

MIT Sloan

Management Review

C.K. Prahalad & Venkatram Ramaswamy

The New Frontier of Experience Innovation

Please note that gray areas reflect artwork that has been intentionally removed. The substantive content of the article appears as originally published.

REPRINT NUMBER 4442

The New Frontier of Experience Innovation

The next practices of innovation must shift the focus away from products and services and onto experience environments — supported by a network of companies and consumer communities — to co-create unique value for individual customers.

**C.K. Prahalad and
Venkatram Ramaswamy**

Let's start with the good news: Advances in digitization, biotechnology and smart materials — each representing the convergence of multiple discrete technologies — are increasing opportunities in a wide variety of industries. Major discontinuities in the competitive landscape — deregulation, ubiquitous connectivity and globalization — are further accelerating this trend. As the competitive environment rapidly transforms, the potential for innovation is greater than ever.

And now the bad news: Managers are under overwhelming pressure to create value. Competition is intense, and profit margins are shrinking. Traditional prescriptions such as cost reduction, reengineering and outsourcing, while critically important, cannot solve the problems of margin pressure. The *need* to innovate is greater than ever.

In this new world, value creation through profitable growth can come only from innovation. But the convergence of industries and the active role of consumers in an increasingly networked society have called into question our basic conception of value and the processes that lead to its creation, including the alchemy of innovation. Managers are discovering that neither value nor innovation can any longer be successfully and sustainably generated through a company-centric, product-and-service-focused prism. A new point of view is required, one that allows individual customers to actively co-construct their own consumption experiences through personalized interaction, thereby co-creating unique value for themselves. There are no best practices to illustrate this perspective because, indeed, no single company can yet be held up as an exemplar of it. Rather we seek to explore *next* practices, to pick up the early, weak signals of a fundamentally changing paradigm and amplify them into a clearer picture. (See “About the Research.”)

The Emerging Competitive Landscape

Converging technologies are causing industry boundaries to shift and blur, changing the very nature of products and services. Consider the emerging competitive landscape fostered by digitalization. Traditionally, the education, communication, leisure and entertainment markets all were served by distinctly different industries and businesses: the consumer electronics industry (including television and audio/video products); the computer business (including desktops, laptops and video consoles); the

C.K. Prahalad is the Harvey C. Fruehauf Professor of Business Administration; Venkatram Ramaswamy is a professor of marketing and the Michael R. and Mary Kay Hallman Fellow of Electronic Business, both at the University of Michigan Business School in Ann Arbor, Michigan. Contact the authors at CPrahalad@aol.com and VenkatR@umich.edu.

communication devices industry (including phones and pagers); the software business; the music industry and the movie industry. Just 20 years ago, each of these industries had its respective established competitors and unique competitive dynamics. It was a world of certainty in which features and functionality were embedded in the product. A still camera was different from a video camera. A television was different from a computer. Competitors, channels and customers accepted those distinctions, and there were clearly defined product and industry boundaries. Today, those boundaries have all but disappeared in the wake of an emerging digital consumer space.

Digitization has enabled the combination of features and functions of traditional industries and products in a myriad of new ways. Consider Sony Corp.'s Airboard, a wireless portable video and Internet display unit. Is it a television or a personal computer? It depends. A telephone today is also an e-mail device, a text messenger, an electronic organizer, a handheld computer and a camera. The distinction between products and channels is also blurring. Internet-enabled electronic devices can function as tools for online shopping, vehicles for marketing and as service channels. Similar convergence scenarios are taking place in the financial services and health-care industries, to name just two. Indeed, in almost every industry, the distinct identities of products, services, channels, industries and companies are rapidly disappearing.

For companies, increasing product variety is the popular

defense against an increasingly boundaryless and continually transforming competitive space. Companies can encroach upon other industries, create new product space, and expand the markets they serve. Consumers can then weave their own combination of products and services to satisfy their specific needs and desires — to get what they like, when and how they like it. However, for most consumers, an ever-increasing combination of features and functions embedded in products can also create confusion and make choices difficult. In fact, for many consumers, product variety has not necessarily resulted in better consumer experiences.

Competing through product variety is a natural outcome of the product- and company-centric premise that companies create value through the products and services they offer. This, in turn, leads to a product-centric view of innovation. The emergence of active, informed and connected consumers, in conjunction with the changing competitive landscape caused by convergence of industries and technologies, challenges that view. Clearly, while creating product variety is easier today, competing effectively for value through product variety is not. Value will increasingly have to be co-created with consumers,¹ and innovation must be focused on their co-creation experiences.

The Co-Creation Experience as the Basis for Value

Assuming an active role for the individual consumer in value creation is different from allowing customers access to a company's technology base or seeking their help in product development.² In the latter cases, innovation's center of gravity remains located in the technology or the product, which is at best a variant of the prevailing dominant logic.³ Rather, the center of gravity must shift to the individual's co-creation experience.

Consider cardiac pacemakers. More than five million adults in the United States suffer from a variety of cardiac problems. Many of them are candidates for a pacemaker that monitors and manages their heart rhythm and performance, which can be of great value to the patient. However, it would add substantially to his comfort level if the performance of his heart was remotely monitored and any deviations relevant to his condition alerted both patient and doctor simultaneously. The doctor, in consultation with the patient, may decide on the course of remedial action. If the patient is away from home, an alert is not enough — he needs to know which hospital to go to. The doctor treating him there needs access to his medical history and a way to coordinate diagnosis and treatment with the primary doctor. The patient's spouse must be notified. In short, the patient and his pacemaker are part of an information-and-skills network.

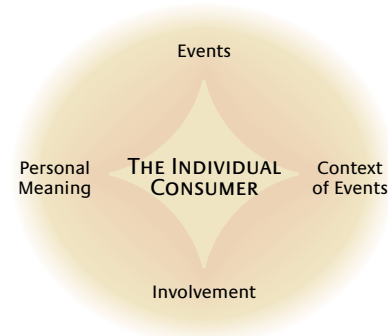
Where is the value in this scenario? It is neither in the physical product, nor in the communication and IT network that supports the system, nor in the social-and-skill network that includes doctors, hospitals, the family and the broader community. The value is in the *co-creation experience* that stems from the patient's interaction with all of these elements. That is, value creation is defined by the experience of a specific consumer, at a specific point in time and location, in the context of a specific event. Given the same network and similar medical problems, the same individual could, in a different context and with different preferences, have a different experience and thereby derive different value. For example, the context of having an irregular heartbeat at home at 9 a.m. differs from having one at midnight when away from home. A patient who is a worrier has a different personal tolerance for risk than someone who is not.

A unique co-creation experience is neither company- nor product-centric. Neither is it customer-centric in the limited sense of a company being responsive to how customers use and consume its products and services (sometimes called “demand-based” innovation). Further, it cannot be achieved without the purposeful interaction of the individual consumer with a network of companies and consumer communities that enable personalized experience. In the pacemaker case, the network, not owned by a single company, multiplies the value of the product to the patient, his family and his doctors. The patient, by co-creating with the network, is an active stakeholder in defining the interaction, the context of the event and what is meaningful to him. In other words, the individual and his interactions define both the experience and the value derived from it. (See “The Experience Space.”)

The story of the pacemaker is not far-fetched. Minneapolis-based Medtronic Inc., whose goal is to offer lifelong solutions for patients with chronic heart disease, has developed a system of “virtual office visits” that enables physicians to check patients’ implanted cardiac devices via the Internet. By holding a small

The Experience Space

The experience space is conceptually distinct from that of the product space, which is the conventional focus of innovation. In the experience space, the individual consumer is central, and an event triggers a co-creation experience. The events have a context in space and time, and the involvement of the individual influences that experience. The personal meaning derived from the co-creation experience is what determines the value to the individual.



antenna over his implanted device, the patient collects data, which is transmitted through a standard telephone line. The physician can review the data on a special Web site, and patients can check their own conditions on patient-specific Web sites.⁴ Medtronic’s system opens up opportunities for an expanding range of value-creation activities. For example, each person’s heart responds to stimulation slightly differently, and the response can change over time. In the future, doctors will be able to respond to such changes by adjusting the patient’s pacemaker remotely. Furthermore, Medtronic’s technology platform can support a wide range of devices, as well as remote monitoring and diagnostic systems, which could be used for monitoring blood sugar readings, brain activity, blood pressure and other important physiological measures.

The co-creation and expansion of such experience spaces is the future of innovation. We are already seeing glimpses of it in a variety of realms. Consider the field of telematics — one aspect of which provides mobile information and services to auto drivers and passengers. OnStar was widely launched by General Motors Corp. in 2000 as a way of providing safety and emergency services to its customers. Because the OnStar service is integrated with the vehicle, it has access to all the internal sensors and can continuously monitor vehicle functions and provide assistance when needed, guided by the satellite data. When a consumer locks herself out of her car, OnStar can open the door remotely. When a car’s airbag is deployed, OnStar can not only detect the accident but also can assess its severity. When a car is stolen, OnStar can help the police track it down. When a subscriber has an accident, the OnStar service representative contacts the local

About the Research

This article is not about best practices or current practices. It is about next practices. Therefore, we constructed a research methodology that is appropriate to amplify weak signals, to “connect the dots” as it were. Our goal was to develop a new midlevel theory of value creation and innovation. Our approach was based on synthesis of the early experimentation in a wide variety of industries and companies as well as societal trends. In this article, we use company and industry examples as thinking props to encourage the reader to think differently about value creation and innovation.

emergency service and dispatches a police car or ambulance to the scene. Over time, GM began to consider how the OnStar technology could go beyond providing safety and security to improve the overall driving experience and make it more entertaining, informative, convenient and fun.⁵ Because OnStar can determine the precise location of a car at any time, for instance, it can provide a host of location-based services, including finding the nearest Italian restaurant — and making reservations. The driver merely has to press a button on the dashboard, and a call center operator will respond.

OnStar works because the system is organized to deal with the experience space. It is focused on events and it is sensitive to the time and space context within which those events occur. Equally important, it allows consumers to interact with the system through a simple, flexible interface. These dimensions are critical for putting the individual at the heart of a co-creation experience.

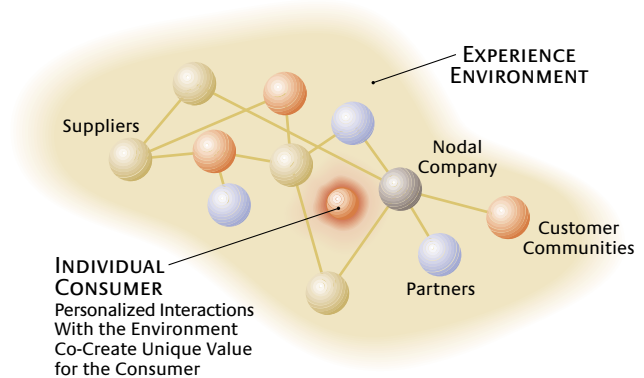
The pacemaker and OnStar examples illustrate a couple of key points about experience innovation. First, the infrastructure for personalized interactions requires a *nodal company* that pulls together a large number of suppliers, partners and consumer communities to form an *experience network*. Second, it is futile for either the nodal company or the network to try to *manage* individuals' experiences. The heterogeneity of individuals and their contexts will dictate the experience. The challenge for innovating companies is to figure out how to accommodate that heterogeneity. The concept of creating products and services will not disappear; neither will the importance of channels. Rather, they will be subsumed into the larger concept of creating *experience environments* supported by an experience network. (See "Experience Environments and Networks.")

An experience environment can be thought of as a robust, networked combination of company capabilities (including technical and social capabilities) and consumer interaction channels (including devices and employees), flexible enough to accommodate a wide range of individual context-and-time-specific needs and preferences. Because a customer's desired experiences cannot be determined a priori, experience environments must actively involve consumers — as individuals and as communities — to accommodate a range of possible customer-company interactions and thereby a variety of potential co-creation experiences. It is that set of potential experiences that will determine the individual's willingness to pay and therefore form the basis for companies to extract economic value and generate profitable growth.

As an illustration, consider the recent evolution of the popular children's toy, LEGO building blocks. Originally introduced as multicolored, variously sized plastic "bricks" that could be snapped together in almost infinite combinations, LEGO blocks were designed to stimulate a child's imagination and creativity. In 1998, influenced by the revolutionary work on children, comput-

Experience Environments and Networks

Conceptually different from company-centric supply chains, experience networks comprise nonlinear, nonsequential interactions among companies, institutions and customer communities. The network creates an experience environment with which each consumer has a unique interaction. The consumer actively co-creates his or her personalized experience, which forms the basis of value to that consumer.



ers and learning conducted by Seymour Papert and researchers at MIT, the LEGO group embraced technology convergence with the launch of its Mindstorms Robotics Invention System. Mindstorms combines technology capabilities such as miniaturization and environmental sensing (using gears, wheels, motors, sensors and software) to allow consumers to create intelligent robots using the traditional studded bricks.⁶ At the heart of Mindstorms is a device known as the Robotics Command System, a dedicated, autonomous microcomputer with an infrared link that can execute user-created code sent from a PC. Just as users can snap together the studded bricks to build various creations, they can combine and recombine various blocks of code to bring those creations to life. This clearly both perpetuated and enhanced the basic creative experience that consumers desire. A host of independent consumer Web sites sprang up, offering ideas and instructions for a plethora of LEGO robots that could be built and programmed — sorting machines, intruder alarms, robotic arms and more.

Mindstorms provides both a specific example and a useful metaphor. It showcases two essential aspects of a successfully evolving experience environment: *continuity* (the blocks are the same as they have always been) and *transformability* (functions, features and capabilities can change continuously). And it illustrates a fascinating aspect of co-creation: When an experience environment is sufficiently compelling, customer communities can take on a life of their own. They expand the environment by adding competence and innovation, and they add value by becoming directly involved in the co-creation of individual experience.

Taken together, the pacemaker, OnStar and Mindstorms scenarios begin to provide a glimpse of the nature of experience innovation. In each case, there is an enhanced base of competence comprising three co-creators of value: the company and its network, the consumer, and the consumer community. The innovation mandate, then, is to leverage that competence base to expand and enhance the environment, enabling an ever wider range of potentially desirable experiences for individual consumers. This is a fundamentally different approach to innovation than the current preoccupation with new product development, increased product variety, process improvements and reduced cycle time for product development. (See “The New Competitive Space for Innovation.”)

The transformation of the basis of value, from products to co-created experience, is an ongoing shift. While most companies and managers have been indoctrinated in the product-centric view of innovation, many have made significant inroads into the next phase, that of providing customer solutions. But few have totally embraced the experience space and the new experience-centric view of innovation.

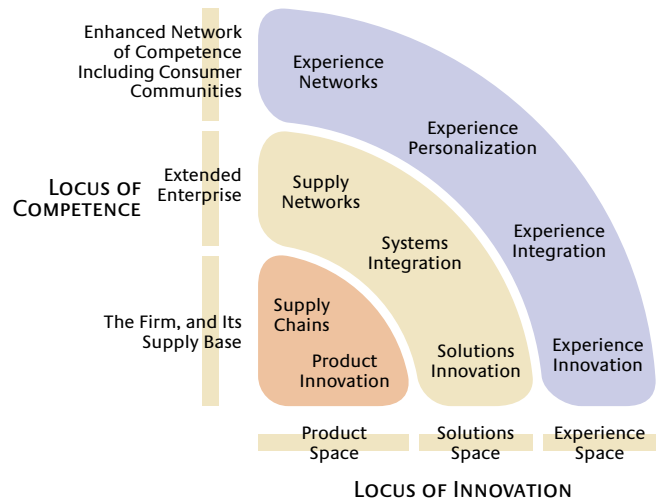
Migrating to the New Frontier: The Role of Technology

Product orientation leads to a certain approach to managing and to a favored set of tools and skills. Product-centric managers believe that cost, efficiency, quality and product variety are the primary sources of competitive advantage. For example, most managers spend a lot of time developing technology and product roadmaps describing features and functions and in what sequence they can be built. They focus on delivering those features and functions at appropriate cost and spend time thinking about new technologies that can be incorporated. This engenders a good deal of internal debate about time requirements — the time it takes to develop new features and to phase them into the system. A major source of tension is the need to match feature sets with customer segments. Product-line profitability is a big concern, so a lot of talk centers on which products should be actively promoted and which should be discontinued. Increasingly, companies are seeking to leverage their investments in R&D, as well as in their logistics system, so more time is spent on creating a platform that develops products with multiple application possibilities for new segments of opportunity. Because competitive advantage is perceived to be a result of delivering on all these dimensions better than one’s competitors do, a disproportionate amount of resources is devoted to reducing costs, measuring quality, developing suppliers, logistics, manufacturing, load factors, new machine tools or modifying existing plants, training associates and the like.

While the product space is the point of departure for most companies, an increasing number have been moving toward an intermediate stage between products and experiences, often

The New Competitive Space for Innovation

The new competitive space for innovation affords new opportunities for profitable growth and value creation. Access to competence is not restricted to the company, but spread across an extended network of companies (suppliers and partners) and communities of consumers. Companies can differentiate themselves not just through the quality and cost of their products and services, but also through their capacity to co-create unique experience environments with consumers.



called the solutions space. Solutions-based innovation focuses not just on the physical product — features and functions embedded in hardware — but on accumulated company expertise, or “soft knowledge,” as well. A solutions vendor might take responsibility for one of a customer’s subsystems or for an entire capability, such as IT. For instance, one of the fastest-growing groups within IBM Corp. is its global solutions business, which often provides customers with front-end consulting to define the solution, later following up with systems integration using IBM software and hardware, and, in some cases, even providing the customer with financing. The capacity to compete by offering solutions is based on some of the skills developed in the product space, but managers have to add skills in areas such as domain knowledge, supplier management and pricing.

In contrast, the transformation to an experience-innovation perspective is a quantum leap. (See “Traditional vs. Experience Innovation.”) Although products, services and solutions are, of course, all embedded in an experiences-based approach, managerial attention must shift dramatically to focus on the experience space (not products and services) as the locus of innovation and on the experience network (not just the company and its suppliers) as the locus of competence.⁷

In changing their focus, managers must avoid the tendency to think from the company’s perspective. In the pacemaker exam-

ple, for instance, take the issue of remote diagnostics — a key factor in enabling a satisfying experience. From the company’s perspective, diagnostics includes issues such as manufacturing low-cost sensors, measuring the right parameters (such as heart rate, muscle contraction or blood flow), and identifying key values for those parameters. But from the point of view of a customer, the key concerns can be quite different: whether the company can be trusted, what information will be gathered and how it will be used and shared, whether there are risks involved with the monitoring and so on. The specific questions that customers have will vary, of course, but dialogue, access, risk assessment and transparency are key building blocks for value co-creation from the consumer’s perspective.⁸

In changing their focus, managers must also learn to view existing and emerging technologies not as enhancers of products, features and functions, but as facilitators of experiences. Once again in the pacemaker example, it is the technological capability of environmental sensing that allows remote diagnostics. In the OnStar example, the capability of adaptive learning systems enhances connectivity and interactivity, both crucial experience enablers. Mindstorms employs the capabilities of miniaturization and embedded intelligence to foster transformability, which enables consumers to create experience variety without depending upon LEGO to provide product variety.

The ability to imagine and combine technological capabilities to facilitate experiences will be a key success factor in experience innovation, regardless of industry. Take, for example, the technological capability of miniaturization. The ability to miniaturize electronics has allowed a wide variety of products to become smaller and more portable. A generation ago, the Sony Walkman broadened the consumer’s ability to enjoy high-quality stereo

music wherever she went. Now the digitization and compression of music files combined with the miniaturization of storage capabilities and microprocessors make entire music collections easily portable. Apple Computer Inc.’s original iPod provided instant access to over 1,000 songs in a pocket-sized package; the newer variant provides access to over 5,000 songs, as do similar, competitive products.

Not long ago, companies viewed technological capabilities such as miniaturization as core competences. From the company’s perspective, portability was the primary benefit afforded the customer by miniaturization, and the locus of innovation was in the product space. Therefore, the goal was to maximize that benefit by making as many products as possible smaller and lighter. But the consumer perspective might frame the challenge differently: “Can I hold and carry it comfortably in different contexts?”

Sony, for one, has begun to recognize the differences in those perspectives, in effect realizing that a new technology is important to consumers only when it increases their personal freedom, makes life more convenient, or facilitates desired experiences. Accordingly, the company is currently working to create the capacity for all its devices to be networked with one another, and to recognize and adjust to how individuals want to interact with them. To its televisions and DVD players Sony has recently added an intelligent device that can store televised video or download it from the Internet; the product is already available in Japan. To its Vaio desktop computers and notebooks, Sony has added a device that can send digital music, photos or home videos wirelessly to televisions, CD players and other components elsewhere in the house. Sony is also working on adding environmental sensing and embedded intelligence capabilities to its laptops, so both the hardware and software applications can better adapt, on the basis

Traditional vs. Experience Innovation

Traditional innovation is company-centric and product-centric. As such, its assumptions are fundamentally different from those of experience innovation. The distinctions are summarized below.

	Traditional Innovation	Experience Innovation
Focus of Innovation	Products and processes	Experience environments
Basis of Value	Products and services	Co-creation experiences
View of Value Creation	Firm creates value Supply-chain-centric fulfillment of products and services Supply push and demand pull for firm’s offerings	Value is co-created Experience environments for individuals to co-construct experiences on contextual demand Individual-centric co-creation of value
View of Technology	Facilitator of features and functions Technology and systems integration	Facilitator of experiences Experience integration
Focus of Supply Chains	Supports fulfillment of products and services	Experience network supports co-construction of personalized experiences

of previously detected patterns, to how the user wants to interact with them.

Whereas the trend toward miniaturization has enabled the creation of pocket-sized devices that often have multiple functions — some are telephones, cameras, Internet tools, game players and general-purpose computers all in one — it is networked communication that has allowed such devices to talk to one another. This technological capability is central to experience innovation. For example, interlinked digital music devices can be embedded anywhere — in cars, phones, PDAs, PCs, home stereos, game consoles, televisions and so on. An initiative such as Apple's new iMusic — a potential network of musicians, music libraries, devices and music enthusiasts — can thus create a rich experience environment in which consumers can access a personalized variety of music, information and interaction, anywhere, in any mode.

Consider the effect of yet another technological capability — adaptive learning — on the experience environment. TiVo Inc.'s intelligent digital video recorder stores a consumer's personal viewing history, analyzes his tastes and interests, and uses the results to evaluate the programming available on the channels it can access. It then selects programs the consumer will probably like and records them digitally as they are being broadcast — all without human intervention. The consumer, of course, can exercise his own choice whenever his whims and interests change. Similar adaptive learning from interactions with the experience network is becoming the basis for real-time, multiuser games accessed through consoles like Microsoft's Xbox and Sony's PlayStation.

Obviously, each of these technological capabilities (miniaturization, networked communication, adaptive learning) has already played a role in product-centric innovations and, in so doing, has favorably affected consumer experiences. But the difference between that role and the role they could play in experience-centric innovation is a matter of intent and perspective. The intent of experience innovation is not to improve a product or service, per se, but to enable the co-creation of an environment populated by companies and consumers and their networks — in which personalized, evolvable experiences are the goal, and products and services evolve as a *means* to that end. From that perspective, a new technological capability is meaningful only when it is focused on improving the experiences desired by the consumer.

Though nascent, the movement toward experience innovation is inevitable. The emerging drivers of value creation — convergence of technologies and industries, and convergence of consumer and company roles — are transforming the meaning and process of innovation. It is increasingly impossible to re-ignite internally generated profitable growth through traditional means. Co-creation of value through personalized experiences is the emerging opportunity space. Welcome to the next practice and the future of innovation.

REFERENCES

1. C.K. Prahalad and V. Ramaswamy, "Co-opting Customer Competence," *Harvard Business Review* 78 (January-February 2000): 79-87.
2. There has been a considerable body of research aimed at bringing together user, technology and product use, and market-based and demand perspectives in technology and product innovation efforts. For example, see S.L. Brown and K. Eisenhardt, "Competing on the Edge: Strategy as Structured Chaos" (Boston: Harvard Business School Press, 1998); E. von Hippel, "Perspective: User Toolkits for Innovation," *Journal of Product Innovation Management* 18 (July 2001): 247-257; T. Kelley, "The Art of Innovation: Lessons in Creativity From Ideo, America's Leading Design Company" (New York: Doubleday, 2001); W.C. Kim and R.A. Mauborgne, "Value Innovation: The Strategic Logic of High Growth," *Harvard Business Review* 75 (January-February 1997): 102-112; D. Leonard-Barton, "Wellsprings of Knowledge: Building and Sustaining the Sources of Innovation" (Boston: Harvard Business School Press, 1995); G.S. Lynn, J.G. Morone and A.S. Paulson, "Marketing and Discontinuous Innovation: The Probe and Learn Process," *California Management Review* 38, no. 3 (spring 1996): 8-37; W.J. Orlikowski, "Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations," *Organization Science* 11 (July-August 2000): 404-428; S.H. Thomke, "Experimentation Matters: Unlocking the Potential of New Technologies for Innovation" (Boston: Harvard Business School Press, 2003); and S. Vandermerwe, "Customer Capitalism: A New Business Model of Increasing Returns in New Market Spaces" (London: Nicholas Brealey Publishing, 1999).
3. For a technology-, product- and company-centered view of innovation, see C.M. Christensen, "The Innovator's Dilemma: When New Technologies Cause Great Companies To Fail" (Boston: Harvard Business School Press, 1997); G. Hamel, "Leading the Revolution: How To Thrive in Turbulent Times by Making Innovation a Way of Life" (Boston: Harvard Business School Press, 2000); and M. Tushman and C.A. O'Reilly III, "Winning Through Innovation: A Practical Guide to Leading Organizational Change and Renewal" (Boston: Harvard Business School Press, 1997).
4. A. Carlson, "Strong Medicine," *Context*, June-July 2002, 45. For more information on the Medtronic CareLink network, see www.medtronic.com/newsroom/media_kit_CareLink.html.
5. F. Warner, "Detroit Muscle," *Fast Company*, June 2002, 88-94.
6. See P. Keegan, "LEGO: Intellectual Property Is Not a Toy," *Business 2.0*, October 2001, 90-96; P. Keegan, "Go Forth and Hack," *Business 2.0*, November 2001, 38; and M. Pesce, "The Playful World: How Technology Is Transforming Our Imagination" (New York: Ballantine Books, 2000). For more information about the LEGO Group, visit its Web site at www.LEGO.com.
7. For some emerging tools and perspectives on experience design, experience prototyping and experience mapping, see M. Buchenau and J.F. Suri, "Experience Prototyping," in "Proceedings of the Conference on Designing Interactive Systems: Processes, Practices, Methods and Techniques" (New York: ACM Press, 2000), 424-433; D. Billsus, C.A. Brunk, C. Evans, B. Gladish and M. Pazzani, "The Adaptive Web: Adaptive Web Interfaces for Ubiquitous Web Access," *Communications of the ACM* 45, no. 5 (May 2002): 34-38; C. Moore, "The New Heart of Your Brand: Transforming Your Business Through Customer Experience," *Design Management Journal* 13, no. 1 (winter 2002): 39-48; and N. Shedroff, "Experience Design" (Indianapolis, Indiana: New Riders Publishing, 2001).
8. C.K. Prahalad and V. Ramaswamy, "The Co-Creation Connection," *strategy+business* 27 (Second Quarter 2002): 50-61.

Reprint 4442. For ordering information, see page 1.

Copyright © Massachusetts Institute of Technology, 2003. All rights reserved.

MIT Sloan

Management Review

Reprints/Back Issues

Electronic copies of SMR articles can be purchased on our website:

www.mit-smr.com

To order bulk copies of SMR reprints, or to request a free copy of our reprint index, contact:

MIT Sloan
Management Review
Reprints
E60-100

77 Massachusetts Avenue
Cambridge MA 02139-4307
Telephone: 617-253-7170
Toll-free in US or
Canada: 877-727-7170
Fax: 617-258-9739
E-mail: smr@mit.edu

Copyright Permission

To reproduce or transmit one or more SMR articles by electronic or mechanical means (including photocopying or archiving in any information storage or retrieval system) requires written permission.

To request permission to copy articles, contact:

P. Fitzpatrick,
Permissions Manager
Telephone: 617-258-7485
Fax: 617-258-9739
E-mail: pfitzpat@mit.edu