

Technology

Marketing Is Everything

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The 1990s will belong to the customer. And that is great news for the marketer.

Technology is transforming choice, and choice is transforming the marketplace. As a result, we are witnessing the emergence of a new marketing paradigm—not a “do more” marketing that simply turns up the volume on the sales spiels of the past but a knowledge- and experience-based marketing that represents the once-and-for-all death of the salesman.

Marketing’s transformation is driven by the enormous power and ubiquitous spread of technology. So pervasive is technology today that it is virtually meaningless to make distinctions between technology and nontechnology businesses and industries: there are *only* technology companies. Technology has moved into products, the workplace, and the marketplace with astonishing speed and thoroughness. Seventy years after they were invented, fractional horsepower motors are in some 15 to 20 household products in the average American home today. In less than 20 years, the microprocessor has achieved a similar penetration. Twenty years ago, there were fewer than 50,000 computers in use; today more than 50,000 computers are purchased every day.

The defining characteristic of this new technological push is programmability. In a computer chip, programmability means the capability to alter a command, so that one chip can perform a variety of prescribed functions and produce a variety of prescribed outcomes. On the factory floor, programmability transforms the production operation, enabling one machine to produce a wide variety of models and products. More broadly, programmability is the new corporate capability to produce more and more varieties and choices for customers—even to offer each individual customer the chance to design and implement the “program” that will yield the precise product, service, or variety that is right for him or her. The technological promise of programmability has exploded into the reality of almost unlimited choice.

Take the world of drugstores and supermarkets. According to *Gorman's New Product News*, which tracks new product introductions in these two consumer-products arenas, between 1985 and 1989 the number of new products grew by an astonishing 60% to an all-time annual high of 12,055. As venerable a brand as Tide illustrates this multiplication of brand variety. In 1946, Procter & Gamble introduced the laundry detergent, the first ever. For 38 years, one version of Tide served the entire market. Then, in the mid-1980s, Procter & Gamble began to bring out a succession of new Tides: Unscented Tide and Liquid Tide in 1984, Tide with Bleach in 1988, and the concentrated Ultra Tide in 1990.

To some marketers, the creation of almost unlimited customer choice represents a threat—particularly when choice is accompanied by new competitors. Twenty years ago, IBM had only 20 competitors; today it faces more than 5,000, when you count any company that is in the “computer” business. Twenty years ago, there were fewer than 90 semiconductor companies; today there are almost 300 in the United States alone. And not only are the competitors new, bringing with them new products and new strategies, but the customers also are new: 90% of the people who used a computer in 1990 were not using one in 1980. These new customers don’t know about the old rules, the old understandings, or the old ways of doing business—and they

don't care. What they do care about is a company that is willing to adapt its products or services to fit their strategies. This represents the evolution of marketing to the market-driven company.

Several decades ago, there were sales-driven companies. These organizations focused their energies on changing customers' minds to fit the product—practicing the “any color as long as it's black” school of marketing.

As technology developed and competition increased, some companies shifted their approach and became customer driven. These companies expressed a new willingness to change their product to fit customers' requests—practicing the “tell us what color you want” school of marketing.

In the 1990s, successful companies are becoming market driven, adapting their products to fit their customers' strategies. These companies will practice “let's figure out together whether and how color matters to your larger goal” marketing. It is marketing that is oriented toward creating rather than controlling a market; it is based on developmental education, incremental improvement, and ongoing process rather than on simple market-share tactics, raw sales, and one-time events. Most important, it draws on the base of knowledge and experience that exists in the organization.

These two fundamentals, knowledge-based and experience-based marketing, will increasingly define the capabilities of successful marketing organization. They will supplant the old approach to marketing and new product development. The old approach—getting an idea, conducting traditional market research, developing a product, testing the market, and finally going to market—is slow, unresponsive, and turf-ridden. Moreover, given the fast-changing marketplace, there is less and less reason to believe that this traditional approach can keep up with real customer wishes and demands or with the rigors of competition.

Consider the much-publicized 1988 lawsuit that Beecham, the international consumer products group, filed against advertising giant Saatchi & Saatchi. The suit, which sought more than \$24 million in damages, argued that Yankelovich Clancy Shulman, at that time Saatchi's U.S. market-research subsidiary, had "vastly overstated" the projected market share of a new detergent that Beecham launched. Yankelovich forecast that Beecham's product, Delicare, a cold-water detergent, would win between 45.4% and 52.3% of the U.S. market if Beecham backed it with \$18 million of advertising. According to Beecham, however, Delicare's highest market share was 25%; the product generally achieved a market share of between 15% and 20%. The lawsuit was settled out of court, with no clear winner or loser. Regardless of the outcome, however, the issue it illustrates is widespread and fundamental: forecasts, by their very nature, must be unreliable, particularly with technology, competitors, customers, and markets all shifting ground so often, so rapidly, and so radically.

The alternative to this old approach is knowledge-based and experience-based marketing. Knowledge-based marketing requires a company to master a scale of knowledge: of the technology in which it competes; of its competition; of its customers; of new sources of technology that can alter its competitive environment; and of its own organization, capabilities, plans, and way of doing business. Armed with this mastery, companies can put knowledge-based marketing to work in three essential ways: integrating the customer into the design process to guarantee a product that is tailored not only to the customers' needs and desires but also to the customers' strategies; generating niche thinking to use the company's knowledge of channels and markets to identify segments of the market the company can own; and developing the infrastructure of suppliers, vendors, partners, and users whose relationships will help sustain and support the company's reputation and technological edge.

The other half of this new marketing paradigm is experience-based marketing, which emphasizes interactivity, connectivity, and creativity. With this approach, companies spend time with their

customers, constantly monitor their competitors, and develop a feedback-analysis system that turns this information about the market and the competition into important new product intelligence. At the same time, these companies both evaluate their own technology to assess its currency and cooperate with other companies to create mutually advantageous systems and solutions. These close encounters—with customers, competitors, and internal and external technologies—give companies the firsthand experience they need to invest in market development and to take intelligent, calculated risks.

In a time of exploding choice and unpredictable change, marketing—the new marketing—is the answer. With so much choice for customers, companies face the end of loyalty. To combat that threat, they can add sales and marketing people, throwing costly resources at the market as a way to retain customers. But the real solution, of course, is not more marketing but better marketing. And that means marketing that finds a way to integrate the customer into the company, to create and sustain a relationship between the company and the customer.

The marketer must be the integrator, both internally—synthesizing technological capability with market needs—and externally—bringing the customer into the company as a participant in the development and adaptation of goods and services. It is a fundamental shift in the role and purpose of marketing: from manipulation of the customer to genuine customer involvement; from telling and selling to communicating and sharing knowledge; from last-inline function to corporate-credibility champion.

Playing the integrator requires the marketer to command credibility. In a marketplace characterized by rapid change and potentially paralyzing choice, credibility becomes the company's sustaining value. The character of its management, the strength of its financials, the quality of its innovations, the congeniality of its customer references, the capabilities of its alliances—these are the measures of

a company's credibility. They are measures that, in turn, directly affect its capacity to attract quality people, generate new ideas, and form quality relationships.

The relationships are the key, the basis of customer choice and company adaptation. After all, what is a successful brand but a special relationship? And who better than a company's marketing people to create, sustain, and interpret the relationship between the company, its suppliers, and its customers? That is why, as the demands on the company have shifted from controlling costs to competing on products to serving customers, the center of gravity in the company has shifted from finance to engineering—and now to marketing. In the 1990s, marketing will do more than sell. It will define the way a company does business.

The old notion of marketing was epitomized by the ritual phone call from the CEO to the corporate headhunter saying, "Find me a good marketing person to run my marketing operation!" What the CEO wanted, of course, was someone who could take on a discrete set of textbook functions that were generally associated with run-of-the-mill marketing. That person would immediately go to Madison Avenue to hire an advertising agency, change the ad campaign, redesign the company logo, redo the brochures, train the sales force, retain a high-powered public relations firm, and alter or otherwise reposition the company's image.

Behind the CEO's call for "a good marketing person" were a number of assumptions and attitudes about marketing: that it is a distinct function in the company, separate from and usually subordinate to the core functions; that its job is to identify groups of potential customers and find ways to convince them to buy the company's product or service; and that at the heart of it is image making—creating and projecting a false sense of the company and its offerings to lure the customer into the company's grasp. If those assumptions ever were warranted in the past, however, all three are totally unsupportable and obsolete today.

Marketing today is not a function; it is a way of doing business.

Marketing is not a new ad campaign or this month's promotion.

Marketing has to be all-pervasive, part of everyone's job description, from the receptionists to the board of directors. Its job is neither to fool the customer nor to falsify the company's image. It is to integrate the customer into the design of the product and to design a systematic process for interaction that will create substance in the relationship.

To understand the difference between the old and the new marketing, compare how two high-tech medical instrument companies recently handled similar customer telephone calls requesting the repair and replacement of their equipment. The first company—call it Gluco—delivered the replacement instrument to the customer within 24 hours of the request, no questions asked. The box in which it arrived contained instructions for sending back the broken instrument, a mailing label, and even tape to reseal the box. The phone call and the exchange of instruments were handled conveniently, professionally, and with maximum consideration for and minimum disruption to the customer.

The second company—call it Pumpco—handled things quite differently. The person who took the customer's telephone call had never been asked about repairing a piece of equipment; she thoughtlessly sent the customer into the limbo of hold. Finally, she came back on the line to say that the customer would have to pay for the equipment repair and that a temporary replacement would cost an additional \$15.

Several days later, the customer received the replacement with no instructions, no information, no directions. Several weeks after the customer returned the broken equipment, it reappeared, repaired but with no instructions concerning the temporary replacement. Finally, the customer got a demand letter from Pumpco, indicating that someone at Pumpco had made the mistake of not sending the equipment C.O.D.

To Pumpco, marketing means selling things and collecting money; to Gluco, marketing means building relationships with its customers. The way the two companies handled two simple customer requests reflects the questions that customers increasingly ask in interactions with all kinds of businesses, from airlines to software makers: Which company is competent, responsive, and well organized? Which company do I trust to get it right? Which company would I rather do business with?

Successful companies realize that marketing is like quality—integral to the organization. Like quality, marketing is an intangible that the customer must experience to appreciate. And like quality—which in the United States has developed from early ideas like planned obsolescence and inspecting quality in to more ambitious concepts like the systemization of quality in every aspect of the organization—marketing has been evolutionary.

Marketing has shifted from tricking the customer to blaming the customer to satisfying the customer—and now to integrating the customer systematically. As its next move, marketing must permanently shed its reputation for hucksterism and image making and create an award for marketing much like the Malcolm Baldrige National Quality Award. In fact, companies that continue to see marketing as a bag of tricks will lose out in short order to companies that stress substance and real performance.

Marketing's ultimate assignment is to serve customers' real needs and to communicate the substance of the company—not to introduce the kinds of cosmetics that used to typify the auto industry's annual model changes. And because marketing in the 1990s is an expression of the company's character, it necessarily is a responsibility that belongs to the whole company.

U.S. companies typically make two kinds of mistakes. Some get caught up in the excitement and drive of making things, particularly new creations. Others become absorbed in the competition of selling

things, particularly to increase their market share in a given product line.

Both approaches could prove fatal to a business. The problem with the first is that it leads to an internal focus. Companies can become so fixated on pursuing their R&D agendas that they forget about the customer, the market, the competition. They end up winning recognition as R&D pioneers but lack the more important capability—sustaining their performance and, sometimes, maintaining their independence. Genentech, for example, clearly emerged as the R&D pioneer in biotechnology, only to be acquired by Roche.

The problem with the second approach is that it leads to a market-share mentality, which inevitably translates into undershooting the market. A market-share mentality leads a company to think of its customers as “share points” and to use gimmicks, spiffs, and promotions to eke out a percentage-point gain. It pushes a company to look for incremental, sometimes even minuscule, growth out of existing products or to spend lavishly to launch a new product in a market where competitors enjoy a fat, dominant position. It turns marketing into an expensive fight over crumbs rather than a smart effort to own the whole pie.

The real goal of marketing is to own the market—not just to make or sell products. Smart marketing means defining what whole pie is yours. It means thinking of your company, your technology, your product in a fresh way, a way that begins by defining what you can lead. Because in marketing, what you lead, you own. Leadership is ownership.

When you own the market, you do different things and you do things differently, as do your suppliers and your customers. When you own the market, you develop your products to serve that market specifically; you define the standards in that market; you bring into your camp third parties who want to develop their own compatible products or offer you new features or add-ons to augment your

product; you get the first look at new ideas that others are testing in that market; you attract the most talented people because of your acknowledged leadership position.

Owning a market can become a self-reinforcing spiral. Because you own the market, you become the dominant force in the field; because you dominate the field, you deepen your ownership of the market. Ultimately, you deepen your relationship with your customers as well, as they attribute more and more leadership qualities to a company that exhibits such an integrated performance.

To own the market, a company starts by thinking of a new way to define a market. Take, for instance, the case of Convex Computer. In 1984, Convex was looking to put a new computer on the market. Because of the existing market segmentation, Convex could have seen its only choice as competing for market share in the predefined markets: in supercomputers where Cray dominated or in minicomputers where Digital led. Determined to define a market it could own, Convex created the “mini-supercomputer” market by offering a product with a price/performance ratio between Cray’s \$5 million to \$15 million supercomputers and Digital’s \$300,000 to \$750,000 minicomputers. Convex’s product, priced between \$500,000 and \$800,000, offered technological performance less than that of a full supercomputer and more than that of a minicomputer. Within this new market, Convex established itself as the leader.

Intel did the same thing with its microprocessor. The company defined its early products and market more as computers than semiconductors. Intel offered, in essence, a computer on a chip, creating a new category of products that it could own and lead.

Sometimes owning a market means broadening it; other times, narrowing it. Apple has managed to do both in efforts to create and own a market. Apple first broadened the category of small computers to achieve a leadership position. The market definition started out as hobby computers and had many small players. The next step was the

home computer—a market that was also crowded and limiting. To own a market, Apple identified the personal computer, which expanded the market concept and made Apple the undeniable market leader.

In a later move, Apple did the opposite, redefining a market by narrowing its definition. Unquestionably, IBM owned the business market; for Apple, a market-share mentality in that arena would have been pointless. Instead, with technology alliances and marketing correctly defined, Apple created—and owned—a whole new market: desktop publishing. Once inside the corporate world with desktop publishing, Apple could deepen and broaden its relationships with the business customer.

Paradoxically, two important outcomes of owning a market are substantial earnings, which can replenish the company's R&D coffers, and a powerful market position, a beachhead from which a company can grow additional market share by expanding both its technological capabilities and its definition of the market. The greatest practitioners of this marketing approach are Japanese companies in industries like autos, commercial electronics, semiconductors, and computers and communications. Their primary goal is ownership of certain target markets. The *keiretsu* industrial structure allows them to use all of the market's infrastructure to achieve this; relationships in technology, information, politics, and distribution help the company assert its leadership.

The Japanese strategy is consistent. These companies begin by using basic research from the United States to jump-start new product development. From 1950 to 1978, for example, Japanese companies entered into 32,000 licensing arrangements to acquire foreign technology at an estimated cost of \$9 billion. But the United States spent at least 50 times that much to do the original R&D. Next, these Japanese companies push out a variety of products to engage the market and to learn and then focus on dominating the market to force

foreign competitors to retreat—leaving them to harvest substantial returns. These huge profits are recycled into a new spiral of R&D, innovation, market creation, and market dominance.

That model of competing, which links R&D, technology, innovation, production, and finance—integrated through marketing’s drive to own a market—is the approach that all competitors will take to succeed in the 1990s.

In a world of mass manufacturing, the counterpart was mass marketing. In a world of flexible manufacturing, the counterpart is flexible marketing. The technology comes first, the ability to market follows. The technology embodies adaptability, programmability, and customizability; now comes marketing that delivers on those qualities.

Today technology has created the promise of “any thing, any way, any time.” Customers can have their own version of virtually any product, including one that appeals to mass identification rather than individuality, if they so desire. Think of a product or an industry where customization is not predominant. The telephone? Originally, Bell Telephone’s goal was to place a simple, all-black phone in every home. Today there are more than 1,000 permutations and combinations available, with options running the gamut from different colors and portability to answering machines and programmability—as well as services. There is the further promise of optical fiber and the convergence of computers and communications into a unified industry with even greater technological choice.

How about a venerable product like the bicycle, which appeared originally as a sketch in Leonardo da Vinci’s notebooks? According to a recent article in the *Washington Post*, the National Bicycle Industrial Company in Kokubu, Japan builds made-to-order bicycles on an assembly line. The bicycles, fitted to each customer’s measurements, are delivered within two weeks of the order—and the company offers 11,231,862 variations on its models, at prices only 10% higher than ready-made models.

Even newspapers that report on this technology-led move to customization are themselves increasingly customized. Faced with stagnant circulation, the urban daily newspapers have begun to customize their news, advertising, and even editorial and sports pages to appeal to local suburban readers. The *Los Angeles Times*, for example, has seven zoned editions targeting each of the city's surrounding communities.

What is at work here is the predominant mathematical formula of today's marketing: variety plus service equals customization. For all of its bandying about as a marketing buzzword, customization is a remarkably direct concept—it is the capacity to deal with a customer in a unique way. Technology makes it increasingly possible to do that, but interestingly, marketing's version of the laws of physics makes it increasingly difficult.

According to quantum physics, things act differently at the micro level. Light is the classic example. When subjected to certain kinds of tests, light behaves like a wave, moving in much the way an ocean wave moves. But in other tests, light behaves more like a particle, moving as a single ball. So, scientists ask, is it a wave or a particle? And when is it which?

Markets and customers operate like light and energy. In fact, like light, the customer is more than one thing at the same time. Sometimes consumers behave as part of a group, fitting neatly into social and psychographic classifications. Other times, the consumer breaks loose and is iconoclastic. Customers make and break patterns: the senior citizen market is filled with older people who intensely wish to act youthful, and the upscale market must contend with wealthy people who hide their money behind the most utilitarian purchases.

Markets are subject to laws similar to those of quantum physics. Different markets have different levels of consumer energy, stages in the market's development where a product surges, is absorbed, dissipates, and dies. A fad, after all, is nothing more than a wave that

dissipates and then becomes a particle. Take the much-discussed Yuppie market and its association with certain branded consumer products, like BMWs. After a stage of high customer energy and close identification, the wave has broken. Having been saturated and absorbed by the marketplace, the Yuppie association has faded, just as energy does in the physical world. Sensing the change, BMW no longer sells to the Yuppie lifestyle but now focuses on the technological capabilities of its machines. And Yuppies are no longer the wave they once were; as a market, they are more like particles as they look for more individualistic and personal expressions of their consumer energy.

Of course, since particles can also behave like waves again, it is likely that smart marketers will tap some new energy source, such as values, to reassemble the young, affluent market into a wave. And technology gives marketers the tools they need, such as database marketing, to discern waves and particles and even to design programs that combine enough particles to form a powerful wave.

The lesson for marketers is much the same as that voiced by Buckminster Fuller for scientists: "Don't fight forces; use them." Marketers who follow and use technology, rather than oppose it, will discover that it creates and leads directly to new market forms and opportunities. Take audiocassettes, tapes, and compact discs. For years, record and tape companies jealously guarded their property. Knowing that home hackers pirated tapes and created their own composite cassettes, the music companies steadfastly resisted the forces of technology—until the Personics System realized that technology was making a legitimate market for authorized, high-quality customized composite cassettes and CDs.

Rather than treating the customer as a criminal, Personics saw a market. Today consumers can design personalized music tapes from the Personics System, a revved-up jukebox with a library of over 5,000 songs. For \$1.10 per song, consumers tell the machine what to record. In about ten minutes, the system makes a customized tape and prints out a laser-quality label of the selections, complete with

the customer's name and a personalized title for the tape. Launched in 1988, the system has already spread to more than 250 stores.

Smart marketers have, once again, allowed technology to create the customizing relationship with the customer.

We are witnessing the obsolescence of advertising. In the old model of marketing, it made sense as part of the whole formula: you sell mass-produced goods to a mass market through mass media.

Marketing's job was to use advertising to deliver a message to the consumer in a one-way communication: "Buy this!" That message no longer works, and advertising is showing the effects. In 1989, newspaper advertising grew only 4%, compared with 6% in 1988 and 9% in 1987. According to a study by Syracuse University's John Philip Jones, ad spending in the major media has been stalled at 1.5% of GNP since 1984. Ad agency staffing, research, and profitability have been affected.

Three related factors explain the decline of advertising. First, advertising overkill has started to ricochet back on advertising itself. The proliferation of products has yielded a proliferation of messages: U.S. customers are hit with up to 3,000 marketing messages a day. In an effort to bombard the customer with yet one more advertisement, marketers are squeezing as many voices as they can into the space allotted to them. In 1988, for example, 38% of prime-time and 47% of weekday daytime television commercials were only 15 seconds in duration; in 1984, those figures were 6% and 11% respectively. As a result of the shift to 15-second commercials, the number of television commercials has skyrocketed; between 1984 and 1988, prime-time commercials increased by 25%, weekday daytime by 24%.

Predictably, however, a greater number of voices translates into a smaller impact. Customers simply are unable to remember which advertisement pitches which product, much less what qualities or attributes might differentiate one product from another. Very simply, it's a jumble out there.

Take the enormously clever and critically acclaimed series of advertisements for Eveready batteries, featuring a tireless marching rabbit. The ad was so successful that a survey conducted by Video Storyboard Tests Inc. named it one of the top commercials in 1990—for Duracell, Eveready's top competitor. In fact, a full 40% of those who selected the ad as an outstanding commercial attributed it to Duracell. Partly as a consequence of this confusion, reports indicate that Duracell's market share has grown, while Eveready's may have shrunk slightly.

Batteries are not the only market in which more advertising succeeds in spreading more confusion. The same thing has happened in markets like athletic footwear and soda pop, where competing companies have signed up so many celebrity sponsors that consumers can no longer keep straight who is pitching what for whom. In 1989, for example, Coke, Diet Coke, Pepsi, and Diet Pepsi used nearly three dozen movie stars, athletes, musicians, and television personalities to tell consumers to buy more cola. But when the smoke and mirrors had cleared, most consumers couldn't remember whether Joe Montana and Don Johnson drank Coke or Pepsi—or both. Or why it really mattered.

The second development in advertising's decline is an outgrowth of the first: as advertising has proliferated and become more obnoxiously insistent, consumers have gotten fed up. The more advertising seeks to intrude, the more people try to shut it out. Last year, Disney won the applause of commercial-weary customers when the company announced that it would not screen its films in theaters that showed commercials before the feature. A Disney executive was quoted as saying, "Movie theaters should be preserved as environments where consumers can escape from the pervasive onslaught of advertising." Buttressing its position, the company cited survey data obtained from moviegoers, 90% of whom said they did not want commercials shown in movie theaters and 95% of whom said they did want to see previews of coming attractions.

More recently, after a number of failed attempts, the U.S. Congress responded to the growing concerns of parents and educators over the commercial content of children's television. A new law limits the number of minutes of commercials and directs the Federal Communications Commission both to examine "program-length commercials"—cartoon shows linked to commercial product lines—and to make each television station's contribution to children's educational needs a condition for license renewal. This concern over advertising is mirrored in a variety of arenas—from public outcry over cigarette marketing plans targeted at blacks and women to calls for more environmentally sensitive packaging and products.

The underlying reason behind both of these factors is advertising's dirty little secret: it serves no useful purpose. In today's market, advertising simply misses the fundamental point of marketing—adaptability, flexibility, and responsiveness. The new marketing requires a feedback loop; it is this element that is missing from the monologue of advertising but that is built into the dialogue of marketing. The feedback loop, connecting company and customer, is central to the operating definition of a truly market-driven company: a company that adapts in a timely way to the changing needs of the customer.

Apple is one such company. Its Macintosh computer is regarded as a machine that launched a revolution. At its birth in 1984, industry analysts received it with praise and acclaim. But in retrospect, the first Macintosh had many weaknesses: it had limited, nonexpandable memory, virtually no applications software, and a black-and-white screen. For all those deficiencies, however, the Mac had two strengths that more than compensated: it was incredibly easy to use, and it had a user group that was prepared to praise Mac publicly at its launch and to advise Apple privately on how to improve it. In other words, it had a feedback loop. It was this feedback loop that brought about change in the Mac, which ultimately became an open, adaptable, and colorful computer. And it was changing the Mac that saved it.

Months before launching the Mac, Apple gave a sample of the product to 100 influential Americans to use and comment on. It signed up 100 third-party software suppliers who began to envision applications that could take advantage of the Mac's simplicity. It trained over 4,000 dealer salespeople and gave full-day, hands-on demonstrations of the Mac to industry insiders and analysts. Apple got two benefits from this network: educated Mac supporters who could legitimately praise the product to the press and invested consumers who could tell the company what the Mac needed. The dialogue with customers *and* media praise were worth more than any notice advertising could buy.

Apple's approach represents the new marketing model, a shift from monologue to dialogue. It is accomplished through experience-based marketing, where companies create opportunities for customers and potential customers to sample their products and then provide feedback. It is accomplished through beta sites, where a company can install a prelaunch product and study its use and needed refinements. Experienced-based marketing allows a company to work closely with a client to change a product, to adapt the technology—recognizing that no product is perfect when it comes from engineering. This interaction was precisely the approach taken by Xerox in developing its recently announced Docutech System. Seven months before launch, Xerox established 25 beta sites. From its prelaunch customers, Xerox learned what adjustments it should make, what service and support it should supply, and what enhancements and related new products it might next introduce.

The goal is adaptive marketing, marketing that stresses sensitivity, flexibility, and resiliency. Sensitivity comes from having a variety of modes and channels through which companies can read the environment, from user groups that offer live feedback to sophisticated consumer scanners that provide data on customer choice in real time. Flexibility comes from creating an organizational structure and operating style that permits the company to take advantage of new opportunities presented by customer feedback. Resiliency comes from learning from mistakes—marketing that listens and responds.

The line between products and services is fast eroding. What once appeared to be a rigid polarity now has become a hybrid: the servicization of products and the productization of services. When General Motors makes more money from lending its customers money to buy its cars than it makes from manufacturing the cars, is it marketing its products or its services? When IBM announces to all the world that it is now in the systems-integration business—the customer can buy any box from any vendor and IBM will supply the systems know-how to make the whole thing work together—is it marketing its products or its services? In fact, the computer business today is 75% services; it consists overwhelmingly of applications knowledge, systems analysis, systems engineering, systems integration, networking solutions, security, and maintenance.

The point applies just as well to less grandiose companies and to less expensive consumer products. Take the large corner drugstore that stocks thousands of products, from cosmetics to wristwatches. The products are for sale, but the store is actually marketing a service—the convenience of having so much variety collected and arrayed in one location. Or take any of the ordinary products found in the home, from boxes of cereal to table lamps to VCRs. All of them come with some form of information designed to perform a service: nutritional information to indicate the actual food value of the cereal to the health-conscious consumer; a United Laboratories label on the lamp as an assurance of testing; an operating manual to help the nontechnical VCR customer rig up the new unit. There is ample room to improve the quality of this information—to make it more useful, more convenient, or even more entertaining—but in almost every case, the service information is a critical component of the product.

On the other side of the hybrid, service providers are acknowledging the productization of services. Service providers, such as banks, insurance companies, consulting firms, even airlines and radio stations, are creating tangible events, repetitive and predictable exercises, standard and customizable packages that are product services. A frequent-flier or a frequent-listener club is a product

service, as are regular audits performed by consulting firms or new loan packages assembled by banks to respond to changing economic conditions.

As products and services merge, it is critical for marketers to understand clearly what marketing the new hybrid is *not*. The service component is not satisfied by repairing a product if it breaks. Nor is it satisfied by an 800 number, a warranty, or a customer survey form. What customers want most from a product is often qualitative and intangible; it is the service that is integral to the product. Service is not an event; it is the process of creating a customer environment of information, assurance, and comfort.

Consider an experience that by now must have become commonplace for all of us as consumers. You go to an electronics store and buy an expensive piece of audio or video equipment, say, a CD player, a VCR, or a video camera. You take it home, and a few days later, you accidentally drop it. It breaks. It won't work. Now, as a customer, you have a decision to make. When you take it back to the store, do you say it was broken when you took it out of the box? Or do you tell the truth?

The answer, honestly, depends on how you think the store will respond. But just as honestly, most customers appreciate a store that encourages them to tell the truth by making good on all customer problems. Service is, ultimately, an environment that encourages honesty. The company that adopts a "we'll make good on it, no questions asked" policy in the face of adversity may win a customer for life.

Marketers who ignore the service component of their products focus on competitive differentiation and tools to penetrate markets. Marketers who appreciate the importance of the product-service hybrid focus on building loyal customer relationships.

Technology and marketing once may have looked like opposites. The cold, impersonal sameness of technology and the high-touch, human uniqueness of marketing seemed eternally at odds. Computers would only make marketing less personal; marketing could never learn to appreciate the look and feel of computers, databases, and the rest of the high-tech paraphernalia.

On the grounds of cost, a truce was eventually arranged. Very simply, marketers discovered that real savings could be gained by using technology to do what previously had required expensive, intensive, and often risky, people-directed field operations. For example, marketers learned that by matching a database with a marketing plan to simulate a new product launch on a computer, they could accomplish in 90 days and for \$50,000 what otherwise would take as long as a year and cost at least several hundred thousand dollars.

But having moved beyond the simple automation-for-cost-saving stage, technology and marketing have now not only fused but also begun to feed back to each other. The result is the transformation of both technology and the product and the reshaping of both the customer and the company. Technology permits information to flow in both directions between the customer and the company. It creates the feedback loop that integrates the customer into the company, allows the company to own a market, permits customization, creates a dialogue, and turns a product into a service and a service into a product.

The direction in which Genentech has moved in its use of laptop and hand-held computers illustrates the transforming power of technology as it merges with marketing. Originally, the biotechnology company planned to have salespeople use laptops on their sales calls as a way to automate the sales function. Sales reps, working solely out of their homes, would use laptops to get and send electronic mail, file reports on computerized “templates,” place orders, and receive company press releases and information updates. In addition, the

laptops would enable sales reps to keep databases that would track customers' buying histories and company performance. That was the initial level of expectations—very low.

In fact, the technology-marketing marriage has dramatically altered the customer-company relationship and the job of the sales rep. Sales reps have emerged as marketing consultants. Armed with technical information generated and gathered by Genentech, sales reps can provide a valuable educational service to their customers, who are primarily pharmacists and physicians. For example, analysis of the largest study of children with a disease called short stature is available only through Genentech and its representatives. With this analysis, which is based on clinical studies of 6,000 patients between the ages of one month and 30 years, and with the help of an on-line "growth calculator," doctors can better judge when to use the growth hormone Protropin.

Genentech's system also includes a general educational component. Sales reps can use their laptops to access the latest articles or technical reports from medical conferences to help doctors keep up to date. The laptops also make it possible for doctors to use sales reps as research associates: Genentech has a staff of medical specialists who can answer highly technical questions posed through an on-line question-and-answer template. When sales reps enter a question on the template, the e-mail function immediately routes it to the appropriate specialist. For relatively simple questions, on-line answers come back to the sales rep within a day.

In the 1990s, Genentech's laptop system—and the hundreds of similar applications that sprang up in the 1980s to automate sales, marketing, service, and distribution—will seem like a rather obvious and primitive way to meld technology and marketing. The marketer will have available not only existing technologies but also their converging capabilities: personal computers, databases, CD-ROMs, graphic displays, multimedia, color terminals, computer-video technology, networking, a custom processor that can be built into

anything anywhere to create intelligence on a countertop or a dashboard, scanners that read text, and networks that instantaneously create and distribute vast reaches of information.

As design and manufacturing technologies advance into “real time” processes, marketing will move to eliminate the gap between production and consumption. The result will be marketing workstations—the marketers’ counterpart to CAD/CAM systems for engineers and product designers. The marketing workstation will draw on graphic, video, audio, and numeric information from a network of databases. The marketer will be able to look through windows on the workstation and manipulate data, simulate markets and products, bounce concepts off others in distant cities, write production orders for product designs and packaging concepts, and obtain costs, timetables, and distribution schedules.

Just as computer-comfortable children today think nothing of manipulating figures and playing fantastic games on the same color screens, marketers will use the workstation to play both designer and consumer. The workstation will allow marketers to integrate data on historic sales and cost figures, competitive trends, and consumer patterns. At the same time, marketers will be able to create and test advertisements and promotions, evaluate media options, and analyze viewer and readership data. And finally, marketers will be able to obtain instant feedback on concepts and plans and to move marketing plans rapidly into production.

The marriage of technology and marketing should bring with it a renaissance of marketing R&D—a new capability to explore new ideas, to test them against the reactions of real customers in real time, and to advance to experience-based leaps of faith. It should be the vehicle for bringing the customer inside the company and for putting marketing in the center of the company.

In the 1990s, the critical dimensions of the company—including all of the attributes that together define how the company does business—are ultimately the functions of marketing. That is why marketing is

everyone's job, why marketing is everything and everything is marketing.

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