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THE HBR LIST

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There's nothing like a new idea to shake things up. Last fall, when we got to work rounding up 20 provocative new ideas in management, some people said it was too ambitious. It was a time of hunkering down, they said, not a time of imagining. Managers and those who study effective management were focused on the basics, the blocking and tackling of cost cutting and controllership. If anything, they claimed, we would discover a kind of anti-intellectualism out there.

They couldn't have been more wrong. When we put out the call for new ideas, we were inundated. Some of the best concepts seem to have sprung from the muck of the past few years. We have Rakesh Khurana plotting the redemption of management, Chris Meyer proposing a new model for ensuring security, and Bob Sutton imploring us not to tolerate bad people—even if they bring in good money. Other writers pick up on promising trends in technology, neuroscience, sociology, and psychology.

Taken together, these 20 ideas cover a lot of ground. Turn the page, and you'll see in no uncertain terms that far from lying fallow, the ground in the business world is as fertile as ever.

1. You Got a License to Run That Company?

Rakesh Khurana

Management today cannot properly be called a “profession.” But given its dominance in American society, it must become one—and that means managers must serve a higher purpose than just maximizing shareholder returns.

2. No Monopoly on Creativity

Richard Florida

The power behind the U.S. economy is its “creative class”—scientists, artists, engineers, technologists, and designers, to name a few. The creative sector accounts for nearly half of American wage income, but the United States is suddenly in danger of losing its edge.

3. The Strategy Is the Structure

Adrian Slywotzky and David Nadler

Traditionally, strategy has dictated structure. But if you let strategy and organizational change evolve in parallel and influence each other, your company will have a better chance of keeping up with its markets.

4. Business on the Brain

Diane L. Coudu

Advances in drug development, genetic mapping, and neuroimaging technologies have shifted our attention from the mind to the brain. How will the new hard-science approach affect leadership, cooperation, and other dimensions of business?

5. The Law of Conservation of Attractive Profits

Clayton M. Christensen

When a product starts to become a commodity, a decommo-ditization process is often triggered somewhere else in the value chain. Managers might therefore be able to predict which activities will generate the most attractive profits in the future.

6. The Force Behind Gigli

Joel Kurtzman

Investors are always scrambling to find out where the “smart money” is going. It’s also important, whether you’re an investor or a business manager, to know where the stupid money is going.

7. More Trouble Than They’re Worth

Robert Sutton

When it comes to hiring and promoting people, a simple but revolutionary idea is taking hold in the ranks of management: the “no asshole” rule. Organizations just shouldn’t tolerate the fear and loathing these jerks leave in their wake.

8. Finally, Market Research You Can Use

Duncan Simester

Executives complain that their companies’ investments in market research are rarely put to good use. Market researchers can make their work a lot more valuable by focusing on long-term field research and other methods that can lead directly to optimized profits for organizations.

9. The MFA Is the New MBA

Daniel H. Pink

Businesses have come to realize that the only way to differentiate their offerings is to make them beautiful and emotionally compelling—which explains why an arts degree is now such a hot credential in management. Meanwhile, MBA graduates are becoming this century’s blue-collar workers: They entered a workforce that was full of promise only to see their jobs move overseas.

10. Requiem for the Public Corporation

Joseph Fuller

The public limited company is the world’s most common corporate organization. But is the useful life of the public company—at least in the form we have known it for more than a century—over?

11.**Accentuate the Positive***Bronwyn Fryer*

Organizational psychologists have always focused on the problems that bring companies to their knees: managerial abuse, greed, distrust, poor morale, burnout, office politics, and so on. The new field of “positive organizational scholarship,” created in the aftermath of the September 11, 2001, attacks, measures the values and processes that make some organizations inspiring places to work.

12.**Biological Block***Chris Meyer*

The immune system operates on some broad principles: ubiquitous detection capability, a sophisticated ability to discriminate friend from foe, and accumulated learning. These factors constitute an architecture for security that we can also use in society and business.

13.**How You Gonna Keep 'Em Down on the Farm After They've Seen Insead?***Herminia Ibarra*

Once your valued executive returns from an inspiring leadership program and plugs back into the old routine, there's a good chance you'll lose her—unless you've carefully managed the “takeoff” period before her departure and have a good plan for her “reentry.”

14.**You Don't Have a Nanostrategy?***Gardiner Morse*

Nanotechnology products—dime-sized computers and ultralight textiles stronger than Kevlar—will certainly disrupt, transform, and create whole industries. If you don't already have a lookout watching for how and when this new field will become important for your business, it's time to get one.

15.**The Loan Ranger***Iqbal Quadir*

What is it that keeps rich countries' governments from living up to their rhetoric about free trade? Lobbyists for dying industries who wail about lost jobs. The World Bank should therefore lend to the *rich* countries so they can retrain

those workers—and be free to pursue genuine free trade, which will benefit everyone.

16.**Cosmetic Psychopharmacology***Ellen Peebles*

Your employees now have access to medications—like Prozac—that not only alleviate depression but also alter personalities in ways that are good for business. Will ambitious managers be able to leave well enough alone?

17.**Watching the Patterns Emerge***Clay Shirky*

Managers manage what they can see, but until now they've never been able to “see” into the informal social networks that have always driven business. Better data and new research are finally giving companies a chance to leverage real people's interactions, for everything from trend spotting to identifying internal experts within a department.

18.**Laughter, the Best Consultant***Thomas A. Stewart*

You can learn a lot about a company by paying attention to its humor. Skits at sales conferences, wisecracks during meetings, jokes in e-mails: These constitute an extraordinary trove of information about what's really going on.

19.**Watch Your Back***Leigh Buchanan*

Fear of risk can cripple a company's ability to compete aggressively. But a new framework for enterprise risk management may finally convince businesses that they can systematically assess hazards on all fronts, without damping their managers' entrepreneurial zeal.

20.**IT Doesn't Scatter***Ray Kurzweil*

If you asked most people to describe the past decade of IT, they would call it boom and bust—a roller coaster ride. The reality is that despite the stock swings, the bursting bubbles, the scandals, and the countless other disappointments, technology has marched smoothly and relentlessly ahead.

Breakthrough Ideas for 2004

What's the best idea you've heard lately that's related to the practice of management? HBR's editors asked around, then put their heads together, and the result is the 2004 HBR List.

It's a compendium of new thinking as diverse as it is provocative. Perspectives from economics and sociology sit side by side with developments in brain science and urban planning. Notes of caution—even contrition—mix with calls to action. You'll find insights on how to formulate strategy, spur innovation, spot danger, manage risk, and get the highest performance from the people in your organization. There are new findings about large-scale trends and fresh thoughts on day-to-day decision making.

If there is a crosscurrent running through them, it is only this: that managers with open minds and access to new thinking can make a difference, to the competitiveness of their organizations and the well-being of the world. Since the beginning, HBR has sought to present not just ideas, but ideas with impact. With the 2004 List, we deliver a bumper crop of them. Consider them, debate them, let them inspire your own thinking. Then go and make an impact.

1.

You Got a License to Run That Company?

Management, for a brief period in the last century, was well on its way to becoming a profession. But managers have been retreating from that goal for the past 60 years, and we have an unparalleled wave of corporate scandals in recent times to show for it.

What is a “profession”? In ordinary parlance, the term refers to an occupation that requires a high degree of technical skill and competence. A more traditional definition, however, also encompasses mastery of an abstract, systematic body of knowledge—and a primary orientation toward ethical service to society.

It was that comprehensive notion of professionalism that inspired the founders of the Wharton School of the University of Pennsylvania, the Tuck School at Dartmouth, and Harvard Business School—America's first business schools—in the early years of the twentieth century. They intended not only to standardize the production of managers for the nation's corporations but also to professionalize the occupation of management itself. If they had succeeded, managers might have come to play a role in the business-dominated society of the twentieth century analogous to the role of the clergy in preindustrial America.

However, the “professionalization” project lost steam after World War II. As the demand for trained managers exploded, the number of business programs rose and their content became diluted. By 1959, both the Ford Foundation and the Carnegie Corporation had issued highly critical reports on the state of American

business schools, decrying their purely vocational curricula. Both called for more emphasis on the social and behavioral sciences and on the use of quantitative methods. Those directives, along with the funding provided by the two foundations, led to the recruitment of new faculty, many of whom were trained in economics. This saw the development of many of the economic theories that form the staple fare of MBA courses today. By the time concepts like agency theory and efficient-market theory found their way into the classroom in the 1980s, another fundamental shift was occurring: Managerial capitalism was giving way to a new system of investor capitalism. MBA students were taught that as managers, they were merely agents, bound by arm's-length contractual relationships to a single set of constituents: shareholders.

What went unnoticed was that such a view of the manager's role and responsibilities was utterly incompatible with the traditional concept of professionalism. The postwar attempt to reform American business education had created unintended consequences. A Hobbesian ethic of pure self-interest, backed by the power of the highly abstract and systematic “science” of economics, replaced the professional ethics that the business schools had once tried to teach. That is particularly troublesome because business executives are unrivaled by any other group in their control over material and human resources and their dominance in American society. What's more, executives have succeeded in imposing their values, norms, and methods on older, more autonomous professions such as law and medicine.

It is time to reacquaint managers with the

An ethic of pure self-interest has replaced the professional ethics that business schools once tried to teach.

concept of professionalism. Along with that should come a fundamental reassessment of business education and how well it serves society's interests. The American business school has become an institution that serves a very different purpose than was originally intended. That transformation has had a profound effect on American management's evolution toward its present condition, where it is ripe for reexamination.

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2.

No Monopoly on Creativity

Creativity is a virtually limitless resource: Every human being has creative potential that can be turned to valuable ends. The number of people doing creative work—the scientists, engineers, technologists, artists, and designers and the various professionals in health care, finance, law, and other fields who make up the “creative class”—has increased vastly over the past century. In 1900, fewer than 10% of U.S. workers were doing creative work. In 1980, that figure was slightly more than 15%. But by 2000, the creative class included almost a third of the workforce. The creative sector accounts for nearly half of all wage and salary income in the United States—\$1.7 trillion, as much as the manufacturing and service sectors combined. Imagine how much wealth could be generated if the creative capacities of the remaining two-thirds of the workforce were harnessed, too.

In the past year I've been hit by a harsh realization: The United States, while retaining an edge in this regard, is far from unbeatable. In fact, its position is more tenuous than commonly thought.

For most of human history, wealth came from a place's endowment of natural resources, like fertile soil or raw materials. But today, the key economic resource, creative people, is highly mobile. And it gravitates toward places with certain underlying conditions. To achieve growth, a region must have what I call the three Ts: technology, talent, and tolerance. So the Creativity Index that Kevin Stolarick and I created is based on three component scores, each a matter of objective counting. To determine, for example, if a place is likely to have a culture of tolerance, we look at the concentrations of gay, “bohemian,” and foreign-born people and the degree of racial integration. The tolerance and openness implied by these concentrations form a critical element in a place's ability to attract different kinds of people and generate new ideas.

What's frightening is that, far from cultivating its creative advantage, our society at a national level seems determined to undercut it. Today in the United States, there is considerable concern over the outsourcing of software and information technology jobs to

The Creativity Index

For a country or region to achieve growth, it must have the three Ts: technology, talent, and tolerance. The national and regional creativity indices are based on objective measures of those factors. (The scores for both rankings are on a scale of 0 to 1, but the two lists are not strictly comparable because of differences in the measures used to compile them.)

In the creative age, leads change abruptly: Austin, Texas, and Seattle have recently shot upward on the Creativity Index.

...for Nations

Rank		Score
1.	Sweden	0.81
2.	United States	0.73
3.	Finland	0.72
4.	Netherlands	0.67
5.	Denmark	0.58
6.	Germany	0.57
(7).	Belgium	0.52 (tie)
(7).	United Kingdom	0.52 (tie)
9.	France	0.46
10.	Austria	0.39
(11).	Ireland	0.37 (tie)
(11).	Spain	0.37 (tie)
13.	Italy	0.34
14.	Greece	0.31
15.	Portugal	0.19

Source: Richard Florida and Irene Tinagli, *Europe in the Creative Age*. Data are from various years within the period 1997–2000.

...for U.S. Regions

Rank		Score
1.	Austin, Texas	0.963
2.	San Francisco	0.958
3.	Seattle	0.955
4.	Burlington, Vermont	0.942
5.	Boston	0.934
6.	Raleigh–Durham–Chapel Hill, North Carolina	0.932
7.	Portland, Oregon	0.926
8.	Madison, Wisconsin	0.918
9.	Boise, Idaho	0.914
10.	Minneapolis	0.900
(11).	Albuquerque, New Mexico	0.897 (tie)
(11).	Washington, DC	0.897 (tie)
13.	Sacramento, California	0.895
14.	Denver	0.876
(15).	Atlanta	0.873 (tie)
(15).	Corvallis, Oregon	0.873 (tie)

Source: Richard Florida, *The Rise of the Creative Class* (forthcoming edition); index compiled by Kevin Stolarick of Carnegie Mellon University. The data cover the years 1997–2001.

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India and over China's rise as a manufacturing power. But the real threat to our competitiveness lies in new restrictions on research, scientific disclosure, immigration, and flows of people, because those limits are starting to affect our ability to attract creative and talented people from around the world. An eminent oceanographer in San Diego recently told me, "We can't hold a scientific meeting here because we can't get visas for people." No one seems to be thinking about the flow of people as the key to our advantage in the creative age.

The economic leaders of the future will not necessarily be emerging giants like India and China. They certainly won't be countries that focus on being cost-effective centers for manufacturing and basic business processing. Rather, they will be the countries that are able to attract creative people and come up with next-generation products and business processes as a result. With Irene Tinagli, a Carnegie Mellon University doctoral student, I recently compared 14 European and Scandinavian nations to the United States. Sweden, Finland, Denmark, and the Netherlands had Creativity Index scores that closely matched that of the United States, and Ireland is gaining quickly (see the exhibit "The Creativity Index"). Other research indicates that Canada, Australia, and New Zealand have built dynamic creative climates. Toronto and Vancouver, Canada, and Sydney and Melbourne in Australia compete very well with major U.S. regions like Chicago and Washington, DC.

Leads in the creative age are very easily won and lost—Austin, Texas, and Seattle have recently shot up the Creativity Index while Pittsburgh and Cleveland have fallen. No one place has a preordained position at the top of the heap. Americans must wake up to the fact that economies are fluid and that creativity is an asset that must be constantly cultivated.

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3. The Strategy Is the Structure

Traditionally, strategy dictated structure: You

started by defining a strategic goal, then recast your organization to serve it. But for a host of reasons, including the ever decreasing half-life of strategic advantage, this sequential, compartmentalized process now seems obsolete.

Consider the experience of Air Liquide, the French producer of industrial gases, where a successful new strategy was actually driven in large part by the organization's changing structure. Air Liquide had found a way to produce gases in small plants on-site at customers' factories. In short order, growing numbers of Air Liquide staff were being stationed permanently at client sites—which put the staff in a position to notice ways in which their company could help customers improve operating efficiency, increase output quality, and reduce the capital requirements of various processes.

A companywide reorganization (instituted for unrelated reasons) gave these on-site teams greater autonomy, and suddenly they were able to act on the new opportunities. Often this involved taking on activities that had been managed by customers, such as handling hazardous materials, troubleshooting quality-control systems, and managing inventory. Today, these relatively high-margin services constitute about 25% of Air Liquide's revenues, compared to 7% in 1991, before the reorganization.

Without the reorganization, this potent new strategy—the antidote to the commoditization that was threatening Air Liquide's product lines—would not have emerged. The formerly centralized hierarchy would have hindered the field staff from making decisions or even accessing information about customers. When the seeds of this new growth opportunity sprouted in parts of the organization that were closest to the customer, the entire organization was able to adapt and execute well because the preconditions, in the form of the new structure, were there to do so.

Although mismatches of organization and strategy are often obvious in hindsight, they are never obvious prospectively. Teams that are charged with developing new businesses typically make overoptimistic projections and downplay the difficulties of execution. Think of all the computer hardware and software firms that have pursued strategies to become complete IT solution providers. Most have failed; they simply do not have the skills, relationships, mind-set, and organizational structures required for a broad-based, "systems-ag-

nostic” approach.

At the very least, this suggests that, if an organization is not prepared to execute strategy A, it’s better to choose strategy B, perhaps as an interim option. But we would go further to suggest that strategy and organizational change should happen in parallel and they should be allowed to influence each other. A new model, *concurrent enterprise design*, might be the best hope of enabling organizations to move at least as fast as their markets.

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4. Business on the Brain

Psychoanalysis—the talking cure—was the most popular form of mental therapy for most of the twentieth century, for good reason. For a start, analysis seemed a far more humane treatment than its primitive alternatives such as lobotomy or early forms of electric shock. More dramatically, however, the horrors of Hitler’s Germany, where monsters like Josef Mengele conducted cruel experiments on Jews, homosexuals, Gypsies, and the mentally ill, outraged people and generated stiff resistance to any form of experimentation involving human beings.

But the 1960s turned the world on its head. Newly discovered medications made huge strides against debilitating illnesses such as manic depression and schizophrenia. The asylums emptied out, and mental illness finally came to be understood as largely a function of genetic inheritance and chemical imbalance. By the 1990s, scientists all over the world were united in the Human Genome Project, a massive effort to map all the human genes, making them accessible for study—and manipulation.

Drugs and genes are not the only scientific changes that are turning our attention toward the brain and away from the mind. One of the greatest medical breakthroughs of the past few decades has been the development of powerful imaging tools such as MRI and PET scans, which have made it possible for scientists to “see” the brain in action. For instance, scientists can now map how different stimuli affect

different parts of the brain, which gives them powerful information about what people think and feel and remember. For their contributions in inventing the MRI, American Paul C. Lauterburg and Briton Sir Peter Mansfield were awarded the 2003 Nobel Prize in medicine last October.

Inevitably, the revolution in the neurosciences will have a major impact on business. In marketing, for example, MRI technology already helps researchers determine how potential customers respond to products and advertisements. But the impact of the new changes in science doesn’t end there. Brain research will inevitably affect other business subjects, such as leadership and cooperation. The field of organizational behavior, for example, owes a great debt to the traditional social sciences of psychology and psychoanalysis. Many of the tools managers have grown up with—such as our theories of motivation and personality—are rooted in these social sciences. But the new “hard” sciences will inevitably bring new tools and solutions to challenge—and maybe even to replace—these old favorites. As Harvard Business School professor Nitin Nohria, coauthor with Paul R. Lawrence of *Driven: How Human Nature Shapes Our Choices*, puts it: “I think the social-science lemon has been squeezed dry. There may be some drops of juice left, but the fruit of the neurosciences has barely begun to be touched. Businesspeople are turning to them now because we see a much richer opportunity for ourselves in the future.”

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5. The Law of Conservation of Attractive Profits

In my recent book—and in an earlier HBR article—I explored a couple of linked ideas having to do with how profitability in a value chain shifts over time. Briefly (and way too simplistically as a result of space constraints here!), the thinking went something like this:

- Products are most profitable when they’re still not “good enough” to satisfy consumers. This is because to make them performance competitive, engineers must use interdependent, proprietary architectures. Use of such architectures makes product differentiation

MRI technology already helps researchers determine how potential customers respond to products and advertisements.

straightforward, because each company pieces its parts together in a unique way.

- Once a product's performance is good enough, companies must change the way they compete. The innovations for which customers will pay premium prices become speed to market and the ability responsively and conveniently to give customers exactly what they need, when they need it. To compete in this way, companies are forced to employ modular architectures for products. Modularity causes the products to become undifferentiable and commoditized. Attractive profits don't evaporate, however...

- They move elsewhere in the value chain, often to subsystems from which the modular product is assembled. This is because it is improvements in the subsystems, rather than the modular product's architecture, that drive the assembler's ability to move upmarket toward more attractive profit margins. Hence, the subsystems become decommoditized and attractively profitable.

My sense is that these shifts are more than coincidental; I suspect that when most products start to become commoditized or modularized, this turn of events kick-starts a *decommoditization* process somewhere else in the value chain. As a general rule, one side of an interface in the value chain *must* be modular to allow the side that's not yet good enough to be optimized.

My friend Chris Rowen, CEO of Tensilica, suggested that we call this phenomenon the law of conservation of attractive profits. (He was playing off the law of conservation of energy, which states that energy cannot be created or destroyed, though it may be changed from one form to another.) Translated into managerial terms, the law goes something like this: When attractive profits disappear at one stage in the value chain because a product becomes modular and commoditized, the opportunity to earn attractive profits with proprietary products will usually emerge at an adjacent stage.

If that's the case (and I hasten to add that it's still a hypothesis), it suggests that there is a dynamic dimension to Michael Porter's five-forces framework. Because the hypothesis suggests that the location in the value chain where attractive profits can be earned shifts in a predictable way over time, companies that outsource activities that are not today's core

competencies may well miss the boat. This "law" might help managers foresee which activities in the value chain will generate the most attractive profits in the future so that they can develop or acquire competencies where the most money will be.

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6.

The Force Behind *Gigli*

Investors are always scrambling to find out where the "smart money" is going. But it's also important, whether you're an investor or a business manager, to know where the stupid money is going.

It's a well-established phenomenon that's gone too long without a name: Companies, industries, and even whole sectors have a stupid-money problem when they are suddenly flooded with capital seeking irrational rates of return or with investors whose interests run contrary to those of a normally operating market. Sounds like a nice problem to have? It's not, because it prompts companies to alter their business models in ways that are not sustainable over the long haul.

Think of the 1970s, when tens of billions of dollars of stupid money flowed from the OPEC countries to the money center banks in London and New York. From there it was lent to Argentina, Brazil, Mexico, Nigeria, Indonesia, and other developing countries for infrastructure projects such as power plants, bridges, and dams. But when this episode ended, tens of billions of stupid-money loans could not be repaid by the borrowers without help from the United States and other governments. More than one money center bank teetered on the brink of insolvency.

Or think of the 1980s, when billions of dollars of stupid money flowed into the U.S. real estate market via the savings and loan industry. Large spreads between the interest paid on deposits and that received on mortgages—as well as plentiful capital from the junk bond market—created incentives for S&Ls to shovel money out the door. Condominiums, country

Companies outsourcing activities that are not today's core competencies may well miss the boat.

“Stupid money” prompts companies to alter their business models in ways that are not sustainable.

clubs, hotels, offices, and shopping centers with dubious economic value were built. Though some money was made by “flipping” these projects and from fees charged by developers and financial institutions, many billions were lost when the stupid money fled the scene. The savings and loan industry collapsed and with it much of the commercial real estate market. It took nearly a decade for the government to clean up the mess.

Right now, there’s at least one place where the stupid money is sloshing around like San Pellegrino: Hollywood. The problem there is that a large proportion of movies have been financed with money from European tax shelters—which create larger returns for their investors when a project loses money than when it makes money. According to industry estimates, Germany, the largest source of these funds, provided Hollywood with about \$2.3 billion in tax shelter money in 2002, more than 20% of Hollywood’s overall investment budget.

A few industries have adapted to living with stupid money the way certain species of fish have adapted to living near deep-water sulfur chimneys. Hollywood is a perfect example. Rather than focusing on profits from movies, the industry has been prodded by loss-seeking capital into focusing on increasing costs. Studios make money from fees from independent producers based on a percentage of a project’s production, distribution, and marketing costs, rather than by relying exclusively on a film’s revenue. In the fee-based model that has evolved in Hollywood, profits are about as rare as an interview with Robert DeNiro.

What can managers do (short of taking the money and running) to survive the distorting effects of stupid money? For Hollywood, righting the business model would mean changing the way the studios go after their multiple streams of revenue. Rather than produce a handful of \$200 million blockbuster movies each year, the studios might do better by focusing on making more, smaller-budget movies.

And where is the stupid money going next? Given its predilection for glamour, glitz, and new ideas, I’d say nanotechnology and the life sciences are ripe for an infestation. These are fields where we’re seeing not only federal funding but also feverish investment by people looking to get in on the next big thing. If it

happens, we know how it will go. Stupid money will begin by running after the sector’s Seabiscuits and end up stalking its nags. The smart money will show up again only after the inevitable downturn, the shakeout, and the reform of the business models.

Joel Kurtzman (Joel.A.Kurtzman@us.pwcglobal.com) is the global lead partner for thought leadership and innovation at PricewaterhouseCoopers and president of the Tangible Group, based in Concord, Massachusetts. His latest book is *How the Markets Really Work* (Crown, 2002).

7. More Trouble Than They’re Worth

There’s a simple practice that can make an organization better, but while many managers talk about it, few write it down. They enforce “no asshole” rules. I apologize for the crudeness of the term—you might prefer to call them tyrants, bullies, boors, cruel bastards, or destructive narcissists, and so do I, at times. Some behavioral scientists refer to them in terms of psychological abuse, which they define as “the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact.” But all that cold precision masks the fear and loathing these jerks leave in their wake. Somehow, when I see a mean-spirited person damaging others, no other term seems quite right.

I first encountered an explicit rule against them about 15 years ago. It was during a faculty meeting of my academic department, and our chairman was leading a discussion about which candidate we should hire. A faculty member proposed that we hire a renowned researcher from another school, a suggestion that prompted another to remark, “I don’t care if he won the Nobel Prize, I don’t want any assholes ruining our group.” From that moment on, it was completely legitimate for any of us to question a hiring decision on those grounds. And it made the department a better place.

Since then, I’ve heard of many organizations that use this rule. McDermott, Will & Emery, an international law firm with headquarters in Chicago, is (or at least was) known as a better place to work than other firms, and it has been quite profitable in recent years. A survey from Vault, a Web-based provider of ca-

reer information, reports that McDermott has a time-honored no asshole rule, which holds that “you’re not allowed to yell at your secretary or yell at each other”—although the survey also reports that the firm has been growing so fast lately that the rule is starting to fall by the wayside. Similarly, a Phoenix-based law firm provides this written guideline to summer associates: “At Snell & Wilmer, we also have a ‘no jerk rule,’ which means that your ability to get along with the other summer associates and our attorneys and staff factors into our ultimate assessment.” And the president of a software firm told me a couple of months back, “I keep reminding everyone, ‘Make sure we don’t hire any assholes, we don’t want to ruin the company.’”

All this might lead you to believe that this rule bears mainly on employee selection. It doesn’t. It’s a deeper statement about an organization’s culture and what kind of person survives and thrives in it. All of us, including me, have that inner asshole waiting to get out. The difference is that some organizations allow people (especially “stars”) to get away with abusing one person after another and even reward them for it. Others simply won’t tolerate such behavior, no matter how powerful or profitable the jerk happens to be. I remember when my daughter switched schools a few years back. After a couple of months, she told me, “In our old school, when they said you had to be nice, they meant it. In my new school, they say it but don’t really mean it.”

I acknowledge that there is a subjective element to this rule. Certainly, a person can look like, or even be, a sinner to one person and a saint to another. But I’ve found two useful tests. The first is: After talking to the alleged asshole, do people consistently feel oppressed and belittled by the person, and, especially, do they feel dramatically worse about themselves? The second is: Does the person consistently direct his or her venom at people seen as powerless and rarely, if ever, at people who are powerful? Indeed, the difference between the ways a person treats the powerless and the powerful is as good a measure of human character as I know.

I’ll close with an odd twist: It might be even better if a company could implement a “one asshole” rule. Research on both deviance and norm violations shows that if one example of misbehavior is kept on display—and is seen to

be rejected, shunned, and punished—everyone else is more conscientious about adhering to written and unwritten rules. I’ve never heard of a company that tried to hire a token asshole. But I’ve worked with a few organizations that accidentally hired and even promoted one or two, who then unwittingly showed everyone else what *not* to do. The problem is that people can hide their dark sides until they are hired, or even are promoted to partner or tenured professor. So by aiming to hire no assholes at all, you just might get the one or two you need.

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8.

Finally, Market Research You Can Use

Executives often complain that the findings generated by their companies’ investments in market research are rarely put to use. The problem could be solved if marketers made their research more useful. How? By shifting their perspective in three important ways.

First, market researchers should aim beyond measurement to optimization. The marketing literature is full of sophisticated methods for measuring customer behavior, but managers have a bigger problem than tracking customers’ buying patterns: They need to decide what action the firm should take to profit from that behavior. Deciding which response will yield the best result is an optimization problem.

Many impressive tools and methods for optimization have been developed to solve engineering and manufacturing problems. For these methods to work with marketing problems, they must be modified. These modifications are being made, as optimization experts realize that marketing offers meaty, significant problems and access to large amounts of data. The earliest successes were in pricing, with the development of sophisticated yield-management systems in the airline and hotel industries. Other work involved the development of

Some organizations allow “stars” to get away with abusing people. Others simply won’t tolerate it.

models to predict creditworthiness in the credit card industry. More recently, Internet retailers have begun to develop optimization systems to identify which products to show to different customers. Examples of current targets for optimization research include systems for determining who should receive direct-mail promotions and which products and prices to highlight in those promotions. In product development, optimization may help companies design product lines to satisfy customers with diverse needs.

A focus on optimization requires that managers choose a time frame over which to optimize. This brings me to the second shift in perspective: More studies should focus on the long term. Decisions on pricing, advertising, and other marketing matters often have lingering impacts on demand and profits, yet the vast majority of marketing studies limit attention to the immediate outcome. To understand how this can undermine good decision making, consider the findings of a few recent studies.

A publishing firm studying the impact of price promotions over two years discovered effects that were important for its pricing strategies: It found that if deep discounts were offered, established customers stocked up and then purchased less later on, whereas first-time customers tended to come back and purchase more often in subsequent periods. A study of 20,000 people who used a home furnishings catalog found that 10% discounts to customers who ordered out-of-stock items increased revenue in the short term but decreased the rate at which those customers ordered different items later. And other studies have concluded that moving from a short-term to a long-term focus on catalog mailings could increase profits for mail order companies by as much as 40%.

Clearly, market researchers must study such long-term effects if their findings are to guide optimal decision making. So why haven't they? In part, it's because of the difficulty of collecting data over time. But that hurdle is about to be lowered. New methods currently in development will make it possible to use historical data to reliably estimate long-run effects.

The third change market researchers should make is to start testing their theories in the field. What we usually see in the marketing literature is the results of experiments conducted on college students or analyses of historical data collected from public or proprietary

sources. There has been a striking absence of field tests in which companies deliberately vary how they interact with customers engaged in real transactions and measure the responses.

But this, too, has been changing recently, as managers are increasingly collaborating with academics to conduct large-scale experiments involving actual customers. Examples include studies that vary the actions of a company's sales force, the pages shown to customers on a company's Web site, and the content of catalogs and other direct-mail promotions. Catalog companies are particularly well placed to test different marketing actions. For instance, they can easily conduct split-sample studies, in which different versions of a catalog are sent to large, random samples of customers. This type of research meets a high standard of rigor because it explicitly controls for alternative explanations due to intervening events or systematic differences between samples. It also yields findings that are easy to communicate. Even the least sophisticated practitioners can appreciate the conclusions when shown how profits differ across experimental conditions.

For all these reasons, the catalog industry has been the quickest to embrace field testing, but managers in other industries are beginning to catch on. Investment will be required in order to develop the infrastructure and expertise necessary to conduct field tests. Most companies will need to invest in measurement technologies to ensure that outcomes are measured correctly, and they will need to create a process for disseminating and institutionalizing the findings. But if they do manage to stage rigorous field experiments—and use the findings to optimize profits—they can rightfully claim to be treating marketing as a science.

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9.

The MFA Is the New MBA

Getting admitted to Harvard Business School is a cinch. At least that's what several hundred people must have thought last year after they applied to the graduate program of the UCLA

Corporate recruiters have begun visiting top arts grad schools. This approach has often come at the expense of traditional business graduates.

Department of Art—and didn't get in. While Harvard's MBA program admitted about 10% of its applicants, UCLA's fine arts graduate school admitted only 3%. Why? An arts degree is now perhaps the hottest credential in the world of business. Corporate recruiters have begun visiting the top arts grad schools—places such as the Rhode Island School of Design, the School of the Art Institute of Chicago, Michigan's Cranbrook Academy of Art—in search of talent. And this broadened approach has often come at the expense of more traditional business graduates. For instance, in 1993, 61% of McKinsey's hires had MBA degrees. Less than a decade later, it was down to 43%, because McKinsey says other disciplines are just as valuable in helping new hires perform well at the firm. With applications climbing and ever more arts grads occupying key corporate positions, the master of fine arts is becoming the new business degree.

The reasons are twofold—supply and demand. The supply of people with basic MBA skills is expanding and therefore driving down their value. Meanwhile, the demand for artistic aptitude is surging. In many ways, MBA graduates are becoming this century's blue-collar workers—people who entered a workforce that was full of promise only to see their jobs move overseas. For example, Lehman Brothers and Bear Stearns have begun to hire MBAs in India for financial analysis and other number-crunching work. Starting salaries: around \$800 per month. A.T. Kearney estimates that in the next five years, U.S. financial services companies will transfer a half-million jobs to low-cost locales such as India—saving the industry some \$30 billion but displacing 8% of their American workforce. As the *Economist* recently put it, the sorts of entry-level MBA tasks that “would once have been foisted on ambitious but inexperienced young recruits, working long hours to earn their spurs in Wall Street or the City of London, are, thanks to the miracle of fibre-optic cable, foisted on their lower-paid Indian counterparts.”

At the same time, businesses are realizing that the only way to differentiate their goods and services in today's overstocked, materially abundant marketplace is to make their offerings transcendent—physically beautiful and emotionally compelling. Think iMac computers, Design Within Reach, and Target aisles full of Isaac Mizrahi women's wear and

Michael Graves toilet brushes. Or just listen to auto industry legend Robert Lutz. When Lutz took over as chairman of General Motors North America, a journalist asked him how his approach would differ from his predecessor's. Here's what he said: “It's more right brain.... I see us as being in the art business. Art, entertainment, and mobile sculpture, which, coincidentally, also happens to provide transportation.” General Motors—General Motors!—is in the art business. So, now, are we all.

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10. Requiem for the Public Corporation

Over the last three years, executives, politicians, and shareholders in the United States have valiantly tried to fix the problems of the public limited company, the world's most common corporate organization. They have enacted more laws for companies to follow, set higher standards for the selection of board members, and insisted that audit firms comply with stringent new rules. Yet these post-Enron reforms beg one fundamental question: Is the useful life of the public company, at least in the form we have known it for more than a century, over?

I am not, of course, the first person to question the viability of the widely held company. Two decades ago, shareholders in the United States accused executives of being more interested in protecting their jobs than generating higher profits. The shareholders supported raids by takeover artists to dislodge incumbent CEOs, and they hoped the new managers would deliver higher returns. The shareholder revolt became so widespread that in 1989, Harvard Business School's Michael Jensen argued that new kinds of organizations might someday eclipse the public limited corporation.

Jensen, now a colleague of mine at Monitor, focused on agency problems, the conflicts that arise when the interests of managers and shareholders diverge. At the time he wrote, the struggle pitted shareholders and executives in a fight over low investor returns and executive inertia. Now, the clash focuses on high executive compensation levels (at Tyco, for in-

stance) and risky investments (by Enron, for example). Corporate America has responded by restructuring salary packages, increasing the transparency of financial reports, and strengthening the supervisory role of boards of directors. Have agency problems been resolved? Hardly. They can never be resolved, for the interests of managers and shareholders will always differ to a degree.

The problems go beyond those posed by agency. The costs of being a public company have risen steadily over the years, with new laws like Sarbanes-Oxley adding to overhead costs. At the same time, public companies have to deal with more lawsuits from aggressive lawyers. It is also getting hard to recruit and retain topflight talent for public companies as executives increasingly see the costs of being in the spotlight—in reputation damage and personal liability—outweighing the benefits.

Most problematic, the financial benefits of going public have eluded many companies. We've seen the emergence of two tiers of companies in the stock market. A few big companies such as GE with large markets for their shares do benefit from the liquidity that the stock market provides. However, a large number of small companies have struggled to gain investors' attention. Their stocks remain stagnant, followed by only a few second- and third-tier investment banks. That leaves these mid-cap companies in public purgatory. On the one hand, institutional investors do not buy their shares out of fear that they will find it impossible to escape a stock for which they have established a new market price. On the other, these companies cannot issue more shares in the primary market, due to the dilutive effects and the lack of investor interest. The sum of these forces explains why experts predicted a record number of firms would deregister in 2003, taking advantage of a legal loophole that allows American companies to remain public but not make financial disclosures.

So why do companies remain wedded to the notion of public ownership? Most companies choose to go public because it yields higher returns and greater liquidity. When it does not, they must reexamine their options. Although it is not clear what those might be, the time has come to rethink rather than reform the public corporation.

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11.

Accentuate the Positive

Ever since organizational psychologists and management scholars began studying workplace behavior, they have focused on a long list of problems that can bring organizations to their knees: managerial abuse, greed, distrust, poor morale, burnout, office politics, and so on. This focus on the negative aspects of working life has made sense for two reasons. First, organizational scholarship is grounded in the field of psychology, which has perennially concentrated on mental illness and social pathology. Second, scholars since the time of Dante have generally found that the tortures of hell yield more interesting book material than do the blisses of heaven.

Thus it may come as a surprise to learn that companies where the focus is on amplifying positive attributes such as loyalty, resilience, trustworthiness, humility and compassion—rather than combating the negatives—perform better, financially and otherwise. A new field of inquiry called positive organizational scholarship (POS), spearheaded by organizational behavior and psychology researchers at the University of Michigan, the University of Pennsylvania, the University of British Columbia, and elsewhere, is shedding promising new light on the outcomes of various approaches to managing behavior in the workplace.

On the face of it, POS doesn't sound new. Ever since 1952, when Norman Vincent Peale published the self-help classic *The Power of Positive Thinking*, the benefits of an optimistic outlook have been touted ad nauseum. Additionally, authors such as Tom Peters and Jim Collins have long studied the leadership attributes that help companies excel. What makes POS different is its focus: Rather than zeroing in on the positive qualities of individuals, POS takes a rigorous look at the more widespread social constructs, values, and processes that make organizations great. And because it measures results, positive organizational scholarship goes beyond platitudinous

Some organizations manage to foster emotionally intelligent cultures. Scholars are beginning to ask: How do these firms operate?

talk about the virtues of being good. Southwest Airlines, for example, isn't the envy of the airline industry merely because it has a competitive cost structure or because founder Herb Kelleher, now retired, was a cool guy. The company is successful, these researchers contend, because it carefully protects and nurtures its employees. According to Kim Cameron, a professor of organizational behavior and human resource management at the University of Michigan Business School who has studied "virtuous" firms, Southwest—despite its no-layoffs policy—was the only major airline to escape devastating long-term financial losses following the September 11, 2001, terrorist attacks. Southwest's overall passenger loads and stock price remained comparatively high.

Why is this field of study emerging now? The germ of POS was, in fact, planted on 9/11, when the media focused on the qualities of empathy, courage, and resilience in the workplace. In 2002, the debacles at Enron, WorldCom, and others renewed conversations about ethics and governance. Suddenly, scholars began to ask: How can companies foster honesty and trust at work? How do organizations that replenish workers' energy, build collective strength, and foster emotionally intelligent cultures operate? And how do these firms perform, both competitively and financially, over time?

Positive organizational scholarship is inspiring researchers to look at work in a whole new light—and they are finding that employee happiness really does pay. It's beginning to look as if a positive workplace atmosphere is worth developing, and not merely for its own sake; it may be the foundation of true organizational success.

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12. Biological Block

On the Massachusetts Turnpike in Boston, a hundred-foot-long billboard asks: "Is your neighbor's gun locked?" The point, of course, is that everyone in the vicinity of a gun should be engaged in the task of containing the threat.

There's a bigger idea here, and it's cropping up all over the place—the immune system as an architecture for security. The vertebrate im-

mune system, still far from well understood, operates on a few broad principles: a ubiquitous detection capability, a sophisticated ability to discriminate friend from foe, a diverse repertoire of defensive responses, the ability to recognize and deal with novel threats, and accumulated learning. These principles have already been built into "digital immune systems"—if you use Symantec's corporate antiviral product, you're soaking in it. Using technology developed at IBM's Watson Labs, this system protects computer networks by recognizing "malware" anywhere in the network, quarantining it, and sending it to an analysis center, where Symantec develops and deploys digital antibodies, not just on the infected computer but throughout the network—in as little as an hour. Then the network remembers the response, so the inoculation confers permanent immunity.

Three more signs: Mathematician Stephen Strogatz described the 2003 power grid meltdown that blacked out parts of eight states as "a massive allergic reaction" to a problem in the grid—that is, a kind of autoimmune failure of the network. Financial institutions are exploring whether fraud can be prevented by treating it as a detectable infection—T-men, not T cells. And a new discipline has been born: "Theoretical immunology" explicitly brings together the study of natural, "wet" immune systems and the development of mathematical models that can both improve our understanding of our own wetware and aid in the design of immune systems for other hosts under threat.

Immune response is an idea whose time has come. We have new capabilities: Our biological understanding and our *in silico* simulation technology are growing. And we have newly pressing needs: The most urgent problem of our day—terrorism—requires an immune system, not a series of firewalls, for effective protection. Success will come when every cell of the body politic has the capability and the will to detect terror in the offing and the ability to trigger a lethal immune response. Are your neighbor's WMDs locked?

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13.

How You Gonna Keep 'Em Down on the Farm After They've Seen Insead?

Companies that want to make serious investments in leadership development have numerous options. They can send their high-potential managers to programs offered through business schools like Harvard and Insead, to facilities like the Center for Creative Leadership, or to sessions designed by internal corporate training groups. But despite all the competition in the market, many companies aren't convinced they are getting their money's worth.

The problem may not be the programs. In fact, the personal learning catalyzed by a top-notch program can be tremendous. The problem, my research suggests, is what happens when a manager comes back to the day-to-day routine of the office. Having been inspired by exposure to new models and networks, he or she returns transformed, but to an organization that has not experienced a parallel makeover. The clash of expectations—the manager's and the company's—can be brutal. And so, paradoxically, the better the management development program, the more likely it may be to precipitate a valued employee's departure.

How can organizations—and individual managers—get the full value of leadership development? It's a question of emphasizing the “takeoff” and “reentry” phases of the experience. In preparation, for example, a manager should spend time with the boss and other key stakeholders, engaging in a dialogue about his or her strengths, weaknesses, and future trajectory. Having done so, the manager will be in a much better position, when he or she returns, to get a development assignment that will serve as a training ground for the new skills and approaches suggested in the program. It's amazing how few managers seize the opportunity (or excuse) that is created by an upcoming development program to initiate such a conversation with the boss. But whether they do or not, the boss should ensure that it happens.

Similarly, on reentry, managers must take the time to reprioritize goals and fine-tune their strategies. What should he or she aim to accomplish in the first week? The first month? Within six months? This reflection and planning should happen immediately after reen-

try—even if it means letting voice mails and e-mails pile up for yet another day. In a series of studies ranging from the introduction of new technologies to managers' approaches to taking on new roles, behavioral scientists have found a consistent “window of opportunity” effect: We have only a short time to make a real change after any break from routine. After that, things slip quickly into business as usual.

Finally, there is the question of how the individual should transfer his or her new knowledge to the rest of the team at the organization. I've seen many participants leave a program excited by their learning, having taken volumes of notes about what they plan to do differently, only to be bewildered when the people back home are not as quick to see the light. The key is to recognize that the power of the learning experience is not just intellectual. It's also emotional. While it's easiest to pass along the ideas and the readings, the manager must devise ways to share the experience more fully.

People often speak of executive programs as having been transformative. But the benefit shouldn't end there, at the event and within the individual. By thoughtfully managing a manager's takeoff and reentry, an organization can hope to be transformed by the experience as well.

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14.

You Don't Have a Nanostrategy?

Lost in the hype about nanotechnology—somewhere between the threat of ooblecky nano-goo and the promise of cancer-curing microbots—lies the real story: Nanotechnologies will eventually disrupt, transform, and create whole industries. Mihail Roco, key architect of the robustly funded U.S. National Nanotechnology Initiative, estimates that by 2015, the global market for nanotech-based products will reach \$1 trillion and employ 800,000 workers in the United States and 2

Financial institutions are exploring whether fraud can be prevented by treating it as a detectable infection.

Nanotech isn't a single field so much as a sprawling idea that cuts across disciplines, from physics to biology.

million worldwide. The question isn't *whether* your industry will be affected, but when and how.

Nanotech isn't a single field so much as a sprawling idea that cuts across disciplines, including engineering, physics, chemistry, biology, and materials science. The concept is that by manipulating matter at the molecular level, literally rearranging atoms and molecules, you can create new materials and products with extraordinary properties—fibers with 30 times the tensile strength of steel at a fraction of its weight, chemical detectors that can sense a single molecule, precision-guided smart drugs, and computer memories 1,000 times denser than any we have today.

Nathan Myrhvold, Microsoft's former CTO and now the managing director of Intellectual Ventures, a private entrepreneurial firm, cautions companies to keep this fantastical nanofuture in perspective. "Nanotechnology may give rise to the next industrial revolution—maybe—but most nanotech applications aren't going to sneak up on you. The first industrial revolution didn't sneak up on us either," he says. "The broad vision is right, but some of these applications may be 50 years off. So what you want to do is keep your ear to the ground." For some industries, nanotech's implications are near term and obvious. Any company with a major stake in IT ought to be actively involved in nanotech R&D and investment if it has the resources, as industry leaders IBM and HP are. The same is true for materials manufacturers. At the other end of the spectrum are companies in the service industries and elsewhere that will be nanotechnology's end users, the beneficiaries of dime-sized supercomputers and ultralight textiles stronger than Kevlar.

A company's responses to nanotechnology opportunities, of course, will depend on where it falls on this spectrum. The major players' aggressive strategy-development programs include scenario planning and intensive "boot camps" in which teams develop theoretical nanoproducts, says George Day, director of Wharton's emerging technologies management resource program. Other companies are retaining industry scouts and consulting firms with nanotech expertise and assembling internal "crow's nest" teams charged with tracking nanotech developments. Less aggressive surveillance strategies include tapping the re-

sources of trade associations such as the New York-based NanoBusiness Alliance and inviting in various outside research scientists, customers, and suppliers with nanotech experience to discuss the technology's potential impact on business. At the very least, if you don't have a lookout now, get one. Have an insider shinny up to the crow's nest and take a look around. You might be surprised by what she sees on the horizon.

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15.

The Loan Ranger

Why does widespread poverty persist in so many parts of the world? Because poor countries need trade and instead get aid. A simple, if surprising, change could fix the situation.

We all know that trade is what's needed to propel countries. When two countries engage in trade, both benefit. But rich countries discourage trade with poor countries in three major ways. First, they hold fast to the trading principle of reciprocity; that is, they offer another country a tariff reduction on a product in return for the same treatment on another item that they are hoping to sell to that country. Because the poor country's economy is vastly smaller, this "equal treatment" prevents it from bargaining for the reductions in trade barriers it needs to compete in rich countries. This is why, for instance, the United States puts a tariff on imports from Bangladesh that is nearly ten times higher than that on imports from France.

At the same time, rich countries spend, collectively, nearly \$1 billion a day subsidizing the part of their economies where poor countries may have a real competitive advantage: agriculture. For most poor countries, a boost in agriculture would make a critical difference. Genuine economic development tends to be bottom-up; a surplus in agriculture produces the purchasing power and investment capital for manufactured goods, and surpluses in manufacturing similarly lead to more complex consumption and production.

Finally, rich countries use their leverage to promote free trade where they have an advantage. Instead of buying from poor countries, they're more interested in selling to them. It's

a short-sighted strategy. When rich countries buy from poor countries, they not only bring costs down for their own consumers, they also raise purchasing power naturally in the poor countries—leading to larger markets for the rich countries' goods.

Instead, rich countries try to artificially boost poor countries' purchasing power by providing "aid"—to the tune of nearly \$1 billion a week—through various bilateral channels and multilateral institutions. When aid is given to a poor country's government (and most aid does go to governments), it has the added effect of promoting statism—it contributes to the centralization of power, whereas decentralization fosters democratization and economic growth. By taking pressure off that government to achieve greater tax revenues through economic growth, it allows the poor country to live with wrong policies and therefore contributes to worsening governance.

Solving the problem requires a fresh focus on the actual bottleneck. What is it that keeps rich countries' governments from living up to their rhetoric about free trade? Just this: a limited number of special interests that lobby aggressively on the part of dying industries. People who work in these sectors, we hear, will suffer; they will have to be retrained, rehabilitated. But that, we know, can be done—provided there is sufficient funding for related projects. And there, I would propose, is where institutions like the World Bank should be offering their aid. Let's start lending to the *rich* countries, so they can make their own people whole. Then they can pursue genuine free trade, benefiting both rich and poor economies. With good access to rich markets, poor economies would make substantial gains and earn access to capital and know-how naturally.

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16.

Cosmetic Psychopharmacology

Your employees now have access to medications—notably, SSRIs (selective serotonin reuptake inhibitors) like Prozac—that not only

offer effective treatment for certain types of depression but also have the power to alter personality in ways that are good for business. In his 1993 best seller, *Listening to Prozac*, psychiatrist Peter Kramer told stories of patients who, when medicated, became "better than well"—showing, for example, greater assertiveness, better bargaining skills, and improved social competence. One patient, no longer depressed and already well regarded in her workplace, asked to have her dose increased so she'd have the confidence to request a promotion.

More recently, Brian Knutson of Stanford and his colleagues at the University of California–San Francisco Medical School's Langley Porter Psychiatric Institute looked at the short-term effects of SSRIs on people with no mood or personality disorders. Subjects were given a daily dose of either Paxil or a placebo and after a month were asked to perform a tricky negotiation. The people on Paxil performed best—perhaps because they were less hostile.

Now there's a tempting prospect. Getting ready to close a deal? Better drug up the team in advance. After all, you don't know what the other side is on. The potential for such use led Kramer to speculate about the role "cosmetic psychopharmacology" (a term he coined) could play in the world of business. After all, who wouldn't want to be better than well? Who wouldn't want to be less distractible, more optimistic, more socially adept? "I've certainly been asked," says Harvard psychiatrist Joe Glenmullen. "But that's the one thing I won't prescribe a drug for. I've heard stories of people who are in the office late at night, and they go to the Xerox room and are surprised to find people sharing their Prozac or Ritalin."

Kramer says patients aren't beating down his door for pills they don't really need. At least not yet. To some extent, he attributes the restraint to a fear of side effects. A large number of Prozac users report sexual dysfunction, for example. For other medications like Zoloft and Celexa, users can become seriously ill if they go off too quickly or even if they miss a couple of doses. More difficult to pin down is the nagging fear that, just as cosmetic surgery can deprive a face of character, cosmetic use of these medications will level out temperament. Some antidepressant users have complained that the same drug that allows them to cope with the daily stresses of life robs them of their

Getting ready to close a deal? Better drug up the team in advance. After all, you don't know what the other side is on.

creative “edge.”

But Kramer sees another reason for the restraint: an attitude described by the late Gerald Klerman as pharmacological Calvinism. “If you look at studies of medication, the rule is that people take less than their doctor prescribes. We just don’t like taking medicine,” Kramer says. For business, that may be a bigger problem than the danger that some people will pop pills they don’t need. Studies have shown that lost work time due to depression costs companies a fortune, with estimates ranging from \$31 billion to \$44 billion per year in lost productivity in the U.S. alone. “At least half of depression goes untreated,” says Brookline, Massachusetts, psychotherapist Joanna Volpe-Vartanian. “People are worried about what their bosses will think, and they’re afraid to use their employee assistance program or insurance benefits lest a record stay on a computer somewhere.”

But that attitude may change as the image of psychopharmacology moves from problem fixer to advantage provider. Athletes have steroids. Fighter pilots have their “go pills.” Will ambitious managers be able to leave well enough alone?

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17.

Watching the Patterns Emerge

We’ve known for decades that informal social networks drive business—from employees at the watercooler to job seekers canvassing acquaintances to communities of practice. But it is much harder to map a network than to draw an org chart, and unlike org charts, social networks are self-altering. Knowing that networks are valuable doesn’t help tell us how they are valuable or how to use them.

That is changing. Three big forces are at work: our understanding of the mechanics of social networks, within and between businesses; the growing cloud of data that surrounds our every transaction; and the speed at which we’re able to react to those data.

Better Models of Social Networks. Stanley Milgram gave us the phrase “six degrees of separation” in a 1967 paper, but we didn’t understand how the six-degrees phenomenon worked for another 30 years, until Duncan

Watts and Steve Strogatz finally worked out the details, described in Watts’s 2003 book, *Six Degrees*. This work, along with that of their peers, such as Albert-László Barabási of Notre Dame and Bernardo Huberman of HP, amounts to a revolution in our understanding of how social networks operate.

Better Real-World Data. Our lives are increasingly mediated by the Internet, from booking flights to making dates, and Web activities generate a cloud of metadata, the data that describe objects or transactions. One of the surprises with metadata is how little we need before we can start divining useful information. Amazon’s book recommendations, Blogdex.net’s lists of conversational trends on Web logs, Huberman’s maps of social networks derived from e-mail traffic—all these things and many more come from the mining of simple metadata.

Faster Reflexes. We can now work with the data in real time. Until recently, all mapping of social networks was like photography. You’d take a snapshot of a group’s relationships, develop it, and weeks or months later, you’d see how it came out. With better tools for mining social metadata, we can start to treat our social networks like mirrors, getting the information we need as we need it. Social networking sites like LinkedIn and Friendster let individuals figure out who is in their friend-of-a-friend networks, while software applications like Spoke and Visible Path map companies’ social networks to help businesses figure out whom to tap when trying to pitch a product or close a sale.

In what Kevin Werbach has called the era of “postmodern knowledge management,” it’s becoming clear that viewing a company’s knowledge as something separate from its employees is impossible. Our growing understanding of social networks may help us leverage real people’s interactions, for everything from trend spotting by scouring public conversations to identifying internal experts within a department to ensuring that a merger actually results in cooperation among employees, not just a change in logo.

Social networks can’t simply be strip-mined of their value, however. A social network is a living thing that is altered by use. There are reports that the value of networking for job possibilities is weakening, in part because so many employment experts have recommended this

very strategy. Likewise, privacy concerns and employees' inclination to see their social networks as personal assets will lead to tension between management and rank-and-file workers about both the observation and use of social networks.

Many of the social networking tools being proposed today will fail, because the obvious ideas are technologically simple but socially unworkable. ("If we all dump our address books into one big database, everybody will know everybody!") As we get smarter about building social networking tools, however, we will take it for granted that our social networks have measurable value, as do other intangibles such as brand, and we will find ways to recognize it. Managers manage what they can see, and as they begin to see social networks, the long-term effect on the business landscape will be profound.

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18.

Laughter, the Best Consultant

Long before—four full years before—the once-rocketing Enron imploded in midair, a group of employees in the company's international division got together for their annual powwow. As well as listening to presentations about past performance and exhortations to reach new heights, the Enronians entertained themselves by putting on skits, with a prize going to the team that staged the best show. In 1997, the theme was mental toughness.

That year Sherron Watkins, later famous as the woman whose letter to CEO Ken Lay warned him that accounting scandals could doom the company, was cast as the Wicked Witch of the West in a parody of *The Wizard of Oz*. In the skit, Dorothy needed to find the wizard to get a deal approved. Of the executives accompanying her, one had no brain, one had no heart, and the third, the Cowardly Lion, was padding contracts because he wasn't brave enough to get earnings on his own. As for the wizard, the man who could approve the deal, the man behind the curtain—well, it turned

out he had no sophisticated computer models, no special financial acumen. He was a fake. And his name, he said when he was discovered, was Andy Fastow. You don't need a brain or a heart to succeed at Enron, the fictional Fastow declared; and to the corrupt Cowardly Lion, he said: "You're my kind of guy."

That was fiction. The real Andy Fastow was, of course, the man who soon became Enron's chief financial officer and, if the charges against him are accurate, the chief architect of a series of deceptive deals that hid Enron's deteriorating financial condition from the public. When the curtain was pulled back on the real Enron's real finances, the company collapsed. Most employees and almost all of the business world were taken totally by surprise. But it was all there in the skit. Just as it was there in the wisecrack that went around the office after the publication of Enron's 1997 annual report, whose cover showed a tropical forest with a large leaf smack in the middle. "The fig leaf," the wags called it.

There's a lesson here, or maybe it's a management tip: You can learn a lot about a company by paying attention to its humor. People tell jokes, often, as a way of revealing uncomfortable truths. Monarchs employed court jesters to cut through their courtiers' unctuous sycophancy, for example. These days, it's editorial cartoonists and late-night TV hosts who lampoon the powerful. The same impulses are at work in every corporation on earth. Skits at sales conferences, wisecracks in meetings, jokes in e-mails: These constitute an extraordinary trove of information about what's really going on.

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19.

Watch Your Back

Cruising through the draft of a potentially influential new framework for enterprise risk management, I am reminded of the thousand natural (and unnatural) shocks that companies are heir to. Those risks include, but are nowhere near limited to, emerging competition and price movements; political agendas

A study found that only 11% of U.S. companies have full-fledged enterprise risk management programs.

and new regulations; changes in demographics and work/life priorities; unexpected repair costs; quality deficiencies; utility or computer service downtime; and good old human frailty. Toss in fire, flood, and earthquake—as this document does—and you have a portrait of the organization as a quivering mass of vulnerabilities. And that’s exactly the view you need to take to prevent or mitigate nasty surprises that wallop stock prices, sales, and reputations, according to the Committee of Sponsoring Organizations of the Treadway Commission (COSO), which is publishing the framework in the first quarter of this year (the draft is available at www.coso.org).

COSO are the folks who brought us the internal control framework adopted by many public companies scrambling to comply with Sarbanes-Oxley. The organization’s traditional purview is financial reporting; that it has now embraced risk in all its infinite variety speaks to the growing demand for a cross-company, senior-executive-led approach to enterprise risk management (ERM), which goes well beyond traditional risk management’s focus on a limited number of threats within functional silos. ERM takes a portfolio approach that recognizes the variety and interdependence of organizational vulnerabilities. “Sarbanes-Oxley has directed attention to risk, but the Enrons were really about accounting fraud,” says John J. Flaherty, the chairman of COSO and retired chief auditor for PepsiCo. “We’re focused more on risks that creep up on an organization and handicap it or put it out of business—where they never saw it coming.”

Enterprise risk management is oldish hat in Britain, where the Turnbull Initiative of 1999 required public companies to regularly report on all significant exposures—ranging from IT to brand—as well as on the internal controls designed to minimize them. Today, UK companies perform comprehensive risk audits at least twice a year, and a few conduct them in real time, according to Richard Sharman, director of KPMG’s enterprise risk management group in London. The majority of Britain’s 100 largest companies employ a chief risk officer or director of risk management who is responsible for embedding risk awareness in the culture, change-management style.

Although most of Europe is similarly up to snuff, the United States lags by 18 months or so. A study by management consulting firm

Tillinghast-Towers Perrin found that 11% of U.S. companies, mainly in the financial services, insurance, and utilities sectors, have full-fledged ERM programs. Sharman thinks the COSO framework may catalyze U.S. businesses to systematically bring all of their Achilles’ heels to heel. In addition, the new Basel II Accord is prompting banks to develop best practices around risk, and those practices are migrating into other industries. “Some of your global organizations are starting to think along the lines of European organizations around risk,” says Sharman. “It doesn’t just mean buying insurance. It doesn’t just mean financial control. It is a CEO issue. And it does affect the brand.”

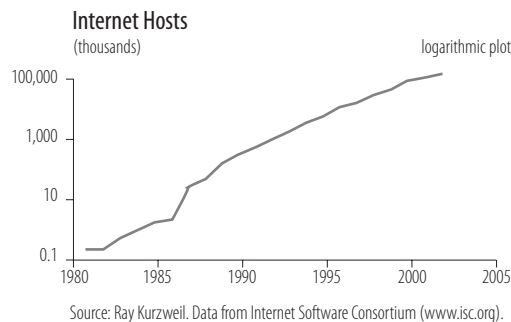
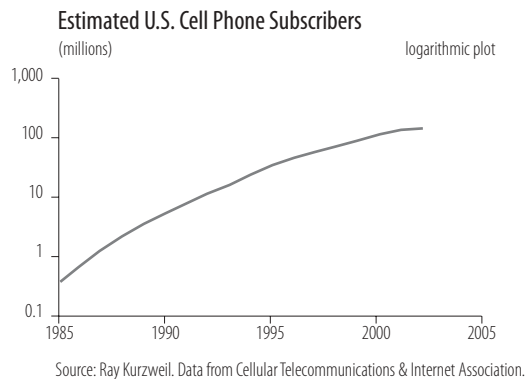
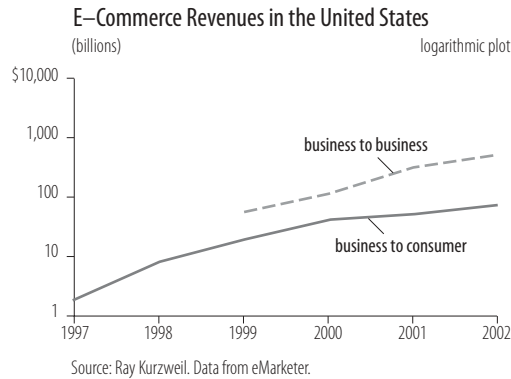
But ERM serves desire as well as fear; companies that adopt it for compliance purposes only are missing the larger point. Badly done, systemic risk assessment could put the brakes on aggressive behavior, but it need not result in what SEC Chairman William H. Donaldson described in a *Financial Times* interview as “a loss of risk-taking zeal.” Rather, ERM should allow companies to make decisions with greater speed and confidence. “Having risk under control gives a company agility, flexibility,” says Steven Hunt, a vice president of research at Forrester Research who specializes in security. “It’s like driving a car: You can only go fast if you know you have good brakes.”

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20. IT Doesn’t Scatter

Take a look at the accompanying charts. Have you ever seen trend lines so smooth? This has been the reality of information-based technologies. Yet if you asked most people to describe IT’s past decade, they would call it boom and bust—a roller coaster ride.

Let’s look first at the business-to-consumer (B2C) and business-to-business (B2B) data. Actual B2C revenues grew smoothly from \$1.8 billion in 1997 to \$70 billion in 2002. B2B had similarly smooth growth from \$56 billion in 1999 to \$482 billion in 2002. We see the same trends in telecommunications, where the number of U.S. cell phone subscribers grew smoothly and exponentially from 340,000 in 1985 to 140 million in 2002. The number of Internet hosts rose from




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larly by half every 1.1 years.

The exponential growth of the power of information technologies (broadly defined) goes far beyond the well-known paradigm of the miniaturization of transistors on an integrated circuit described by Moore's Law. We see the same phenomenon in many other areas of technology that deal with or create information. For example, magnetic data storage has doubled in price-performance every 15 months over the past half-century. We see similar exponential growth in the price-performance and capacity of such diverse technologies as wired and wireless communications, DNA sequencing, and brain scanning.

So why have the capital markets been so volatile? First, because as much as IT has delivered, Wall Street expected even more. The perception was that the Internet and telecommunications technologies represented revolutions that would overturn the business models for many industries. That was and is correct—but these trends take time to develop. Second, there was a profound lack of communication within the investment community. This allowed, for example, massive overinvestment in certain areas (such as fiber), while other areas (such as the "last mile" of the communication infrastructure) were ignored. The result was more than \$2 trillion of lost market capitalization.

Regardless of whether your portfolio or mine suffers another setback, we'd do well to keep in mind that technology will continue to march ahead. If everyone involved with information technology—and these days, who isn't?—understood the trends underlying these technologies, the painful episodes of boom and bust in investment values might, at long last, begin to subside. 

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213 in 1981 to 162 million in 2002.

The price-performance and capacity of the underlying technologies have grown even more rapidly than the market penetration. You could buy one transistor for a dollar in 1968 versus 10 million transistors for a dollar today. And unlike Gertrude Stein's roses, a transistor is not a transistor is not a transistor. As they've become smaller and less expensive, they've also become dramatically faster—by a factor of about 1,000 over the past 28 years. So the cost per transistor cycle has dropped regu-



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