

Best Business Books 2007

by Michael Schrage, David Newkirk, Joe Flower, Diane Coyle,
Tom Ehrenfeld, Howard Rheingold, R. Gopalakrishnan, and
James O'Toole

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In 2001, when *strategy+business* first published this now-annual review of best business books, we knew we had a tough audience to please. Indeed, as leadership scholar James O'Toole notes in one of the following reviews, a recent *New York Times* article about the reading habits of successful business leaders found that they read everything but business and management books.

So every year, we look for nominees in unexpected places. We carefully select reviewers, like O'Toole, who have a wide range of experiences and perspectives, who are willing to look far and wide for the ideas and stories that executives will find most relevant to their work and their thinking.

One theme running through all the essays this year is the presence and power of human behavior in business, especially in the executive suite. Economist Diane Coyle notes that the subject of her choice for the best book on capitalism — the infamous economist Joseph Schumpeter — appreciated that the economy represents “a human order with social, political, and cultural implications.” Futurist Howard Rheingold selected three books this year on behavioral theory. They present provocative views on the ways in which network information technologies — the Internet, mobile phones, PDAs, and the like — are changing the behaviors of bil-

lions of people around the world. In reviewing the best books on human capital, R. Gopalakrishnan, executive director of the Indian multinational Tata Sons, deftly relates his observations to his own experiences managing people and watching others do it, too. MIT's Michael Schrage and journalist Tom Ehrenfeld highlight the importance of humility to innovation and entrepreneurship, respectively. The essay by science and health-care expert Joe Flower exposes the human hopes and fears raised by the risky business of biotechnology.

Of course, our list of the year's best business books is not complete without a selection on strategy and competition. This year, David Newkirk — the head of executive education at the University of Virginia's Darden School of Business — has selected five of the best guides in print for helping executives redirect their companies in an ever-changing world.

— Ann Graham

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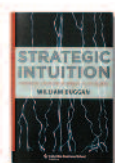
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S+B's Top Shelf



Innovation
Bill Buxton, **Sketching User Experiences: Getting the Design Right and the Right Design** (Morgan Kaufmann, 2007)



Strategy
William Duggan, **Strategic Intuition: The Creative Spark in Human Achievement** (Columbia University Press, 2007)



Biotech
Gary P. Pisano, **Science Business: The Promise, the Reality, and the Future of Biotech** (Harvard Business School Press, 2006)



Capitalism
Thomas K. McCraw, **Prophet of Innovation: Joseph Schumpeter and Creative Destruction** (Belknap Press of Harvard University Press, 2007)



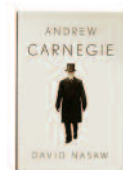
The Entrepreneurs
David Silverman, **Typo: The Last American Typesetter, or How I Made and Lost 4 Million Dollars** (Soft Skull Press, 2007)



Behavioral Theory
David Weinberger, **Everything Is Miscellaneous: The Power of the New Digital Disorder** (Times Books, 2007)



Human Capital
Howard Gardner, **Five Minds for the Future** (Harvard Business School Press, 2007)



Biography
David Nasaw, **Andrew Carnegie** (Penguin Press, 2006)

INNOVATION



Scott Berkun,
The Myths of Innovation (O'Reilly Media, 2007)

Bill Buxton,
Sketching User Experiences: Getting the Design Right and the Right Design (Morgan Kaufmann, 2007)

Bob Johnstone,
Brilliant! Shuji Nakamura and the Revolution in Lighting Technology (Prometheus Books, 2007)

Scott Rosenberg,
Dreaming in Code: Two Dozen Programmers, Three Years, 4,732 Bugs, and One Quest for Transcendent Software (Crown Books, 2007)

Humbling THE Ambitious

by Michael Schrage

Joseph Schumpeter, the eminent 20th-century economist who famously described entrepreneurship as a form of “creative destruction,” proffered a lesser-known, pithier epigram for 21st-century innovators. “Innovation,” he wrote, “is ultimately not an act of intellect but of will.”

If only it were that straightforward. Invariably, seemingly

fundamental truths about innovation turn out not to be true; yet somehow even the most disruptive technological innovations end up reaffirming the hoariest innovation clichés. To CEO and entrepreneur alike, it's painfully unclear whether intellect, will, or plain dumb luck will end up playing the starring or the supporting roles when enterprises innovate.

Three excellent books about innovators and innovation in 2007 happen to be written by authors who come from the world of software development: *Dreaming in Code: Two Dozen Programmers, Three Years, 4,732 Bugs, and One Quest for Transcendent Software*, by Scott Rosenberg; *The Myths of Innovation*, by Scott Berkun; and *Sketching User Experiences: Getting the Design Right and the Right Design*, by Bill Buxton. The Japanese electronics industry is the setting for another worthwhile read, *Brilliant! Shuji Nakamura and the Revolution in Lighting Technology*, by Bob Johnstone. Collectively,

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these books do a comprehensive job of capturing what innovation means at this moment. Each book has a profoundly different sensibility and serves a specific business readership — from software programmers to industrial designers. However, all of them are compelling for general management consumption, and their rhetorical similarities are as serendipitously compelling as their differences.

One Day at a Time

Smart, talented, and determined people often “obey” only their own vision. That makes for great stories, albeit unhappy ones. *Dreaming in Code* is just such an unhappy tale, well told. Its lead character is Mitchell Kapor, who founded the Lotus Development Corporation, recruited software developer Ray Ozzie (now Microsoft’s chief software architect) and co-created with Ozzie and others the Lotus 1-2-3 software spreadsheet in the 1980s.

Kapor has always wanted to be a different kind of “infopreneur.” He has an eye for software talent and a fascination with the challenge of organizing personal information in novel ways. Taking aim at the global business culture of “proprietary software” development, Kapor helped launch the Open Source Applications Foundation, with a sensational team of programmers who set out to out-Google Google and out-Apple Apple in the design and development of a personal digital assistant product. Code-named “Chandler” (as in Raymond Chandler, the crime fiction writer), the project was intended to solve problems of personal information management that users didn’t even know they had. Chandler would allow individuals to organize and improvise all manner of personal management tools and effects, such as calendars, files, photos, and address books.

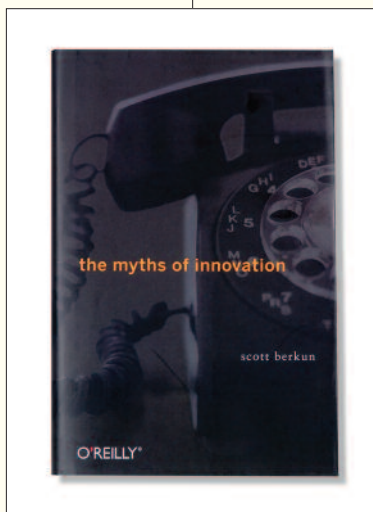
The project’s ambitions and plans were always a moving target, which is where its troubles began. Chandler’s likable cast of creative characters became foils for Scott Rosenberg’s examination of the painful software design trade-offs that were involved in Chandler’s complex innovation agenda. As a journalist “embedded” in the project, Rosenberg, a cofounder of Salon.com, the San Francisco-based online magazine), was witness to

every meeting that mattered as this band of talented coders, hackers, programmers, and designers tried to rapidly reinvent a software genre. But as page after remorseless page of *Dreaming in Code* documents, these folks blew every deadline they set for themselves. You can almost feel Rosenberg’s sickening realization — and revulsion — as the project he’s decided to Boswell sinks deeper into the gooey tarpits of delay. As Frederick P. Brooks Jr., the IBM software architect who authored the classic memoir *The Mythical Man-Month: Essays on Software Engineering* (20th-anniversary ed., Addison-Wesley, 1995), once rhetorically asked, “How does a project get to be a year late?” His chillingly simple answer: “One day at a time.”

Dreaming in Code is a one-day-at-a-time narrative of despair that Rosenberg cleverly transforms from yet another classic software team innovation story into a morality tale about the importance of humility in the creative process. For example, he does an excellent job of recapitulating the history of postwar software development as a guide to the Chandler team’s missteps. Practically every one of the most painful design issues, problems, debates, and delays confronted by Kapor’s clever developers was anticipated in, believe it or not, a NATO Software Engineering summit in 1968.

Yet Rosenberg doesn’t indulge in *schadenfreude* as he observes how the Chandler folks slowly but surely repeat all known pathologies of the software innovation process. Rather, he marvels at the sheer absence of historical knowledge, perspective, and discipline. “The participants recorded their frustration with the lumbering pace and uncertain results of large-scale software development and advocated many of the remedies that have flowed in and out of fashion in the years since,” Rosenberg writes. The prescriptions included calling for “feedback from users early in the design process” and “doing something small, useful, now.”

Cruelly, but not unreasonably, Rosenberg describes Linux founding father Linus Torvalds — a man who has successfully overseen the introduction and evolution of an immensely important operating system worldwide — as a Cassandra who is respected but ignored. Torvalds



admonishes, “Nobody should start to undertake a large project” because “you’ll just overdesign” and be overwhelmed by your vision. “So start small and think about the details. Don’t think about some big picture and fancy design.”

Still, there’s no false dichotomy between Kapor’s grandiose aspirations and Torvalds’s studied “smaller is better” innovation heuristic. In the grander scheme of things, Torvalds is every bit as ambitious as — if not more so than — Kapor and his Chandlerians. More important, though, the Chandler team’s ambition did not make it the victim of hubris, arrogance, or egomania. These were smart, levelheaded, hardworking people. Their problem was not a surfeit of pride but a shortage of humility, at least at the outset. Over the course of the project, the team humbled itself through repeated failure: busted deadlines, broken code, and a chronic inability to manage expectations cost-effectively. If Kapor and his team had brought even 20 percent of Torvalds’s wisdom into their innovation world view, the Chandler

ter headings neatly summarize each of the myths he eviscerates, for example: “The myth of epiphany,” “We understand the history of innovation,” “There is a method for innovation,” and “Good ideas are hard to find.” He dismisses much of what the business press (and many academics) celebrate as common sense or best practice as anecdotal foolishness. Businesses serious about value-added innovation need to disabuse themselves of the notion that they’re simply one good idea — or a good methodology — away from success.

Innovation is hard, and sustained innovation even harder. That’s one essential reason that great confidence and competence need to be leavened by humility. How much humility? Without tongue in cheek, Berkun’s book calculates the probability of successful innovation:

As a back-of-the-envelope sketch of innovation difficulty, let’s assume there’s a 50 percent [chance] of succeeding at each [previously discussed] challenge (which, given the data, is

Innovation is hard, and sustained innovation is harder. That’s one essential reason that great confidence and competence need to be leavened by humility.

software — and Rosenberg’s book — would have been written rather differently.

Innovation Probabilities

Although you won’t find it in the book’s index, humility is also the de facto theme of Scott Berkun’s *The Myths of Innovation*. Baked into the book’s premise is the assertion that we think we know more about the meaning, media, and mechanisms of innovation than we really do. Formerly an interface designer on Microsoft’s Internet Explorer team, Berkun now writes and lectures on creative problem solving at the University of Washington. *Myths* does have an occasionally annoying “everything you know about innovation is wrong” tone, but Berkun has effectively synthesized much of the traditional literature on the subject and ruthlessly debunks the rubbish.

Students and practitioners of innovation will be familiar with many of the myths Berkun pops. But his accessible writing style makes reading the myths again a pleasure. And this is one of those books where the foot-

notes are as important, and as enjoyable, as the text. His chap-

generous). Because success at one challenge is dependent on the previous, the probability of overcoming all challenges is low:

$$50\% \times 50\% \times 50\% \times 50\% \times 50\% \times 50\% \times 50\% \times 50\% = .390625\%$$

That’s less than 1 percent. Of course, if your innovation requires only convincing your friends to try a new poker variation or your boss to run meetings differently, you might face two (and not all eight) challenges and odds improve based on your skills, experience, and teammates. It’s safe to say that the smaller your ambition the better the odds. But dreams and passions, the saving throw against probability, might fade. And, as Han Solo said, “Never tell me the odds.”

That successful innovation seems so dependent on contingent probabilities seems both obvious and unfair. Yet, as *Myths* and *Dreaming* illustrate from radically dif-

ferent perspectives, very smart people consistently ignore the obvious and behave as if luck were on their side. As probability and history both affirm, they do so at their peril.

Playing the Game

Nevertheless, the innovation process, much like poker, is often as much a test of skill as of luck. The best poker players, like the best innovators, know how to manage risk, play the odds, and read the table. In *Brilliant!* Australian technology writer Bob Johnstone does a brilliant job of describing how well and how persistently an unsung Japanese scientist, Shuji Nakamura, played the innovation game in the electronics industry. You've likely never heard of Nakamura, but this engineer was able to solve technical problems that had stumped top electronics firms for more than two decades; he created, for example, the last piece of technology needed to manufacture solid-state white lights known as light-emitting diodes, or LEDs. In his own way, Nakamura's discovery may prove as high-impact as those of high-tech entrepreneurs such as Intel's Bob Noyce or Google's Larry Page and Sergey Brin.

Johnstone's profile of Nakamura builds on his fantastic book, *We Were Burning: Japanese Entrepreneurs and the Forging of the Electronic Age* (Basic Books, 1999), a sociocultural industrial profile of Japan's electronics entrepreneurs and enterprises. Shuji Nakamura was one of the last and most innovative scientist/inventor/innovators Johnstone described in that book, and *Brilliant!* starts where *Burning* ends. In *Brilliant!* Nakamura is almost a caricature of the obsessed creator. He is simultaneously a scientist, a craftsman, and a revolutionary. Think of him toiling away in obscurity but growing more frustrated with his inability to have his innovations compete in the global arena.

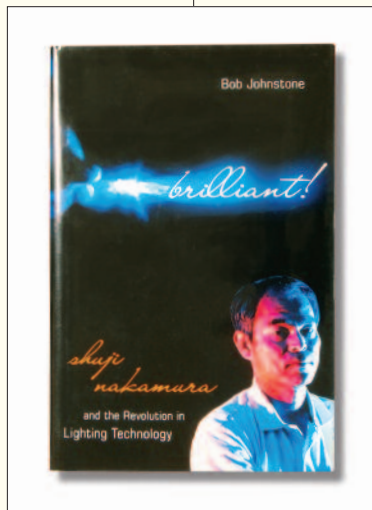
But Johnstone offers up more than the standard bio of a lone scientist who triumphs in spite of seemingly insuperable odds. What he has written is the economic sociology of an innovation network, with Nakamura at its hub. What Nakamura does with lighting surely rivals the Bardeen, Brattain, and Shockley invention of the transistor in terms of potential. Just as Edison's light-bulb redefined illumination in the last century, so

Nakamura's lasers and LEDs may do for this one, producing more light in more places at less cost and with less energy usage than the incandescent bulb. Edison would be envious.

What role does humility play for scientist/entrepreneurs who are intent on changing the world? In Nakamura's case, he is a scientist so fluent in the materials he manipulates that his colleagues and students — both in his lab and in the worldwide “invisible college” of fellow innovators — are effusive in their expressions of respect for him, and single out his humility. Johnstone, quoting one of Nakamura's students, writes: “What he showed us was how to do quick tests on our devices.... We assumed initially that you had to slap on your contacts before you could get any feedback,

and that's usually at least a half day's work. He showed us a way to get feedback in essentially five minutes after the growth. Things like that, you know the man's been in the lab himself and tried out these things.”

Note at the core of that quote the essential idea: the willingness and ability to design for accelerated feedback. In other words, Nakamura constantly seeks to swiftly test the validity of his innovation hypotheses. That humility facilitates the transformation of a technically interesting material into a patentable and profitable optical device.



Design for Innovation Handbook

Bill Buxton's *Sketching User Experiences* is a lush, beautiful, and high-bandwidth book. It's filled with photos, sketches, and notes laid out in a visually stimulating and inviting format. If you want to understand how your innovation ideas can slide seamlessly from sketches to animation to prototypes, it's all here.

Buxton, now a Microsoft researcher but formerly a chief scientist at Silicon Graphics and Alias Wavefront and professor at the University of Toronto, has put together a handbook about design for innovation that is also intensely personal. Buxton himself is an idiosyncratic designer with good taste and strong opinions. There's plenty to disagree with. However, one cannot read this book in good faith without constantly thinking, “Hmmm...could I use this...there...?” *Sketching* is

filled with case studies, examples, tools, and boldfaced aphorisms. As demonstrated in this passage, Buxton also energetically — almost aggressively — defines what he means by having humility in the design process: “People on a design team must be as happy to be wrong as right. If their ideas hold up under strong (but fair) criticism, then great, they can proceed with confidence. If their ideas are rejected with good rationale, then they have learned something. A healthy team is made up of people who have the attitude that it is better to learn something new than to be right.”

He concludes: Design is compromise.

Much of Buxton’s appeal comes from his willingness to mix the rigor of technique with the need for an open attitude. What Buxton has done is link design innovation and design tools with the organization’s need for accessible product and process innovation. For me, the most charming element of the book is not its rigor of thought or clarity of expression but Buxton’s authentic respect for researchers and designers in academe and industry who bring user-oriented discipline to design. He takes attribution, acknowledgment, and history very seriously.

Any organization that is looking to design or designers as the key to differentiating the value of an innovation will treat this book as either a bible or a useful provocation. This book may be better for a business unit leader than for the CEO, but any company that has a vital innovation culture would surely benefit from having its chief marketing officer and intrapreneurs referencing Buxton’s text.

Although Buxton’s lavishly illustrated *Sketching User Experiences* reads like an idiosyncratic memoir-cum-design-handbook, it will enjoy a happily dog-eared existence on the desktops and nightstands of people sincerely looking for more innovative ways to be innovative. Because it goes beyond narrative and vignette to provide a well-designed and — yes — innovative innovation tool kit for business, it has earned its spot as the best innovation book of this year.

Of course, each book succeeds on its own terms while offering its own proprietary slice of innovation analysis. Each superbly captures the perennial role of failure in

the dogged pursuit of success. All the books highlight the importance of luck, both good and bad, in shaping innovation decisions and outcomes. But, for me, the starkest theme is this: Far more than confidence and expertise, humility is the essential ingredient for innovation success.

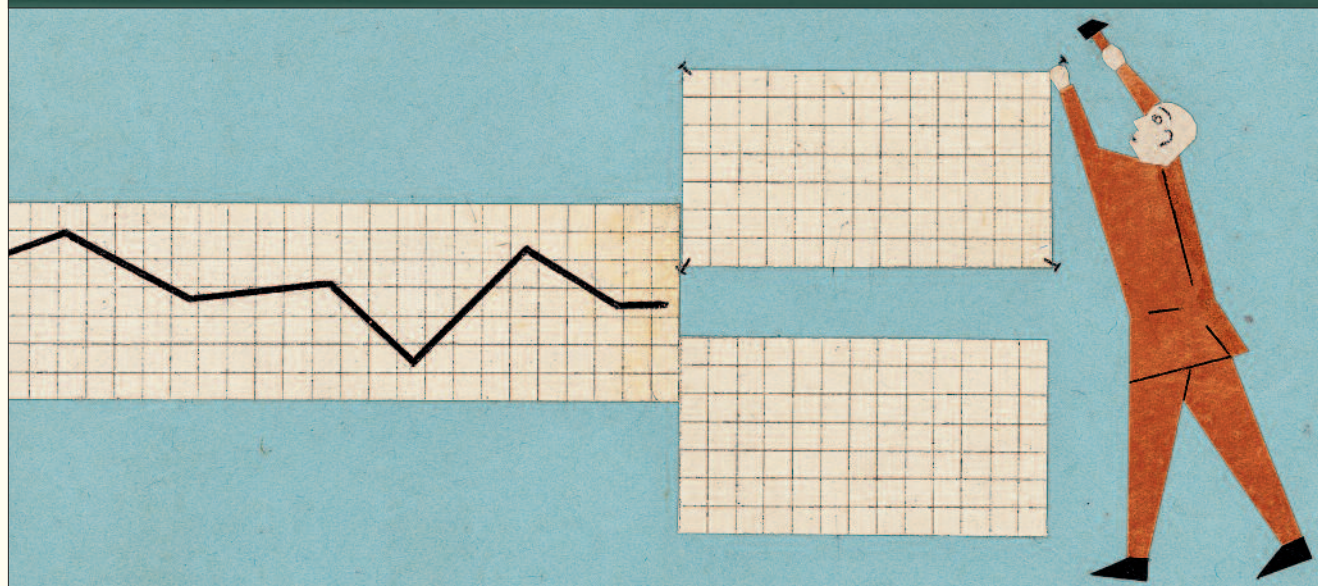
It’s not unreasonable to ask whether this review’s emphasis on humility truly reflects the centrality of themes presented in these four books or instead is some psychological or rhetorical dysfunction of the reviewer. The politically correct answer would be “both.” The reality is, if you read only one or two of these books, the humility issue is intriguing but not essential. If you happen to read all four — and have a good command of the innovation literature and personal experience — avoiding the humility challenge is intellectually dishonest.

Schumpeter was surely not wrong to point to intellect and will as essential to entrepreneurial innovation. But he was a good enough student of capitalism, socialism, and democracy to know that humbling the ambitious makes markets. No one will come away from reading these books believing that confidence is more important than humility in innovation success. However, everyone will come away recognizing that quality of character matters even more than the quality of the idea. +



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STRATEGY



William Duggan,
**Strategic Intuition:
The Creative Spark
in Human
Achievement**
(Columbia University
Press, 2007)

William H. Marquard,
**Wal-Smart: What It
Really Takes to
Profit in a Wal-Mart
World** (McGraw-Hill,
2006)

Michael E. Raynor,
**The Strategy
Paradox: Why
Committing to
Success Leads to
Failure (and What to
Do about It)**
(Doubleday, 2007)

Ming Zeng and Peter
J. Williamson,
**Dragons at Your
Door: How Chinese
Cost Innovation Is
Disrupting Global
Competition**
(Harvard Business
School Press, 2007)

Chris Zook,
**Unstoppable:
Finding Hidden
Assets to Renew the
Core and Fuel
Profitable Growth**
(Harvard Business
School Press, 2007)

Planning FOR Uncertainty

by David Newkirk

It is widely held that growth is the fundamental strategic challenge for business leaders. I agree with that idea wholeheartedly, and I would add that creativity is essential for sustained growth. Effective execution of existing strategies can bring increased revenue and profits, but the most successful strategies are often the most creative, delivering growth by developing new

ways to create value for customers and capture it for the enterprise.

Today's business environment is making creative strategy even more critical. Virtually every business author argues that the world is getting more complex, whether it's the new rules of the Internet economy; the "flattening" of global markets; the emergence of new world-scale competitors; or the fluidity of people, ideas, and capital. In this environment, constant strategic re-creation may offer the only hope of long-term success.

What role, then, can business books play in a strategist's own creation? Such books tell stories of great strategic triumphs (and failures), examining heroic leaders and critical decisions, analyzing businesses individually and en masse to glean lessons and codify rules. But what value does this serve in preparing leaders for the creative process of developing the next strategy? Many of the

heroes of our best strategic tales, including some told in the books reviewed here, were not great students of strategy. Indeed, many of our modern business icons — Bill Gates, Sam Walton, Richard Branson, Fred Smith, and the like — didn't proceed from theory to action. And perhaps their genius can't be codified. As the philosopher Immanuel Kant argued, "Genius is a talent for producing that for which no definite rule can be given, and not an aptitude in the way of cleverness for what can be learned according to some rule."

It is therefore no wonder that most business books discuss how to evaluate a strategy, but few offer much help in creating one.

In *Strategic Intuition: The Creative Spark in Human Achievement*, my choice for the best strategy book of the year, Columbia University professor William Duggan explains that Michael Porter's classic *Competitive Strategy: Techniques for Analyzing Industries and Competitors* (Free Press, 1980) "tells you how to analyze your own strategy in light of your industry and your

foundation for them to exercise their genius, developing a context for their activities, outlining the "rules," and building a repertoire of examples and fragments from which new ideas can be assembled.

There is another reason to study business theory and read stories of successful strategy. Strategic theories can ultimately shape the very context in which strategies are developed and executed. The interplay of theory and actual behavior is particularly important when the paradigm of business shifts and our understanding of new potential strategies lets us create new markets or reshape competitive dynamics. In business, unlike in nature, the fittest often survive by helping create the environment that favors them.

We may have passed through just such a shift sometime in the last decade. The rules of business seem to have mutated. Familiar market boundaries have blurred, or even disappeared. Companies have lost mass and gained speed. Every business faces uncertainty. Chris Zook and his Bain & Company partners put it

The same focus and commitment that promise the highest returns necessarily imply the greatest probability of failure.

competitors. But it does not tell you how to come up with a strategic idea: that's a 'creative step' Porter leaves out." Even management academics themselves are raising doubts about the value of business scholarship, with luminaries including Jeffrey Pfeffer, Warren Bennis, Henry Mintzberg, and the late Sumantra Ghoshal all questioning whether business schools can develop effective managers and challenging the relevance, and even the validity, of academic research.

However, in business, and across many more traditionally creative fields, talented practitioners do study and learn from both theory and literature, from rules and stories. Famously, Fats Waller warmed up with classical piano pieces, and it was reported by a collaborator that "he knew Brahms, Liszt, and Beethoven as well as he knew jazz, and often discussed and analyzed their work." Artists sketch from great paintings to explore their composition. Mathematicians work through the landmark proofs, both to learn their results and to understand the methods behind them. Such study does

not make these individuals creative geniuses, but it lays the

this way: "Almost all of our clients and their competitors [are] confronting more fundamental and more frequent threats to their core businesses." Throughout this period, managers have become less confident, a clear sign of impending change and a need for fresh theories.

Four of the strategy books reviewed here are well worth reading for their informative and insightful treatment of strategy, in theory and in practice: *The Strategy Paradox: Why Committing to Success Leads to Failure (and What to Do about It)*, by Michael E. Raynor, for its view on how strategic uncertainty can best be managed; *Dragons at Your Door: How Chinese Cost Innovation Is Disrupting Global Competition*, by Ming Zeng and Peter J. Williamson, and *Wal-Mart: What It Really Takes to Profit in a Wal-Mart World*, by William H. Marquard, for their analyses of how emerging dominant competitors are changing the strategic environment; and *Unstoppable: Finding Hidden Assets to Renew the Core and Fuel Profitable Growth*, by Chris Zook, for rules and examples for renewing business. The fifth and best, Duggan's *Strategic Intuition*, takes on a more challenging task: identifying the processes that lie behind the cre-

ative flash of genius and suggesting the means to develop greater intuitive strategy skills.

Creating Strategic Flexibility

Strategists have long argued for strategic purity (i.e., focused, distinctive strategy) and commitment (i.e., clear alignment of all resources and capabilities with that strategy), citing research and examples showing that the highest returns are correlated with focus and commitment. In *The Strategy Paradox*, the most rigorous and scholarly of this year's selection, Michael Raynor identifies the fundamental paradox in this thinking. Since one cannot plan for an unknowable future, the same focus and commitment that promise the highest returns necessarily imply the greatest probability of failure.

In Raynor's analysis, this is caused by the strategic uncertainty inherent in the marketplace. The choices underlying a focused, committed strategy must often address a future that involves unpredictable changes in consumer response, market dynamics, and development paths. "Middle-of-the-road" strategies offer more resilience, "but at the cost of being able to generate significant returns," he writes. It is impossible to build sufficient adaptability at the business level, even if competitors' responses might be parried. With classic examples, including Sony Betamax, Raynor illustrates that the firms that guess right and commit more vigorously to the strategy that fortune ultimately favors will defeat their competitors, but they risk catastrophe.

Raynor believes the resolution of this paradox at the *business* level lies in strategic flexibility at the *corporate* level. Corporations can reduce risk by "managing strategic uncertainty through the creation of strategic options," investing in a portfolio of positions, even as individual businesses take the risks inherent in high-return strategies. As decisions move up the corporate hierarchy, executives' time horizons should lengthen and their priorities should shift from managing commitments to building options on an uncertain future. "CEOs should not see their role in terms of making strategic choices — that is, commitments," Raynor writes. "Rather, they should focus on building 'strategic options,' that is, creating the ability to pursue alternative

strategies that *could* be useful, depending on how key uncertainties are resolved."

Building strategic flexibility is messy and difficult, as Raynor shows in his analyses of Microsoft, Johnson & Johnson, and Vivendi Universal, as well as in the processes he describes for developing a range of possible future scenarios and then assembling and managing a collection of options to address them.

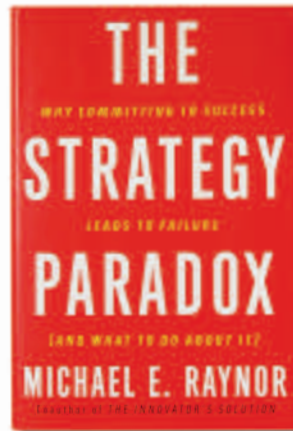
This philosophy of strategic flexibility, because it is costly and complex and unavailable to the individual entrepreneur, may be appropriate only for the largest of companies. More fundamentally, assembling a portfolio of options may best be left to investors, not operators. A collection of businesses reflecting alternative views on an uncertain future seems more like a venture-capital fund

than a classic corporation. The justification for flexibility as a corporate strategy, Raynor recognizes (in a discussion similar to Chris Zook's arguments in *Unstoppable*, discussed below), is the potential for linkages across the portfolio: "Corporate diversification makes sense to shareholders only if it either captures synergies or creates options on synergies that investors cannot replicate."

China Rising

The rise of China in the global economy is one of the greatest forces changing today's context for business strategy. Consider how it has reshaped certain industries once dominated by American companies: According to Ming Zeng and Peter J. Williamson in *Dragons at Your Door*, in air conditioners, microwave ovens, and cranes, the global market share of Chinese firms is 50 percent; in marine containers, lighters, and sewing machines, it is more than 70 percent. China is also enjoying high levels of trade surpluses, foreign direct investment, and foreign currency reserves.

Zeng and Williamson conclude that the most successful Chinese companies collectively represent a disruptive competitor of unprecedented scale and threat, exploiting a new strategy of "cost innovation," offering "high technology at low costs...presenting customers with an unmatched choice of products in what used to be considered standardized, mass-market segments — using low costs to offer specialty products at dramati-



cally lower costs.” By using a huge workforce that combines high skills and low wages, China is able to break the traditional trade-offs among sophisticated technology, product line complexity, and cost — at the design, process, and production levels.

In many ways, Chinese businesses today are retracing the evolutionary paths of their Asian predecessors. From the 1960s through the ’80s, Japanese and then Korean companies introduced low-cost products built for the home market (albeit not on the same scale as modern China), then migrated quickly up-market as the incumbent players retreated to high-feature (but ultimately undefendable) niches.

However, China’s threat is developing with greater speed and severity than that of the earlier Asian tigers. In addition to low wages and talented labor, China provides its companies with significant advantages, including subsidized access to government assets and intellectual property, management autonomy and stability, weak shareholder protections, and a national commitment to globalization and industrialization. Moreover, Zeng and Williamson note, the world in which Chinese companies are competing has opened new gateways for them: the increasing modularization of products and services, a more sophisticated knowledge economy, the concentration and globalization of retailing, a more fluid international market for talent, and professional services and a more open market for corporate control.

Finally, the Chinese market has embraced world trade relatively early in its development process, attracting foreign (and overseas Chinese) capital, technology, and human resources, further accelerating growth and innovation.

How does a competitor address these challenges? Zeng and Williamson describe a range of strategic responses for organizations under threat, including emulating the strategy of cost innovation, which is difficult for most Western incumbents with high costs and legacy processes. Another response is to “give China a global mandate” by creating a local operation serving the Chinese market while providing cost innovation in products and development to the entire company. This

approach can preempt the emergence of a world-scale local competitor. And the third suggestion is to build alliances with “dragons” to accomplish the same end, by positioning a partner’s Chinese capacity as part of a global product portfolio and manufacturing footprint.

The best companies already pursue these strategies. For example, Procter & Gamble is developing lower-cost products to move beyond the wealthiest 8 percent of the Chinese market. Many industrial companies are focusing capacity investments in China to capture demand and preempt local competition.

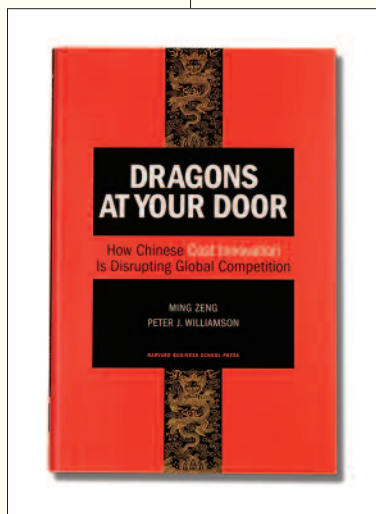
However, the future of the dragons is not guaranteed; China’s growth may be generating challenges of its own. Costs are rising in Guangzhou and Shanghai. Local demand is becoming more sophisticated. And in the Wal-Mart world that William Marquard describes, China’s current performance in terms of quality, safety, emissions, and governance may not be acceptable to global consumers in the long term.

Competing in a Wal-Mart World

In *Wal-Smart*, William Marquard, a former Wal-Mart executive, examines the strategy behind a second great force shaping the current business environment and also recommends responses to China. Wal-Mart “is the dominant company of our era,” he declares, representing 2.5 percent of the U.S. economy

and nearly 1 percent of the global economy. Wal-Mart has transformed the retail world, making big boxes and “everyday low prices” part of every consumer’s shopping experience. It has triggered among competitors greater specialization and focus on the shopping event so that they can offer consumers a distinctive alternative. Among its suppliers, Wal-Mart has changed patterns of product development and operations. Marquard says that “half the increase in retail productivity [from 1995 to 1999] could be traced directly or indirectly to Wal-Mart.”

As hundreds of articles and many books have done before, Marquard’s work describes Wal-Mart’s killer strategy of relentless cost reduction, internally and through suppliers, that drives price reductions and in turn volume increases, feeding the cost reduction loop. Supporting this are strong processes that spread the



improvements quickly across company stores.

The value of Marquard's book is that it identifies potential responses to this familiar situation. He believes competitors must make choices about "how to *differentiate*, what to *emulate*, and where to *dominate*" in order to distance themselves from Wal-Mart's low costs, utilitarian range, and experience. For suppliers, the preferred response seems to be to engage Wal-Mart on its own terms, leveraging brands, investing in supply and development processes, and diversifying channels.

Wal-Smart is a more thoughtful, and hopeful, analysis than most books about Wal-Mart. It recognizes that Wal-Mart is formidable, but understands where its limits might lie, both in Porter-esque terms of supplier, customer, and competitive power and in terms of its acceptability to the communities and societies in which it operates. For suppliers and competitors, the author makes clear the dynamics underlying Wal-Mart's success and the choices that must be made in response.

Whether you are a friend or a foe of Wal-Mart on issues of social responsibility, Marquard shows how the implications of Wal-Mart's strategic success for employees and communities are as important as its impact on competitors and suppliers. Wal-Mart "turned into a lightning rod for outrage over labor rights, human rights, women's issues, urban sprawl, energy consumption, small-town decline, you name it.... Thanks to the catalyzing effect of Wal-Mart, business was witnessing the birth of a new progressive social movement." Marquard's prescriptions are less well formed and less compellingly argued, perhaps because the phenomena he describes are themselves in the formative stage.

Beyond the Core

Unstoppable is the final volume in Chris Zook's "Core" trilogy. Having explained how to *Profit from the Core: Growth Strategy in an Era of Turbulence* (Harvard Business School Press, 2001) and to move *Beyond the Core: Expand Your Markets without Abandoning Your Roots* (Harvard Business School Press, 2004), he now describes how to develop a new core business when the current one no longer provides sufficient growth. In many ways, this is the practical handbook for develop-

ing and managing the sort of options for an uncertain future advocated by Raynor.

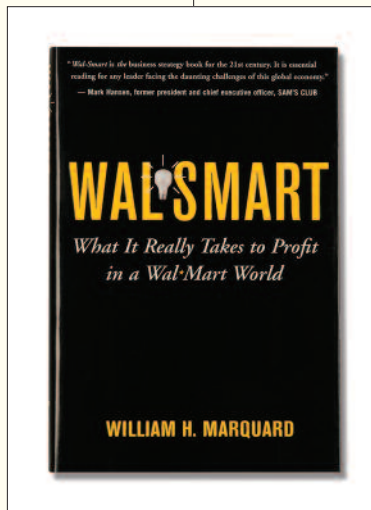
As in his earlier books, Zook still encourages companies to leverage their current customers, established businesses, and existing capabilities to sustain profitable growth. However, in *Unstoppable*, he acknowledges that it may become necessary to create a new core business, because of a "shrinking or shifting of the future profit pool," a direct threat from a competitor with a fundamental economic advantage, or failure of the current growth strategy to produce results.

All moves away from the core are risky, but Zook's research suggests that redefining the business to center on its "hidden assets" is far more likely to succeed than either making transformational acquisitions or diversifying into hot markets. He identifies three categories of hidden assets that offer the promise of new options and a more attractive future: undervalued business platforms (products, adjacencies, support organizations, noncore businesses); unexploited customer assets (unrecognized segments, privileged access or trust, underused information); and under-used capabilities.

Like Raynor, Zook begins his book by telling readers to develop "a view on impending turbulence" and its likely impact on the business core. *Unstoppable's* great value lies in the way it addresses the increasingly common problem of creating growth where there is none, especially the author's pragmatic detailing of the range of hidden assets and means of identifying them. However, like Raynor, Zook describes what an attractive asset- and option-driven move should look like, while offering only limited help on the creative processes for those trying to invent one.

The Creative Flash

Taking on a fundamentally different challenge than the other authors discussed in this review, William Duggan declares in *Strategic Intuition* that he hopes to fill a gap in modern strategic thinking, where "the reigning models of business strategy...leave out how strategists actually come up with their ideas." In one of the more ambitious books in recent years, he wrestles with



the nature of strategic intuition — the “creative spark” — and how to develop it.

Duggan views the process of creating new ideas as complementary to the more rational tools for analyzing them: “Strategic analysis and strategic intuition are the two main pieces of the modern puzzle of business strategy.” As he writes, “A creative flash yields rational insight.” This linkage is most easily seen in mathematics, where the processes of discovery and demonstration are distinct. Discovering a new theory or proof is messy, with no clear rules or prescribed processes, only an array of tools and techniques. Once discovered, however, it can be presented with clear, compelling logic and praised for its elegance.

Duggan’s close reading of military strategy and the history of science informs the book greatly. Thomas Kuhn, for example, in *The Structure of Scientific Revolutions*, shows that revolutionary insights are constructed from existing pieces of information. “The common idea of how a leap of progress happens is a leap of imagination,” Duggan writes. “[Kuhn] gives us an alternative: a selective combination of elements from the past make something new. The elements themselves are not new.” The raw material feeding the creative process is past experience, either direct or learned from history. The strategist searches for a better combination of resources, actions, and even goals.

Duggan illustrates this through a distinctive reading of the recent history of the computer industry. He studies Bill Gates, Steve Jobs, and Lou Gerstner, and their critical strategic decisions, showing how their context and experience provided the pieces they assembled to create new strategies. He concludes, “When we step up close to study the details of each new bend in the road, we find that each strategist took elements from the past to make a new combination in the future.”

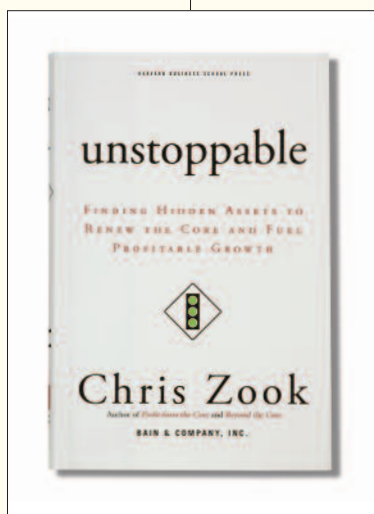
This view, that “a flash of insight draws on past elements,” suggests a very different way of reading strategy. There is some value in studying theory, to understand what “rules” there may be (provided one recognizes that the rules of business may change). And synthesized lessons can help apply today’s solutions to today’s world. However,

the real value is to be found in close study of the specific decisions and actions of the past, to assemble the pieces from which a new idea can be created. As Duggan writes, “You must study the past in detail, to put on the shelves of your brain what later comes together in a new combination.”

This is consistent with creative artists’ use of theory and literature. A writer is more likely to learn from reading great works closely than from absorbing literary criticism. Although architects need to understand building codes and mechanical engineering, they must also see how others have solved the problems of space and light. Musicians listen to learn.

There is another reason to put the literature of strategy on an equal footing with the theory of strategy. Ultimately, strategic insight and strategic leadership are human activities. Yet most strategy books are sparsely populated by people, with Bill Gates or Sam Walton serving as emblems of their businesses rather than as the creative and motive forces behind them. Most writing about strategy focuses on the dead artifacts of the strategic process, rather than on the live, human creative act itself. This may be interesting in its own right, but it is of limited use to a reader hoping to become a creative strategist and leader. For that, we need to experience the context, the people, and the leader’s actions.

In reading strategy as stories of individuals taking action, we might do well to keep in mind the view of Bruno Bettelheim, the Austrian-born American writer and child psychologist, who posited that reading about the trials, tribulations, successes, and failures of fairy-tale heroes will prepare children for the trials, tribulations, successes, and failures that they will encounter in their own lives. In *The Uses of Enchantment* (1975), Bettelheim wrote, “The fairy tale reassures, gives hope for the future and holds out the promise of a happy ending.” The best writing about strategy won’t help us predict a successful future, but it may help us create it. +



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BIOTECH

Denise Caruso,
**Intervention:
Confronting the
Real Risks of
Genetic
Engineering and
Life on a Biotech
Planet** (Hybrid Vigor
Press, 2006)

Gary P. Pisano,
**Science Business:
The Promise, the
Reality, and the
Future of Biotech**
(Harvard Business
School Press, 2006)

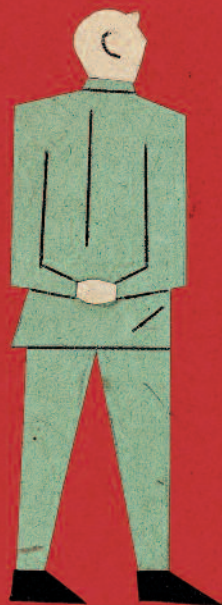
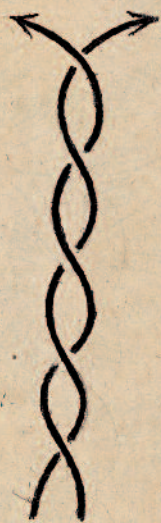
Worth THE Risk?

by Joe Flower

Some 30 years into the biotechnology revolution, we are finally beginning to hear sound, careful analyses asking deep questions about the value and implications of this astonishing field. Is it a great way to make money, to extend life, to save the planet? Or is it wildly irresponsible, modern snake oil, the new South Sea bubble? The magical promise of biotech has seemingly kept us from taking these questions seriously, and has left the field open to propagandists on both sides.

In the past year two books, one by Gary P. Pisano, the Harry E. Figgie Jr. Professor of Business Administration and chair of the technology and operations management unit at Harvard Business School, and the other by Denise Caruso, *New York Times* columnist and founder of the Hybrid Vigor Institute, have addressed these questions from two different perspectives. Yet both argue strongly and effectively that biotech is not worth the risk, at least not in its present form.

In *Science Business: The Promise, the Reality, and the Future of Biotech*, Pisano asks the question narrowly: Has the biotech revolution in pharmaceuticals given a good return on investment, in terms of either dollars or the availability of wonder drugs? (See "Gary Pisano: The Thought Leader Interview," by Amy Bernstein, *s+b*,



Summer 2007.) The industry has had some remarkable successes, such as the birth of firms like Amgen, Genentech, Chiron, Biogen, and Genzyme, and such drugs as Herceptin for breast cancer, erythropoietin for anemia, and beta interferon for multiple sclerosis. It has gloried in decades of fervor stimulated by venture capitalists and members of the press less skeptical than Caruso. But here Pisano turns a powerful analytic lens on the industry and comes up with far less to celebrate. He writes, “The business of science in biotechnology has not yet been profitable, nor has it been particularly productive in terms of turning scientific advances into drugs.” The business and the science of biotech are fundamentally working at cross-purposes. It is an industry in perpetual adolescence. It must mature — outgrowing its awkward structure and precociousness — to begin to realize its potential. Pisano’s conclusions, and how he reaches them, give us the first deep insight into this important industry, and potentially into any industry based on scientific discovery.

financial analysis of the industry surprised even him. Biotech’s promise was not only that its approach to discovery would find new drugs faster or bring them to market more quickly, but that it would create a profitable and sustainable economic engine that would broaden the scope and scale of the entire industry. By every sensible measure, the industry has not done that.

Pisano’s financial analysis is sophisticated, accounting not only for inflation, but also for the time lag to profitability, high startup costs, and other factors that could cloud comparisons. Among many other measures, he shows that biotech’s cost for developing a truly new drug (known in the industry as a “new molecular entity,” or NME) has roughly tracked that incurred by traditional pharmaceutical companies, US\$1 billion to \$1.5 billion, adjusted for inflation, for nearly two decades. R&D spending per NME varies significantly between companies, with no pattern differentiating the biotech companies from the traditional ones. Over the same period, biotech has garnered some \$2 to \$4 in sales

By its nature, a profound uncertainty pervades the biotech sector; every new discovery creates at least as many questions as it answers.

In *Intervention: Confronting the Real Risks of Genetic Engineering and Life on a Biotech Planet*, Caruso takes on biotech’s hazards for society, for our health, and for ecological systems. Sometimes she can sound alarmist — “The sky is falling!” — but this time Chicken Little could be right. Caruso’s well-crafted polemic rests on one scary fact: We know little to nothing about the ultimate safety of many of the transgenic experiments (those that embed genes from one organism in another) in agriculture, animal genetics, drug development, and other fields. The risk assessments and scientific pronouncements on which we base our public policy, our investments, and our sense of security have weak and biased foundations. She too calls for structural changes, advocating risk assessment methods that involve more public discourse and expressed judgments about biotech’s contributions and its potential social costs.

Business and Science at Cross-Purposes

Pisano has studied pharmaceutical biotechnology for years, but what he discovered when he set out to do a deep

per \$1 spent on R&D, compared to \$8 to \$10 for traditional pharma. Nor does biotech win on speed: Despite an obviously rapid pace of basic scientific discovery, its time-to-market is not significantly different from that of the traditional sector.

In this highly readable book, Pisano delves deeply into the history and structure of the industry to explain what hobbles and what hinders it. The problems biotech is trying to solve, he argues, are unique and challenging in three ways.

First, the core of biotech is not applications engineering or translational research; it is basic research — which means by its very nature that a profound and persistent uncertainty pervades the entire sector, an uncertainty that does not disappear with the next discovery, or the one after that. Indeed, every new discovery creates at least as many questions as it answers.

Any business plan based on using such basic discoveries to develop products calls for unconventional methods of risk management. The venture-capital model, largely invented for biotech, partially addresses uncertainty by finding ways to spread the risk among differ-

ent developmental stages. The venture capitalist takes only the risk that the idea or molecule of interest can be developed far enough to interest other investors. These secondary investors take only the risk that it can be developed far enough to interest buyers of a public stock offering. Initial buyers of stock take only the risk that further development will continue to make the company's prospects more valuable than they are today. At no single stage do investors shoulder the risk that the original technique under study will result in a viable product that produces revenue.

Yet the venture-capital model cannot fully ameliorate risk; it can only spread it around. Moreover, the investor's focus on financial goals of a relatively short term is at odds with the long rhythms of science. This is true of even the sector's most prominent companies, notably Genentech, Amgen, and Chiron, which often "hit the wall" at one point or another, largely because their scientists are too dependent on developing narrow product lines. In the summer of 2007, when sales of its two anemia drugs — which accounted for nearly half its revenue — slowed, Amgen had to cut its workforce by 13 percent. Pisano suggests a number of other models for managing the risk of scientific discovery, including outsourcing research and development and replacing current alliances and corporate partnerships with fewer, deeper, longer-term relationships.

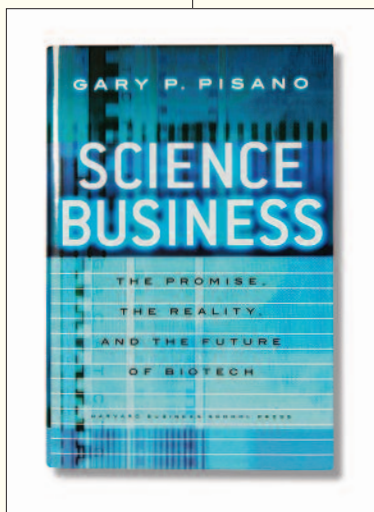
The second challenge biotech must grapple with is that the complexity and heterogeneity of the growing knowledge base call for methods of integrating that knowledge across the sector. The siloed nature of the industry, however, has largely defeated integration. Such fundamentally different knowledge domains as RNA interference, recombinant DNA, monoclonal antibodies, structure-based drug design, high-throughput screening, genomics, proteomics, and systems biology call for different skill sets that reside with different groups of companies competing for funding, attention, and sales. Those companies typically have little interaction with one another, even when such interaction might be hugely beneficial. Pisano argues that different structures that inherently have a broader perspective and a longer time horizon than the current venture

capital/public market model could help nurture knowledge integration.

The third difficulty: The rapid pace of change inhibits cumulative learning over time across the biotechnology industry. In contrast to the free flow of ideas characteristic of the scientific method practiced elsewhere, biotech's patent-and-license structure actively discourages tapping knowledge that belongs to someone else. To incorporate someone else's idea, a company has to purchase access to it. That often means giving up a portion of company equity, which is a serious disincentive to cumulative learning. Here, too, modified industry structures would facilitate the growth of the sector's knowledge bank and memory.

"Thirty years into biotechnology," Pisano writes, "we are still learning what such science-based enterprises might look like, how they will work, and what kind of management skills will be needed to lead them." But he is optimistic, offering detailed recommendations for different business models, funding mechanisms, and institutional arrangements under which the "business of science" could prosper and produce better medical solutions. He advocates, for instance, a much higher degree of transparency throughout the developmental process, arguing that it is in the companies' own interests.

Pisano applauds the new surge toward medical "venture philanthropy" through organizations such as the Michael J. Fox Foundation (founded in 2000), the Bill and Melinda Gates Foundation (2000), and Accelerate Brain Cancer Cure (2001), which may help enormously in funding translational research to turn discoveries into products. He also cites the long-term relationship between Roche and Genentech. When Genentech stumbled, Roche bought a controlling interest — but left Genentech a separate company, operating under a carefully defined, arm's-length relationship. So, although still a public company, Genentech is free to pursue its deep research somewhat insulated from the short-term vagaries of the stock market, while Roche can benefit from Genentech's discoveries. That's one giant step, in Pisano's view, toward turning biotech into a productive, profitable, and sustainable business field.



Unsafe for Any Seed

Whereas Pisano's case — that the risks of biotech have not paid off from a business profit or productivity perspective — is disappointing, Denise Caruso's argument is downright distressing. She says that biotech development is putting human health and safety at risk in the name of progress.

Concerns about genetically modified organisms (GMOs) have been with us since the first recombinant DNA experiments in the 1970s. For just as long, these concerns have seemed overblown, with whole populations, especially in Europe and Africa, rejecting GMO foodstuffs as if they were poison, branding them "Frankenfoods." If these foods actually were as toxic as some perceive them to be, a lot of people would be dead by now, as the acreage of GMO crops has spread rapidly across the globe. Most of us (especially in the U.S.) consume significant quantities of GMO foodstuffs without even knowing it.

Yet the cartoonishly Luddite nature of the reaction may blind thoughtful people to the reality of the problem. Caruso is concerned because many prominent scientists are deeply concerned, and their concerns — expressed in many a peer-reviewed paper and debated at many a rarefied scientific conference — are not leading to serious public debate and good public policy, especially in the United States.

As far as we can tell, no one has died from eating GMO foods, because as far as we can tell, they are not, in themselves, toxic. And transgenic plants such as GMO corn or soy modified to survive weed killers are intentionally made sterile to keep them from propagating their modifications to other plants. But the ability of these modified genes to escape the place they were planted and wander far afield has been repeatedly demonstrated — as has the ability of genes to be exchanged across species, even asexually, sometimes through processes we do not yet understand. So what happens if, for instance, the genetically engineered properties of weed killer-resistant corn go feral? What if it escapes as part of a genetic package that helps its recipients out-compete others of their species, yet in ways that we cannot predict?

The proponents of GMOs

assure us that this will not happen, but genetics is a complex study rife with unintended consequences. When you replace a gene or a set of genes, you can never tell exactly what effect you are going to have. In 2004, for instance, researchers at the University of California at Riverside reported on their success in developing a mosquito that could not carry or pass on malaria — but it was weak and uncompetitive. They were working to make it stronger, so that it could outcompete and replace wild mosquito populations. We are left to imagine what happens when a set of genes modified for super-fitness in insects is let loose into the wild, in a species that survives by sucking blood, in the process injecting some of its own DNA into its hosts.

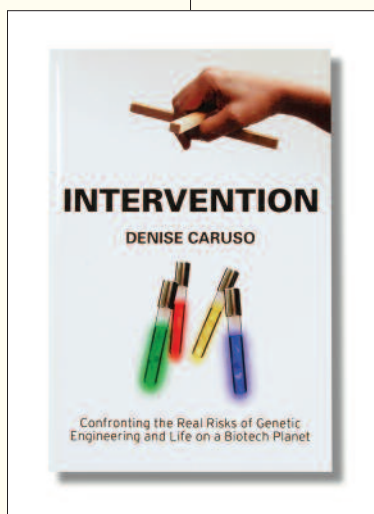
Caruso asks: Can we say with certainty what would happen if these modified genes got passed on to humans and other mammals? Shall we inject them into you and find out? The question makes me squeamish, and the only honest answer is that we have no idea what would happen.

A number of projects focused on "biopharming" are intended to turn plants or animals into factories that would produce a drug or vaccine. Eat this banana, and you are vaccinated. Bite into this apple, and you've been given an antibiotic. None of these are supposed to be toxic in a single dose. But what if the wrong person eats one? What if the genes intended to produce a drug or

vaccine enter a population of people who could be harmed? We will likely never know until some population accumulates crippling doses from their daily diet of manioc or millet. Imagine if major parts of the world's food supply were filled with medicines with contaminated genes?

The weight of Caruso's book is not in the scary "what ifs" from the scientific community, but rather in the follow-on questions the scientific community has stirred her to ask: Why are we not recognizing these risks better and corralling them better with sound public policy? She gives numerous examples of experts making reassuring claims that the data does not support or putting numbers on personal judgments, as well as examples of governing bodies simply ignoring concerns that are common in the scientific community.

One solution she calls for is a new federal "Office



of Technology Assessment (OTA)” in the U.S. specifically created to address biotech — a “BIOTA.” She advocates for this office and many other bodies to adopt a different kind of risk assessment that is open, collaborative, deliberative, and driven by value judgments as much as by data. But the solution seems thin and unmatched to the caliber of the problem. How do we even think about such risks?

The risk associated with biotech is one of several deeply disquieting “sustainability” problems — such as global warming and the threat of global pandemics — that share certain characteristics. They are caused or mediated by human practices. Their basic science is weak. For the extrapolations (the second- and third-order consequences) there is no real science; we are dealing in guesses. They are global in nature. They seem largely beyond the protective grasp of national governments. Their possible outcomes are unknown but potentially devastating to a frightening degree to all forms of life: human, plant, and animal.

It is very difficult, even for a well-informed observer, to judge the real risk of biotech. To the extent that we have any real scientific understanding, it can easily get lost in the smoke and mirrors generated by the enormous financial and political forces involved. The observation of Upton Sinclair, the great American writer whose work led to the reform of the meatpacking industry, that “it is difficult to get a man to understand something when his salary depends on his not understanding it,” applies at least as much to scientists and expert analysts as it does to the rest of us.

Even if we could come up with a completely satisfactory assessment of both risks and benefits, who is the “we”? Caruso’s suggestions encompass regulation of biotech in the United States by the federal government. In the 20th century, if a few major industrialized countries could work out their differences about such new technologies as poison gas or nuclear power, they plausibly could enforce that consensus on the rest of the world. The realities of the 21st century render that possibility unlikely. Consider that a number of wildcard countries, notably China, are banking heavily on the biotech future.

Two Connected Perspectives

Because we are reviewing books of importance to business practitioners, I am naming Pisano’s as the best biotech book of the year. It is more than informative about the biotech industry; it is deeply instructive about

business. The author’s powerful analysis and detailed, practical recommendations should influence everyone involved in this industry — universities, scientists, entrepreneurs, foundations, venture capitalists, investors, regulators, the managers of both pharmaceutical companies and the biotech firms themselves — and readers involved in other industries with similar challenges and players.

At the same time, none of us can afford to ignore the larger issues that Caruso raises. Whether the issue is business performance or human health and safety, the two perspectives are connected directly from the lab, the molecule, and the investment decision right up to the life of the ecosystem and the future of our species. Both books critique a system that distributes risks and rewards only according to short-term profit. If we change nothing, in even the medium term we will reap neither profit nor technological benefits — and we may put ourselves in harm’s way. The core thought here is that the way in which we organize, fund, and control rapidly changing, highly risky technological research can affect more than profit and loss; it can reshape our world for better or worse. So, in the words of poet Jane Hirshfield, describing the Buddhist mind-set in seven words: “Everything changes. Everything is connected. Pay attention.” ✦

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CAPITALISM



William J. Baumol, Robert E. Litan, and Carl J. Schramm, **Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity** (Yale University Press, 2007)

Karen Blumenthal, **Grande Expectations: A Year in the Life of Starbucks' Stock** (Crown Business, 2007)

Stephen Davis, Jon Lukomnik, and David Pitt-Watson, **The New Capitalists: How Citizen Investors Are Reshaping the Corporate Agenda** (Harvard Business School Press, 2007)

Bruce Franklin, **The Most Important Fish in the Sea** (Island Press/Shearwater Books, 2007)

Thomas K. McCraw, **Prophet of Innovation: Joseph Schumpeter and Creative Destruction** (Belknap Press of Harvard University Press, 2007)

Schumpeter's Legacy

by Diane Coyle

The living standard of Americans is 10 times greater today than it was a century ago. In China, which is making its spectacular economic transition from centrally planned to capitalist markets, average living standards are doubling about every seven years. Formerly debt-burdened economies in Latin America are growing. Although dozens of countries still have per capita income levels far below

those the United States had achieved by 1870, economic growth in many more countries is now substantial, delivering an impressive quantity and quality of goods and services — as well as better health, better education, and longer lives. Global growth has also become more stable. Since the mid-1990s, the volatility of all the rich economies has diminished significantly. For the past two decades, capitalism has improved the lives of more and more people around the world. With such achievements, why would anybody want an alternative system to run our economies and societies?

Yet there are vocal challenges to capitalism. Some come from ardent environmentalists who believe economic growth inevitably harms the environment, perhaps catastrophically so. Others arise from the nationalist politicians of Latin America who are opposed to the influence of global firms in their countries. In Europe, a coalition of labor unions and anti-

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corporate campaigners demands corporate social responsibility and opposes the takeover of businesses by private equity groups and the growing role of hedge funds in financial markets. Polling evidence from many countries, such as the Pew Global Attitudes Project or Eurobarometer survey results, suggests a generalized sense of insecurity, which people blame on globalization — capitalism without borders.

Critiques of capitalism tend to reflect three factors: wariness of capitalism's alleged degradation of the quality of life, sacrifice of the public good for private gain, and the turmoil of unchecked growth. These themes run through analyses of the spectacular growth of the 20th century, including the writing of the Hungarian political economist Karl Polanyi (in *The Great Transformation*, 1944), the works of economist John Kenneth Galbraith, and more recently those of sociologist Richard Sennett, who believes that capitalism has so changed our value system that "stability as such increasingly lacks moral prestige," as he puts it in *The Culture of the New Capitalism* (Yale University Press, 2006). Several new books focus on the perennial tensions between good and bad capitalism through the perspective of 21st-century concerns. Each author — a Harvard Business School management history professor, a *Wall Street Journal* reporter, three leading university- and foundation-based economists, a professor of English and American studies, the former deputy comptroller of New York City, a leader of a socially responsible investment fund, and a corporate governance expert — brings his or her own experiences to the subject.

Prophet of Innovation

The thinker who, more than anybody else, captured the tension between the two aspects of capitalism — rising prosperity and the inherent instability it brings — was Joseph Schumpeter. The economist behind the notion of "creative destruction" is often viewed as a mindless disciple of the capitalist system. Certainly he insisted on the importance of entrepreneurs, "the pivot on which everything turns," as he described them. However, as the marvelous new biography *Prophet of Innovation: Joseph Schumpeter and Creative Destruction*, by Thomas K. McCraw, shows, Schumpeter well appreciated capital-

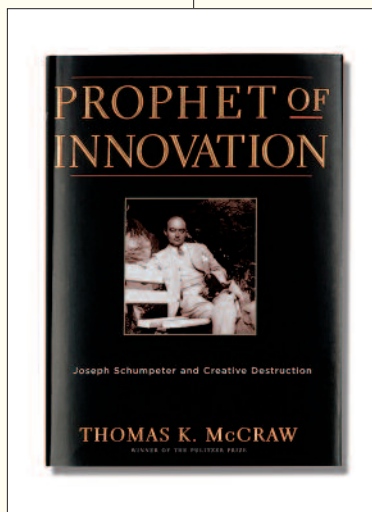
ism's negative aspects. McCraw, a professor emeritus of business history at Harvard Business School, explains how Schumpeter's insights about capitalism, universal as they are, stemmed from his own experiences of an extraordinarily turbulent period in world history, spanning two world wars. The book is an exemplary work of biography, rooting the ideas of its subject firmly in the context of his life. Schumpeter understood that capitalism could become materialism, that human relationships could suffer from the calculation of personal costs and benefits, and that businesses could and would seek a profit on anything, no matter how distasteful.

But Schumpeter always wrote about capitalism as more than an economic system. He appreciated that it was a human order with social, political, and cultural implications. A study of Schumpeter's ideas is particularly timely now, as he is one of the few economists to have studied the impact of new technologies and the dynamics of how companies are born and die. With one dot-com boom and bust in recent times and another such cycle under way, and with globalization also bringing corporate upheaval, few other thinkers from the past seem as relevant. Schumpeter's great work, *Capitalism, Socialism and Democracy* (1942), is no one-sided hymn to capitalism, although its purpose is

clearly to praise capitalism and condemn socialism. Schumpeter was highly skeptical about the ability of those who live off the state to practice "democratic self-restraint" and for them to abstain from interfering in the lives of others; his predictions about the retreat of democracy in the socialist states were amply confirmed by events in the second half of the 20th century. The key factor in his analysis of the political form of capitalism is that it limits the scope for interference with individual choice: "Modern democracy rose along with capitalism, and in causal connection with it," Schumpeter wrote, a hypothesis that will surely be tested by China's experiment with a capitalist economy and a Communist polity.

The Four Capitalisms

In their book, *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity*, New York Univer-



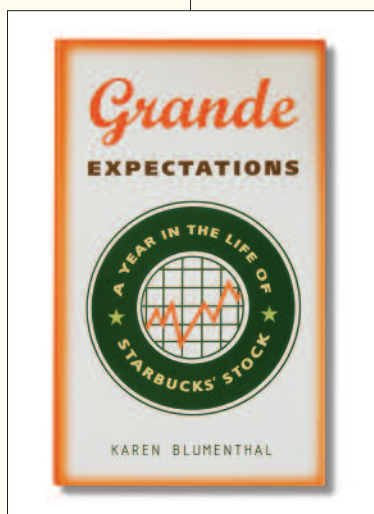
sity Harold Price Professor of Entrepreneurship and Economics William J. Baumol, and Robert E. Litan and Carl J. Schramm of the Kauffman Foundation divide capitalism into four main types and highlight the differences among them. The four types are the state-guided (industrial subsidies and attempts to pick winners are common features); the oligarchic (a small group of families run much of the economy); the big firm (very large business groups account for most of the economy); and the entrepreneurial (small and startup firms play a significant role). The authors note that all economies have some elements of each of these stylized types, but one form often predominates. In the present-day United States entrepreneurial capitalism is dominant, whereas in some major European economies, state guidance outweighs entrepreneurship, big firms remain central in Japan and Korea, and oligarchy is frequently found in emerging Asian economies.

The authors deftly capture the trade-offs among different types of capitalism. In their view, entrepreneurial capitalism is clearly superior to the other varieties because it is essential to growth. However, they also note how demanding and disruptive the dynamism of entrepreneurial capitalism is compared with Europe's state-guided model. (Baumol has made this former type of capitalism his expertise: The *Economist* recently dubbed him "the leading thinker about the economics of innovation since Schumpeter.") Of the 25 largest firms in the U.S. in 1998, eight had not existed in 1960, whereas every one of Europe's top 25 in 1998 had roots that stretched back at least 38 years. The kind of churning of livelihoods exemplified by the U.S. makes properly constructed safety nets essential, although Americans clearly find it a struggle to create them.

Further, those safety nets come at a price. The trio of economists take a dim view of the "avoidance of work" ethic that they diagnose in the culture. It is not clear to me that this is a question of culture so much as politics. After all, the French have just overwhelmingly voted in a president who has pledged to make them work harder. Whatever the explanation, though, the differences among the various forms of capitalism translate into

differences in growth rates. "Countries where activities that promote growth are rewarded will grow faster than countries where this is not the case," the authors write. And they are firm in their view that the contribution of entrepreneurs to growth is fundamental. To this end, the book offers four key pieces of advice to policymakers: make it easy to start a business; enforce property and contract rights effectively and fairly; focus government policies on growth rather than redistribution, to minimize unproductive lobbying; and ensure an open economy with strong antitrust policies to keep up the pressure from competition.

This seems such obviously good counsel that it verges on motherhood-and-apple-pie advice. Yet Baumol, Litan, and Schramm feel the need to start their book with a chapter explaining why growth driven by capitalism is desirable, and in particular disagreeing with the view that, for the sake of the environment, economic growth cannot and should not continue in the future as it has for the past 200 years. Growth is essential to improve living standards, especially in poor countries, and to pay pensions, they say; technological innovations will provide the answer to environmental concerns, at least as long as the economy is organized so that entrepreneurs have the right incentives to innovate.



Plight of the Menhaden

In his book *The Most Important Fish in the Sea*, Bruce Franklin, John Cotton Dana Professor of English and American Studies at Rutgers University–Newark, illustrates compellingly why we should limit growth by telling a story that dramatizes the environmentally destructive effects of industries that are built on the consumption of natural resources.

His focus is the shrinking schools of fish called menhaden. These unattractive and inedible fish turn out to be unimaginably vital to the Atlantic Ocean's ecology; they feed on plankton, thus controlling algae growth, and themselves are a favorite feast for tuna, cod, and swordfish. Industry also relies on menhaden; they're ground up into animal feed and fertilizer and are an important source of oil for use in a vast array of products, from floor coverings to lipstick. To those ends, they

are swept up in vast nets and processed in factories.

Economics has a term for anything that can, like the menhaden, be freely harvested to the detriment of the public good: *the tragedy of the commons*. According to Franklin, with this species of fish, we are on the verge of a catastrophe of the commons. He documents the staggering decline in menhaden numbers, and in commercial catches of them, since industrial-scale fishing began on the eastern seaboard of the United States in the 1850s. This fishing has been, since 1997, a monopoly activity of the Omega Protein Corporation, the U.S.'s largest producer of omega-3 fish oil and the last remnant of a once-competitive menhaden industry on the East Coast. (Via a sequence of mergers and a new name, Omega is the descendant of the Zapata Petroleum Corporation founded by George H.W. Bush in 1953.)

Enjoyable as it is to have a good villain in a story, however, it's unlikely to be the monopoly that's to blame for the plight of the menhaden. Indeed, a competitive industry might have overfished even faster. In the face of

modern stock market operates, as seen through the prism of one stock, the Starbucks Corporation (stock symbol: SBUX). Every reader will find something surprising in Blumenthal's look at the links in the chain of transactions and relationships that connect coffee growers in poor countries to individual investors in rich economies. These chains are long and complicated for any company, and that is what makes understanding the motives and actions of public corporations, and the relationship between operating performance and shareholder value, so challenging and fascinating.

Starbucks is a great case study. We've almost all consumed its products, and it has reshaped Main Streets across the globe. It is now so totemic a success story that it crystallizes the opposing views about capitalism. Anticapitalism protestors have added Starbucks to their hit list, along with McDonald's, when it comes to heaving bricks through windows in street protests. European and American campaigners for nonviolence

It is difficult to stay on the moral high ground all the time, especially for a global powerhouse like Starbucks.

externalities of any kind, markets do not produce the most desirable outcomes. This is true in the case of the public good, which is why we have such a lively debate about the proper role of government in capitalist societies. It is also true of environmental externalities. The limitations of markets are clear, and although almost all economists are in favor of capitalism and growth, they certainly believe markets need to be regulated. Economists understand that completely free markets are an intellectual abstraction (like perfect competition); it is anticapitalists who think of free markets as the dangerous reality.

A Year in the Life of a Stock

One of Joseph Schumpeter's tremendous strengths as an economist and advocate for capitalism was his passion for case studies. Many of his books before *Capitalism, Socialism and Democracy* contained detailed descriptions of particular companies and businesses. In *Grande Expectations: A Year in the Life of Starbucks' Stock*, *Wall Street Journal* reporter Karen Blumenthal gives an extremely readable and informative account of how the

have pressured Starbucks into offering a Fair Trade-labeled product. The irony, as Blumenthal shows us, is that moral integrity has always been part of the company's stated values, key to ensuring employee morale, customer satisfaction, and investor enthusiasm. It has a reputation for treating employees well. It has long-term agreements to buy coffee direct from small growers rather than sourcing through the volatile global commodity market, and it has won recognition for offering premium prices to suppliers who meet its environmental and social standards. Its small investors are astonishingly enthusiastic and loyal, turning the annual meeting into an uncritical celebratory event.

Still, it is difficult to stay on the moral high ground all the time, especially for a global powerhouse like Starbucks. As Blumenthal so ably demonstrates, it is the very success of the company that has brought it trouble — not just from corporate critics but also from the investors who have profited so handsomely from their stakes in SBUX. The company's visibility has attracted the protestors, while the success of its business model has led to much stiffer competition and its share price no

longer charges higher and higher as it mostly did up to late 2005. Blumenthal delves into illuminating detail in the case of Starbucks to illustrate the tensions inherent in the dynamics of capitalism, Schumpeter's subject on a grand scale. A very successful business, Starbucks has created tremendous value for its shareholders. It has also been, Blumenthal argues, a good company in the widest sense.

The Citizen Shareholder

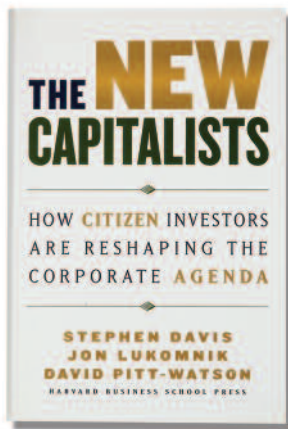
Faith in the idea that a company can serve its shareholders by serving the greater good lies at the heart of the case for "new capitalism" made by Stephen Davis, a corporate governance advisor; Jon Lukomnik, former deputy comptroller of New York City; and David Pitt-Watson, previously chief executive of activist investors Hermes Focus Asset Management. As they note in their book *The New Capitalists: How Citizen Investors Are Reshaping the Corporate Agenda*, patterns of shareholding have changed substantially during recent decades.

In 1970, financial institutions representing individual shareholders and retirees held just 19 percent of the typical U.S. company's stock; the rest was primarily in the hands of very wealthy private individuals. Now, funds own more than half the U.S. stock market; in the U.K., institutional investors account for more than 70 percent. The changing nature of ownership, say the authors, has led to the rise of active shareholders who are more demanding of management. Individuals, through the vehicle of these funds, are more likely to attempt to wield corporate influence on topics ranging from a company's employment record to its impact on the environment. As the book's subtitle puts the argument, citizen investors are already altering the way businesses operate, and ultimately the character of modern capitalism.

There is a lot of wishful thinking in the argument that citizens are reshaping capitalism. For one thing, not many investors are activists. And a backlash against shareholder activism has emerged: Anthony Bolton, the U.K.-based superstar fund manager for Fidelity, recently used the occasion of his retirement to blast shareholder

activists who use a tiny holding to try to alter corporate policies according to their own agenda. He urged companies to stand up to those seeking to divert them from maximizing profits and shareholder value. The increase in private equity financing can also be seen as part of the backlash, as private equity owners are not vulnerable to shareholder activism, although they might yet prove vulnerable to political lobbying.

At the same time, I doubt the rules for a well-run, ethical business offered in this book will be enough to satisfy today's most ardent anticapitalists. The activists are not challenging the quality of the capitalism on offer but rather what they perceive to be its inherent flaws. But the rules in this book will give executives welcome food for thought on how to respond to the rising tide of corporate criticism.



An Enduring System

The creativity that fosters growth and raises living standards can be at the same time the destroyer of jobs or traditional economic relationships, those that are overturned when better opportunities arise. The loss of the security of the village economy, for example, is what many early critics of capitalism most regretted. Joseph Schumpeter thought that that very dynamic rendered capitalism fragile, and he feared it would give way to socialism. The experience of the half century or so after he published *Capitalism, Socialism and Democracy* suggests that capitalism is more resilient than the socialist alternative.

Perhaps that is why today's anticapitalists sound so nihilistic. Pure socialism, once the only other game in town, has failed. And although there could one day be a viable blend of the best of the different varieties of capitalism — combining entrepreneurial vigor and adequate protections against the disruptive social and environmental effects of a dynamic economy — such a blend has not emerged yet.

Perhaps that is why today's anticapitalists sound so nihilistic. Pure socialism, once the only other game in town, has failed. And although there could one day be a viable blend of the best of the different varieties of capitalism — combining entrepreneurial vigor and adequate protections against the disruptive social and environmental effects of a dynamic economy — such a blend has not emerged yet.

Nihilism has always been a powerful force in politics. Anybody who doubts this should read McCraw's biography of Schumpeter, whose thinking was forged by his own participation in the tumultuous politics of the early 20th century. Indeed, his acute economic insights were not enough to enable him, as Austria's minister of

finance in 1919, to prevent the economic cataclysm of hyperinflation and depression following World War I. Good sense was trumped by bad politics.

Capitalism as we know it was forged by early 20th-century geopolitics. Today's political tensions will shape the kind of capitalism and the standard of life inherited by our children and grandchildren. Anybody with strong views on capitalism — as either a defender or a debunker — ought to make sure he or she understands it properly. Executives, who clearly are among the defenders, will find that all of this year's books on capitalism will heighten their knowledge of its complex facets and their ability to debate its good and bad char-

acteristics. But if you have time to read just one book in this category, McCraw's *Prophet of Innovation*, a brilliant study of a brilliant economist who experienced for himself the acute political and cultural tensions of capitalism, should be your choice. +

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THE ENTREPRENEURS



Kim Lavine,
Mommy Millionaire: How I Turned My Kitchen Table Idea into a Million Dollars, and How You Can, Too! (St. Martin's Press, 2007)

Jessica Livingston,
Founders at Work: Stories of Startups' Early Days (Apress, 2007)

David Silverman,
Typo: The Last American Type - setter, or How I Made and Lost 4 Million Dollars (Soft Skull Press, 2007)

Doug Tatum,
No Man's Land: What to Do When Your Company Is Too Big to Be Small but Too Small to Be Big (Portfolio, 2007)

Startup Memories

by Tom Ehrenfeld

No ventures better reveal the dynamic nature of economic activity or the human drama of business than startups. This is true whether the startup is a new stand-alone venture, a subsidiary spin-off from a large corporation, or the creation of a lone entrepreneur starting from scratch. Startups flourish where visionary entrepreneurs see ways to satisfy needs with new products, services, and technologies; they act as beacons of opportunity that signal how young niches can grow into major industries. Startups can also produce dramatic stories

of personal success and failure that teach, inspire, and chasten those who are brave enough to lead a startup themselves.

Whereas business titles aimed at established managers in established companies trade in big ideas, such as disruptive innovation, it is the startup books that focus on the basic management skills necessary to launch and grow a successful new enterprise. Above all, the best entrepreneurial titles about startups deal with learning. They show how individuals must develop both inside and out, acquiring self-awareness and managerial mastery while simultaneously learning what exactly their market values.

New ventures generally spring from the passion of an individual or a group of individuals. And even if the leader has some business chops, participants in those ventures are often novices in the market they want to serve or in using the new model they aim to pioneer. As a result, every startup offers a distinctly different saga of how visionaries become managers and how viable and

aphrase Gandhi, “You must *be* the startup you want to see in the world.”

Mommy Millionaire: How I Turned My Kitchen Table Idea into a Million Dollars and How You Can, Too! written by mom-turned-CEO Kim Lavine, breathes new life into what has become an entrepreneurial archetype — that of an inspired person inventing a colorful new artifact (in this case, a comforting neck pillow filled with corn that can be warmed), and then painfully acquiring the experience to build a successful venture around this product.

Lavine’s honest account tallies the rookie stumbles she made and the fouls she had to overcome, but her entrepreneurial injuries are mere cuts and scrapes compared with the fateful blows suffered by David Silverman. In his poignant book, *Typo: The Last American Typesetter, or How I Made and Lost 4 Million Dollars*, he recounts his naive and unsuccessful effort to stem the migration of the domestic typesetting industry to lands of cheap labor.

Workplaces will always tilt sharply to one end of the work–family balance, but there is no setting entirely free from the necessary demands of family.

self-sustaining enterprises emerge from promising opportunities. Today startups can launch more quickly, with less early capital, and grow faster than ever before. And as a result, the greatest stumbling block may be the experience and talent of the founders.

Whether you are a fledgling entrepreneur, a division manager, a project leader, or the head of a multinational, the lesson from all these books is this: Become skilled, wise, and professional as early as possible. The prospects for all startups today, whether de novo or repotted from corporate soil, are increasingly calibrated to the founders’ personal strengths and weaknesses.

Indeed, all managers reckoning with the entrepreneurial journey must learn to exploit their strengths, compensate for their weaknesses, and above all, see how their personal traits bear upon the growth of their business. They must also be willing to swap out, trade up, or rapidly adjust their capabilities. The shelf life of any great idea or market niche continues to shrink, making it ever more important for entrepreneurs to use every

venture as an experiment in their own managerial growth. To par-

These sagas are rounded out by the collection of stories in *Founders at Work: Stories of Startups’ Early Days*, by Jessica Livingston, an excellent collection of interviews with successful tech startup founders. This entrepreneurial Scheherazade shares numerous tales of how small, passionate discoveries can produce huge expectations, tease great fortunes, harm friendships, and — with the right measure of experience and capital — grow into big business.

In *No Man’s Land: What to Do When Your Company Is Too Big to Be Small but Too Small to Be Big*, Doug Tatum explores the perilous zone a company enters when it has outgrown the habits and practices that fueled its early growth, yet is not mature enough to cope with the next phase of development.

Business Is Personal

Kim Lavine’s memoir-cum-business-primer breaks new ground in the crowded field of startup sagas. By seamlessly blending the epiphanies that she gained through launching a business with practical lessons, Lavine has packaged a core set of new-venture tenets into some-

thing fresh and relevant. Lavine frames her tale with the message that “the virtue of all success is victory over all one’s personal shortcomings.”

Her story begins with a small “eureka” moment when she realizes that the cute, corn-filled pillows (which can be warmed in a microwave) she created as gifts for her children’s teachers might have commercial promise. Naming them “Wuvits,” and forming a kitchen-table venture to brand and sell them, Lavine gradually sees that she can build a real business from these seeds. This small opportunity gains urgency when her husband loses his job.

Like many determined entrepreneurs, Lavine encounters a humbling string of mistakes, failures, cons, charlatans, and small victories in the course of coaxing her enterprise to take baby steps. Constantly disappointed by sales reps with more sizzle than steak, lawyers who patronize her, employees who fail to get on board, and a manufacturer that produces tens of thousands more units than are needed, Lavine gradually develops the wisdom and self-confidence to learn from her mistakes — and in the process, she perseveres through the experience to form healthy relationships and institutionalize the right management steps to move forward. Her growth from an undercapitalized trinket company run by a timid woman to a sufficiently capitalized company with a vivid (and protected) brand selling through multiple channels, sourcing globally, and supported by industry veterans, is both instructional and inspirational.

Lavine’s book is worth reading to remember what endures in the sea of change. For one thing, she presents fresh insights about gender and enterprise. Unlike most books written by or about women in business, Lavine reckons with sexual politics and differences without trivializing them or overplaying their significance. When she starts the company, Lavine finds herself apologizing for (or even hiding) her children when business meetings conflict with her parenting time. Yet after a sobering incident in which she briefly leaves her sleeping toddler in the car while meeting with a lawyer, Lavine resolves never to apologize for this again. “If there wasn’t room for my kids in this new journey I was embarking upon, where I was the president of a com-

pany that I founded and funded, I wasn’t going,” she writes.

Her epiphany reminds professionals at every level that although workplaces will always tilt sharply to one end of the work–family balance, there is no setting entirely free from the necessary demands of family, and the increasingly proper response is to acknowledge rather than scoff at them.

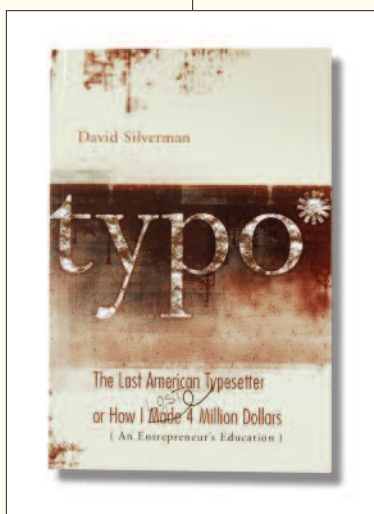
Mommy Millionaire, for all its timeless lessons, has a high degree of currency right now, as a reminder that for every single venture-backed, high-potential media darling, there are literally thousands of personal, home-spun, low-tech enterprises like Lavine’s. For her and for countless others, the role of new technology is not to produce one high-flying media star like Google, but to lower the barriers to entry for other small companies like

Lavine’s Green Daisy Inc. “I didn’t need to go out and create cold fusion or launch a billion-dollar technology IPO of a stock to be traded publicly to make a million dollars,” she says. “All I had to do was sell comfort and warmth to at least a very small percentage of 300 million tired and cold bodies who just wanted to come home from the daily grind, sit on the couch with their kids, and hold a warmed Wuvit to their chest or their necks while they watched TV.” Her ability to fuel her growth by tapping into new television channels such as QVC shows

how new methods of distribution can boost the most low tech of products. Her chapter on the difficult but ultimately successful quest to break into the popular channel sparkles.

Slow Learner

A story of hard-earned success can teach much, but an honest and noble tale of failure is often a far more potent fable. David Silverman’s *Typo* is an honest, elegiac tale of an unsuccessful venture to revive the American typesetting industry. Silverman’s painfully personal story of his company’s demise highlights many of the often insurmountable challenges that business leaders must face at a personal, managerial, and strategic level. Unfortunately for him, he must learn too much on the job. The nuances of managing people, coupled with the natural conflict between capitalism and humanism, and, in



his case, the business consequences of a young owner's naivete, prove to be an overwhelming curriculum. "Trying to cram a literal decade of change into three months" is too great a goal.

Like many individuals whose technical expertise is essential to the success of the venture and yet is entirely insufficient for tackling the broader management challenges, Silverman slowly discovers that implementing better information technology and more efficient work processes is as effective as prescribing an aspirin for a patient with a brain tumor. He and his mentor purchase Clarinda, an Iowa-based typesetting company that is threatened by the exodus of this work to low-wage countries. They hope to use new technology and training, along with economies of scale from rolling up competitors, to turn the company around.

Yet their ambitions are thwarted by a multitude of obstacles. Clients demand unreasonable cost reductions, while they are simultaneously sending work overseas. Within the company, a cast of stubborn, small-minded workers continually thwart Silverman's attempts to change antiquated, costly, and, in some cases, completely unnecessary work practices. While Silverman fails to make changes in Iowa, shifting global economic conditions raise the stakes. Competitors in India and the Philippines are willing to do the work at one-thirtieth of the labor costs. And publishers encourage the trend by sending these overseas companies the work.

Ultimately, Silverman learns too slowly. Financial literacy, managerial know-how, dispassionate human resources skills, and industry big-picture wisdom do come to him eventually. He introduces clever plans to work more effectively, yet fails to adopt a rational and fine-tuned picture of total company costs until too late in the game. The stakes are high. Not only does he lose the business, but he also loses his partner, and many of his youthful illusions to boot.

In the end, Silverman must reckon with several painful truths about his personal ability to help others, as well as the greater goal of designing companies with a soul. The son of an IBM man, Silverman brought a benevolent view of capitalism to his venture, one informed by

growing up in a home where his father had benefits, job security, and a retirement plan.

"Capitalism is about making money," writes Silverman wistfully. "Benevolence is a feature of companies that have enough excess profits to afford it. IBM survives today because the old IBM employee recreation center with the Olympic pool and discount hamburgers that my father valued so much has long been abandoned and become overgrown with weeds."

Because David Silverman does not flinch from sharing the most painful and revealing lessons of his journey, I name *Typo* my top pick among this year's titles.

Wisdom Doesn't Scale

Doug Tatum's *No Man's Land* adds a nice bit of perspective to these two sagas. Like several other vital books that chart how companies grow, such as Ichak Adizes's *Managing Corporate Lifecycles: Founding Principles in the Management of the Arts* (Prentice Hall, 1999) and Eric G. Flamholtz's *Growing Pains: How to Make the Transition from an Entrepreneurship to a Professionally Managed Firm* (Jossey-Bass, 2000), Tatum's helps entrepreneurs assess how well suited they are to take their venture to the next level.

Tatum identifies a specific growth period for startups: No Man's Land, a form of adolescence when the founders face key decisions dealing with "what to do when your company is too big to be small but too small to be big." Such a transition has always been part of what Adizes defined as the corporate life cycle — a well-defined process of growth with identifiable milestones as a venture matures. Yet *No Man's Land* does a good job of making this message current by identifying ways that the impact of technology on accelerating growth is affecting how startup founders should consider the questions they ask when analyzing their venture's potential. Tatum writes in a direct and engaging manner that focuses this material more clearly on his readership.

He argues that this adolescent stage kicks in after the full-time head count reaches roughly 20 employees. This is a threshold that forces a growing company to step back and reexamine how it can continue to satisfy the core value it offers as it becomes a fully formed ven-



ture. Such a transition is never easy. Often the very skills and passions that accounted for early success (such as stubborn focus and unyielding charismatic leadership) can be poison to sustained growth. Tatum says that companies must shift from what is often intuitive and undisciplined leadership by the founder to a more systematic way of delivering on the core promises it makes to its customers. The accepted way of working, which in most startups entails hustle, grueling hours, and improvisation, must morph into a more systematic, sustainable, and commonly understood way of acting.

Only by defining values and practices for itself can a business become scalable, Tatum argues. Often this transition requires a new set of leaders, people with experience at large companies. And it always requires a different financial structure — one geared for growth and stability rather than survival. He illustrates this point with nice insights: “Most entrepreneurs start companies because they want to work for themselves. As their companies grow, entrepreneurs come to realize that they are responsible for a whole new constituency: their employees. When entrepreneurs make it through No Man’s Land, however, they might also become responsible for pleasing a third constituency, their equity partners.”

This smart book communicates its key ideas vividly with great company stories and evocative writing. Tatum explains, for example, that a growing company must evolve like a children’s soccer team. It must move from the stage where everyone is chasing the ball to a team where “everybody plays rationally and plays a specific position.”

From Pride to Maturity

The model introduced by Tatum has broad value for new ventures, and it is reinforced by the variety of the individual narratives in *Founders at Work*, by Jessica Livingston. This compilation of interviews with 32 high-tech company founders (or early employees) provides insight and color into the formation of companies such as PayPal, Yahoo, Craigslist, and Apple.

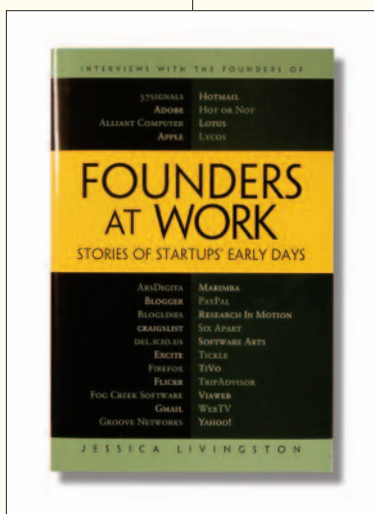
In her introduction, Livingston explains that the goal of her interviews “was to establish a fund of experience that everyone can learn from.” The random tales

that she has gathered — of fits and starts, of individuals focusing on following their coding bliss, and of scoring big wins by focusing on small but achievable goals — all resonate powerfully.

There are numerous gems of wisdom sprinkled throughout the book. Ray Ozzie, founder of two startups and now the chief software architect at Microsoft, reminds zealots that ventures must eventually thrill customers: “I’ve never taken the perspective of ‘build a cool piece of technology and see where it goes,’” says the builder of some of the coolest pieces of technology (such as Lotus Notes). “It’s more or less been based on an intuition about a hole in the market — or more accurately, a future hole in the market.”

His point is echoed by Blogger cofounder Evan Williams, who recognizes that blogging will dramatically change the Web because it represents one of the first “native forms” for the new medium. Williams’s tale is notable for its candor about the personal toll that Blogger, which emerged from blogging startup Pyra Labs (and was the first acquisition by Google), took on his colleagues. “People live and breathe [their work] and become friends, date, and merge their lives together. And then, if things go bad, it’s bad in ways that are much more devastating than your work going badly.”

One important theme of the book is the way in which the entrepreneurs have adapted the business models of their companies to their customers’ needs. “People think startups grow out of some brilliant initial idea like a plant from a seed,” writes Livingston. “But almost all the founders I interviewed changed their ideas as they developed them. PayPal, which started out writing encryption software, is today a dominant online transaction management service. Excite started out as a database search company, and Flickr (now the leading Web site for sharing images) grew out of an online game.” Each of these companies eventually emerged as a major force on the Web. Their success can be traced to the ability of the founding team to stay in the game long enough to allow their unique customer offering to gel. The founders learned to temper their pride and passion over their new creation with a mature patience



and willingness to adapt. This is what enabled these ventures to develop into enterprises capable of sustaining new growth.

Small Enterprises, Big Lessons

Although this collection of startup memoirs is written by small business entrepreneurs, the lessons are big and broadly applicable to all new ventures. Wherever startups begin, the experiences are always personal; they are driven by passionate individuals, marred by painful fits and starts, and inspired by quirky happenstance or ambitious global goals. Few successful new ventures become the company that was originally conceived. Startups always respond to change — and as a result there are few that are not changed as they mature.

The path to sustainability (as in self-funding growth) must be discovered through experience rather than plotted on a map. And the ability to become a viable and ultimately thriving venture rests on the experience, network, and wisdom of the particular founder and founding team. More than any single product or service, their long-term success depends entirely on the quality and capability of the company they have created. +

Tom Ehrenfeld (tomehrenfeld@comcast.net) is a former writer and editor at *Harvard Business Review* and *Inc.* magazine. His work has also appeared in *Newsweek*, the *New York Times*, *Boston* magazine, and *Parenting* magazine. Based in Cambridge, Mass., he is the author of *The Startup Garden: How Growing a Business Grows You* (McGraw-Hill, 2001).

BEHAVIO

Mark Buchanan,
**The Social Atom:
Why the Rich Get
Richer, Cheaters
Get Caught, and
Your Neighbor
Usually Looks Like
You** (Bloomsbury
USA, 2007)

John Henry
Clippinger, **A Crowd
of One: The Future
of Individual
Identity** (Public
Affairs, 2007)

David Weinberger,
**Everything Is
Miscellaneous: The
Power of the New
Digital Disorder**
(Times Books, 2007)

How We Know AND Why We Act

by Howard Rheingold

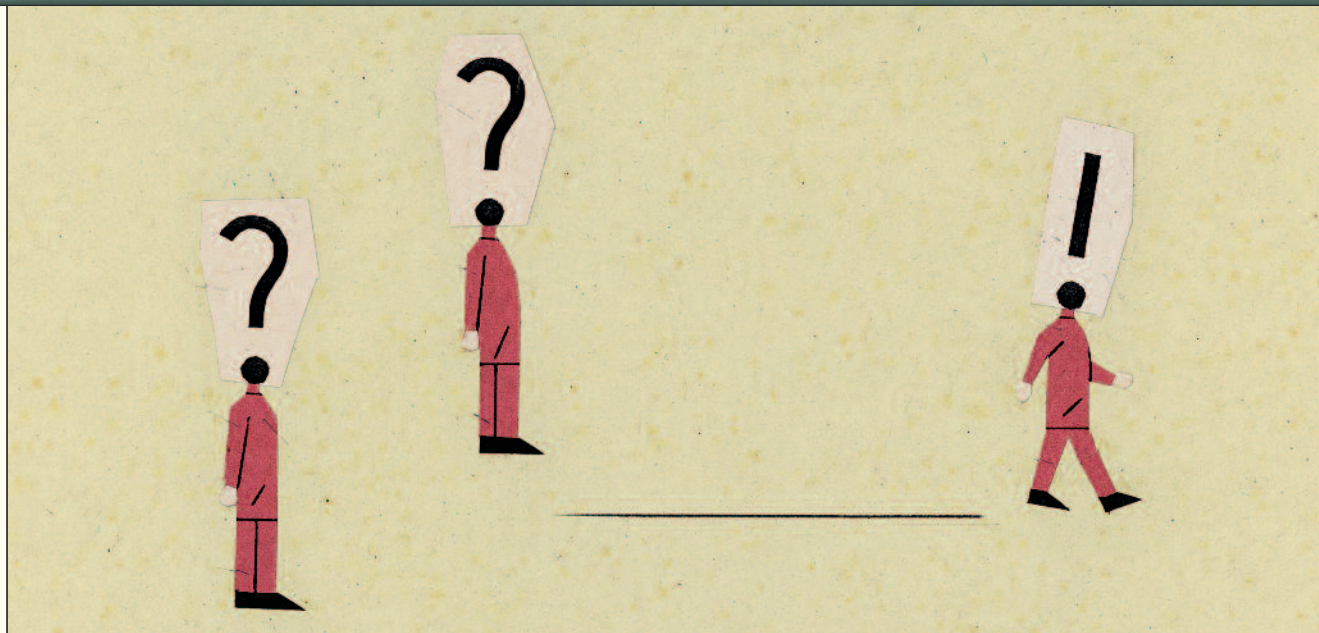
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lthough it's tempting to view new technologies as objects of wonder or ends in themselves, history shows that the most significant technological breakthroughs

are those that prompt profound changes in the way human beings behave. This year three books introduce fresh theories about the ways in which such wondrous technologies as the Internet and mobile phones are changing human behavior everywhere.

These three new books — *A Crowd of One: The Future of Individual Identity*, by John Henry Clippinger; *The Social Atom: Why the Rich Get Richer, Cheaters Get Caught, and Your Neighbor Usually Looks Like You*, by Mark Buchanan; and *Everything Is Miscellaneous: The Power of the New Digital Disorder*, by David Weinberger — encourage us to lift our gazes beyond the cool designs and functionality of today's computing and communications technology to consider how digital tools are transforming the way we live individually and interactively; how we organize, specialize, market, signal, coordinate, transact, communicate, conspire, brainstorm, deliberate, manipulate, negotiate, and reciprocate. What we know and who we know will always be important to success in all aspects of life, especially in business. But increasingly, these authors argue, *how* we know and

RAL THEORY



how we share what we know are becoming just as essential to success.

Paleontologists have long understood that the ability to create weapons wasn't enough to explain how our evolutionary ancestors — lightweight bipeds who lacked claws, fangs, or wings — became the most successful predators on the savannah. It's only recently that social scientists have come to understand the importance of human beings' capacity to share what they know with one another, to work together to manage and improve their lives, and to use that ability to invent new means of communication and social forms. If Clippinger, Buchanan, and Weinberger are right, the networked society, the always-on lifestyle, and the global economy that digital networks have made possible over the past 20 years are merely setting the stage for momentous changes in the behaviors and beliefs of billions of people around the world in years to come.

A New Identity Narrative

In *A Crowd of One*, John Henry Clippinger shares the theories of evolutionary psychologists and sociologists who think they've found evidence that the unique human capacity to negotiate social contracts and keep track of other people's social behaviors is what enabled

our primate ancestors to evolve from herds and packs to tribes and communities. As the human brain evolved, it developed the capacity for ever more sophisticated social interaction — detecting the motives of others, tracking complex relationships in social networks, and remembering past favors and slights. These capabilities give groups powers that individuals can't summon on their own, and lead to new innovations in social organization, Clippinger says. With the onset of the digital communications age, he argues, we are once again evolving our neural capabilities.

Paradoxically, though, at the core of every group enterprise is the individual, and at the core of every individual is identity. Clippinger, an advisor to the United States military and a senior fellow at Harvard Law School's Berkman Center for Internet & Society, asserts that we human beings have new powers and opportunities to influence, and even attempt to design, our own identity. He marshals evidence from the social behaviors that are just now emerging on digital networks to argue that we can use what we know, how we know, and how we share what we know to productively shape "identity narratives."

These narratives are the internal models of how individuals think of themselves. They emerge from sto-

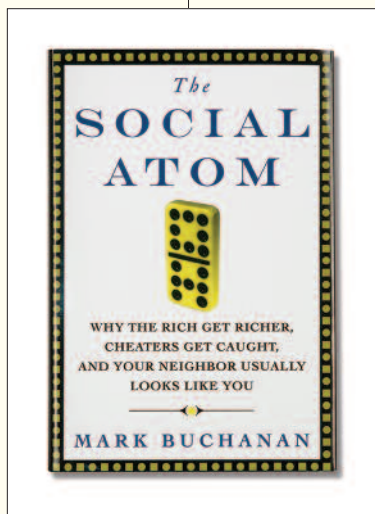
ries that circulate among social groups of any size and provide information and insight into the character of individual members. Modern economic theory, for example, is based on the identity narrative of the strictly rational and self-interested actor who makes all decisions according to a logical calculus of costs and benefits. Noting, for example, that classically rational, self-interested actors in financial markets would never send a check to a stranger without receiving the goods first (and vice versa), Clippinger cites eBay as a market that should not exist under the assumptions of modern economics, but that does, nevertheless, manage to facilitate transactions totaling billions of dollars.

eBay succeeded because its seller feedback mechanism solved the dilemma implicit in unsecured transactions among unknown parties. It made possible a new identity narrative of the “trust but verify” online trader because it provided a digital measure of reputation. Every time a trade occurs on eBay, the two parties can rate their experience. The reputations of both seller and buyer are expressed with a colored star and a “feedback score.” Reputation, in this context, lubricates reciprocity, and reciprocity, say evolutionary psychologists, is how humans manage to mesh self-interest and the public good, identity and community.

Clippinger foresees a future in which we will increasingly use sophisticated digital trust mechanisms to enhance our ability to gain new knowledge of human nature. The most intriguing, and potentially useful, ideas presented in *A Crowd of One* are his suggestions for tools that could overcome barriers to technology-mediated collective action. These include sophisticated identity narratives, which, for example, would give individuals greater motivation to share information with one another; better reputation metrics, which would allow users to modulate levels of personal interaction (for example, I may not hesitate to send you a check based on your past transaction record, but that doesn't mean I want you to join my carpool); and long-tail markets, in which online social connectivity enables small producers of economic and cultural goods and services to find specialist niches or dedicated customers.

The emergence of new iden-

tity narratives, reputation metrics, and long-tail markets is already bringing disruptive challenges to business. Today the frontier is e-commerce. In the future, though, the challenges will face every type of business. Clippinger also sees the possibility of designing digital institutions to create other types of wealth — for example, using online media to augment such solutions to economic and social problems as microlending and grassroots disaster response. But this will take time. Besides the technical challenges to building a simple, universal, secure identity verification system, there are the sociological challenges. Just as a critical mass of people needed to learn that they could use their credit cards online without too much risk, some means of identity verification must become popular enough for people to join carpools, buying clubs, and ad hoc disaster relief cooperatives with “strangers.”



Social Physics

John Henry Clippinger's view of society is hardwired into human identity. Mark Buchanan, in contrast, uses a telescope to look at new research into the ways individual behaviors add up to emergent phenomena at the population level. Buchanan, a physicist, a contributor to *strategy+business*, a *New York Times* columnist/blogger, and a former *Nature* and *New Scientist* editor, argues in *The Social Atom* that “scientists are learning that

what makes the social world so complex isn't individual complexity, but the way in which people interact, in often surprising ways, to create patterns.” He writes, “Very simple behavior, when repeated in the interactions among many people, can be the source of exceedingly rich and surprising outcomes.”

On the basis of that observation, he calls for a new type of study — “social physics” — that looks at the origins of collective social patterns in the same way that the study of physics looks at the dynamics of materials and forces. “We can make great progress in building a science of the human world if we learn to look for patterns in the human world as we do in the rest of nature. And if we try to explain them as the natural collective outcomes of ordinary behavior of human beings,” he writes.

Although Buchanan writes about economies, demographics, and social patterns, and not about the

Internet, there is certainly no richer environment to test his thesis than the World Wide Web. Analytics as practiced today on the Web represents a sophisticated form of pattern recognition that reinforces Buchanan's observation that "our collective behavior follows mathematical patterns of surprising precision."

Because *The Social Atom* lays out a provocative new explanatory framework for the relationship between individual actions and social phenomena, based on systematic observations of how people behave, I endorse this book, even though I still mistrust the metaphor of social science as physics. "Social science" is a meta-narrative itself — a label that uses semantics rather than logic to situate the messy and often unpredictable phenomena of human behavior in the rigorously measurable realm of physics. I'm still not sure that the "social physics" that Buchanan proposes, based as it is on studying how simple actions of individuals can lead predictably to complex social outcomes, is ever going to be as precise as the name "social physics" implies. One example is Buchanan's reference to the work of economist and Nobel Laureate Thomas Schelling that uses simple models of individual decision making to explain "white flight" and other instances of ethnic self-segregation. As Buchanan notes, this is not an example of deliberate racism, but of the phenomenon that results when individuals don't want to be in the minority, thus influencing their neighbors' decisions and inadvertently setting off a cascade of similar actions. Although this is a key insight, it does not prove that more knowledge about emergent patterns of behavior will enable more precise prediction of individual actions. Nevertheless, the evidence Buchanan cites — "why the rich get richer, cheaters get caught, and your neighbor usually looks like you," in the words of the subtitle — has caused me to question my previous assumptions about which human behaviors are intrinsically unpredictable and which simply indicate that our social study instruments have failed to detect patterns.

The rich may get richer for mathematical, rather than just social or political, reasons — although, of course, those with more wealth have the means to attain greater social status or political power. The mathematical part is the "power law" of probability distribution

(better known now as the 80/20 rule) first elucidated by economist Vilfredo Pareto a century ago. Twenty percent of the world's rivers convey 80 percent of the water. Twenty percent of the world's population enjoys 80 percent of its economic wealth. This power law is observable on the Internet (the popularity of blogs, sales of books on Amazon) as it is in many other earthly phenomena.

Whether or not a science of social physics emerges from the scattered provocative findings about cooperation that Buchanan finds in economics and biology, game theory and computer science, anyone seeking to strategize about business these days would do well to understand how individual choices can add up to society-wide trends.

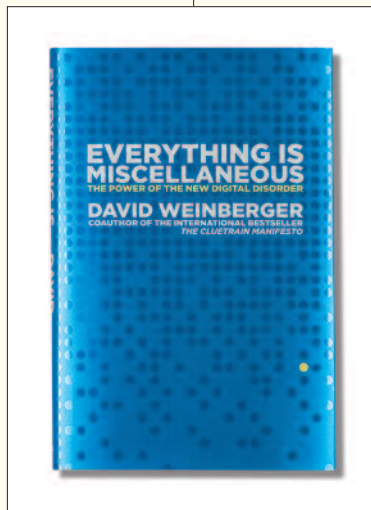
Bottom-Up Knowledge Creation

Have we humans stored and retrieved information, classified the phenomena of the world, and even organized businesses and political structures as treelike hierarchies simply because we didn't have search engines during the millennia when paper was the sole storage medium for knowledge? David Weinberger's book *Everything Is Miscellaneous: The Power of the New Digital Disorder* has persuaded me that bottom-up knowledge creation through online links and tags is not simply the latest digital culture fad. It's a

fundamental reconsideration of the ways we order a world that is much messier, richer, and more complex — "more miscellaneous," as Weinberger puts it — than the traditional branching hierarchies of classification systems would suggest.

Weinberger, a fellow at the Berkman Center (along with Clipping) and one of the authors of the prescient *The Cluetrain Manifesto: The End of Business as Usual* (Perseus, 2000; this was one of the first Internet boom books to describe markets as conversations and to sensitize business to the economics of online interaction), is the kind of writer who can turn a knowledge revolution into a simple and compelling story.

The problem with physical things is that they can be in only one place at a time — the "first order of order," in Weinberger's words. A historical romance novel about Napoleon won't be found everywhere it



could logically belong in the library, on history, romance, and biography shelves, because it can sit on only one shelf at a time unless there are multiple copies. Card catalogs are less limited — the “second order of order” — because paper-based record keeping enables more sophisticated inventory of physical objects, including schemes for tracking physical knowledge containers (e.g., books).

But second-order catalog schemes like the Dewey decimal system that help librarians know where to shelve books impose a rigid set of rules for how to categorize items — a taxonomy imposed on everyone else by an elite. Eight of Dewey’s nine major divisions classifying religion are for Christian books; Judaism has an entire Dewey number, but Islam shares one with Babism and Baha’i. Buddhists are a subcategory of “Religions of Indic Origin.” New religions or other phenomena, or old ones whose importance is being reconsidered, can find a home in the Dewey system only “to the right of the decimal point,” as fractional subcategories of

programmer working in financial analysis, created a tool for storing his collection of 20,000 links to Web sites. Like a programmer appending explanatory comments to code, Schachter “tagged” each bookmark with a set of words that he could use later to search for the bookmark. For example, a Web site about camembert might be tagged with the words *cheese*, *French*, and *cooking*. Instead of using predefined categories or keywords rigidly assigned by a committee of experts, Schachter simply thought of the labels he might use in the future to find the item.

Schachter’s idea really took off when he put his tool online and not only let others bookmark and tag, but made it easy for them to share their bookmarks and tags. Instead of a top-down taxonomy, Schachter’s breakthrough gave rise to what information architect Thomas Vander Wal called a “folksonomy,” a growing bottom-up classification architecture generated by a general population of users. Flickr’s folksonomy enabled its users to tag the photos they uploaded: “Aunt Sally,” “Florida,”

We are already seeing ample evidence that changes in social practices can presage the opening of a new market or the demise of a business model.

existing categories. In philosophy, Weinberger points out that “Dewey’s system puts phrenology on a par with Aristotle.” Although new learning can create new knowledge, the new knowledge is constrained when it has to be categorized according to systems that were created in an era of old knowledge — before, for example, it was known that Aristotle would remain important but phrenology would come to be considered a pseudoscience. When a new realm of knowledge comes along, or previous maps of knowledge are seen as parochial, it isn’t possible to redesign systems like Dewey’s.

Nowadays, however, people are using “tags” — the code that categorizes digital content — to grow, rather than design, classification systems. Not only do such systems fluidly reconfigure knowledge to reflect new knowledge, but their shapes reveal clues to further knowledge, the way “tag clouds” — visual depiction of content **tags** used on a **Web site**, where the most frequently used tags appear in boldface or larger font — can quickly yield information about the key subcate-

gories of any subject.

In 2003, Joshua Schachter, a

“beach,” “2007.” When millions of people began tagging, the aggregation of their individual decisions turned out to have collective value to people looking for pictures of Florida beaches or pictures from 2007, similar to the way Google’s PageRank algorithm improves searching by aggregating the individual decisions of people who link to Web sites.

Tagging constitutes a fundamental particle of the kind of “social physics” proposed by Buchanan. Each individual “social atom” makes self-interested decisions when assembling a playlist of songs or videos, tagging a photo or adding a bookmark. Then, when those individual decisions are made public, they add up to the kind of patterns that Buchanan’s sources, like Thomas Schelling, have brought to our attention. Although Weinberger doesn’t refer to Buchanan or Clippinger specifically, the conclusion he draws can be seen as a specific instance of their theories.

Most importantly, Weinberger uses this framework of emergent collective behavior as a way of seeing the deeper and longer-term significance of today’s digital revolutions. Together, nearly 1 billion people online are

using the many-to-many digital media to create a new kind of culture, just as Europeans did with print 500 years ago and Phoenicians did with the alphabet 5,000 years ago. As Weinberger puts it:

That humans play a role in categorizing the world is not news. There is a difference now, though. For the first time, we have an infrastructure that allows us to hop over and around established categorizations with ease. We can make connections and relationships at a pace never before imagined. We are doing so together. We are doing so in public. Every hyperlink and every playlist enriches our shared miscellany, creating potential connections that we can't often anticipate. Each connection tells us something about the connected things, about the person who made the connection, about the culture in which a person could make such a connection, about the sorts of people who find that connection worth noticing. This is how meaning grows. Whether we're doing it on purpose or simply by leaving tracks behind us, the public construction of meaning is the most important project of the next hundred years.

We are already seeing ample evidence that changes in social practices can presage the opening of a new market or the demise of a business model. Moreover, recent discoveries in the behavioral sciences could prove useful to anyone who is trying to reinvent marketing at a time when customers have become online search experts and are working on their own trust mechanisms for digital commerce. Indeed, anyone concerned about the way shifts in human behavior might affect the business landscape would do well to pay attention to all these books.

Weinberger believes that the trails of all our decision making online will create great cultural resources, that we will create not just surveillance fodder and marketing data but meaning from our transactions and mouse clicks. John Henry Clippinger sees the possibility of designing digital institutions that could create wealth and attack social problems at the same time. And Mark Buchanan believes we are on the verge of gaining much more effective tools for social prediction.

A Crowd of One and *The Social Atom* provide the theoretical basis for a paradigm shift in the way business is done. *Everything Is Miscellaneous* shows how, in

practice, a new way of knowing can affect every part of our lives,

whether pop culture (playlists add up to a valuable resource), national security (Intellipedia is the intelligence community's version of Wikipedia), or marketing practices that enable customers to have conversations with one another about products and services.

Of the three books, I believe David Weinberger's is the standout; it is not just prescient and useful, but profound. Weinberger looks deep below the obviously lucrative business model of Internet search and sees how the ability to tag and search extends human knowledge the way mathematics and the alphabet did. *Everything Is Miscellaneous* is not just the best book on behavioral theory of 2007, it's the best book I've read all year — a rare combination of important social science and business insight, and fun to read. Read it first or read it last — in either case, it will help you put the other two books in perspective. +

Howard Rheingold (howard@rheingold.com), author of *Tools for Thought* (Simon & Schuster, 1985), *The Virtual Community* (Addison-Wesley, 1993), and *Smart Mobs* (Perseus, 2002), coined the terms *virtual community* and *smart mobs* to describe the social phenomena that have emerged via the Internet and mobile telephony. He teaches digital journalism at Stanford University and participatory media at the University of California, Berkeley.

HUMAN CAPITAL



Howard Gardner,
Five Minds for the Future (Harvard Business School Press, 2007)

Lynda Gratton,
Hot Spots: Why Some Teams, Workplaces, and Organizations Buzz with Energy — and Others Don't (Berrett-Koehler, 2007)

Mathew Hayward,
Ego Check: Why Executive Hubris Is Wrecking Companies and Careers and How to Avoid the Trap (Kaplan Business, 2007)

Bruce L. Katcher with Adam Snyder,
30 Reasons Employees Hate Their Managers: What Your People May Be Thinking and What You Can Do about It (AMA-COM/American Management Association, 2007)

Karen Otazo,
The Truth about Being a Leader... and Nothing But the Truth (Financial Times Press, 2006)

AN Appetite FOR Effectiveness

by R. Gopalakrishnan

A

ccording to Hindu mythology, from time to time, God has appeared on earth in different incarnations to redeem humankind. One such incarnation was Lord Krishna, who was born into the Yadava clan.

The main character in the central narrative of the *Mahabharata* epic, Arjuna, was a superb archer and formidable

fighter in a war between two families. Arjuna was always victorious in battle; he was a bit like the ever-successful CEO of modern days. However, he was vain and hubristic, also like many a modern CEO. Lord Krishna was Arjuna's mentor.

One day, the Yadava clan played a trick on three sages who, in retaliation, cursed the clan, vowing that it would one day destroy itself. As the curse took effect, the Yadavas began to kill one another. At an advanced stage of the crisis, Lord Krishna implored the artful archer and "turnaround CEO" Arjuna to save the Yadava women and thus the clan. Arjuna did so with acts of great valor. As he rode away victorious, the Yadava women in his chariots, bandits attacked the entourage. Again, Arjuna fought valiantly. This time, however, several women were slain. Arjuna's arrows did not protect them.

Mysteriously, Arjuna had lost his powers. Of this

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story, the 16th-century Indian poet Tulsidas wrote lyrically:

*The same Arjuna with his arrows
failed miserably this time,
Truly, luck and timing influence
success in ways sublime,
This is an important lesson
to remember at all times.*

Through the ages, in war and business, experience and skills have been greatly valued. However, luck and timing also seem to play some role, though the precise nature of this role has been unclear. The puzzle of what defines, and what diminishes, leaders is as intriguing to 21st-century publishers as it was to a 16th-century poet. Each year, scores of books are published that attempt to reveal the “truths” or “secrets” of success in management, especially as they relate to managing people. This year, I scanned many with titles that held out the promise of delivering new insights, and read five of them.

My experience with two of the five (*Hot Spots: Why Some Teams, Workplaces, and Organizations Buzz with Energy — and Others Don't*, by London Business School Professor Lynda Gratton, and *Five Minds for the Future*, by Harvard psychologist Howard Gardner) felt like dining in a fine French restaurant, enjoying a well-balanced meal topped off with a fine Merlot rich in antioxidants. “Fine dining” in the context of reading books about managing people (or to use the phrase du jour, human capital) translates to a full plate of academic scholarship exploring theories of the mind, individual and organizational behavior, and how leaders create conditions and perform in a way that leads to successful outcomes.

A third book, *Ego Check: Why Executive Hubris Is Wrecking Companies and Careers and How to Avoid the Trap*, by Mathew Hayward, is also a balanced meal, but without the wine. The emphasis is greater on anecdotal lessons and practical wisdom than on academic scholarship. Hayward, a former consultant at Accenture and then an investment banker, earned a Ph.D. in organizational behavior and strategy at Columbia University and is now a professor at the University of Colorado's Leeds

School of Business. He seasons his book with management experience, and has a knack for storytelling.

For those hungry for the energizing but fleeting stimulation of carbohydrates, Karen Otazo's *The Truth about Being a Leader...and Nothing But the Truth* and *30 Reasons Employees Hate Their Managers: What Your People May Be Thinking and What You Can Do about It*, by Bruce L. Katcher with Adam Snyder, offer formulaic numbered lists of truths and reasons. It's easy to be critical of quick-fix management fare, but such “fast-food” books can serve a purpose: They present functional tips, which are valued by those in a hurry.

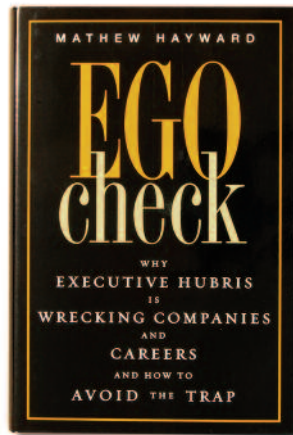
Creating Hot Spots

I have observed that over the last half century, management styles have changed significantly. The essence of leadership has shifted from the directive and logical toward the inclusive and humane. Managers value freedom over control. They view participation to be as important a factor in effective leadership as direction. They expect productivity as well as creativity.

Lynda Gratton's *Hot Spots* addresses the demands of today's business world. Named twice as one of the world's top management thinkers by *The (London) Times*, Gratton uses evocative metaphors to succinctly communicate her ideas.

For example, when she describes the feeling of a Hot Spot (“time seems to rush by as you and those around you are ‘in the flow’”), she also asks the reader to imagine standing on the peak of a mountain, looking out over the landscape through thermal-imaging goggles. You don't need to have had this experience to appreciate the rush of eyeing such a spectacular scene through these lenses.

Hot Spots are places within an organization where relationships and cooperation flourish, creating great energy, innovation, productivity, and excitement. Gratton's key message is that “relationships between employees build organizational value, and through these relationships individuals grow.” Every operating manager has learned the hard way that the ability to cajole, persuade, threaten, and motivate groups like this is the key to getting things done.



Gratton describes how Hot Spots are the product of a multiplier effect among four elements: “cooperative mindset,” “boundary spanning,” “igniting purpose,” and “productive capacity.”

Leaders who cleverly draw out their group’s intellectual, social, and emotional energy generate the first element, the cooperative mind-set. Five years ago, Ratan Tata, chairman of Tata Group, where I work, asked his leadership team an apparently simple question: “If foreign companies can succeed in India, how can we acquire companies and succeed in foreign countries?” It unleashed an energy that has enabled Tata Group to acquire the Ritz-Carlton in Boston and the Campton Place Hotel in San Francisco, to manage the Pierre in New York City, and to acquire the British steelmaker Corus and the Korean truck maker Daewoo. Today, Tata Group gets more sales revenue from outside India than from inside, a dramatically different situation from just five years ago.

Gratton defines the second element, boundary spanning, as the capacity of people to exchange and combine knowledge. For instance, the book describes Carlos, a manager for BP in Venezuela who works across time zones, languages, and cultural differences to collaborate with Polly, the head of the Polish business team. Polly needs to turn around her business and Carlos supports her by sharing his own experiences. They meet only a couple of times, but Gratton explains how the pair end up creating a Hot Spot.

In writing about spanning boundaries, the author doesn’t gloss over the challenges of cross-cultural communications. For example, she writes, “Some countries, particularly Asian countries, are more collectivistic; by contrast, the people in most Western countries are more autonomous.” Having worked for global multinationals for three decades, I appreciate such sensitivity. For Westerners, getting a point of view across clearly is more important than protecting the recipient’s feelings. The opposite is true in Asia.

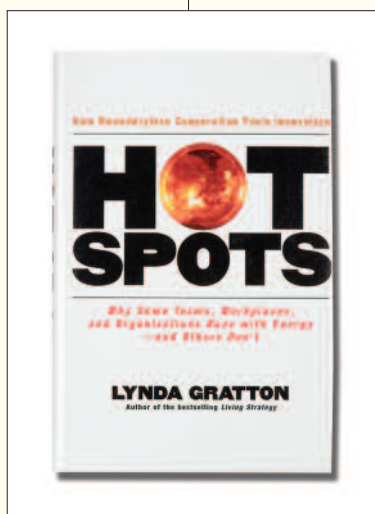
A cooperative mind-set and boundary spanning lay the foundation for Hot Spots, but are not sufficient to trigger them. The third element needed, Gratton writes,

is igniting purpose. Managers trained in the command-and-

control style of management are generally taught to tell their people clearly what is expected, and then drive them to deliver. However, to ignite purpose, managers need to do the reverse. For instance, she says that ambiguous questions and tasks are more interesting and motivational for people than step-by-step instructions.

Ratan Tata asks his managers to think about questions such as, What does it take to build a safe passenger car for only US\$2,000? or Isn’t it possible to have a functional, clean hotel room for the Indian business traveler for \$20 per night? At Tata, I have witnessed how our managers explore these questions with vigor, and find the answers.

The fourth element is productive capacity. “The latent energy of cooperation has been ignited through purpose, and the boundary spanning has created the potential for innovation. But will the Hot Spot be productive?” asks Gratton. She then outlines five key productive practices, which follow a specific sequence and assume different levels of importance as the Hot Spot develops — appreciating talents, making commitments, resolving conflicts, synchronizing time, and establishing a rhythm. It seems a bit like the efforts of a sports captain or symphony conductor to consistently elicit the best performance from his or her team.



Mind over Matter

Five Minds for the Future, my choice for the best book in this category, comes from a noted and sometimes controversial psychology–neuroscience researcher. The author, Howard Gardner, the John and Elisabeth Hobbs Professor of Cognition and Education at Harvard’s Graduate School of Education, has written almost a dozen scholarly books before this one. (See “Howard Gardner Does Good Work,” by Lawrence M. Fisher, *s+b*, Summer 2007.)

In *Frames of Mind: The Theory of Multiple Intelligences*, published in 1993, Gardner posited his theory of seven autonomous intelligences. Five of these are cognitive, such as logical, bodily-kinesthetic, and musical. The other two are forms of interpersonal intelligence, which Gardner says are “not well understood, elusive to study, but immensely important.”

The seven intelligences are abstract threads from the

looms of Gardner's mind, and are of limited use to the real-world manager. But in his latest book, Gardner weaves those threads into a whole fabric. The five minds for the future consist of three cognitive minds ("disciplinary," "synthesizing," and "creating") and two minds that concern our relations with other human beings ("respectful" and "ethical"). Insightful and sometimes dense, *Five Minds for the Future* nonetheless tempts the reader to return to, and reflect on, many passages throughout the book. This is a hallmark of great scholarly writing. One example: "In studies of teams involved in cardiac surgery, [researchers] have documented that successful teamwork depends more on the management skills than the technical expertise of their leaders." Another example: "The ultimate ethical stance encompasses both the workplace as well as the surrounding community.... What do I owe others, and especially those who — through the circumstances of birth or bad luck — are less fortunate than I am?"

Discipline is defined as a distinctive way of thinking about the world, informed by facts and figures we can memorize. Facts are useful, argues Gardner, but experimentation with such knowledge must follow. As Plato remarked, "Through education we need to help students find pleasure in what they have to learn."

Like many other management scholars, Gardner points out the information age's growing complexity and the need for a synthesizing mind to knit together into a coherent whole all the information that is available from different sources. When I began my career 40 years ago, it seemed possible to master most of the facts about my industry. When I was a young marketing manager, my boss goaded me to know more than anybody else in the company about my brand. Only then would I be ready for a promotion. Today's marketing manager needs to understand the big picture, well beyond the knowledge of his or her brand.

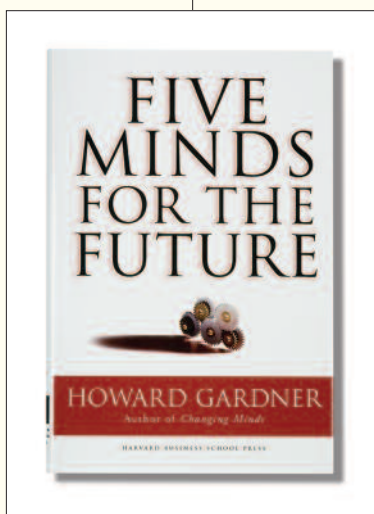
Synthesis is hard because human beings tend to learn only what is needed in a specific context. We have evolved to survive in niches. That is why when successful managers move from one industry to another, they find it difficult to transfer their knowledge. Knowledge transfer requires creativity. Young people demonstrate

Gardner's creating mind better than older people do. We see this

in science, where younger workers are more likely to achieve breakthroughs than are older workers, who typically do synthesis. That is because older people lack inexperience. Freud once observed that when he was young, ideas came to him; as he aged, he had to "go halfway to meet them."

Of the two interpersonal minds, the respectful mind underscores the essential importance of affinity among human beings. For Gardner, being respectful means accepting our differences, learning to live with them, and valuing the traditions and habits of people who are different from us.

This approach is visible in multicultural societies such as the United States. India is an even more dramatic example: It is simultaneously heterogeneous and bound together as one, despite some superficial evidence to the contrary. There is a Sanskrit word, *Swikriti*, that means acceptance — the idea that people are entitled to lead their lives without any attempt to judge or compare the quality or standing of one group with reference to another. The inclusive attitude inspired by *Swikriti* made it easier for India to accept the traditions of Christians, Jews, Parsis, Muslims, and other "migrants" when they settled in India.



The ethical mind answers questions such as, What does it mean to be a citizen of my community? My own experience has been that it is easier for managers to carry out good work in organizations and institutions that basically strive to be good. For example, Tata is ultimately owned by charitable trusts. The group has an institution (not physical, but virtual) called the Tata Relief Committee (TRC). This is a nonfunctioning committee in normal times. When any national calamity strikes (such as the tsunami in 2005), the TRC assembles itself autonomously. It collects money from Tata employees and companies and offers to do volunteer work in cooperation with the authorities, for example, rebuilding homes. A company that strives to be good enables its managers to be good.

Gardner's ideas about the ethical mind and the respectful mind seem to converge neatly with Gratton's

more practical discussion of boundary spanning. Gratton describes the boundary spanners as “chameleons who tend to be especially sensitive and skilled in bridging interests, professions, and organizations” and “have the capacity to acquire and value differences in others with regard to culture or mindset.”

It was these two types of intelligence that I believed led to the success of South Africa after the fall of apartheid. Under the leadership of President Nelson Mandela and of Archbishop Desmond Tutu and his Truth and Reconciliation Commission, we saw how an approach born of respect and concern for what is ethical led to a nationwide spirit of atonement that was extraordinary in its power to heal. In Gardner’s and Gratton’s terms, the two men demonstrated extraordinary interpersonal intelligence along with superior skill at boundary spanning. And it is because of their leadership that South Africa didn’t disintegrate.

Crisis of Overconfidence

Mathew Hayward, the author of *Ego Check*, brings to his book the eclectic perspective of a merchant banker turned academic. Relying less on primary research than Gratton and Gardner, he astutely assembles other people’s research, anecdotes, and narratives. The book is filled with stories of familiar contemporary business leaders — Michael Dell, Hank Greenberg, Steve Jobs, Jean-Marie Messier, and many more. Both personal stories and news stories are retold with insight and wisdom. Hayward rewards you with the satisfaction you get when someone has beautifully articulated what you instinctively know, but fear you may forget at crucial times.

The key idea in his book is about overconfidence. Hayward does not deprecate overconfidence, which he says is essential for corporate success. On each of the three or four occasions when I have been involved in turning around a company, I must confess to exhibiting great confidence even though I did not know exactly how success would be achieved. But there is a good and a bad overconfidence.

Ego Check examines the bad kind of overconfidence and its four sources, all of which are easily recognizable.

The first is “excessive or exaggerated pride.” This might come

from a person’s concern with impressing other people. Or it can arise from the false sense of satisfaction leaders get from using self-serving data to inflate their accomplishments. Think about corporate leaders who try to show a positive turn in business performance at about the time they took charge.

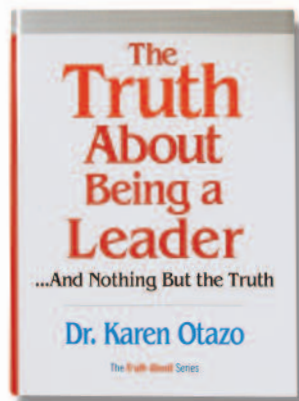
The second source of the bad kind of overconfidence is “isolation.” In a chapter called “Getting Out of Our Own Way,” Hayward focuses on former Hewlett-Packard CEO Carly Fiorina. The pride she exhibited before her fall leads him to the conclusion that “few people were willing to tell her that she was wrong.... She insulated herself behind assistants within the executive suite and blamed deteriorating performance on subordinates. And she used guilt to tell people how much they had let her, the board, and the firm down.”

The third source for bad overconfidence: Executives get valuable feedback from people, but because it is contrary to their own views, they ignore or discount it. This Hayward describes as “selective judgment,” or “our propensity to make decisions about situations that are based on feedback that pleases us or fits our preconceptions of our situations.” Here he makes an example of Merck leaders who did not listen to the feedback on the harmful side effects and questionable safety of Vioxx. (The author reminds us that on September 30, 2004, the day then

CEO Ray Gilmartin took the \$2.5 billion-in-revenue drug used by 20 million Americans off the market, Merck lost \$25 million in market capitalization.)

During the early 1990s, I witnessed a similar demonstration of bad overconfidence when working at Unilever: the fiasco in the U.K. over Persil laundry detergent. Persil contained a proprietary ingredient called the “accelerator” that helped it remove dirt significantly better than other products. It was launched with great fanfare, which died down when it became apparent that the accelerator not only cleaned garments, but shredded them. Photos of underwear with holes were displayed on the front pages of British newspapers to dramatize our failure to fully research the effects of this special cleaning ingredient.

The fourth source of bad overconfidence is leaders “underestimating the consequences” of their decisions.



Quoting Stephen Covey from *The Seven Habits of Highly Effective People*, “While we are free to choose our actions, we are not free to choose the consequences,” Hayward similarly argues that failing to think about tomorrow fuels hubris in decision making today. Leadership failures during recent world news events, such as the Iraq war and Hurricane Katrina, illustrate his point without too many words.

High-Carb Wisdom

Karen Otazo, the author of *The Truth about Being a Leader*, is an executive coach with impressive international experience. She has worked with senior executives in multinationals around the world and claims fluency in Spanish, English, French, and Indonesian. But her book of 52 truths, arranged in 10 sections, each no more than four pages, seems to have a single and culturally universal message: Leaders are sized up by those they lead on the basis of how they speak, think, and behave.

Her lessons are framed as short and practical tips

feel free to do their job, Katcher suggests, it may be because senior executives are too controlling. His solution: Rate and reward senior executives on how well they delegate.

Two kinds of people will find value in these two books. Otazo and Katcher are good guides for young executives beginning their careers. Many years ago, I benefited from similar books because they contained practical wisdom, not philosophical dissertations. More experienced executives short of time (and who isn't?) can also benefit from commonsense reminders of how to handle everyday sticky management situations.

A Snack or a Meal

I won't argue for the pleasures of fish and chips over filet of sole with bearnaise sauce. When we want to eat, a fast-food chain or an elegant restaurant offer different sorts of satisfaction. It is the same with books about human capital. There is an appropriate market and use for both “fine dining” and “fast food” guides, and it

Younger employees are more likely to achieve breakthroughs. Older workers do synthesis — because they lack inexperience.

(no stories or anecdotes) telling leaders to say the right things and to do what they say. For example, truth number 4: “The gaps in your work habits show up when you move up.” Otazo's advice to rising executives is to keep up with scheduling, to delegate using quality standards and due dates, and to make decisions clear. The author's use of phrases such as “conjuring,” “tricks,” and “sleights of hand” seems out of place in a book about leadership. Nonetheless, her tips are useful and easy to remember.

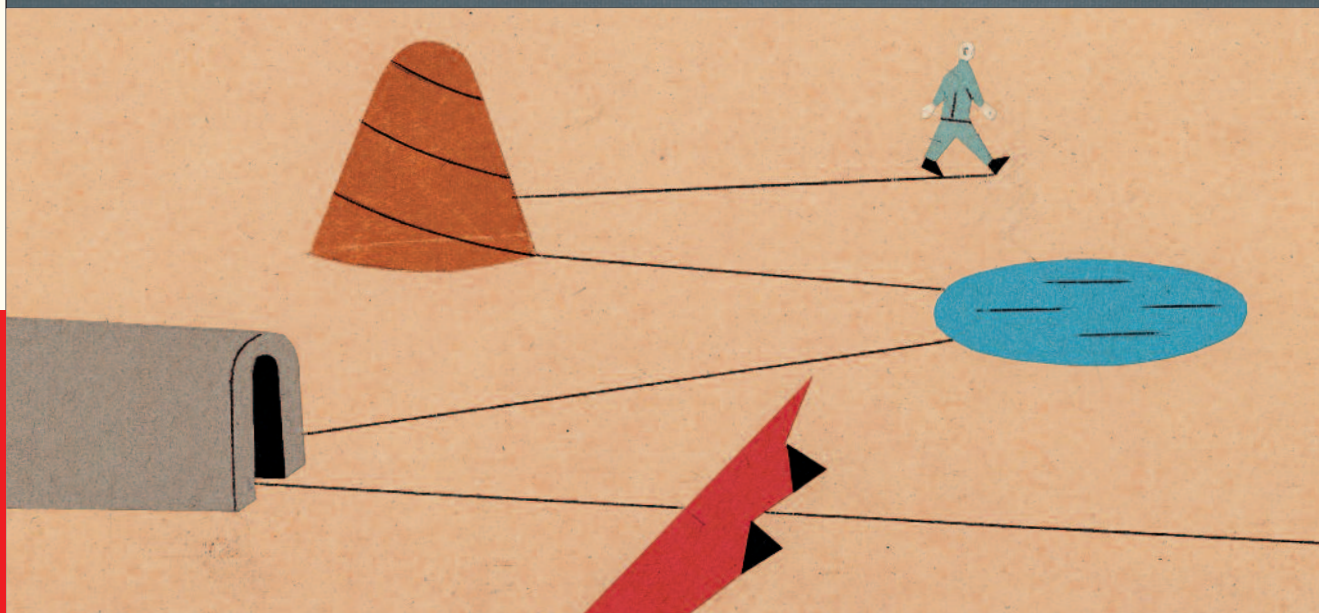
Bruce L. Katcher, author of *30 Reasons Employees Hate Their Managers*, is a management consultant whose firm conducts employee opinion polls and customer satisfaction surveys for Fortune 500 clients such as Alcoa, Johnson & Johnson, and Revlon. The book is based on survey research and interviews with 50,000 employees in 65 organizations, mostly in the U.S. Every chapter starts with a statistic from this research, for example, “46 percent of all employees believe that management treats them with disrespect” or “50 percent of employees believe that the time they spend at meetings is not time well spent.” Not exactly big news, but seeing statements like this in print can be striking. When employees don't

would be wrong to dismiss one in favor of the other.

For me, books with messages that linger and cause reflection have a special value. Books that make the scientific study of human behaviors accessible to the lay reader have also been helpful to me over the years. But whatever your taste or appetite for books on management leadership, a spoonful or a full plate reminds us of the capriciousness of human beings and the complexities involved in managing them. +

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BIOGRAPHY



David Nasaw,
Andrew Carnegie
(Penguin Press,
2006)

Randall Stross,
**The Wizard of
Menlo Park: How
Thomas Alva
Edison Invented
the Modern World**
(Crown, 2007)

Richard S. Tedlow,
**Andy Grove: The
Life and Times of
an American**
(Portfolio, 2006)

ety). Not all business biographies are great, but when they are good, they are very good. In fact, one can find more useful information in a well-written biography of a business giant than in a shelf full of management texts and leadership books. This year's crop of business bios includes studies of the careers of three corporate icons — Thomas Edison, Andrew Carnegie, and Andy Grove.

LIFE Lessons

by James O'Toole

The *New York Times* ran an article in 2007 by Harriet Rubin about the reading habits of CEOs. (See "Shall I Compare Thee to an Andy Grove?" by Harriet Rubin, *s+b*, Winter 2007.) It turned out that they read almost everything *but* business and management books. Yet if there is one type of business book that deserves to be read by everyone, it is biography — that is, the biographies of corporate titans written by respected business historians, management scholars, and journalists (as opposed to those written by the infamous or to the self-congratulatory vari-

The Wizard of Self-Promotion

I approached Randall Stross's admirably concise biography of Thomas Alva Edison (1847–1931), *The Wizard of Menlo Park: How Thomas Alva Edison Invented the Modern World*, with great expectations. Edison is the perfect avatar of today's Silicon Valley techno-genius: He is credited with inventing the incandescent light-bulb, the phonograph, and the electric chair, and he was founder of the predecessor of today's General Electric Corporation. Edison accumulated more than 1,000 patents and started numerous companies over his long life. In his time he was, and today he remains, the quintessence of that peculiarly American genius, the entrepreneur/inventor, the ranks of which include such notables as Henry Ford, George Westinghouse, Alexander Graham Bell, Steve Jobs, and Bill Gates.

However, the question remains open regarding just

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how great an inventor he actually was (he often claimed credit for work done by others). And there is little doubt that he was far from being a competent businessman. What is incontestable is that he was the most famous American of his era. As Stross reminds us, Edison eclipsed the name recognition of even Henry Ford and Theodore Roosevelt. Significantly, the book's subtitle refers more to the wizard's discovery of the uses of celebrity than to his contributions to the spread of electric power. Edison was the first to use his self-generated star status to advance his commercial agenda, much as Jobs today uses carefully crafted showmanship and media manipulation when he introduces the latest i-gizmo to adoring audiences.

Edison was a complex man. A genius tinkerer with a prodigious capacity for work, he was also a chronic dissembler whose own self-deceptions were perhaps even greater than his deceptions of a gullible public. He made wild promises of inventions that never materialized, faked lab results, and, according to Stross, "had no compunction about claiming credit for work done by assistants" and discoveries clearly made by others.

However, his was a manifestly curious mind, one genuinely excited by technical challenges and more interested in the satisfaction of inventing than in the money — and, perhaps, even the fame — that his inventions produced. He was doubtlessly telling the truth when he said, "Work made the earth a paradise for me." A lifelong workaholic, he was routinely still in the lab at age 65, putting in six-day, 120-hour weeks. Stross depicts a colleague finding the young Edison in his lab "half-doing at his desk," and asking the wizard what he is doing there so late at night. "What time is it?" Edison asks.

"Midnight," the fellow replies.

"Is that so?... I must go home then. I was *married* today."

Edison, the fabulous inventor, was a terrible husband, a worse father, and an insensitive employer who used loyal people and then fired them on a whim. He was a micromanager who made decisions not only in areas where he had little expertise, but also in situations where he was downright incompetent. He pronounced the radio "a fad" and forbade his managers from entering the business. In its day, Edison's company was one of the major producers of musical recordings, and its nearly deaf founder (Edison literally had to bite the wood of a piano or phonograph in order to hear it) insisted on being the person to choose which artists to record. He had disdain for all forms of popular music —

jazz was "for nuts" — and he wasn't all that happy about most classical performers, either, calling pianist/composer Sergei Rachmaninoff "a pounder."

He cared not a whit about customer preferences. It is little wonder, then, that when he died in 1931, he had so mismanaged his business empire that he left an estate valued at only US\$1.5 million. By comparison, his friend and fellow titan, Henry Ford, left roughly \$180 million. Ford was, in fact, Edison's only friend, reflecting the wizard's general mistrust of others (he suspected they were using him for their own purposes). As he grew older, Edison became insufferably self-absorbed and opinionated and, in the end, was beloved by all but those who knew him. And, unlike Ford, Edison left no philanthropic legacy and never made any significant civic contributions.

That said, Edison was seen by the public of his day as a great inventor, and his name on a product was viewed as a guarantee of quality and technical progress. He also was a hero and role model to many aspiring inventors and businesspeople. Stross gives the man his due: He *was* a genius at self-promotion. "Edison had promoted his own image and the notion that it was his hands alone that had performed miracles." Even in his lifetime, knowledgeable people began to realize that he was no Steinmetz or Tesla. The book's subtext, of course, is that Edison stands as the first in that long line of celebrity CEOs that stretches more than 100 years and 3,000 miles from Menlo Park, N.J., to Menlo Park, Calif. Read it and weep.

The Inveterate Optimist

Standing a bit shy of the five-foot mark, Andrew Carnegie nonetheless stood head and shoulders above the much taller J.D. Rockefeller, J.P. Morgan, and their Gilded Age contemporaries known collectively as Robber Barons. In fact, Carnegie was the giant of his era (1835–1919), a man of remarkable breadth and substance who was as much a player in the fields of national and international politics, philanthropy, and literature as he was in the world of big business. As David Nasaw documents in his engaging, magnificently researched, and beautifully written biography, *Andrew Carnegie*, the little Scot was a man in full — and although not a particularly good or brilliant man, he was the first modern American corporate capitalist, an undeniably important figure in his own time and, by reflection, in ours. I have had to restrain my enthusiasm in writing this review:

Andrew Carnegie is not only the best biography of the year, it may be the best business book I have ever read.

Carnegie was the largely self-educated son of a ne'er-do-well Scottish weaver who immigrated with his family to the Pittsburgh area at age 12. Given the grim circumstances of his early life and the dour demeanor of his Scots relatives, the son displayed an amazingly sunny disposition. As a boy, and throughout his life of 84 years, Carnegie was seldom seen without a smile on his face, and was always full of cheery optimism even under the most adverse of conditions. Curiously, like Edison (who was born a dozen years later), Carnegie started his career as an underage telegraph operator. But whereas Edison got hooked on the technology, Carnegie was seduced by the money. By age 19, he was wildly enthusiastic about earning money from capital and set out to earn it by selling bonds in Europe to raise money for American companies (and investing in railroads, bridges, and oil, among other necessities of the industrial age). He appreciated that it was far better to let money work for him than to labor himself. Indeed, he found being a capitalist better than doing work of any kind. Unlike Edison, Carnegie never saw the inherent virtue of hard work. Instead, he believed that work was an activity to be minimized so he could have time to enjoy the good life of reading, writing, horseback riding, traveling, concertgoing, taking long walks in nature, and having conversations with thoughtful friends. But the simple life was not enough. Carnegie "reveled in excess," writes Nasaw, eventually owning a 40,000-acre palatial estate in Scotland, replete with a staff that included a full-time gamekeeper, forester, yacht captain, golf links superintendent, organist, and bagpiper (to wake his numerous houseguests at dawn and to call them to their meals).

Like Edison, Carnegie was often estranged from the truth. Although not an inveterate liar, he often bluffed, obfuscated, and exaggerated when the facts were inconvenient and, especially, when they were inconsistent with the public image of virtue and rectitude that he wished to burnish. His business dealings were frequently shady, or unethical, by our standards, although

not necessarily illegal at the time. He capitalized — perhaps profi-

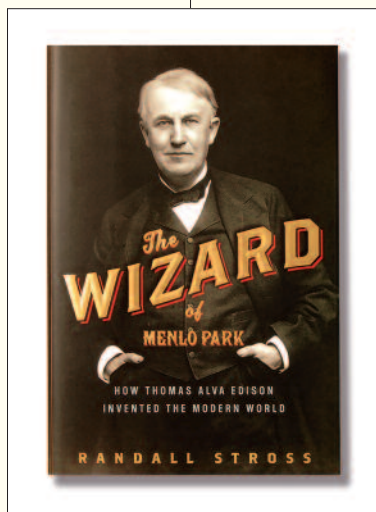
teered — from the Civil War and, as a result, was worth more than \$5 million (in current dollars) before he was 30.

Three years later, that figure was close to \$75 million, and at that point he "sat down with a stub-nosed pencil and a scrap of paper to take stock of his life — and finances." He resolved to "beyond this [amount] never earn — make no effort to increase fortune, but spend the surplus each year for benevolent purposes." According to Nasaw, 30 years passed before Carnegie finally started to make good on that promise to himself. In the interim, he would accumulate what probably was, at the time, the largest fortune ever held by one person. Through a combination of foresight, calculated risk, skill, luck, and a large dose of P.T. Barnum-like bunkum and bravado, he found himself at an early age owning

the controlling interest of what would become U.S. Steel when he sold the company to J.P. Morgan in 1901. It is important to understand that Carnegie didn't sell his *shares* of the company, because he considered playing the stock market "gambling" (he proclaimed proudly that he never invested in publicly traded equities). He owned outright more than 60 percent of the privately held partnership and personally pocketed some \$226 million in gold bonds at the time of the sale, a staggering amount worth at least 20 times that today. We are talking double-digit

billions here, as in the *Forbes* "rich list" crowd.

Early in his career, Carnegie admirably recognized that the source of his vast wealth was found not in his "labour, nor skill. No, nor superior ability, sagacity, nor enterprise, nor greater public service." Instead, he saw that he was simply the right man at the right place and time to capitalize on the nation's growing demand for steel — first for its railroads, and then for its giant urban buildings. Because Carnegie Steel could meet that demand, he calculated that he was earning, roughly, a 40 percent annual return on his investment. Pittsburgh in the late 19th century was the realization of Alexander Hamilton's 1790s dream of a corporatist utopia: a fast-growing population, a supportive government in cahoots with business, and access to nearly unlimited capital and natural resources that allowed manufacturers to achieve previously unattainable economies of scale.



Carnegie understood, better than his competitors, that in the efficiency game bigger was not just better; it was the winner. Carnegie Steel grew by leaps and bounds as it gobbled up market share, gobbled up competitors, and drove into bankruptcy those it didn't digest.

His giant plants operated 24/7, but Carnegie rarely bothered to visit them. He didn't go to the office, either. He seldom put in more than four hours a day at his desk, wherever it happened to be located. Living comfortably in New York during the social season, and for up to six months in Scotland when the weather was conducive, he saw no reason to waste his time in grimy, sooty Pittsburgh, or to bother with day-to-day business when he could hire professional managers to mind the factories. Business readers will find particular value in Nasaw's meticulously detailed accounts of the daily internal management of Carnegie Steel, and may be surprised to find that Carnegie was neither its manager nor its leader. The absentee Scottish laird was the quintessential nonexecutive owner. He would disappear

during a recession to cut wages and increase working hours.

However, when the post-recession boom began, Carnegie neglected to cut his worker "partners" in on the upside. Strikes ensued. Workers cried: Liar! Hypocrite! Scoundrel! But no, the great and patronizing Scot replied, I have merely had an important insight that you fail to understand.

Carnegie experienced an epiphany while reading the works of his contemporary, the philosopher Herbert Spencer. In "The Gospel of Wealth," the most influential of countless essays he wrote during his life, Carnegie set forth his personal beliefs within the framework of Spencer's Social Darwinism: "The laws upon which civilization is founded" decree that wealth must accumulate in the hands of those with the greatest "talent for organizational management." He clearly had changed his mind about the source of his fortune, and now saw the duty of those with his rare talent to administer those funds as a kind of public trust and to dispense with

Like Andrew Carnegie, many CEOs in low-wage industries today see themselves as prisoners of the laws of economics.

from the business scene for months — only to reappear suddenly to second-guess informed decisions made by his duly empowered lieutenants; having thus meddled, and successfully undercut their authority, he would slip away again.

This is not to say that Carnegie added no value to the enterprise. He was a brilliant strategist who, more often than not, had great business instincts and saw the big picture far more clearly than his managers. He was also a consummate deal maker, salesman, and negotiator who easily bested Rockefeller and Morgan in major transactions.

Carnegie is probably best known as a union buster. Ironically, he personally suffered exploitation as a young worker. He came from a family of militant union people in the reforming Chartist tradition and, early in his business career, was widely hailed as "a friend of labor," speaking out in favor of unions and in solidarity with the working class. He proposed a farsighted deal to the union representing steel workers in which wages would be tied to profits so that both employer and employees would share in good times and bad. The union agreed

them in ways most beneficial to the progress of the community. And therein lay his logic for reneging on his deal with the workers: It simply was contrary to those "laws of civilization" to permit the members of the community who produced the wealth to decide for themselves how to use it; hence, to pay workers more than the minimum they needed to survive was to "encourage the slothful, the drunken, the unworthy," Carnegie said. To his critics he replied, in essence, "Don't blame me, I am just obeying the laws of political economy."

His workers and their union might have thought they needed more and better food, clothing, and shelter, but Carnegie knew better: What they really needed was libraries, museums, and vocational schools. By this paternalistic logic, it would be wrong for him to share his profits with his workers; in fact, it was his sacred duty to *reduce* their wages so he would have more to give to the charities that would, in the long term, truly benefit the working class. It was therefore without a pang of conscience that he allowed the chief manager of Carnegie Steel, Henry Clay Frick, to call in the Pinkerton guards, who fired on his striking workers at

the Homestead Works in 1892. Throughout the subsequent decade, according to Nasaw, “there was an inverse relationship between the firm’s profits and the amounts of money distributed to the workforce as wages.” The value of steel produced increased by 226 percent, while the percentage of profits paid as wages decreased by 67 percent. Carnegie broke the union in the process, and later would claim that the resulting cost advantage was the key to his ability to drive out unionized competitors.

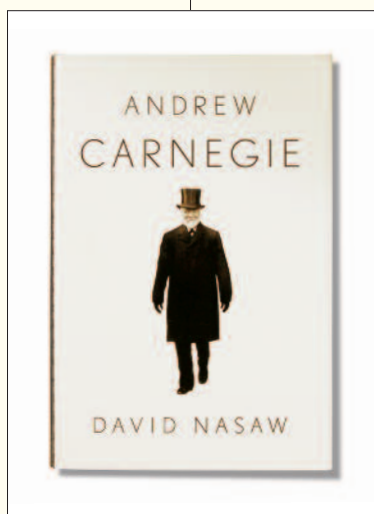
Nasaw provides a marvelous history of the Industrial Revolution and the rise of corporate capitalism; at the same time, he offers deep insight into the unique workings of the capitalist mind. What he explains about Carnegie makes it easier for us to understand how the current CEO of Wal-Mart can argue that he has “no choice” when it comes to offering his workers low wages and few benefits, and how he can argue simultaneously that Wal-Mart is serving working people’s needs by delivering goods they want at affordable prices. Like Carnegie, many CEOs in low-wage industries today genuinely see themselves as prisoners of the laws of economics when it comes to paying their workers. And they believe they are altruistically doing the workers a favor in the long run by providing cheap goods, and then ultimately donating their wealth to charity.

Carnegie, like Edison, was insensitive to the real needs of his workers, his managers, his business partners, his wife, and his daughter. He was a pathetic mama’s boy who met his bride-to-be when he was 45 and she 23, but was afraid to become engaged because he feared that his old mum — who lived with him — would disapprove. He waited until his mother was dead, 15 years later, before popping the question. He accumulated talented, powerful, and famous friends much in the same way he amassed capital, hobnobbing with Matthew Arnold, William Gladstone, and Teddy Roosevelt, never hesitating to offer them unsolicited wisdom and advice, much to the amusement and irritation of five presidents and two prime ministers. His friend Samuel Clemens (better known as Mark Twain) summed up what it was like to be in the company of the great Scot: “He never has any

but one theme, himself.... I think he would surely talk him-

self to death upon it if you would stay and listen.” In a comment appropriate to so many of today’s top executives, Clemens noted that his friend sadly lacked the capacity of self-reflection: “Mr. Carnegie is not any better acquainted with himself than if he met himself for the first time day before yesterday.”

The book also helps us to understand the motivations driving the current philanthropic rage among wealthy Americans. To his credit, Carnegie eventually made good on his promise to give away his fortune, devoting much of the last two decades of his life to trying to die without a penny to his name. For the most part, he gave more carefully, thoughtfully, and wisely than perhaps any philanthropist prior to Bill Gates, and his largesse has benefited millions of people over the last hundred years. Yet, in what seems a fit and proper final assessment of the man, Teddy Roosevelt wrote that “if Andrew Carnegie had employed his fortune and his time in doing justice to the steelworkers who gave him his fortune, he would have accomplished a thousand times what he has accomplished” in his public and philanthropic activities.



The Polymath CEO

Andy Grove: The Life and Times of an American is the only book among this trio of biographies written about a business titan of our own era. Had he not chosen a career in

business, Grove most certainly would have found prominence in the field of science (he has a Ph.D. in chemical engineering from U.C.–Berkeley, and some 40 technical articles to his name published in prestigious journals). Grove is also the author of a significant physics textbook, two respected books on management, and a widely praised autobiography. Somehow he managed to do all that scribbling while profitably leading Intel through several successive waves of product innovation in the fast-changing semiconductor industry. Given all that, it is a shame that Grove has not been better served by his biographer, Harvard Business School professor Richard Tedlow.

One of the most interesting aspects of this shamelessly adoring book is the account of Intel’s shared leadership in the firm’s formative years: the famous troika of techno-guru Gordon Moore, public spokesman Robert

Noyce, and Grove the operations guy. Each of the three brought his own formidable strengths to Intel's C-suite, complementing the others beautifully, and compensating for the others' widely recognized individual weak spots. No one of them alone could have created the great company Intel would become. Wherever readers may stand in the corporate hierarchy, they can profit from learning about how such leadership teams, and not just single leaders, can succeed.

This point, however, highlights the book's glaring shortcoming: Tedlow is too enamored of Grove and too dismissive of the Intel insiders who frequently voiced concern over his interpersonal failings. By all accounts, Grove's intemperate, some say abusive, behavior drove Moore and Noyce nuts, and alienated others who worked for him. In 1984, he landed on *Fortune's* infamous list of "America's toughest bosses." It seems that a streak of stubborn arrogance in Grove blinds him to the effect of his behavior on others. Like many larger-than-life intellects, Grove's high-octane brain sometimes interferes with his ability to manage the messy feelings and power struggles that gum up the best-laid analytical plans. Certainly, he knew how to drive continuous innovation in a high-tech industry, but his mind for scientific precision reduced every organizational issue to a technical problem with a quantifiable solution. From a leadership perspective, that mind-set can be as self-defeating as trying to solve a technical problem in a T-Group.

Although exceptionally well researched and documented, Tedlow's biography is so enamored of his subject that the author loses credibility. Compared to Nasaw's magisterial and elegant prose in his study of our other "Andy," the writing in Tedlow's book, in some instances, is so amateurish that the reader is embarrassed for the author, particularly in his obsession with interpreting his subject's every move as an unconscious reaction to being a Holocaust survivor. How many times do we have to be reminded that Grove is of Jewish descent? Enough, already, what about the semiconductors?

Like Edison and Carnegie before him, Andy Grove can probably expect to be the subject of future biographies. We can hope that the next one will be richer and more complete. In the meantime, readers could do far worse than to read Grove's own fine books.

The Executive Ego

A theme running through all three of the biographies discussed above is the power — both for good and for ill

— of the executive ego. In the cases of Edison, Carnegie, and Grove, their undeniable genius compensated more than adequately for their inflated sense of self-importance. Not so with Sandy Weill, whose recent autobiography (coauthored with Judah S. Kraushaar), *The Real Deal: My Life in Business and Philanthropy*, is filled with far more ego than substance. Weill has spoken of himself as the modern-day Andrew Carnegie on the front page of the *New York Times*. Indeed, there are obvious similarities between the two: both are short, optimistic, gregarious men with an innate flair for blockbuster business deals. Weill's choice of philanthropic pastimes — chairing the boards of Carnegie Hall and Cornell's medical school — are manifestly in keeping with the old Scot's interests (Carnegie served as a Cornell trustee). And there is no denying Weill's record as a deal maker; he is the guy who acquired Shearson Loeb Rhoades and sold it to American Express and then, for his second act, turned Travelers Insurance and Citibank into Citigroup.

Given all that Weill has seen and experienced, one would expect to find at least a few profound insights about business and leadership in his autobiography, but, alas, Sandy Weill is no Andrew Carnegie. In this thin volume, he comes across as an empty suit, a man of little substance who has thought deeply only about his own undeniable accomplishments. He nearly breaks his arm patting himself on the back, page after increasingly tiresome page, interrupting the flow of first person pronouns only to praise his ever-beautiful, -charming, -brilliant, and -loving spouse. It is a good thing Weill took the initiative to write this autobiography; it is doubtful that any historian in the future will find the subject worthy of the effort.

The conclusion we can draw from these quite different biographies is that a major source of the success of America's most powerful business leaders — the power and focus that derive from their overweening egos and lack of self-reflection — is also a significant source of their weaknesses as leaders and human beings. That vitally important lesson, which inevitably emerges in biographies, is seldom adequately addressed in the popular management and leadership books. +

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