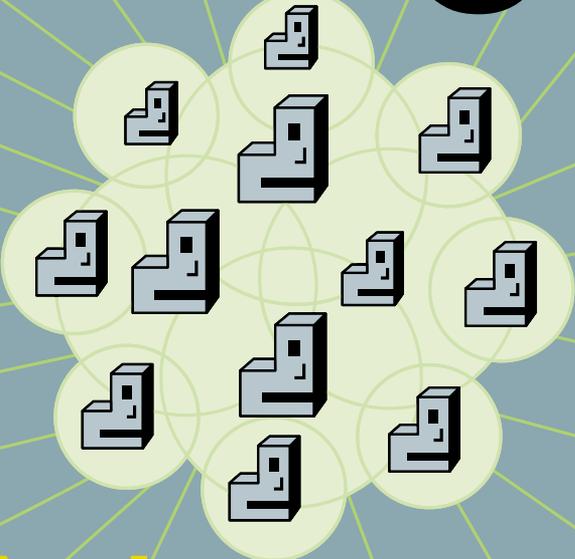
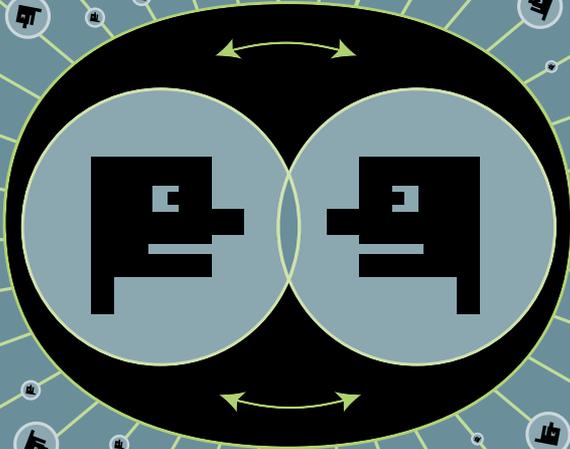


Rethinking



content | strategy & competition

in a Netw

(or Why Michael Porter Is Wrong about the Internet)

by Don Tapscott

The Harvard strategy guru errs when he says partnerships erode competitive advantage, the author contends. Instead, they are now central to business success.

Strategy

orked World

For decades, the starting point for strategic thinking has been the stand-alone, vertically integrated corporation. These powerful companies do everything from soup to nuts and dominate the competitive landscape. We think of them as intrinsic to the economy, and they provide the context for theories about competitive strategy.

Companies prospered with this model of production because it was cheaper and simpler for them to perform the maximum number of functions in-house, rather than incurring the high cost, hassle, and risk of partnering with

outsiders to execute vital business activities.

This is no longer true.

The CEO of Boeing Company says his company is no longer an aircraft manufacturer; it has become a systems integrator. Mercedes-Benz doesn't build its own E Class cars; the Magna Corporation does the work, including final assembly. IBM has become a computer company that doesn't really make its computers; its partner network does.

Indeed, we are seeing spectacular growth in contract

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manufacturing — with companies such as Celestica, Flextronics, and Solectron partnering with computer and telecommunications vendors to provide core electronics manufacturing services. Virtually overnight, the top five contract manufacturing firms have achieved aggregate revenues of more than \$50 billion, averaging return on invested capital of more than 25 percent.

All of this is possible because of networking — specifically, the Internet. This deep, rich, publicly available communications technology is enabling a new business architecture that challenges the industrial-age corporate structure as the basis for competitive strategy. My colleagues at Digital 4Sight and I have studied hundreds of different examples of this architecture, what we call a business web, or b-web. We define it as any system composed of suppliers, distributors, service providers, infrastructure providers, and customers that uses the Internet for business communications and transactions. B-webs across industries, in which each business focuses on its core competence, are proving to be more supple, innovative, cost-efficient, and profitable than traditional vertically integrated competitors.

Established companies, not dot-coms, are the main beneficiaries of b-web thinking. Successful businesses such as Enron, Citibank, Herman Miller, Dow Chemical, American Airlines, Nortel Networks, and Schwab are now transforming themselves by partnering in areas that were previously unthinkable. The performance advantages of a b-web also explain why new Internet-based companies such as eBay, Travelocity, E-Trade, and Amazon are growing dramatically and competing well despite volatility in their stock prices. And b-webs explain why an upstart e-business entity like Napster is wreaking havoc in the music industry, and why open source soft-

ware such as Linux poses a huge threat to Microsoft.

Profound changes to the deep structures of the corporation are under way. Yet most of this underlying restructuring has been either unnoticed or underappreciated by the financial media and business schools. They remain shell-shocked at the rise and collapse of the Nasdaq. And since “Nasdaq” and “New Economy” are so frequently (but incorrectly) used interchangeably, the Nasdaq collapse is often cited as proof the New Economy is a bogus notion (See “Six Reasons There Is a New Economy” on page 5). As for eBay, Amazon, Linux, Napster, and others, they are dismissed as Internet aberrations.

Michael Porter’s obituary for the New Economy, “Strategy and the Internet,” published in the March 2001 *Harvard Business Review*, is typical of this thinking. In it, Professor Porter exhorts business leaders to “return to fundamentals” and abandon thoughts of “new business models” or “e-business strategies” that he says encourage managers “to view their Internet operations in isolation from the rest of the business.”

When a politician makes a motherhood statement that receives wide support, pollsters say it “resonates with” the voters (i.e., it’s considered credible and is consistent with citizens’ values). Such is the appeal of Professor Porter’s article. Profitability still counts. True economic value, measured by sustained profits, is the arbiter of business success — not eyeballs, stickiness, hits, or even market share. To compete, companies must operate at a lower cost and/or command a premium price, either through operational effectiveness or by creating unique value for customers. Being a first-mover does not guarantee competitive advantage over the long haul.

Unfortunately, he uses these truths to prop up a false thesis. Because corporate objectives remain unchanged by

the Net, Professor Porter argues, the best methods of achieving these goals, including operating within a vertically integrated structure, must be unchanged, too.

Professor Porter sees the world as two warring camps: the Internet zealots and the defenders of tried-and-true business thinking, such as himself. And it's pretty clear who's winning. This gives him the basis on which to assert that "the experiences companies have had with the Internet thus far must be largely discounted and ... many of the lessons learned must be forgotten." If you were an industry leader prior to the Internet's bursting on the scene, continue your time-tested business processes. Use the Net as a "complement to traditional ways of competing," he says, rather than "cannibalizing" a healthy company.

Regrettably, a much-needed return to fundamentals has become a new fundamentalism that argues managers should turn back the clock for business wisdom. Although there is some merit in Professor Porter's view that "in our quest to see how the Internet is different, we have failed to see how the Internet is the same," it is utter folly to believe the Internet brings nothing fundamentally new.

What Is the Internet?

Much of Professor Porter's reasoning stems from his misunderstanding of the Internet itself. He concedes that the Internet is important — it's just not *that* important. "But for all its power, the Internet does not represent a break from the past; rather, it is the latest stage in the ongoing evolution of information technology," he writes. Rather than viewing the Net as the emerging infrastructure for economic activity, he puts the Internet architecture on the same level as "complementary technological advances such as scanning, object-oriented programming, relational databases, and wireless communications."

It is wrong to trivialize the Net in this way. The Net is much more than just another technology development; the Net represents something qualitatively new — an unprecedented, powerful, universal communications medium. Far surpassing radio and television, this medium is digital, infinitely richer, and interactive. The Net is becoming ubiquitous; it will soon connect every business and business function and a majority of humans on the planet. All other communications technologies, such as telephone, radio, television, and wireless, are being sucked into the Net's maw.

Professor Porter also makes an all-too-common mistake in assuming that the Internet we see today — a network that connects desktop PCs — is the same Internet we will see tomorrow. This is nonsense. The Internet of

tomorrow will be as dramatic a change from the Internet of today as today's Internet is from the unconnected, proprietary computing networks of yesterday.

The Net continues to soar in reach, power, and functionality. It is not only the means to link computers, but the mechanism by which individuals and organizations exchange money, conduct transactions, communicate facts, express insight and opinion, and collaborate to develop new knowledge.

Mobile computing devices, broadband access, wireless networks, and computing power embedded in everything from refrigerators to automobiles are converging into a global network that will enable people to use the Net just about anywhere and anytime. No facet of human activity is untouched. The Net is a force of social change penetrating homes, schools, offices, factories, hospitals, and governments. When an institution such as the Massachusetts Institute of Technology says it will post its entire curriculum on the Net — including such items as lecture notes and course reading lists — it is attempting to shape the nature of pedagogy and learning everywhere.

The 20th-century corporation was based on an infrastructure that included the electric power grid, roads, railroad tracks, and primitive analog networks like the telephone. Rather than viewing the Net as comparable to "scanning," Professor Porter should see it as the new infrastructure of the 21st century. Many strategists look beyond individual corporations to think about the structure of industries. However, the Internet precipitates one of those rare occasions in economic history when we must think even more broadly in order to understand how the entire infrastructure for wealth creation is changing.

What Is a New Business Model?

Professor Porter believes there is no such thing as a "business model," let alone a new one, and I don't fault him for questioning the validity of the term. Analysts have used it loosely, in reference to everything from selling rocks online to a Vickrey auction for financial services.

Often the term "business model" is used more or less synonymously with "business strategy." For example, Adrian Slywotzky describes it as "the totality of how a company selects its customers, defines and differentiates its offerings (or response), defines the tasks it will perform itself and those it will outsource, configures its resources, goes to market, creates utility for customers, and captures profits. It is the entire system for delivering utility to customers and earning a profit from that activity."

Our view is narrower than this. Quite simply, a

Six Reasons There Is a New Economy

There is nothing fundamentally new about the way capitalism works. In capitalist countries, there is still private, not state, ownership of wealth, and the economy is based on a market. The traditional business cycle (overproduction, inventory gluts, tight employment markets, inflation) is alive and well. Profits are still the ultimate measure of success. Yet, there are characteristics of 21st-century capitalism that make it entirely different from its predecessors.

1 New Infrastructure for Wealth Creation. Networks, specifically the Internet, are becoming the basis of economic activity and progress. This is not unlike how railroads, roads, the power grid, and the telephone supported the vertically integrated corporation.

2 New Business Models. Instead of thinking of New Economy companies as Internet companies or dot-coms, think about them as companies that use the Internet infrastructure to create effective b-web-based business models. In

this sense, the New Economy can include steel companies, banks, gas distribution companies, and furniture manufacturers, just as the old economy can include high-technology firms.

3 New Sources of Value. In today's economy, value is created by brain, not brawn, and most labor is knowledge work. Knowledge infuses itself throughout products and services. Michael Porter is right to say that intellectual capital has no intrinsic value. However, recent experiments in measuring knowledge-based assets suggest wealth contained in such assets can outstrip the wealth contained in physical assets and even bank accounts.

4 New Ownership of Wealth. The silk-hatted tycoons owned the most wealth in industrial capitalism. Today 60 percent of Americans own stock, and the biggest shareholders are labor pension funds. Most economic growth comes from small companies; entrepreneurialism is everywhere.

5 New Educational Models and Institutions. As lifelong learning becomes the norm, the services of private companies, not public institutions, are proliferating to meet growing demand. The model of pedagogy is also changing with the growth of interactive, self-paced, student-focused learning. Colleges are becoming nodes on communications networks, not just places where people go to study.

6 New Governance. Industrial-age bureaucracies rose simultaneously with the vertically integrated corporation and mimicked its structure. New Net-driven governance structures, such as the Knowledge Network of Los Angeles, enable Internet-based cooperation between public and private organizations to deliver services for citizens. Expect to see similar changes in the democratic procedure (e.g., the voting processes) and the relationship between citizens and the state.

— D.T.

business model refers to the core architecture of a firm, specifically how it deploys all relevant resources (not just those within its corporate boundaries) to create differentiated value for customers. Historically, strategists weren't particularly concerned with business models, because each industry had a standard model, and strategists assumed the model in that industry. Although the auto manufacturer, the integrated steel company, the insurance company, the retailer, the oil company, and the bank were different, they shared the characteristic of vertical integration.

Traditional business theorists like Michael Porter favor vertical integration and argue against partnering. In his seminal book, *Competitive Strategy*, he devotes an entire chapter to a vigorous defense of the vertically integrated firm. Today he writes how the "myth" that "partnering is a win-win means to improve industry economics" has "generated unfounded enthusiasm for the Internet." He cites a litany of reasons he believes it's better *not* to partner.

However, it is indisputable that the Net dramatically reduces search, coordination, contracting, and other transaction costs between firms. Because of this, myriad new business models have emerged that are different from the industrial-age template, and there are hundreds of old and new companies that are winning by focusing on their core capabilities and letting partners do the rest.

For example, Siebel Systems Inc., one of the fastest-growing software companies in America, has established a vast and unique network of customer, supplier, and employee relationships to deliver its products and services. Tom Siebel claims his company's b-web is the most important element in its success: "We only have 8,000 people on our payroll, but more than 30,000 people work for us," he says. The relatively small core company creates software products and orchestrates an extensive b-web composed of consultants, technology providers, system implementers, suppliers, and vendors that take its products to the global marketplace. The result: Siebel Systems'

revenues soared more than 1,400 percent in just three years, from \$118 million in 1997 to \$1.8 billion in 2000.

Yesterday's strategy orthodoxy blinds managers to these unprecedented corporate opportunities. The business strategist needs new tools, including strategic concepts and analytical methods, to comprehend and exploit business architectures, like b-webs, that are suddenly possible because of the Net. I call this "business model innovation."

When the superiority of the vertically integrated industrial corporation was taken for granted, it was assumed that most resources would be internal to the company. A business's human-resources strategy dealt with people on the payroll. Accounting handled customer payments. Simple.

But in the Internet era, we know firms can profit enormously from resources that don't belong to them. This is much more than what we call outsourcing today. In the future, strategists will no longer look at the integrated corporation as the starting point for creating value, assigning functions, and deciding what to manage inside or outside a firm's boundaries. Rather, strategists will start with a customer value proposition and a blank slate for the production and delivery system. There will be nothing to "outsource" because, from the point of view of strategy, there's nothing "inside" to begin with. Instead, managers, using new tools of strategic analysis, can identify discrete activities that create value and parcel them out to the appropriate b-web partners. A lead firm in a b-web (e.g., Siebel Systems) choreographs the process, acting as a "context provider."

Given the Internet's power, a reasonable person might ask: Why can't corporate managers simply deploy intranets to get at the resources they need and reap the

rewards? Economics 101 tells us why: Intra-corporate solutions fail to capture the tonic of the marketplace.

Most of what companies do is not based on their core competencies. Instead, firms attempt to make do with some combination of in-house design, manufacturing, marketing, and other capabilities that are often not best-of-breed. Now with the Net, business functions and large projects can be reduced to smaller components and farmed out (often simultaneously) to more specialized companies around the world with virtually no transaction costs. This captures the enormous benefits brought on by the competitive environment. Suppliers strive to reduce costs and increase quality and innovation. They know there are other specialized workers and companies around the world keen to replace them.

In this environment, the management of partnering, corporate boundaries, distribution channels, industry restructuring, and strategic repositioning is suddenly much more complex. And there are new issues, too. It used to be that sellers simply established prices. No longer. Transparency across the value chain, customer power, and global real-time information make variable pricing mechanisms far more important.

The Net and Competitive Advantage

Professor Porter avers that "As all companies come to embrace Internet technology ... the Internet itself will be neutralized as a source of [competitive] advantage." The more robust competitive advantages, he says, will arise instead from traditional strengths such as unique products, strong personal service, relationships, and sustainable operational efficiencies.

This astonishing statement has two problems. First, effectively implementing the Internet is not a binary matter like turning a light switch on and off, buying a T1 line, or installing an off-the-shelf application. As we saw during the dot-com craze, there are 1,001 ways to employ the Net, many of which make no sense whatsoever. Moreover, there is a continuum of business transformation that occurs, from setting up a Web site, to implementing radical new business models, to transforming an entire industry. The Net enables many new applications, technologies, and business innovations. Firms that understand strategy in today's more complex business environment will plumb deeper into the growing pool of possibilities.

Second, Professor Porter doesn't see how the Net is precipitating profound changes to the structures and cultures of successful businesses. In fact, these changes enable companies to compete better — *precisely* through deploy-

ing resources that allow them to create better and unique products, stronger personal service, relationships, and sustainable operational efficiencies. These three core areas are ripe for business model innovation:

- **Unique Products.** IBM has shifted its mentality from vertically integrated fortress to b-web proponent and player. In its earlier incarnation, it reaped huge profits by locking customers on a treadmill of high-margin proprietary hardware and software. Today IBM trumpets Linux. This year it will invest more than \$1 billion in the open source software, collaborating with its partners on the Net to develop, enhance, and market Linux-based applications and services. A typical initiative has IBM joining 18 other companies, such as Hewlett-Packard, Dell, and Intel, to underwrite a \$24 million Open Source Development Lab solely to support projects already under way in the open source community.

Four years ago IBM decided its customer relationship management (CRM) software needed to be the best in the world. It mothballed a massive internal development effort and a \$40 million revenue stream to partner with Siebel Systems. Today IBM's CRM business is over \$2 billion and one of its most profitable.

Critics of partnering, such as Michael Porter, condemn IBM's decision to build a PC industry based on the Microsoft standard. Allegedly, this depressed industry profitability and hurt IBM. Not true. PCs became a commodity, leading to a vast explosion in the use of information technology and, ultimately, networking, which is the foundation on which the 21st-century IBM is based. Today, the revenue and earnings from IBM's software and services dwarf all hardware sales, not just the sales of PCs.

Compare this to Apple Computer Inc., which clung to the vertically integrated approach of designing and building everything from chips to applications. If it had licensed the Macintosh operating system to partners, Apple Computer would probably be more important today than Microsoft.

Remember, it was only 10 years ago that IBM's rivals included half a dozen vertically integrated minicomputer companies such as the Digital Equipment Corporation, Prime Computer, and Data General. These companies failed to embrace partnering to deliver the best products to their customers and exploit industry standards. All but one, Hewlett-Packard Company, which adopted the partner model, failed.

The power of business-model innovation is just as evident in service companies. For example, eBay Inc. doesn't just compete well against flea markets, auction

houses, and classified ads. It has changed the rules of competition by creating a new type of service company that has become a leader in applying auction-based dynamic pricing. The most important contributors to eBay are its customers, who create the primary value of the business web; eBay is simply the provider of the business context. This b-web also includes companies such as Wells Fargo, Visa, SquareTrade.com, and others providing ancillary services that make buyers and sellers more confident and competent.

- **Operational Efficiencies.** Around the world, the Internet is allowing companies to wring out waste from their operations, differentiate themselves, and reach new suppliers and customers. Jack Welch calls e-business initiatives "a game changer for GE" that are expanding "far beyond our original vision." His company's first step was to imitate Amazon and sell goods and services online. This initiative was an immediate success; the \$8 billion in goods and services GE sold online in 2000 is expected to soar to \$20 billion this year.

In procurement, reverse auctions alone are anticipated to save GE \$600 million this year. The company runs global auctions daily — \$6 billion worth last year, growing to an estimated \$12 billion this year. The rewards are so great that rather than cutting back on IT spending because of the weak economy, the company will increase spending this year by 10 to 15 percent.

- **Customer Service and Relationships.** When it comes to customers, many pundits view the Net as simply another channel. Professor Porter writes, "On the demand side, most buyers will value a combination of online services, personal services, and physical locations over stand-alone Web distribution. They will want a choice of channels..." But the Net is more than a channel. It changes all channels. Effective competitors equip sales agents with Net-based information and tools in the customer's living room. Call-center personnel with superior Net-based customer relationship management systems containing complete customer records deliver better customer service. And bricks-and-mortar stores that exploit emerging Location-Based Services will have more customers who find them through the Net.

No to Fundamentalism

Regrettably, many, including Professor Porter, lament the increased knowledge and power that customers are acquiring in this new world. In fact, much of the competition theorists' language has disdain for customers. It's best when customers are "locked in." When they are igno-

Between yesterday's irrational exuberance and today's irrational orthodoxy, there is a new business strategy frontier.

rant or have no choice, profitability in an industry can be maintained and advantages can be achieved. Because the Net can undermine this, Professor Porter concludes this powerful communications technology “is not necessarily a blessing.” Indeed, he writes “it tends to alter industry structures in ways that dampen overall profitability, and it has a leveling effect on business practices, reducing the ability of any company to establish an operational advantage that can be sustained.”

Of course the Net creates efficiencies through the economy, intensifying rivalry between competitors and lowering barriers to market entry. It can arm consumers and suppliers with greater power because of their increased access to information, enhanced ability to communicate with each other, and greater freedom of choice. It increases the metabolism of the economy and reduces friction — as did, say, the telephone.

But would it have been sensible to judge the telephone as “not necessarily a blessing?” Overall it advanced the economy and benefited society enormously. It was a threat only to the firms that didn't want to change. This becomes even more important when you consider that the telephone's impact pales compared to the Net's.

It is good that customers will be smarter, more active, and more powerful. Because of this, more real value will come to the fore, and fewer businesses will try to make garbage smell like roses. As businesses increasingly deliver what their customers value, it may turn out the capital businesses earn from customer relationships will dwarf the value of physical assets or money in the bank.

The years from 1997 to 2000 were the dog days of strategy. A get-rich-quick mentality distorted the assertion that “the Internet changes everything” (which is true) into the hope that “all things done on the Internet will prove

lucrative” (which is rubbish). For a market economy, it was a shameful period. We saw egregious excesses and spectacular market capitalizations based on absurd or nonexistent business models. Momentum investing set in and massive damage was inevitable. Thankfully, those times are past, and sanity is returning. But what's important to understand is that the headline-grabbing dot-com machinations, be they startups or spin-offs, were largely a distraction and represented only a sliver of the businesses trying to harness the power of the Internet.

Today, in the broad space between yesterday's irrational exuberance and today's equally irrational orthodoxy, there is a new frontier of business strategy. There are great new possibilities for creating economic value, customer value, shareholder value, and community value. Business strategy is an idea whose time has come once again. But new rules for competing require some fresh thinking. Business fundamentals, indeed. Fundamentalism, no. +

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Resources

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