scott Berinato | page 76

**"If you're not visible to your people...you're not a credible leader."**

When responding to a complex, fast-moving crisis, leaders must constantly adapt their mental models and create a "unity of effort," argues Allen, a retired U.S. Coast Guard admiral and the national incident commander for the Deepwater Horizon oil spill. That's a much bigger management challenge than approaching the job as a military operation and drawing on unity of command, and it can require nuanced and creative strategies, such as deciding to go "off book" when standard protocol simply won't work.

In this edited interview, Allen—who also brought post-Katrina New Orleans back from the brink of anarchy and headed the Coast Guard's response to the September 11 attacks along the eastern seaboard—stresses the need to lead both from headquarters and on the ground. He discusses how the phenomenon of publicly available, real-time information has affected crisis management in recent years, addresses the challenges of managing multiple public and private stakeholders, and shares his thoughts on how to lead when an anxious public is counting on success.

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### LEADERSHIP

#### Which of These People Is Your Future CEO? The Different Ways Military Experience Prepares Managers For Leadership

Boris Groysberg, Andrew Hill, and Toby Johnson | page 80

Americans have long believed that U.S. military officers—trained for high-stakes positions, resilience, and mental agility—make excellent CEOs. That belief is sound, but the authors' analysis of the performance of 45 companies led by CEOs with military experience revealed differences in how the branches (Army, Navy, Air Force, Marine Corps) prepare leaders for business. Those differences reflect the trade-off between flexibility and process that each branch of the armed services must make.

Army and Marine Corps officers operate in an inherently uncertain environment. They define the mission but then give subordinates the flexibility to adjust to realities on the ground. This leadership experience tends to turn out business executives who excel in small firms, where they can set a goal and then empower others to work toward it.

Navy and Air Force officers, who operate expensive, complex systems such as submarines and aircraft carriers, are trained to follow processes to the letter, because even small deviations can have large consequences. In corporations, these leaders excel in regulated industries and in firms that take a process approach to innovation.

The larger lesson that the military can offer the business world is that fit matters. Different circumstances demand different leadership skills. Hire the person who fits the job.

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### LEADERSHIP DEVELOPMENT

#### Four Lessons in Adaptive Leadership

Michael Useem | page 86

The armed services have been in the business of leadership development much longer than the corporate world has. Today's military leaders need tools and techniques to face a fast-changing and unpredictable type of enemy—so the armed services train their officers in ways that build a culture of readiness and commitment. Business leaders need to foster an adaptive culture to survive and succeed, given that they, too, face unprecedented uncertainty—and new types of competitors.

Michael Useem and his colleagues at the Wharton School incorporate exposure to military leadership into MBA and executive MBA programs. Highlights include direct contact in the classroom with leaders in the U.S. Army, the U.S. Marine Corps, and the Department of Defense, along with field-training exercises and battlefield visits.

The programs are designed to help students connect viscerally to essential leadership lessons. Four are featured in the article:

**Meet the troops.** Creating a personal link is crucial to leading people in challenging times.

**Make decisions.** Making good and timely calls is the crux of leadership.

**Mission first.** Focus on common purpose and eschew personal gain.

**Convey strategic intent.** Make the objectives clear, but give people the freedom to execute on them in their own way.

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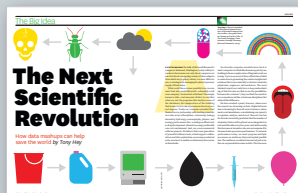
## Features

## THE BIG IDEA

## ANALYTICS

## The Next Scientific Revolution

Tony Hey | page 56



For decades, computer scientists have tried to teach computers to think like human experts. Until recently, most of those efforts have failed to come close to generating the creative insights and solutions that seem to come naturally to the best researchers, doctors, and engineers. But now, Tony Hey, a VP of Microsoft Research, says we're witnessing the dawn of a new generation of powerful computer tools that can "mash up" vast quantities of data from many sources, analyze them, and help produce revolutionary scientific discoveries.

Hey and his colleagues call this new method of scientific exploration "machine learning." At Microsoft, a team has already used it to innovate a method of predicting with impressive accuracy whether a patient with congestive heart failure who is released from the hospital will be readmitted within 30 days. It was developed by directing a computer program to pore through hundreds of thousands of data points on 300,000 patients and "learn" the profiles of patients most likely to be rehospitalized. The economic impact of this prediction tool could be huge: If a hospital understands the likelihood that a patient will "bounce back," it can design programs to keep him stable and save thousands of dollars in health care costs.

Similar efforts to uncover important correlations that could lead to scientific breakthroughs are under way in oceanography, conservation, and AIDS research. And in business, deep data exploration has the potential to unearth critical insights about customers, supply chains, advertising effectiveness, and more.

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## STRATEGY AND COMPETITION

## Stress-Test Your Strategy: The 7 Questions to Ask

Robert Simons | page 92



An economic downturn can quickly expose the shortcomings of your business strategy. But can you identify its weak points in good times as well? And can you focus on those weak points that really matter?

Drawing on some 25 years of research, Harvard Business School professor Robert Simons identifies seven questions all executives should ask in order to ensure their strategies' success. Have you identified your primary customer? Decided whether shareholders, employees, or customers come first? Narrowed down which performance variables to track? Have you set creative boundaries? Are you generating creative tension? Are you promoting cooperation among your employees? And at the end of the day (and in the middle of the night), are you thinking about the right issues as you ponder how the future will change your business?

The answers to these questions can be tough, and their full implications are not always immediately clear. Simons provides a real-world guide to the various alternatives and their risks, illustrating his points with examples from companies including Home Depot, McDonald's, Merck, and Pfizer.

There is no magic bullet that can target the pitfalls of your business strategy, Simons concludes. But you must engage in ongoing, face-to-face dialogue with those around you concerning emerging data, unspoken assumptions, difficult choices, and, ultimately, action plans. You and they must be able to give clear, consistent answers to the seven questions Simons poses if you want to be sure that your strategy is firmly on track.

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## ENTREPRENEURSHIP

## Finding Competitive Advantage in Adversity

Bhaskar Chakravorti | page 102



How do some entrepreneurs, corporate innovators, and investors turn adverse conditions to competitive advantage? Chakravorti, of McKinsey and Harvard Business School, has identified four areas that the most successful of these people consistently explore.

1. Entrepreneurs reroute resources that become redundant to meet new needs, as Jonathan Bush did at athenahealth. The company is now a leader in internet-based revenue-cycle management tools.
2. They round up unusual suspects and break industry orthodoxy, as Iqbal Quadir did with Grameen-phone in Bangladesh.
3. They find small solutions to big problems, as Trey Moore and Cameron Powell did with their Air-Strip OB smartphone app for mobile physicians who needed a major advance in wireless health care.
4. They focus on platform, not just product. That's how Fred Khosravi and Amar Sawhney broadened the field of surgical applications for Incept's hydrogel technology.

The entrepreneurs who survive in the "new normal" will be those who find counterintuitive solutions to the bottlenecks, constraints, and other difficulties that adversity engenders. Call them the "new abnormals."

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## SUSTAINABILITY

## Winning in the Green Frenzy

Gregory Unruh and Richard Ettenson | page 110



In virtually every industry, the focus of green competition is shifting from a race to launch eco-friendly products to a battle over what constitutes a "green" product in the first place. The definition can vary from one sector or product to the next, but whatever your business, if you're not engaged in the debate and in shaping the rules, you risk being assessed against standards you can't meet.

Once you understand what degree of standardization exists in your industry and what your company's internal capabilities are, you can choose from among four strategies: adopt existing standards; co-opt them by negotiating beneficial modifications with a standard-setting body; define standards where none exist; or break away from the current standards by challenging and supplanting them.

In the building sector, for example, LEED certification is considered definitive, so architects, construction companies, and office furnishings suppliers naturally choose to adopt LEED standards. But the coffee industry has more than a dozen competing standards, so Starbucks decided to create its own—the C.A.F.E. Practices.

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## How I Did It

### LEADERSHIP

#### Rohm and Haas's Former CEO on Pulling Off a Sweet Deal in a Down Market

Raj Gupta | page 49

Raj Gupta had led the specialty chemical company Rohm and Haas without drama for years when some of its most important shareholders asked him to orchestrate its sale. Surprised but determined to do his best for the company, in July 2008 he arranged an \$18 billion deal with competitor Dow Chemical, which the industry press called the "deal of the century."

But Dow was relying on cash from a planned joint venture of its own with Kuwait Petroleum, and when the stock market plummeted, the joint venture—and Dow's financing—fell through. Then things got really interesting. Would Dow try to walk away from the deal? Could Rohm and Haas insist that it go through in spite of the unforeseen global meltdown?



How airtight was that agreement? Gupta, who learned he had cancer in the midst of all this, had to find a way

through the complicated financial and economic issues. In this first-person account he talks about the most difficult deliverable ever asked of him—seeing through the sale of his company as the world economy was collapsing.

**HBR Reprint R1011A**

## Managing Yourself

#### What's Your Personal Social Media Strategy? Soumitra Dutta | page 127

Social media are changing the way we do business and how leaders are perceived, from the shop floor to the CEO suite. But whereas the best businesses are creating comprehensive strategies in this area, research suggests that few corporate leaders have a social media presence—say, a Facebook or LinkedIn page—and that those who do don't use it strategically.

Today's leaders must embrace social media for three reasons. First, they provide a low-cost, highly accessible platform on which to build your personal brand, communicating who you are both within and outside your company. Second, they allow you to engage rapidly and simultaneously with peers, employees, customers, and the broader public—in order to leverage relationships, show commitment to a cause, and demonstrate a capacity for reflection. Third,



they give you an opportunity to learn from instant information and unvarnished feedback.

To formulate your personal social media strategy, it helps to clarify your goals (personal, professional, or both), desired audience (private or public), and resources (can you justify using your company's?). You must also consider the risks of maintaining a large number of connections and of sharing content online.

Active participation in social media can be a powerful tool—the difference between leading effectively and ineffectively, and between advancing and faltering in the pursuit of your goals.

**HBR Reprint R1011L**

### THE GLOBE

#### GROWTH

#### How to Conquer New Markets with Old Skills

Mauro F. Guillén and Esteban García-Canal | page 118



Many firms sit on the sidelines of global competition, believing they need to develop innovative products or leading brands before venturing abroad. The international success of Spanish companies like Telefónica, Freixenet, Banco Santander, and ALSA proves such thinking dead wrong. They all became global players in their industries—by excelling at old-fashioned capabilities.

The Spanish firms skipped the risky, expensive strategy of opening their own facilities overseas. Instead, they extended their reach through acquisitions and alliances, focusing first on Latin America and Europe. Political and networking savvy helped them break into highly regulated or complex markets. Speed has also been a factor in their success: Rapid project execution allowed them to pull ahead of other multinationals, and with their expertise in vertical integration, they've been able to get products quickly and cost-effectively to far-flung customers. Though all these skills may be humdrum, Spanish firms have made the most of them and have become industry giants as a result.

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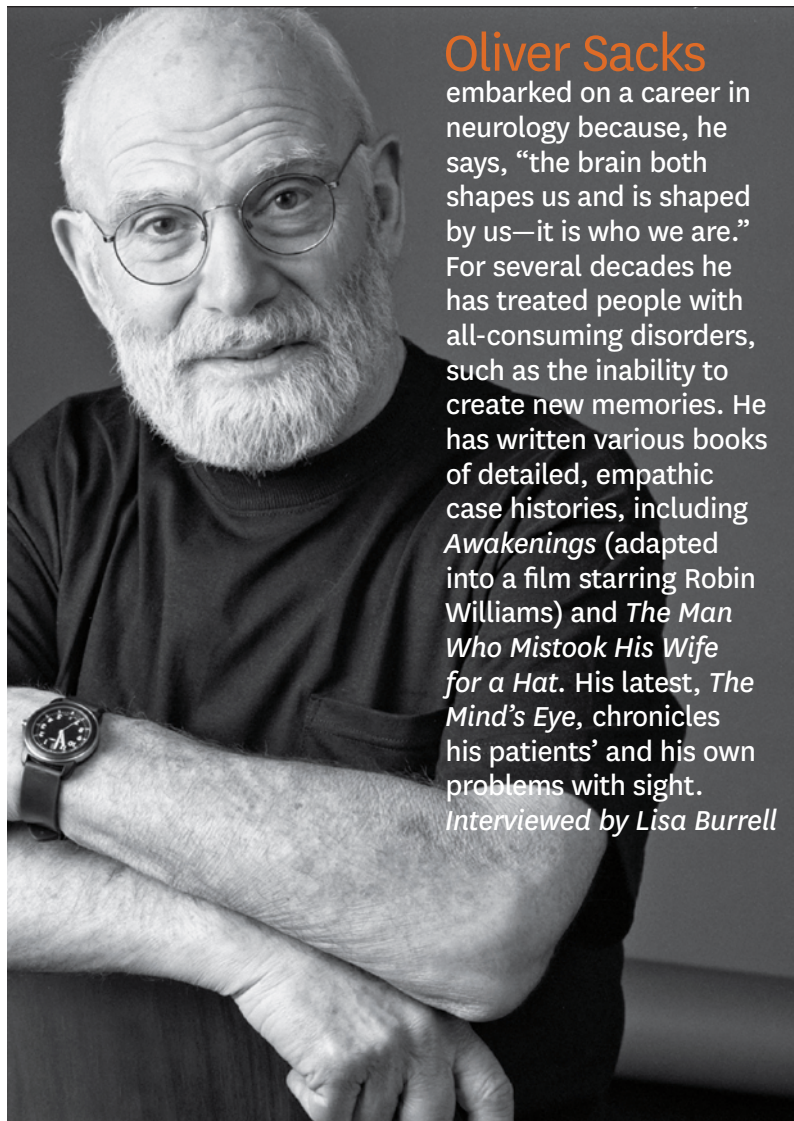
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# Life's Work

**HBR.ORG** To read the extended interview, go to **hbr.org/sacks**.



## Oliver Sacks

embarked on a career in neurology because, he says, “the brain both shapes us and is shaped by us—it is who we are.” For several decades he has treated people with all-consuming disorders, such as the inability to create new memories. He has written various books of detailed, empathic case histories, including *Awakenings* (adapted into a film starring Robin Williams) and *The Man Who Mistook His Wife for a Hat*. His latest, *The Mind’s Eye*, chronicles his patients’ and his own problems with sight.

*Interviewed by Lisa Burrell*

**HBR:** Are people hardwired to have certain jobs?

**Sacks:** In families of musicians, and sometimes mathematicians, I think the genetic component is very strong. The Bach family was so famous for its musicality that musicians in Germany used to be called *Bachs*. Certain minds may be analytically inclined from the start, and this may draw them toward science. But family influence is important. Nine uncles on my mother’s side were all chemists or physicists. My parents were both physicians, and eventually I followed them.

**Can you identify any crossroads in your career?**

Coming to America, when I was 27. I thought of British society as rigid and hierarchical, and imagined America would be socially and culturally and morally spacious. And I thought that I would probably have an odd life and that I could find a little hospital

in America and hide there and do my own thing, which is what I did. What I’m still doing.

**How does getting to know patients and telling their stories enrich your understanding of the brain?**

It allows me to understand much better what is happening with them physically. The case history is the most detailed way of communicating—but also apprehending—what goes on with people. *The Mind of a Mnemonist*, by the great Russian psychologist A.R. Luria, was very influential for me. Luria had followed the mnemonist, a man of prodigious memory and powers of imagery, for 30 years. When I started the book, I thought it was a novel. I then realized it was a scientific case history, the richest I’d ever read. Narrative may be an essential part of scientific understanding. I’m not a physician *and* a storyteller. I regard the two things as linked.

**Why do people at their most vulnerable give you and your readers such intimate access?**

The business of writing about people never occurs to me until I’ve known them for a long time. I am not satisfied with a formal consent. I have to be convinced that they feel it is a good thing. I always show them what I write. Would they change it? Have I omitted things? It becomes almost a collaborative effort. They know that if I write, it will be in a mode of sympathy and respect. It will not be a painful disclosure.

**Do patients view you as a therapist?**

I think a physician *should* be seen as a therapist. A good physiotherapist should have some idea of the patient’s psyche. And a good psychotherapist should be observant of the way the patient moves around. A potential doubleness I have to deal with is being “the investigator” versus “the therapist.” A part of me wants to know more and more, and I have to say to myself, “Go easy. Don’t push too far.”

**Has your struggle with ocular cancer changed how you think and work?**

I’m very sorry to have this thing. But since I do, I’ve been trying to make useful observations. In writing about it, I can sometimes achieve a sort of detachment. I’m getting *it* at the same time it is getting me. I also speak more easily to people with cancers and other illnesses now, because I can speak as one of them. They know that I too am a patient. We’re all patients. ♥

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