The Internet offers alluring opportunities for top- and bottom-line growth, yet the promise has been difficult to realize. Indeed, many companies have struggled to invest in the Internet’s advantages quickly and align their operations and business models around e-commerce. Few have succeeded in becoming e-businesses — dynamic, adaptive, around-the-clock operations that can act faster and in more flexible ways.

True e-businesses are redefining traditional value chains and developing complex knowledge-sharing systems that connect pricing, product and design information with suppliers and customers. Examples include not only new-form competitors like eBay and Amazon.com, but also established companies like Charles Schwab, Dell...
and Cisco. These e-businesses incorporate four characteristics: a major revenue contribution from the Internet; a P&L focus; alignment of all processes with the Internet, and a 24/7 electronic infrastructure.

Most businesses find themselves in one of three positions along the way to becoming an e-business. At present, the great majority of companies fall into the first category — “creating brochureware.” They use the Internet predominantly to provide information to prospective customers and other interested parties via a company Web site. Through this site they can extend their reach globally and begin to manage knowledge more effectively.

A second group of companies are “breaking the boundaries” — using electronic technologies and infrastructure to connect existing operations and processes through automation. They are selling goods over the Internet and shifting to a paperless order-to-delivery process. In so doing, they are starting to redefine relationships with customers and suppliers, and facilitating communications inside the company by sharing knowledge between units and tying business processes together.

If a firm uses its Web site to take orders and deliver products but does not add any capabilities such as customization or interactivity to distinguish the service from other types of direct selling, does this constitute e-commerce? If a firm develops a fully transactional Internet sales channel but does not integrate Internet technology into the rest of the firm, is this an e-business? In both cases we would say, “No.”

The real potential to transform the ground rules of global commerce can be seen in the third and last category of companies, those that are “transforming the business.” Such companies exploit the unique capabilities of the Internet as a computing and commerce platform to develop a distinct and dominant business on the Web. Indeed, these companies are reorganizing their business models — or creating fundamentally new businesses — to offer new value propositions to customers and shareholders. Along the way, they’ve changed how corporations organize themselves.

**EXHIBIT I**
**E.ORG DIMENSIONS**

<table>
<thead>
<tr>
<th>1990’s</th>
<th>E.org</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organization Structure</strong></td>
<td>Hierarchical</td>
</tr>
<tr>
<td></td>
<td>Command-and-control</td>
</tr>
<tr>
<td><strong>Leadership</strong></td>
<td>Selected “stars” step above</td>
</tr>
<tr>
<td></td>
<td>Leaders set the agenda</td>
</tr>
<tr>
<td></td>
<td>Leaders force change</td>
</tr>
<tr>
<td><strong>People &amp; Culture</strong></td>
<td>Long-term rewards</td>
</tr>
<tr>
<td></td>
<td>Vertical decision-making</td>
</tr>
<tr>
<td></td>
<td>Individuals and small teams are rewarded</td>
</tr>
<tr>
<td><strong>Coherence</strong></td>
<td>Hard-wired into processes</td>
</tr>
<tr>
<td></td>
<td>Internal relevance</td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
<td>Focused on internal processes</td>
</tr>
<tr>
<td></td>
<td>Individualistic</td>
</tr>
<tr>
<td><strong>Alliances</strong></td>
<td>Complement current gaps</td>
</tr>
<tr>
<td></td>
<td>Ally with distant partners</td>
</tr>
<tr>
<td><strong>Governance</strong></td>
<td>Internally focused</td>
</tr>
<tr>
<td></td>
<td>Top-down</td>
</tr>
</tbody>
</table>

- Centerless, networked
- Flexible structure that is easily modified
- Everyone is a leader
- Leaders create environment for success
- Leaders create capacity for change
- “Own your own career” mentality
- Delegated authority
- Collaboration expected and rewarded
- Embedded vision in individuals
- Impact projected externally
- Focused on customers
- Institutional
- Create new value and outsource uncompetitive services
- Ally with competitors, customers and suppliers
- Internal and external focus
- Distributed

Source: Booz-Allen & Hamilton

**AN ORGANIZATIONAL MODEL FOR E-BUSINESS**

Just as the value chain has been disintermediated, so too has the traditional organization. The Digital Age organization is no longer a single corporate entity, but rather an extended network consisting of a streamlined Global Core, market-focused business units and shared support services. The transformation to what we call an “e.org” is taking place along seven key dimensions (see Exhibit I):

1. Organization Structure
2. Leadership
3. People & Culture
4. Coherence
5. Knowledge
Alliances

The fact that there are seven organizational dimensions retires one of the most visible relics of the command-and-control, hierarchical organization model — the org chart. A collection of boxes and reporting lines on a two-dimensional slip of paper no longer accurately captures the operating dynamics of today’s extended — or “e-stended” — enterprise. It’s time to label “lines and boxes” as archetypal artifacts.

**ORGANIZATION STRUCTURE**

In place of bureaucratic, hierarchical structures, companies should form more flexible, decentralized, team- and alliance-based organizations that enable employees to respond immediately to opportunities and competitive advantages around the globe. This new e-stended enterprise model is built around a strategic Global Core, shared-services business units, and market-facing business units.

The Global Core is a revolutionary overhaul of the old corporate center or headquarters. It is a bare-bones operation consisting solely of the C.E.O., his or her team, and only those services necessary to add value to the corporation — strategic leadership, corporate identity, capital-raising, management control and the ability to deploy world-class capabilities.

For example, one of the Global Core’s key responsibilities is to provide strategic leadership. This is exerted through the encouragement of “out of the box” thinking and behaviors that promote it. Examples include G.E.’s “boundaryless” corporation; A.B.B.’s “multidomestic” company; Motorola’s “Six Sigma” quality methodology, and British Airways’ “world’s favourite airline” strategy built on customer service. Each of these removes the company’s business units from a lock-step system of policy and measurement, and encourages people to use their imagination, knowledge and common sense in pursuit of new opportunities.

Traditional overhead functions such as finance and human resources can increasingly be managed as shared services — business units providing services that are often transaction-oriented or consultative. Shared-services units operate with market dynamics by “selling” services to other business units and to the Global Core. They compete with outside vendors, and any division within the organization has the choice to buy a particular service internally or externally. Benefits are realized through economies of scale, focus of expertise and the natural tension of market forces.

In order to compete with outside vendors and offer pricing comparable to that of other business units, shared-services units must aggressively pursue alternative delivery models to reduce costs continually and improve efficiency. The Internet enables these overhead units to form networks of shared-services units that are integrated not only with other business units, but also with suppliers and customers. These regional, national and global service networks capture world-class expertise throughout the company, while lowering overall costs.

Washington, D.C.-based MCI Worldcom Inc., for example, takes employee self-service and technology integration to a higher level. The company’s internal online human resources system, known as “The Source,” provides employees with more than 1,400 pages of interactive services. At the click of a mouse, employees can venture online to reallocate investments in their 401(k) accounts, fill out electronic W-4 tax forms, and view electronic pay stubs a week before they’re paid. They can view streaming videos of managers providing briefings, check best practices within the company, and sign up for dis-
tance-learning courses directly from their desktops.

Almost every aspect of the recruiting and hiring process is automated and accessible via a single desktop interface. Systems are tightly integrated. For instance, an employee can log on to MCI’s intranet and register for a training course. His or her manager is notified instantly, and the system sends an immediate confirmation back to the employee. No paperwork, no forms and no lengthy approvals. More than 55 percent of MCI employees have access to virtual course work and virtual classrooms over the company’s intranet. From October 1997 through June 1999, MCI realized more than $2.8 million in total savings due to reduced travel, facility and labor costs.

Finally, businesses should organize around natural business units (N.B.U.’s) that are agile and configured from the outside in — from the perspective of customers rather than senior management or organizational structure — to focus on unique and natural markets.

N.B.U.’s have identifiable capabilities, operations, customers and/or competitors. They have strategic partnerships with their suppliers, even when some of those suppliers are divisions of their own corporations. Yet there are no sweetheart deals or cross-subsidies that can’t be justified in economic terms.

Several of today’s traditional organizations consider their Internet businesses to be N.B.U.’s and are structuring them as such. Citigroup, for example, has created e-Citi to appeal to online banking customers; Barnes & Noble Inc. created Barnesandnoble.com to compete with Amazon.com in reaching readers who prefer to purchase books over the Web.

The three components of the developing organization structure need to move nimbly. The Global Core must accommodate a more complex extended enterprise and manage value from growing partnerships and alliances. Shared services need to leverage the Internet to provide a greater variety of services at substantially lower cost and with higher levels of service, sometimes by outsourcing work that cannot be provided competitively in-house. Business units must hone their unique value propositions in the rapidly evolving electronic marketplace. And the entire organization must reorient its focus to deliver speed, global reach and superior service.

LEADERSHIP

In e-business, leadership is no longer the province of the anointed few. The process of promoting select individuals into positions of authority is a relic of a command-and-control culture that paralyzes companies trying to compete in an Internet-enabled environment. The old model of C.E.O. as lone “star” is no longer relevant. He or she can no longer set agendas and dictate change.

In the e.org, everyone is a leader, charged with creating an environment for collective gain and success. And the mark of a leader will be to create other leaders within the organization — disciples, of a sort, who are empowered to act. These disciples, in turn, manifest their own leadership skills by translating this vision into a mandate for continued renewal. They create an environment and build management bench strength to achieve change and cascade leadership throughout the organization.

This model of cascading leadership is not a luxury; it is an imperative in a world where organizations no longer have the time for day-to-day decisions to go up and down a hierarchy, and where knowledge throughout the organization must be leveraged and shared. It’s not easy. Market forces continue to rage as companies wrestle with the organizational barriers to institutionalizing this type of entrepreneurial leadership model.
British Telecommunications P.L.C., for example, is now developing a team of “evangelistic visionaries and mavericks,” as John Swingewood, former director of B.T.’s Internet and Multimedia Services division, calls them, who are well-versed in both the breakthrough potential of Internet technology and its risks. Deregulation and competitive posturing have pushed the British telecommunications marketplace into a free-for-all, pitting B.T. against competition from a new breed of nimble up-and-comers. Assaulted on all fronts, the company must transform itself from a traditional telephone utility into a competition-minded innovator.

One of the tasks for these mavericks is to find ways for B.T. to capitalize on the research at its Advanced Technologies Research Center, and quickly find markets for the cutting-edge research conducted there. Mr. Swingewood says that B.T.’s success will depend on creating the right conditions for Digital Age leadership. As he puts it, “If the Internet has this big opportunity to sell something, it’s easy for companies to figure out how to deliver it.” That is, provided the company has the right culture.

**The Global Core needs to accommodate a more complex extended enterprise and manage value from an increasing number of partnerships and alliances.**

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**PEOPLE & CULTURE**

The rapid pace and nearly infinite opportunity of e-business will test the limits of companies’ people strategies and corporate culture. As digital technologies take over the more routine, administrative duties performed by employees, they will amplify the need for skilled knowledge workers in every functional group and at all levels. Unfortunately, the very same factors that accelerate demand for exceptional, versatile and motivated talent will tend to diminish a company’s ability to attract and hold on to such talent. As the dot-coms hand out stock options and entrepreneurial opportunity to C.E.O.’s and secretaries alike, more established companies are struggling to match these packages. Companies of all types are being held hostage by their employees.

To recruit and retain these individuals, the e.org needs to overhaul its approach to human-resources management. It needs to recognize that the basic tenets of the employment contract are no longer valid. Companies no longer offer job security, and employees no longer offer undivided commitment and loyalty. They “own their own employability,” as Andrew S. Grove, chairman of the Intel Corporation, has put it.

Increasingly, employees are sharing their knowledge and unique skills with an employer in return for development opportunities. To the extent that an organization continues to offer new challenges and incentives, employees stay. Once their personal development passport has been stamped, however, employees may well move on. With this understanding in mind, companies need to anticipate and plan for their long-term needs, rather than focusing exclusively on filling today’s slots.

They need to develop a culture that supports the new way of doing business — one that focuses on innovation, change management and leadership through a shared mission. Companies need to encourage intelligent risk-taking throughout the business, at all levels. In short, they need to inject starched shirts with a little entrepreneurial medicine. As Ann M. Livermore, president and C.E.O. of the Hewlett-Packard Company’s Enterprise Computing Solutions, puts it, “Try bringing the free thinkers — the rebels, the crazies — into the group so you get more diversity of thinking. And don’t require them to follow procedures.”

Organizations looking to respond to these shifting priorities will need to invest in people. They will need to establish a clear link between their people strategy and their corporate vision and develop a culture predicated on a
people partnership. Moreover, they need to identify high performers critical to organizational success and focus on their needs — that combination of job design, career development opportunities, rewards and lifestyle that enables companies to attract and retain talent.

**COHERENCE**

Businesses should recognize that extracting 70 or 80 percent of their potential is not good enough; they need to be efficient at every point along the value chain to stave off the threat of disintermediation. To generate that value, employees at all levels across the company need to be ready to innovate and make good decisions quickly.

Coherence, or alignment, is what makes that possible. It is that shared sense of direction that allows a corporation to be greater than the sum of its parts. In aligned organizations, objectives are clear; roles and responsibilities are well defined and delegated, and the right things are accurately measured and rewarded.

The coherent corporation can de-emphasize a rigid organizational structure, and build more flexible configurations of people, processes and systems, because the goals and objectives of the corporation are well understood. Decision-making can be accelerated and information shared. Coherence encourages every individual to drive purposefully toward a clearly communicated common goal.

This characteristic is often present in new companies, such as small Internet startups. These firms are created with a specific sense of purpose, with all employees working for a common goal and with an incentive system directly tied to the success of the enterprise. Coherence in larger companies is harder to achieve. Multiple levels and conflicting agendas can have people working at cross-purposes. Companies such as Southwest Airlines, Enron and G.E. have created highly coherent models due to the efforts of their C.E.O.’s to insure that the kinds of people they hire, those employees’ understanding of where the company wants to go, and the means by which their contributions are rewarded, all fit into a unique system.

**KNOWLEDGE**

It is hard to place a value on knowledge, but to the extent that knowledge can be translated into corporate capabilities, it is precious.

Knowledge is the set of understandings used by people to make decisions or take actions that are important to the company. Part of the knowledge structure is, of
course, information, a component that digital technologies have largely commoditized. But there is more to knowledge than sheer data. It is what you do with the information, how you stitch it together in unique ways with know-how, processes and market perceptions, that constitutes knowledge. And knowledge is an increasingly valuable and differentiating asset, one that will, in due time, be recorded on companies’ balance sheets. More and more, companies are being seen not as a collection of businesses, but as a collection of capabilities based on highly precise knowledge.

The Internet exalts effective knowledge management,
rewarding those companies that manage to translate rich data into improved customer service, increased personalization and institutionalized best practices. As the customer’s “experience” becomes the differentiated aspect of a product — while the product itself becomes a commodity — the need to create robust knowledge systems becomes all the more important. And any impediments to the free flow of knowledge in the traditional organization — the tendency to hoard your best thinking and avoid using what others have developed — must be broken down.

What does such a knowledge system look like? We see glimpses in the following:

**Coherence:** Cisco is almost religious when it comes to customer focus, and the customer focus goes right to the top. C.E.O. Mr. Chambers was reportedly late for his very first board meeting in 1994 because he was on the phone with an unhappy customer. The board excused him. Under Mr. Chambers, Cisco senior executives have their bonuses tied to customer satisfaction ratings, and the company has spared no expense developing its online service and support model to provide its customers with the industry’s broadest range of hardware products, as well as related software and services. The customer focus permeates the entire organization — even to the engineering department, a group not traditionally thought of as customer oriented.

**Knowledge:** Cisco has leveraged the Internet to optimize every step in the value chain from sales to order-processing to customer service to manufacturing. The extent to which Cisco has tied its business partners together with shared knowledge is staggering. Web-based systems allow suppliers to tap directly into Cisco’s manufacturing and order systems with real-time access to product logistics information and order flow. Cisco also shares demand forecasts, intellectual capital, electronic communication tools and volume targets. The result? Suppliers’ production processes are “pulled” by Cisco’s customer demand. The company’s knowledge-sharing goes even further, providing online service and support to end customers; 70 percent of technical support requests are now filed electronically, generating an average customer service rating of 4+ on a 5-point scale. Cisco has saved considerable money from this online migration — an estimated $500 million a year from improved supply chain management, online technical support, software distribution via downloads and other Internet-enabled processes.

**Alliances:** It’s not just knowledge that Cisco distributes electronically with its network of partners. Cisco’s alliance partners are an integral component of the company’s ability to serve customers, and Cisco treats them as part of the company. Indeed, half of customer orders that come in over its Web site are routed electronically to a supplier who ships directly to the customer.

**Governance:** Cisco’s ability to grow while managing its autonomous business units and bringing together its alliance partners is indicative of its internal and external governance policies. Perhaps this is best illustrated by Cisco’s acquisitions ability. The company is well known for its rapid acquisitions process, and for its ability to integrate its acquisitions quickly into the Cisco family. The Cisco integration team has the acquisitions process down to a science. Cisco has upped the ante and established the table stakes in the industry, not only for its competitors, but also for its suppliers, by utilizing the Internet to maximum advantage. Yet its primary product, networking hardware, is not even a product that lends itself to Internet distribution. These components are not only “unbittable,” they are highly specialized. Still Cisco has been able to make the sales and buying experience very “bittable,” and very lucrative.
• Cisco Systems Inc. shares knowledge with its business partners using an extranet that allows suppliers to tap directly into Cisco’s manufacturing and order processes with real-time access to product logistics information and order flow. (See “Focus: Cisco Systems,” page 58.)
• The Boeing Company’s Wing Responsibility Center is a working group formed to build and maintain wings, tails and rudders for commercial and military aircraft. With an intranet, the knowledge of a worker specializing in wings for a Boeing 777 can be accessed immediately by an engineer on another project at another location.
• B.P. Amoco P.L.C. uses interactive technologies to broaden collaborative employee involvement at conferences. Meetings once restricted to essential personnel are now open to thousands of employees through Internet technology, encouraging increased employee involvement.

ALLIANCES
The Internet is accelerating and intensifying the global trend toward alliances. As competitive boundaries blur in e-business, formerly disparate products, markets and geographical regions are becoming part of the same playing field. All firms are now vulnerable to the threats posed by cooperative strategies. Management must act faster and smarter with limited resources.

In this environment, successful companies need to build and deploy the critical capabilities that will enable them to gain competitive advantage, enhance customer value and drive their markets. Alliances are an excellent way to secure immediate access to those differentiating capabilities. Partners can extend their global reach, leverage their respective strengths, and bridge strategic gaps in their own capabilities.

Strategic alliances are cooperative arrangements between two or more companies where:
• A common strategy is developed in unison and a win-win attitude is adopted by all parties.
• The relationship is reciprocal, with each partner prepared to share specific strengths with the others, thus lending power to the enterprise.
• A pooling of resources, investment and risks occurs for mutual (rather than individual) gain.

In the new e-stended enterprise, companies will form alliances not only to bridge capabilities and geographic gaps, but also to create new value and outsource uncompetitive services. Alliances themselves will become more open and adaptable as organizations form and disband agreements with suppliers, customers, competitors, even regulators, to position themselves in a changing market. These alliances will be run more autonomously with dedicated resources and a fair degree of independent control.

The Ford Motor Company’s recent alliance with CarPoint, the Microsoft Corporation’s online car retailing service, is an example of how alliances will transform the consumer experience in an e-business world. Together, these two companies are developing an online build-to-order system to link consumer order configurations directly with automotive manufacturers’ supply and delivery systems. This will allow consumers to order any model of car to their exact specifications on CarPoint, Ford.com and other automotive destination sites, receive immediate feedback on availability, and schedule delivery and service at their local dealership.

GOVERNANCE
Issues of governance will multiply in the e-stended enterprise of the near future. A broader concept than is generally appreciated, governance encompasses three areas — governance of the entire corporation by the board of directors, governance of intercompany alliances, and governance of intracompany entities. The traditional top-down, internally focused governance structure of the past is yielding to a more distributed model that incorporates both internal and external scrutiny.

The board of directors, while continuing its fundamental duty to safeguard shareholders’ interests, should become more involved in matters of corporate governance now than it has in the past. Instead of playing a passive guardianship role, it should become an active supporter of the business.

Under this new model, the board performs an active advisory role, and also acts as a control body. It brings insights on customers from a cross-section of industries and services; it benchmarks inside knowledge with outside intelligence; it challenges the effectiveness of the C.E.O. and top management (the role of the Global Core), and it makes sure the company is developing key business capabilities.
In terms of intracompany governance, the concept of shared services is illustrative. Shared services such as human resources and information technology run as autonomous business units in an internal marketplace where they serve “customers” — other business units with the power and autonomy to buy and shop elsewhere.

To govern these new business units, several organizations have set up internal governance boards. For example, AlliedSignal Inc. (which recently merged with Honeywell Inc.) has a shared-services board that includes presidents of each sector, the C.F.O., the senior vice president of human resources, and the general manager of shared services. These presidents represent the key customer groups and insure alignment of shared-services policies with their needs. The corporate sponsors insure that the shared-services policies align with overall corporate objectives and the shared-services executive is there to represent the shared-services group.

Finally, along with the increased use of alliances and their rapid deployment comes an increased need for formal intercompany governance processes. Newly emerged large networks of companies, such as the Star Alliance of United Airlines, Lufthansa, Scandinavian Airlines, Thai Airways International and other regional airlines, need to have their own “organization” and governance system — potentially, a key differentiator among alliances as they compete against each other for greater market share.

Of course, successfully shifting an established organization along all seven dimensions presents its share of challenges. The path to a true e.org is far from smooth. Typically, companies move through three distinct stages.

**E-aware companies** feel a sense of urgency about the Internet, but view it as an I.T. issue. They launch a Web site with brochureware and then wonder what to do next. While “pockets of passion” emerge around the organizations, such companies have yet to develop a focused approach or strategy to address the profound shifts in structure and culture precipitated by the new medium. Still, senior management is initiating the right dialogue on leadership, behavior and people issues, and is assessing its technical skill gaps.

**E-launch companies** acknowledge the profound opportunity posed by the Internet and see beyond the I.T. issues to the business implications. They formulate a shared vision and articulate it, and the organization begins to develop some of the characteristics of the networked e.org. The C.E.O. and senior managers of the company demonstrate new leadership behaviors, and an e-commerce point person is generally identified. Virtual communications technology facilitates the exchange of knowledge and best practices.

**E.orgs** have moved from Web site to mainstream. The company’s vision is apparent to all and is well understood, both by employees and all external partners. An entrepreneurial culture has taken root and knowledge is shared freely throughout the organization and at all levels, facilitated by intranets and extranets. Business units seamlessly access needed resources both within and outside the company. The organization has developed a cascading leadership structure, and its people strategy is front and center. This is a true e.org, characterized by a centerless, flexible and efficient organizational structure.

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