Differentiation in the e-World

Published for the Management Roundtable community

To participate in an online forum about this topic click here

Peter Marks
Design Insight
Santa Cruz, CA
Copyright ©2000

Differentiation in the e-World

Getting even with competitors can be difficult, requiring years of development and millions invested. Yet customers ultimately decide based on the differences. Selling on the Web doesn't change the need to differentiate our products and services. Creating compelling differences remains the heart of competitive advantage. However, e-business does change the opportunities for differentiation -- for better and for worse as we'll see.

Today's business press portrays a battle of traditional (pre-e) companies versus abundantly financed Web upstarts. We regularly hear of e-businesses, with a few million in sales and no profits, being rewarded with market caps of $1 billion and more. Traditional companies wonder how they can compete. After the hoopla about the Web has subsided, we'll realize that the battle has always been about differentiation. Being a first mover to the Web is just one approach to creating a difference that matters in the minds of customers. Traditional companies that have learned to leverage their strengths via the Web will be stronger than before. They'll vie with differentiated e-upstarts for market leadership. Undifferentiated companies, regardless of their pre-e or post-e origins, will be in dismal shape.

The three objectives of this paper are:

1.0 To raise awareness of the potential pitfalls of e-commerce. Many companies are on a path that will result in decreased differentiation and depressed profits.

2.0 To summarize the principles of differentiation. Our "human wiring" provides a foundation for understanding, planning, positioning, and branding fast-changing technologies.

3.0 To showcase ways of using the Web to increase differentiation and competitive success.

1.0 Decreased Differentiation and Depressed Profits

Dominating several degrees of differentiation is a business goal. It's like basketball game or a chess match. We don't want to be trapped in a losing position with no where to go. Naturally, the first priority is to be best at one thing -- customers don't intentionally choose the second best offering for their needs. However, relying upon a single point of differentiation is risky. What happens to a Polaroid, the world's best in instant film, when the patents run out or a digital alternative emerges? Great development teams, like any team with depth, create several ways to match up against their competitors.

There are eight main ways that customers differentiate between products and services. These eight degrees of differentiation include initial prices, the buying experience, visual comparisons, performance comparisons, sensory and ease-of-use comparisons, fears and assurances, life cycle costs, and the social or regulatory influence of others. We'll return to these points later. Most e-companies are staking their claim to the same two or three degrees of differentiation. Most promise lower costs. A few offer greater variety or ease of use or availability. All are attempting to ride a wave of social influence.

To put the importance of maintaining differentiation in a financial perspective, here's one example. I began consulting with IBM, starting just before Lou Gerstner arrived. Back then the stock had dropped to about $40 a share. Instead of the Web, the wave of social acceptance was for client-server computing. IBM mainstays like the mainframe and AS/400 were either in trouble or headed toward trouble. While our analysis of the problem went deeper, a fair summary is that customers thought "client-server is as good as proprietary computer hardware, but cheaper." The issue for IBM was to strip away the compelling differences of competitors (many were cost related) and add new ones of its own. Along the way, IBM made "Customer $APPEALS" (the eight ways customers differentiate) an integral part of its new product development process. I vividly recall both the teams that created new degrees of differentiation (e.g., ThinkPad, e-Business services) and those that were mired in matching the competition (e.g., consumer desktops, OS/2). Overall, IBM has made a spectacular turnaround. After two stock splits, $40 of IBM stock is now worth about $400. This increase in value represents what customers think is different about owning a ThinkPad versus an ordinary laptop computer, an IBM e-business solution versus a generic solution, and so on throughout all the company's products and services.

The best way to predict the success of companies is to understand the buying decisions that drive their market size, market share, and margins. When we do this for the Web, we come up with an interesting mix of threats and opportunities.

Table 1 The eight ways customers differentiate between competitive offerings.

Differentiation	e-Threats	e-Opportunities
$ price Use price to differentiate. For example, "it's expensive, but worth it, versus "guaranteed lowest prices."	Convergence to a common low price via e-commerce and e-procurement. The commoditization of markets.	Provide a rich mix of a la carte product and service offerings. Use micro pricing and other new payment schemes to deliver what the customer values, at prices that are perceived as attractive, without compromising margins.
Availability Use the buying experience to differentiate. Provide what customers want, when, where, and how they want to buy it.	Sterile buying experiences, ruled by a need to match the distribution methods of low cost competitors. Some bricks and mortar channels are driven out of business. Others face deep cuts.	Build a combination of Web and physical channels aimed at creating convenient and compelling buying experiences.
Packaging Use visual appearances, size, and styling to differentiate. This includes visual clues to other aspects of product differentiation.	Many pre-e products have not been designed to visually speak for themselves - they rely on a physical presence and sales support. Web-quality snapshots also fail to communicate subtle visual differences. Thus, many otherwise worthy products may fail if customers move to a picture-and-price browsing mode.	Create Web sites that are an extension of our products' look and feel. A renaissance for visual differentiation is possible, comparable to the founding of industrial and graphic design. Intelligent use of visualization technology and higher bandwidth can also surpass anything possible in a printed brochure.

Differentiation	e-Threats	e-Opportunities
Performance Use performance to differentiate, possibly tailored to the needs and desires of individual customers. There is typically a minimum threshold of performance plus an opportunity for a best-of-class appeal.	As with price, a convergence to the mean. Companies can't afford to invest in extras if the customer is choosing based on lowest price.	Provide more complete solutions, based on mixed product / service offerings. Let customers define their own performance needs and test alternatives via the Web. Then, use the Web to deliver the service elements.
Ease of use Make the product a delight to learn and use. This requires matching the "impedance" of the product to our human senses and capabilities. Customers try to assess sensory and learning matches while buying. Ease of use is even more important in repeat purchase loyalty.	A decline in brand loyalty. It's hard to communicate touch and feel issues to first time buyers -- even more so with the Web as the channel. The first consequence is to downplay ease of use as an opportunity for differentiation. However, experienced customers eventually get the word out. Thus many new products get an initial spurt of sales, but fail to win repeat purchases.	Add a wide variety of e-Services to make the product easy and enjoyable to use. Help customers replicate what feels just right — and get a shoe, bat, glove, PIM, etc. that feels even better the next time around. There are many opportunities to create brand loyalty in its most enduring forms.
Assurances Use assurances to differentiate. Highlight fears and be the first to resolve them.	Companies often fail to understand and respond to the buyers' approach and avoidance behavior -- especially on the Web.	Seize the opportunities to communicate and manage risk. Examples include remote diagnostics, tailored warranties, and backup options to improve product uptime and safety.

Differentiation	e-Threats	e-Opportunities
Life cycle costs Be better, safer, or cheaper over the long run.	Largely ignored on the Web. In some cases, the operational costs of buying from an e-company are higher than local sources.	Reduce life cycle costs through Web-based operations management, provisioning, purchasing, energy management, diagnostics, upgrades, etc .
Social sanctions Leverage others' opinions and socially accepted standards to differentiate. Be hip, cool, trusted, compliant, or the defacto standard. Advertising and word-of-mouth reputation are two of the many vehicles for communicating social differences.	Many companies use lavish advertising in conventional media to point potential customers to Web sites, with initial purchases greased by give-aways. In most cases, there's little or no residual loyalty. Indeed, the lure is often followed by an undifferentiated experience.	Create communities of interest, leverage customer testimonials, and build a bandwagon via the Web. Remember that loyalty is formed *after* the product is in use. A seamless and satisfying virtual to physical experience is a must.

In the past, companies worried about their offerings turning into commodities. They haven't seen the worst of it. A precise definition of "commodity" is a product or service that has given up all degrees of differentiation *except* price and availability. With commodities, we buy based on who has the offering available at the lowest price. If you think being in a commodity market used to be a nightmare, consider the potential of the Web to drive prices still lower and turn regional competition into Web-wide competition.

Most companies aren't paying sufficient attention to differentiation in a rush to keep up with the e-Joneses. Yet, there are exciting opportunities for traditional companies to leverage their assets on the Web and for new e-companies to think beyond this year's gold rush mentality.

An especially attractive set of opportunities involves better integration of products and services. The whole product has always included a blend of product and service elements. Getting the right mix often took decades, as complementary players entered the market to patch deficiencies in the original scenario. For example, it took decades before motorists had the had the autos, highways, service stations, motels, and destinations to enable a

satisfying "family vacation." The PC industry created a similar network of complementary products and services in about a decade. Today's winners are speeding up the pace of integration through acquisitions (consider Cisco Systems) and alliances (consider Amazon). The Web is an ideal vehicle to integrate and deliver complementary services in a wide variety of industries.

In some cases, companies recognize the opportunity to create blended offerings but miss the finer points of differentiation. For example, the operators of communications services like AT&T and the makers of wireless devices like Nokia anticipate huge opportunities in complementary service/product offerings. However, positioning the blend as either a better phone service or a more functional phone or PDA misses the mark. The larger opportunity is to create new scenarios of use, not improved versions of AT&T or Nokia.

Issues of differentiation are just as important for pure e-companies. Simply offering low prices (often as a loss leader) and being first in a category are rarely lasting forms of differentiation. Like the new restaurant in town that everyone tries once, long term success depends on long term differentiation. People soon start paying attention to the taste of things and the service they receive. Today's e-companies have a once-in-a-lifetime opportunity to leverage their initial valuations to create a more enduring competitive advantage.

The bottom line is that companies are unwittingly abandoning degrees of differentiation as they rush to embrace the Web. We should, instead, seek powerful new degrees of differentiation.

2.0 The Human Principles of Differentiation

The principles that govern customer buying behavior evolve slowly compared to the pace of technological change. We're using very old hardware (brains developed through eons of evolutionary change) and fairly old software (norms that change at the pace of learning) to decide which products to buy and which to skip. While technology evangelists are fond of saying "the Web changes everything," human legacy systems are still in charge of what gets bought and what gets ignored.

While our understanding of human decision-making is not an exact science, there are principles which govern all forms of human decision-making. Four especially important principles are that:

1) People pay attention to differences. One consequence is that we tend to ignore undifferentiated products.

2) Differences are noted subconsciously as well as consciously. Differentiation based primarily on speeds and feeds, as is common in many high tech industries, misses powerful forms of differentiation.

3) Customers change gears three times from 0-to-loyalty. Our strategies need to shift accordingly.

4) There are eight kinds of differences that matter. These provide a partial treasure map, telling us where we can find potentially powerful forms of differentiation.

2.1 People pay attention to differences

We process information by mentally shepherding similarities together and then separating differences from the herd. This tango of inclusion (finding similarities) and exclusion (finding differences) is repeated at every level of human decision making. For example:

- Our visual systems are tuned to assume the familiar and pay attention to differences.

- Our auditory systems tune out background noise, and tune into meaningful differences.

- Our other sensory systems (olfactory, kinesthetic, etc.) attend to differences.

- Binary comparisons (difference comparisons) are easier than absolute judgements.

- We crave both repetition and change. Without a familiar reference point, differences are jarring. Without differences, familiarity breeds contempt.

- Human languages are replete with both inclusive categories and difference descriptions (bigger, smaller, brighter, dimmer, richer, poorer).

- Physical attraction is based on converge-to-the-mean norms for facial and body features augmented by accentuation of desirable characteristics. Same gets us "pleasant." Subtle differences give us beauty.

- Successful innovations are shepherded into consideration with metaphors and analogy (e.g., the horseless carriage) and gain acceptance based on clear superiority in one or more of the eight basic patterns of differentiation.

- Differences act, first, to reduce a multitude of competitors down to a comfortable consideration set. Our kick-out criteria ("too expensive," "possibly unreliable," etc.) are chosen partly because they are meaningful and partly because they are efficient at simplifying our decisions. Buyers typically give only three suppliers serious consideration. Only with commodity markets are more than three suppliers considered — mainly because the remaining decision criteria (cost and availability) are so simple.

- While having three suppliers or bids feels like we've done our homework, we are most comfortable making either/or decisions. This goes back the relative ease of making comparisons and the difficulty of making absolute judgements. Anyone who has solicited three bids for services will probably recall that they quickly found a reason to eliminate one of the three suppliers, leaving a more comfortable two-way comparison.

- Given two close competitors, we consciously and subconsciously consider the eight degrees of differentiation (tailored to the decision at hand). This often ends up in a "same as, but . . ." decision where the ultimate winner is decided on very few points of differentiation. Even trivial items, like cupholders, may tip the balance if everything else matches up.

- If our choice proves especially satisfactory, we become "loyal" to our decision-making rubric. Many companies mistake this for loyalty to their brand. It's usually loyalty to a decision process, which is sometimes easy for competitors to coopt. In the natural world, some species mimic the look and feel of others to lure new "customers." In the built world, competitors mimic the look and feel of market leaders.

- Differentiation operates simultaneously to *exclude* undesirable instances, while achieving *exclusivity* among a chosen few.

- We defend market share by matching competitive differentiation and grow share by creating new degrees of differentiation. The key to winning buying customer decisions is knowing what to keep the same (we've got to make it to the final two) and what to make different (there's no point in being the perennial runner up). While the best mix will depend on customer preferences and competitive matchups, it's amazing how many otherwise capable development teams set themselves up for weak differentiation.

- No project should get final funding unless the development team has at least one good answer to the question "why should a customer choose us?" Resources are often so consumed getting even with competitors, that nothing is left for meaningful differentiation. In perfect markets, weakly differentiated products and services quickly die. In real markets, customers don't have perfect information. Some will buy based on past positive experiences with the vendor, gaps in competitive sales coverage, and so on. This leaves us with the worst of situations. We fail to learn from clear-cut mistakes, continue to invest in undifferentiated products, and ultimately get a poor return on our hard work.

- Buyers pay attention to differences. Our development process should be aimed at creating and communicating differences that matter. Any investment whose sole objective is to get even -- and many Web investments are urged on this basis -- should be seriously questioned.

2.2 Differences are Noted Subconsciously as well as Consciously

We humans have decision-making subroutines to help us differentiate. These are somewhat like object-oriented programs, which are called upon as needed. As a practical matter we can group these subroutines into three modes of comparison, which I describe as cognitive, normative, and wired in decisions.

	Physiology of differentiation	Psychology of differentiation	Marketing's spin on differentiation	Example:
Cognitive - Rational, conscious decisions. Results are "computed" on the fly, using heuristics for comparing alternatives.	Triune brain theory. Most conscious, cognitive behavior is in the forebrain and is relatively unique to humans.	Freud's ego. Transactional analysis' adult. Maslow's notion of self-actualization. The field of cognitive psychology.	Selling based on cost-benefit, price-performance, life cycle and other cognitive appeals.	Buying Nike sneakers because the soles' hysteresis characteristics permit better performance. A carefully-considered comparison of alternatives.
Normative - Learned behaviors, with many developed during our formative years. Results are recalled from memory -- often as semiconscious feelings & hunches.	Mid-brain. Many preferences and drives are shared with other primates. We live in societies, have social hierarchies, care for our children, etc. This is the nurture side of the nature versus nurture debate.	Freud's superego. Transactional analysis' parent. Maslow's needs for security, affiliation, and achievement. The field of social psychology.	Selling based on peer group approval and, by extension, brand loyalty. Marketing hopes to seed the process with reference accounts, celebrity spokespersons, and highlighting awards won.	Buying Nike sneakers because they're in vogue with my crowd. Michael Jordan told us to just do it!
Wired-in - Innate behaviors. Includes both drives common to all humans and individual genetic differences. These are largely subconscious determinants of behavior.	Lower brain. We share many autonomic functions and drives with other animals, hence the term "reptilian brain" and the idea that ontogeny recapitulates phylogeny. Research shows that a wide variety of learning styles and personality types also have a "wired in" component. Nature vs. nurture.	Freud's id. Transactional analysis' child. Maslow's needs for survival and some components of security and achievement — the big dog rules. The study of innate drives, genetic markers, and psychobiology.	Selling based on the satisfaction of innate drives. Hardly anyone sells beer based on cost-benefit analysis, while almost all the ads feature boys meeting pretty girls. Ads often appeal to our desires to be attractive, dominant, secure, etc.	Customers may not articulate exactly why they bought. However, one might observe that these sneakers are being bought by boys with raging hormones, even though they cost twice as much as cognitively equivalent shoes.

Table 2 Three modes of comparison operate in parallel, with semiconscious connections from one level to the next.

The differences that matter to customers are often the result of normative or wired-in processing. Furthermore, it's not easy for customers to tell us how they make normative and wired-in comparisons. As a result, some companies focus on conscious differentiation and ignore potentially potent normative and wired-in forms.

Any point of differentiation is likely to be "voted upon" at all three levels. For example, a low price might signal "bargain" at one level and "socially unacceptable" at another level.

- The strongest position is a unanimous "YES!" at all three levels. This position correlates with high profits and brand loyalty.

- A tenable position is a clear "yes" at one level with little or no support from the other two. One example is buying an industrial product where it may make sense to buy a given model, but there is no social or wired-in payoff. Another example is buying a luxury item, such as a Rolex watch, where there are social and wired-in payoffs, but weak rational justifications for paying several times the price of equally accurate and reliable products.

- Some of us, and this depends on both our personality and our interest in the category, tend to be cognitive buyers while some of us tend to be socially influenced.

- Products with a one-strong-vote position may sell well, but are unnecessarily vulnerable to competitors. Smart competitors differentiate at all three levels.

- A weaker and contradictory position is a "yes" at one level with a "no" at another level. This has been described as "cognitive dissonance" by Elliott Aronson, renowned psychologist and fellow Santa Cruzan. It turns out that most buying decisions are tinged with dissonance and later, perhaps, buyer's remorse. For example, a rational buyer might conclude that a Honda Accord or Toyota Camry provides all the room, acceleration, creature comforts, and reliability that anyone really needs. Our richest citizens, a generation ago, made do with less. On the other hand, the same buyer might decide to spend an additional $10,000 to $50,000 for a luxury car, based on normative expectations. Note that luxury car makers like Mercedes and Lexus work very hard at providing a mix of rational and normative justifications. Lexus has even run ads extolling the left brain rationale of owning a Lexus plus the right brain exhilaration and prestige of their cars -- a theme that continues on their web site (www.lexus.com). Companies like Infiniti have tried to have it both ways, promising high status and whispering "lower price."

- Dissonance from cognitive, normative, and wired-in comparisons exists in almost every category. Smart developers help customers reduce such dissonance. So far, most e-businesses aren't thinking about this issue.

- The weakest position is, of course, a "no" at all levels. Such products die swiftly and need not be considered here.

Wired-in behaviors change at the pace of evolution. Normative preferences change at the pace of learning. That's why there is partial validity to generational schemes of market segmentation. It's also why some adults spend a lifetime in therapy trying to undo old parental programs. Cognitive decisions can also be slow to change, since we often use old "programs" to process new data. While it pains a cognitive thinker like myself to admit it, the strongest and most durable appeals usually resonate with our wired-in and normative preferences.

Companies, teams, and functional disciplines are often blind to one or more levels of human decision making. The new e-companies are no exception. Engineers tend to think that buyers always make rational decisions. Entire companies (Texas Instruments?) can operate from this bias. Marketers tend to ascribe too much importance to the power of advertising, brands, and normative appeals. Nike has periodically relied too much on normative differentiation and not enough on cognitive differentiation. Sales folks sometimes act as if success is mainly a matter of finding customers' hot buttons and pushing them. While each of these views has validity, reliance upon a single mode of customer decision-making locks out potential degrees of differentiation. Our customers make decisions with their whole selves. Our offerings should appeal to whole customers.

2.3 Customers Change Gears Three Times from 0-to-Loyalty

While wired-in modes of differentiation change slowly, we do learn in the process of buying and using any product. Not quickly enough, perhaps, but better than any other species. There are at least three main stages of learning.

- First, we learn new product categories. Years ago, none of us knew why we might want a microwave oven or a fast Internet connection. Now we know.

- Second, we learn how to differentiate between competitive offerings. Fewer years ago we didn't have a clue about the hot spots in microwave ovens or the differences between ISDN, DSL, and cable modem services. Now, many of us know.

- Finally, we learn subtleties from actual use (or observing others' use) that influence our next buying decision.

Most courses on new product development starts with a discussion of the product life cycle. Everett Rogers summarized thinking on this topic four decades ago (*Diffusion of Innovations*, Free Press, 1962, followed by several updated editions). The idea is that adoption of new products goes through various stages. Innovators and early adopters dominate the early stages, followed by the majority and laggards. More recently, books like Geoffrey Moore's *Crossing the Chasm* have explored specific issues in adoption, such as the transition from early adopters to majority users.

The impression is that a product life cycle is somehow attached at birth to each technology. An example of this thinking is Makimoto cycle, based on Tsugio Makimoto's observation that computer innovations seem to come and go in ten year cycles of standardization and customization. There's also this idea, rampant in e-business, that if it's a new idea then we're looking for customers who have "early adopter" stamped on their foreheads.

The insight I'd add is that product life cycles are driven by customer experiences with a product type. It's not just a matter of technology, but also how this technology is presented and supported. As customers, we go through three stages of exploration:

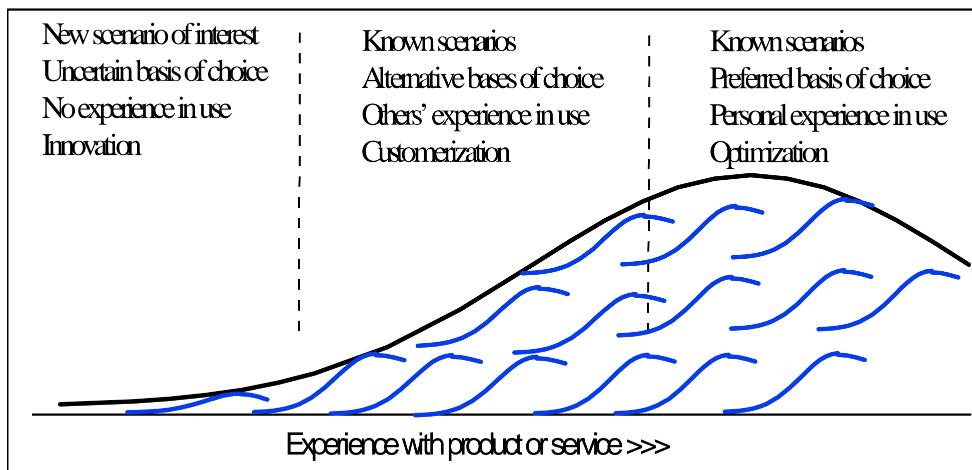
- **interest** (why would I want one of these?),
- **choice** (which one should I buy?), and
- **loyalty** (how will I choose next time?).

We change mental gears three times as we encounter a new product, make a purchase decision, and then learn rules for repeat purchases.

The **interest** decision is usually a quick evaluation, based on a compelling scenario of use (or lack thereof). For new-to-the-world products, we use analogies or metaphors to help evaluate interest. Consider the hoopla surrounding the original Apple Newton PDA (Personal Digital Assistant) several years ago. The typical reaction was a couple seconds thinking "neat" followed by one of two bridging metaphors. Some folks thought of the Newton as a really small laptop computer that didn't have a keyboard. Others thought of it as a very expensive DayTimer that didn't understand their handwriting. Either way, after briefly considering the scenarios of use, most folks decided they weren't interested. Creating an appropriate metaphor to bridge customers from old to new is one of the prerequisites for successful innovation. The PalmPilot, of course, countered with a scenario of use that made sense to early adopters. For most folks it was a more reasonably priced electronic DayTimer that recognized our handwriting and synced with our computers. For an explanation of how this model applies to the stock market click here .

Once a new category has been established as desirable, there are triggering events for interest. When our old car breaks down, we become interested in repairs and maybe a new car. When computer viruses (note the metaphor) run rampant, interest in virus protection software rises. Segmentation based on the events that drive buying interest is very powerful. That's another story, but important in a Web world where we can easily track and respond to triggering events.

In the early stages of innovation prospective customers lack direct experience. Exemplars of success are largely figments of the supplier's imagination. Thus, early adopters compare the new way with the old way.   Cognitively, the new way needs to promise significant advantages.   Early adopters must find personal (normative and wired-in) rewards in pioneering. Otherwise, why take the risk? There are relatively few folks who are sufficiently familiar with the new technology to evaluate the risks, able to do their own systems integration, and in a position to reap personal rewards from early adoption. Still, a product life cycle curve begins to take shape *powered by individual buying decisions*:



Once interest is established, we spend more time to decide **choice**.   If we're interested in the category or a lot of money is involved, we may take days or months trying to decide which alternative is best.   We try on various points of differentiation for size and finally end up with a choice that makes sense and feels right.

As we use a product or service, we decide our **loyalty**.   At the simplest, this is a "would" or "would not" buy again assessment.   We learn new rules for buying, which we apply the next time around.   In many ways it's better to think of "loyalty" as loyalty to a set of rules for buying a category of product than immutable loyalty to a brand name.   For example, one of the rules I've learned for buying computer monitors is that "big, flat, and bright screens are good."   I've also learned "Sony (Triniton) makes big, flat, and bright screens." However, this doesn't necessarily mean that Sony will get my business when bigger and brighter flat panel displays from other reputable suppliers appear.

Each customer has an interest-choice-loyalty cycle. When we add them all up, we get a product life cycle. The early stages are dominated by potential buyers deciding if they're interested. The middle stages are dominated by customers trying to decide which version to buy. In the late stages most people have bought once or know an experienced buyer. Customers have converged to stable rules for buying, though there will still be a few inexperienced buyers trying to decide their interest. Marginal competitors have shaken out and the market is dominated by repeat purchases.

This progression (customers shifting gears) has profound implications for company strategy, organization, branding, technology investments, and long-term success.

	1st gear, Interest>	**2nd gear, Choice>**	**3rd gear, Loyalty**
Better, compared to *what*?	Comparisons to closest previous alternatives. Reliance upon scenarios, metaphors and analogies.	Comparisons to direct competitors. Customers consider $APPEALS that are evident at the time of purchase.	Comparisons to our previous experiences, both good and bad, with the offering.
Technology	Develop compelling new scenarios of use, based on enabling technologies and innovation.	Develop a competitive edge. Platforms for cost-effective customization are commonly needed to meet different customer requirements.	Sustain an edge through product and process optimization. Differentiation may be based on deep knowledge of customers' usage.
Organization	Fast-moving, missionary zeal. Aim to create a compelling category. Partner with competitors to create interest in the category.	Aim to manage growth and product proliferation. Organize around customer segments and partner with suppliers to provide a whole product and customized solutions.	Aim to be among the surviving few by fine tuning processes for optimum quality, lowest cost, etc. Niche suppliers leverage common parts and focus on special needs.
Business	Interest determines market size and segment size.	Choice determines market share.	Loyalty (repeat purchase rate) is about half the story of profit margins.

Table 3 Customers change gears three times from 0-to-Loyalty

While the sequence from interest-dominated markets to choice and loyalty-dominated markets is predictable, companies keep getting into trouble by sticking with once-successful business models when it's time to move on. Innovators fail to reorganize for the stage I describe as customerization -- customizing the product to win customer choice. Customerizers drown in too much variety and fail to optimize. Then the cycle repeats. Established companies fail to innovate the next generation. And so on.
All of this represents a failure to track customers' changing bases of differentiation. In the early stages, we must differentiate our new approach in comparison to the old approach. We informally partner with other innovators to overthrow the old order. In the mid stages, we must differentiate on the basis of appeals that are obvious at the point of sale. Our old allies in creating the segment are now competitors. In the late stages, we'll want to differentiate on the basis of appeals that are meaningful (though perhaps subliminal) to experienced customers.

When customers shift gears, companies and their strategies for differentiation need to shift gears. Today's e-business might be described as customers and companies frantically grinding gears to get ahead. There's a lot of gear changing going on, but much better synchro-meshing is possible.

Established companies embed a host of "best" practices into their business. When markets stayed in choice-dominated modes for decades at a time, a one-geared mode of operation was effective for years or decades at a time. It's like cruising a highway - who needs to change gears? Today's turbulent times require us to continually shift. Otherwise, start ups fail to scale and established companies fail to compete in emerging markets. Best practices depend on the maturity of our markets. An example is today's enchantment with the supply chain. The right supply chain philosophy, partners, and systems are very different for interest-driven, choice-driven, and loyalty-driven markets.

Customers shift gears three times in their progression from interest through choice and loyalty -- and so should differentiation strategies aimed at serving these customers.

2.4 There are Eight Kinds of Differences that Matter

The idea that we need to differentiate our products is hardly new. However, we're left with the uncomfortable fact that companies often fail to achieve meaningful differentiation. Sometimes this is because they lack product or process technology. Just as often it's because they focus their efforts on things that will work weakly, if at all, to differentiate their products.

Back when IBM was promoting the OS/2 operating system one advertising campaign talked about 100+ reasons to choose OS/2 over DOS or Windows. None of these 100+ technically brilliant reasons mattered very much to customers, as Windows went on the dominate the market. At the interest stage, the lack of applications kept OS/2 from a compelling scenario of use. At the choice stage, Windows trumped it on most meaningful degrees of differentiation. Many of those who did buy, including myself, got stalled trying to install the product with its inadequate driver and device support. OS/2 did shine in terms of user interaction and did win loyalty among a small cadre of users. However, the sequence of development priorities was backwards. It should have been to create compelling scenarios of interest > win choice > install everywhere > be a delight to use > get repeat purchases. Instead the apparent priority was to be a technical tour de force and delight to use > worry about the other stuff later. By the time OS/2 returned to aggressively seeking compelling applications, the battle was over.

Tracking differentiation has been a personal quest for years. This has included researching the literature from a dozen relevant disciplines, working with scores of companies, examining hundreds of company cases, and cataloging thousands of successful and unsuccessful instances of differentiation. My conclusion is that every successful case of differentiation falls into one of eight different categories, captured in the acronym Customer $APPEALS. More information on these eight points of differentiation see Appendix A.

The real value of the eight categories is that they give us a way to think about (and create) matchups that matter to customers.

3.0 Using the Web to Increase Differentiation

Human perception rules buying decisions. Moving the decision-making arena to the Web doesn't change the underlying mechanisms. We're in the early stages of using the Web to sell products and the still earlier stages of using the Web as part of the whole product. We should expect some trial and error. That said, failing to differentiate is like throwing away money. This failure is especially painful in e-commerce, because so much money is literally being thrown away.

- We know that people pay attention to differences. We also know that "same" gets us included, while "different" gets us both excluded (oops) and exclusive (bravo!). Yet, most e-commerce sites are stuck at the "same" stage with almost indistinguishable look and feel compared to competitors.

- We know that differences are noted both consciously and subconsciously: Yet, few e-businesses are leveraging all three (cognitive, normative, and wired-in) levels.

    - The typical cognitive appeal is "here's our white paper," which is often fluff. Relatively few sites provide tools for customers to analyze their problems, find the best solutions, and measure their progress.

    - Many Web upstarts understand the normative part of growing their business. However, it's often the investors who are being treated as the targets rather than the real users. How else do we account for prominent display of company background, executive bios, investor bios, partners, press releases, etc.?

    - The clash of wired-in drives and Web culture is the stuff of farce. Adult sites have long been the Web's most profitable category -- a ludicrous proposition given what the Web *can't* do. Simulation games on the web may be an earlier indication of what can be done to fully engage customers with our products and services. Today, there's little visceral delight in browsing e-business sites.

- We know that customers change gears three times from 0-to-loyalty. Yet, many e-startups are so focused on trying to create interest, it's a sure bet they'll never get out of first gear. The money is going into Super Bowl ads and $10 off promotions, with little attention to sustainable differentiation. This single-minded focus is often attributed to a need to move fast and achieve increasing returns. However, as the link suggests, differentiation is a key to winning these returns.

Traditional companies usually bring their current problems to the Web. If they are in second gear (battling for choice and market share), they tend to see the Web as another channel. If they are in third gear (try to optimize a mature business), they tend to see the Web as a way of improving the status quo. This thinking is fine for serving existing customers via the Web, but it misses prospects trying to decide their interest and choice.

As an example, Hewlett-Packard wants to create interest in a new category of e-Services. However, the e-Service scenarios shown in early HP ads tweak the old ways of doing things rather than present compelling new scenarios of use. When HP suggests that failed products will automatically trigger a host of e-services to fix everything, I'm thinking about my credit card being automatically debited. More to the point, whatever happened to the old HP where products didn't fail? There's an exceptional opportunity for e-services and HP will eventually figure out more compelling scenarios. My point is that many established companies aren't thinking through customer perceptions in their rush to embrace the Web.

- Millions of dollars worth of domain names have been sold to leverage the power of category names (e.g., cars.com, loan.com, computers.com etc.). We also know that a handful of events triggers buying interest in established categories. So, the next billion dollars should go into domain names that represent interest-triggering events. Imagine a "you're" in front of: twentyone.com, promoted.com, married.com, pregnant.com, moving.com, and having_an_argument.com. Seriously, it does pay to consider the events that trigger interest and to use that information to attract new customers.

- There are eight kinds of differences that matter. Yet, most e-businesses are relying solely upon $ price and availability for differentiation. There's nothing wrong with buying customer interest, but only if it's followed by a sustainable degree of differentiation. Only a fraction of companies will have the intrinsic economies to sustain a position as low cost providers and only a fraction of customers (maybe 10%) will use cost as their key buying criterion. The best strategy for most companies is to avoid getting kicked out by having too high a price, while aiming for superiority among other degrees of differentiation.

So, how can we use the Web to differentiate our offerings, create interest in new categories, win higher market share, and earn higher margins? Five suggestions:

- Instill a vision and culture that demand at least one compelling and sustainable point of differentiation for each new product and service. This should reach every level of the organization.

- Shift the basis of differentiation as customers learn about a new category, discriminate between competitive alternatives, and become experienced users. This seems obvious, but very few companies get it. The typical business home page is dominated by choices like "corporate background," "products," "investor information," and "our partners." Basically, it's all about us. A year ago, I spent a day trying to find a corporate Web site that was unequivocally organized around customer interest, choice, and loyalty. The only site I found was (surprise!) Oldsmobile. Down the left side are three choices (http://www.oldsmobile.com):

  Learning (interest!)

  Buying (choice!)

  Owning (loyalty!)

  Nice touches include buying comparisons, where Oldsmobile makes it clear who they think they match up against and why they are better. The most interesting outcome is that the Oldsmobile site has recently been credited with revitalizing the brand. The average buyer age is down almost ten years (that's good, especially for frequent and repeat purchases) and sales are way up. The purpose of all this isn't to single out Oldsmobile. In some ways the site is getting too complicated (remember, that interest decisions are made quickly). The point is that truly differentiated and customer-oriented Web sites are rare, despite the exceptional paybacks to be had.

- Organize resources around differences that matter to customers. The usual corporate behavior is to stick with a once-successful form of organization until it fails. Sometimes the new form of organization isn't much better, because it was designed for internal reasons rather than external realities. Executives used to encounter one or two organizational upheavals during their careers. E-business promises to turn this into a more regular occurrence.

  Effective organization means staying in step with customer buying decisions. For large companies, with products and customers at different stages of buying maturity, this means that different forms of organization are required for different parts of the business. A cookie-cutter mentality doesn't work.

- Enlist Web technology to differentiate along lines that matter to customers. One huge opportunity for the Web is to match the buying sequence to the customer's preferred decision-making sequence. This varies from customer to customer. For example, one prospective customer might be willing to pay a higher price for the best pizza in town, another may be looking for a low price, and yet another needs fast delivery. The first

degree of differentiation a customer uses is extremely powerful since it cuts the competitive list down to size. We can often choose a supplier after applying as few as two or three differentiators.

Let's take a traditional example of differentiation sequence and then put it on the Web. Prospective home buyers use criteria like "price range," "neighborhood," and "number of bedrooms" to zero in on a handful of houses for further consideration. Yet, the real estate listing booklets published in every town are organized by Realtor. "What Realtor" is probably one of the last things of interest to a home buyer, but customers tolerated this because there wasn't a better alternative. However, on the Web we can exactly match our buyer's differentiation criteria. For some it will start with neighborhoods and schools. For others it will start with amenities. The Web allows us to create the perfect catalog for every prospect. The Travelocity (http://www.travelocity.com) site is a simple example of this, where customers set their own priorities and the system selects the best matches.

- Use the Web to segment and respond to customer groups. Companies spend billions of dollars trying to figure out market segmentation using various demographic and psychographic schemes. An extremely powerful form of market segmentation can be built by understanding and grouping the differentiation points that mark customers' journeys through interest, choice, and loyalty. Main segments start with the events that drive buying interest. Sub-segments are defined by key buying criteria. Even finer segmentation is defined by repeat purchase patterns (e.g. frequent buyer programs). The Web can help us automate the entire process of collecting and acting upon such interest, choice, and loyalty-based segmentation data.

Using the eight main degrees of differentiation as prompts, here are an additional sixty-eight ways to leverage human principles of differentiation:

$ pricing

- Give the customer the delight of finding a bargain now and then, without compromising profit margins. The best strategy for most companies is to achieve perceived parity on price. We know that a ten percent price premium can usually be sustained in most consumer markets as "close enough," but you will want to test this for your own offerings. The close-enough premium is less for industrial commodities and higher for impulse items. THEN, use the Web to periodically surprise the customer with specials, free extras, and bonuses. Couple an element of surprise with a sense of virtue rewarded to keep customers coming back.

- If your point of differentiation is lowest price, test your price to make sure it's low enough to make a difference (10 percent lower may not be enough in consumer markets). E-businesses trying to survive based on undercutting trusted suppliers by one or two percent face a dismal future.

- Use the Web to highlight the pricing differences and express the benefits in compelling ways. Saving one dollar a week doesn't sound like much. But, invest that dollar a week in an index fund (assuming 12% returns) and it yields $100,000 over a lifetime. Check out the financial calculators at http://www.interest.com/hugh/calc to see for yourself. Lotteries are another way of making small savings appear larger, though they may not appeal to cognitive buyers.

- Use the Web as a tool to automate desired outcomes with near-zero transaction costs. In the $1-a-week-equals-$100,000-over-a-lifetime scenario we could actually invest our customers' savings in an index fund and write them a large check years later.

- Use price to signal higher performance, greater ease of use, solid assurances, and social desirability. One variation on this theme is to advertise high value and then give your best customers a break (down to, say, a 10% premium). The Web is a great vehicle to execute such a strategy.

- Be a SKU Warrior[SM]. Make it easy for customers to build tailored products that uniquely satisfy their desires. Computer-aided manufacturing, supply chain, database, e-business, and billing technologies make this easier than before. The key to design-for-customization is knowing what differences matter to customers. Every new model we add should either lead to additional sales or be dropped from the repertoire.

- Satisfy customer scenarios of use with blended product/service offerings. TurboTax (http://www.turbotax.com) is now available as tax preparation software package *and* as a Web service. Let the customer decide what they want to own, what they want to rent, and what they want someone else to do for them.

- Offer attractive payment terms to one or more segments. One colleague is working with financial companies to micro-price things like auto insurance. Imagine, that you step in your car and your insurance meter starts ticking. Now imagine that your teenage son steps in the car and the insurance meter starts spinning; spinning even faster as he patches out the driveway. Today it's fantasy, but the convergence of several technologies will soon change the payment options for most everything.

Availability

- The obvious use of the Web -- and a good one -- is to build a channel that reaches anywhere the Web goes. Once we cover our site development costs, it's cheaper to add Web capacity than to build real stores. However, this just scratches the surface of what we can do to change the buying experience.

- Eliminate middlemen who don't add value to the buying experience. Part of Dell's success in going direct with computer sales was due to the low value added by traditional computer channels - a point that Dell highlighted in early ads. Find a buying experience that customers find disagreeable (negotiating automobile prices, for instance) and create a better experience on the Web.

- Meet deadlines that competitors can't touch. It still takes months from order to delivery for products ranging from custom furniture to plastic injection molds. Services ranging from insurance adjusting to home repairing are often idle in one part of the country, with a backlog in others. E-optimized businesses can have essentially zero latency in moving information, while tapping 7x24 capacity worldwide.

- Do a time study and cut the time to investigate, buy, install, use, and recycle your product by half. This works best when customers want to spend their time elsewhere.

- Make the buying, installing, and using process intrinsically enjoyable. Sometimes we want to both save time and increase the delight factor. It's no fun standing in line at Disneyland, but the rides never seem to last long enough. For industrial products, where's the Web equivalent of the water cooler where we pause to greet a colleague and maybe learn something useful? For consumer products, where's the Web equivalent of a great department store, complete with cool music, unique ambience, and our favorite sales bot?

- Provide expert advice to simplify the buying process, while giving the customer a sense they got the best offering at a reasonable price. Amazon.com makes it easy to order a recommended book and fairly easy to find a useful book among one of the world's largest selections. In its niche, Quickparts.com lets designers price, buy, and procure rapid prototyping services via the Web.

- Tailor a solution just for your customer. Many Americans take some form of dietary supplements. Few have the slightest idea if the dosages, frequencies, and vitamin/medicine interactions are right for them. Where's the Web site that helps us tailor a plan for our individual needs? Then, who will make our vitamins easier to buy, easier to swallow, and easier to track the benefits?

- Become the source for unique products. Many of eBay's twelve million registered users are in search of elusive collectibles. What's unique or elusive in your industry?

- Give used products new life. A problem with used equipment is that regional dealers find it difficult to afford the expertise and parts inventory required to keep it running like new. Now, the Web aggregates demand and provides a channel. This is a tremendous and underappreciated aspect of e-commerce which will transform capital equipment markets. OEMs should embrace this rather than resist the trend. Well maintained used equipment gives entry-level customers a place to start (build that loyalty!). It also gives high end customers higher prices for their old equipment, leading to more frequent upgrades. There's a reason that industry's leading capital equipment suppliers, like Caterpillar and Deere, support their used equipment well despite the costs. The Web lowers the barriers to providing this kind of support. Here's something else to consider: old channels of service and support once led to a throw-away mentality in new product design. Web channels of service and support will partially reverse this trend, leading to planned upgradeability. If you're already a leader - here's something else to consider. A nimble competitor might use your own used equipment to displace you.

- Consider, carefully, the entry point to an e-commerce site. The home pages on many global sites ask users to select a language. Other sites ask users to categorize themselves (e.g. "home" or "business" computer user). Now, suppose we are trying to reach young Hispanic customers in the US. Young Hispanics, fluent in both English and Spanish, might find little to like in choosing between a Spanish language and English language site. Instead, they might prefer a scenario-based entry point, like a choice of MTV programming with Latin hosts and a cross-cultural mix. A year ago I criticized the Dell site for forcing prospective customers down one of two paths (home or business), because it missed rapidly growing segments like home/office. Now, Dell (http://www.Dell.com) has a place for home businesses, mid-size companies, and more.

- Sell the way customers want to buy. Customers want a mix of lowest prices, convenient location, wide variety, complete information, and complete assurances (yes, channels themselves are differentiated by $APPEALS). The best mix keeps changing as we add highways, move to suburbs, employ both spouses, change our ideas about traditional families, and so on. Looking ahead, there are exceptional opportunities to create clever combinations of virtual and physical channels that address customer needs.

Packaging

- Make the invisible, visible. Customers don't act on differentiation they can't see. One client didn't have much success differentiating its very quiet major appliances. Competing appliances weren't plugged in on showroom floors. Even if they were, the background noise would obscure any difference in sound level. To make the inaudible, audible, the company had to claim and prove "world's quietest appliance." *Then*, sales picked up. Today, we can use the Web to help customers with every aspect of appliance selection, right down to playing the sound of competing dishwashers and refrigerators, if that's one of our points of differentiation. Most companies think they have advantages that customers somehow ignore. Maybe you, too, have a problem of making the invisible, visible?

- Design products to sell themselves both on the Web and in use. Each communication medium has its limitations. Television surprised film directors by making some expensive fabrics look jarring and some cheap suits look great. So, what does your product have to say for itself in a 320 x 240 pixel frame? It's a good bet that some products, such as notebook computers and cell phones, will get proportionally less representation in physical stores and more representation on the Web. So, how do we communicate the great feel of our keyboards or handsets, the brilliance of our displays, or the quality of our workmanship? One answer is that we need to start designing our products to speak for themselves. This may mean quantifying and comparing tactile feel and screen brilliance feel if those are important points of differentiation. We may also want to consider turning customers into evangelists, with self-running demos to show their friends, URL's for more information, and an unobtrusive rewards program to express our gratitude. Yep, it's Tupperware party meets the digital age. We used to give physical stores 20-50% of the take to demonstrate, promote, and support our products. It's not so far-fetched that users might do an even better job of demonstration, promotion, and even support than your average Circuit City employee.

- Old lessons about the importance of visual differentiation still apply. What's distinctive about an Apple iMac? The translucent case. And Nike? It's the swoosh! It's best when the visual look supports other points of differentiation. A satisfying case of this was the "everything goes with black" reengineering and repositioning of IBM's AS/400. When the capability under the covers changes, we need to visually signal it to customers. Even when the capability under the cover doesn't change, visual differentiation can increase sales. One of today's most desired cars, the PT Cruiser (http://www.chryslercars.com/pt_cruiser/), is visibly differentiated, yet based on ordinary Neon chassis and powertrain components.

- Accommodate a range of individual preferences for size, style, color, and other visual aspects of design. Use thumbnail photos to quickly communicate these rather than alphanumeric database entries.

- Respect cultural norms for look and style. Today's practice of having a home page with different language options is a half step in this direction. The Mercedes-Benz site is a typical (and partially flawed) example (http://www.mercedes-benz.com).

- Apply the same principles of visual differentiation used to design your product to your Web site. Give it a look, consistent with all your visual communications, that reinforces your positioning. Take a look at the Scient.com (http://www.scient.com) site for a nicely understated example for a service business.

Performance

- Consider the benefits your customers are hoping to achieve, at each of the three levels of comparison (cognitive, normative, and wired-in). Is the purpose of a Rolex watch just to tell time? Then, reconsider how the Web might reinforce such benefits as higher status. Perhaps your best customers should get their fifteen minutes of fame on your web site? For what it's worth, the official Rolex web (http://www.rolex.com) site takes pains to say that Rolex watches are only available from dealers, never on the Internet. This leaves buyers the option of switching to sites showing high quality replicas, down to the distinguishing movement of the sweep second hand.

- Determine how customers measure performance and how your offering stacks up. If the existing measures don't do you justice, consider establishing and promoting a new measure of performance. Business computer vendors established TPS (transactions per second) to replace MIPS (millions of instructions per second). Today we'd want to use the Web to explain the standard, build support, and let customers measure things for themselves.

- Give the customer tools to track performance. Many products sell better when customers can gauge performance for themselves -- sometimes even when they can't do much to alter it. Examples include power meters on stereo systems, tachometers on cars, CPU lights on multi-processors, and battery power indicators on mobile products. Many physical products will do best to build these in. However, the Web is ideal for tracking the performance of services and for doing additional analysis of product performance data.

- Change the category of comparison. This works both up (providing more of the whole product) and down (specializing in a component). For example, EMC has

created the category "enterprise storage," to the detriment of enterprise computing suppliers like HP and IBM. The "blown to bits" idea fits here. (http://www.hbsp.harvard.edu/products/press/books/blowntobits)

- Augment the base product. The PalmPilot provides an example, with hundreds of add-on hardware, software, and services suppliers. Add functionality to your offerings, via a Web-based community and supplier network.

- Offer a blended product and service, with the service component Web-enabled. For more on this, see my January, 2000 *e-Design* column (http://www.caenet.com/edesign/) on Co-Developing Products and Services.

- Resolve a contradiction. Customers want power and portability, sophisticated options and ease of use, unlimited capacity and reasonable costs. Auxiliary services via the Web can often provide a solution.

Ease of Use

- Learn how your customers assess ease of use at various buying and using stages. As business moves to the Web, some of this inquiry can move to the Web. For example, the Application Service Provider model has several unexamined pitfalls and benefits. Among the benefits: we can automate the identification of unmet user needs and beta test solutions via an ASP model. (Among the pitfalls: the ASP model currently ignores issues like pride of ownership.)

- Make superior ease of use apparent at the point of sale. Parametric Technology Corporation (http://www.ptc.com) turned the CAD world upside down a decade ago by communicating greater ease of use. Traditional CAD vendors demonstrated their products by slowly building models one element at a time. An hour later, deferred gratification. PTC blasted a shaded image on the screen and then showed how users got there, taking liberal shortcuts along the way. Today, we'd do a Web demo.

- Highlight ease-of-use success stories on the Web. Hold the annual contest among five year olds assembling and using your product. Offer a we'll-train-you-in-twenty-minutes guarantee.

- Make your product easier to install, learn, use, and maintain via the Web. Remember, ease of use is an especially powerful differentiator for experienced customers, leading to repeat purchase loyalty and higher margins. Augment instruction manuals with up-to-date instructions, FAQs, online assistants and more.

- Recognize the customer as an individual. This is not easily automated. In real stores, we recognize the difference between genuine interest in us as individuals and forced pleasantries. Most "Customer Relationship Management" software comes across as much more interested in company profits than customer desires. MovieLens (http://www.movielens.umn.edu/) is an attempt that's moving in the right direction. Sophisticated pattern matching systems may eventually give us an edge.

- Make the user interface intrinsically rewarding. The pleasure of even the simplest games, like Solitaire, is due to subtle sensory interactions. Your own user interface should be as addictively direct. Where complexity is an issue, consider levels of play for novice and experienced users.

- Build one great interface and share it among many allied offerings. This is, of course, what Windows did for software, and what Netscape and Microsoft are trying to do with their browsers (with Microsoft winning on the basis of availability). There are specialized user interface opportunities for wireless browsing, real time control, home/entertainment automation, and more.

- Craft a differentiated personality for your company or offerings and embody it on the Web. Sometimes this is reflective of company leaders (e.g., Bill Gates at Microsoft and now attempting a transition to Steve Ballmer), sometimes it is a character (e.g., Mickey Mouse or Ronald McDonald), and sometimes it's the product itself (e.g., Apple at various points in its history).

- Recognize the importance of metaphors in making new technology familiar. Each age has dominant metaphors (e.g., the universe as clockworks, survival of the fittest, the invisible hand of free enterprise, etc.). Web metaphors (browser interface, hypertext, global searches, etc.) are becoming increasingly useful.

- Recognize that different people have different learning styles -- and communicate in the styles your customers prefer. Just as TV stations now simulcast content for different languages, we can Webcast different material for visual, auditory, and experiential learners.

- Provide a layered experience, accessible to those with bandwidth "disabilities." One of the difficulties of the Web is that the experience should work for those with slow connections and old computers, as well as those able to stream sound and video into the experience. The economic importance of aging baby boomers has taught product designers to allow for diminished vision, hearing, and motor skills. A well-designed Web experience (big fonts, turn up the volume to suit, and various mouse alternatives) may, similarly, open up new worlds. Indeed, one of the promising things about the

Web is that searches like "music for the deaf" and "art for the blind" actually return scores of sites.

- Consider pioneering new sensory modalities. Magazines added scratch-and-sniff. Someone will figure out browse-and-sniff, click-and-feel, and link-and-shake.

- Know what the Web can't do. Many aspects of ease of use are based on touch, feel, kinesthesis, precise timing, and other sensory clues. Provide a blend of physical presence and Web presence to communicate the whole experience to prospective customers.

Assurances

- Learn customers voiced and unvoiced fears. While doing research on the Web is a large topic in itself, the Web sometimes gives customers a feeling of anonymity and involvement that helps with full disclosure.

- Be first to provide meaningful assurances. Fears and assurances act as powerful "kick out" criteria for buyers. Given a significant concern, some customers will consider only those offerings that offer assurances. The more exclusive the assurance is to our brand, the higher our market share.

- Build a trusted Web presence. Probe for hesitations, fears, and unconsummated buying experiences -- and provide an assurance. PayPal (http://www.PayPal.com) has become a favored option for auction buyers and sellers by accepting credit cards on behalf of sellers with no credit card privileges. However, potential users of the service who read the fine print will find that PayPal declines all liability in the event of fraud. Decades ago, Visa and others learned they had to put a $50 ceiling on potential losses in order to gain broader acceptance. The same dynamic is likely to emerge on the Web.

- Position competitors as riskier and less trustworthy -- if you can back it up. Years ago AT&T heavily advertised its phone network reliability and then suffered embarrassing outages. Good promise. Bad execution. PayPal has become a dominant service for auction winners, primarily through hefty rebates to both buyers and sellers. A challenger might match the rebates and offer superior assurances.

- Provide unique assurances, potentially via the Web. Warranties are the obvious expression of this, but many fears lie deeper. For example, fears in buying high technology include looking foolish to peers, paying too much, and rapid obsolescence. Addressing such fears encourages purchases. Gateway, for example, has increased

sales by addressing both the looking foolish and obsolescence fears of inexperienced computer prospects.

Life cycle costs

- Lower cost of ownership starts as a cognitive differentiator (e.g., "check out this spreadsheet") and may become normative (e.g., the lonely Maytag repairman). It's rarely a primordial concern. Despite the allure of instant gratification, experienced customers do learn that cheapest or most exhilarating is not necessarily best in the long run. The Web is a good vehicle to make the cognitive case and then build a normative position.

- Identify all the costs (time as well as money) required to enable a lifetime of use. Find a unique way to reduce at least some of these costs.

- Once you have an edge, communicate the lower costs of buying, installing, using, maintaining, repairing, and recycling your product. The Web offers exceptional opportunities to create support networks, supply networks, markets for complementary services, and so on. It's both a tool to reduce life cycle costs and a method of communicating this point of differentiation.

- Pairs lower life cycle costs with assurances. A product that never fails, or fails gracefully, gives us two differentiators for the price of one. It addresses a fear and provides measurable life cycle savings.

- Give the customer a Web-based tool to analyze his/her own lifetime costs. Highlight your differentiation.

- Leverage the coming backlash against high-priced systems integrators. Offer a Web-based alternative with equal results at lower costs.

- Get folks to do the right thing. Many behaviors that may be good in the long run, like "green design" or "collaboration" face slow adoption because the benefits aren't personal. Use the Web to pair an element of immediate individual recognition with the longer term benefits that accrue to an organization or society.

Social Sanctions

- Learn who influences your customers' buying decisions. This includes friends, family, analysts, experts, critics, sales channels, standards bodies, colleagues, government regulations, etc. The Web offers unique opportunities. Sites like Deja.com

(http://www.deja.com) and Epinions (http://www.epinions.com) hope to become the category killers of social sanctions. There are hundreds of specialized sites and e-mail lists where users share their opinions. Successful consumer sites like eBay (user ratings) and Amazon (book reviews) almost invariably have a social/ratings element.

- Help an existing community of users stay in touch.

- Create an event or celebration. Victoria's Secret did it with millions trying to tune into a Web-cast fashion show. A well conceived event can dramatically improve visibility. The present pattern (e.g. iWon.com) often includes give-aways. The future is creating the Web equivalent of the Harley Owners' Group (HOG) meeting in Sturgis or a New Year's celebration in Times Square.

- Win the support of respected early adopters. The Web is a natural vehicle for computer-savvy categories of interest.

- Create a halo effect, by being associated with winners everywhere a customer clicks. Traditional public relations attempt this with traditional media. Buying influences on the Web are more diverse, since most anyone can have a say. Consider ThirdVoice.com, (http://www.thirdvoice.com) which lets anyone add a virtual Post-it note to an existing means Web site. Web PR monitoring more channels, careful attention to the quantity and quality of links, and more.

- Create or leverage a standard to reduce a clutter of many competitors to a comfortable few.

- Make it easy for satisfied users to encourage friends and colleagues to spread the word. Become the defacto standard through network effects.

- Attack a defacto standard with a quantum leap in performance and a new standard. The Linux community is a bit weak on quantum leap, but strong in fueling social sanctions (see, for example, http://www.linux.com).

- Build an on-line community. The Web allows niche scenarios of interest to gain critical mass. Imagine Linux without the Web. Then help the users expand the relationship outside the virtual world.

- Be sensitive to cultural norms that vary from group to group. Like Swiss cheese, the Web has giant holes in its coverage. The obvious gaps are where people aren't on the Web. The less obvious gaps are where differing norms keep one site from resonating with all prospective customers. Companies like Nike and Levi Strauss find it difficult

for one site to be cool for everyone from inner city kids to aging baby boomers. Nike (http://www.Nike.com) is experimenting with targeted TV ads that finish up on the Web. Levi Strauss (http://www.levistrauss.com) has distinct Levi's, Dockers, and Slates web sites. Benetton ("The United Colors of Benetton") has a great opportunity to leverage its position into a great Web site with "United" appeal, but has fallen into the "it's all about us" trap (http://www.benetton.com) noted earlier.

- Target key influences. Athletic shoes must appeal to both retailers and consumers. Medical equipment must pass muster with the FDA, insurance companies, doctors, hospital administrators, nurses, maintenance managers, and (finally) patients. Use the Web where it is appropriate for peer-to-peer public relations at every level of influence.

- Understand the flywheel effect of brand loyalty. Momentum is built through positive customer experiences and drained through undifferentiated or negative experiences. Use the Web to inject new energy.

Strategic Planning and the Web?

A few final points should be made about strategic planning. Many companies despair of strategic planning in the e-world. Some believe it stifles innovation. Even respected academics have joined the fray (e.g. Henry Mintzberg's *The Rise and Fall of Strategic Planning*). Old methods of planning don't work when products go through as many as two or three cycles in a year. Similarly, old methods of valuation and portfolio planning are less relevant in the e-world. How do we calculate the value of owning mind share in a new e-business segment?

Future profits are difficult to predict in truly innovative businesses, yet the potential upside is often the greatest. Reliance on analyst projections for future market size and competitive factors usually gets this wrong. First, because the methodology of gauging customer interest is usually flawed. Second, because the how-to-differentiate advice of analysts goes to your competitors as well.

Still, companies need visions and plans that reach into the future. We can change our company name in a week, but cultural change takes years. What we want is a forward-looking framework to make tradeoffs about which customers to serve and how to serve them best.

The key discipline is predicting meaningful points of differentiation -- and the resources required to sustain a difference -- in emerging categories. While this is a longer topic than we can cover here, the main idea is to extrapolate the likely evolution of customer buying

decisions. “Interest” gauges market size. Our ability to differentiate and win “choice” predicts market share. Finally, our ability to earn repeat purchase “loyalty” gauges long-term profits. By tracking the evolution of these customer buying decisions we can estimate profit potentials in truly innovative categories.

Successful new products respect our human wiring, while adding powerful new capabilities. Differentiation is the key to getting noticed at each stage. The Internet cuts two ways. Embrace it carelessly and it slashes differentiation and profits. Use it intelligently, and it produces meaningful differentiation and higher business results.

About the author: Peter Marks is Managing Director of Design Insight, Santa Cruz, CA. An internationally recognized consultant in the area of new product development, he has helped scores of companies identify innovative points of differentiation, back them up with disciplined design processes and earn higher market share and profits. Marks is author of three books in the area of new product development and e-Design columnist for Computer Aided Engineering magazine. Many readers know him as co-founder, along with Management Roundtable, of a multi-year study of the origins of competitive advantage, the APEX Awards Program. He can be reached at pmarks_insight@compuserve.com or 831-464-8300.

Management Roundtable note: We’ve received an unprecedented number of inquiries about the impact of the Web on new product development and are now planning a high level program to address these issues. Peter Marks has agreed to speak at the program and will also conduct an intensive “how to” session on differentiation. Attendance will necessarily be limited to allow a high degree of interaction. If you’d like to be among the first to know about the program, send me an e-mail. If you’re online, click here. I’ll keep you posted. Alex Cooper -- alex@roundtable.com or 781-891-8080 ext. 212.

Customer $APPEALS

Customer $APPEALS. These are the eight ways that customers differentiate between competitive offerings. The derivation of the eight Customer $APPEALS is a long story, with forays into empirical observations of buying behavior, compilations of product comparison attributes, perceptual and cognitive psychology, and more. The purpose of this work was to develop a manageable set of product attributes to guide research into customer buying behavior and, most important, to guide innovative thinking for product and service improvement.

A basic idea is that we humans share a repertoire of decision-making subroutines and matchups. While these are modified by experience and intelligently adapted to the products and services at hand, we use similar methods of differentiation again and again. To give a nonhuman example it shouldn’t surprise us that dogs, with their keen sense of smell, use odors to discriminate. If we were selling things to dogs, we’d probably want to make sure everything passes a sniff test. Even sitting atop the living world, we too have repeated paths of comparison. $APPEALS is an index to these.

For those who might be interested in a summary of sources, a partial list is provided in the following table.

Customer $APPEALS in various contexts

	Aliases	Perception	Economics	Learned	"P's"	Disciplines	Info model	*	Sequence
$	$, ¥, £, street price, value, cost, part of price-performance	Expectation-setting	Cost	We get what we pay for? "Right" price. Bargaining behavior.	Price	Clever DFMA, value engineering, design to $	Price	x	Often 1st cut & last cut for known types
A	**Availability**, terms, channel, options, delivery, buying experience	Place & scope of comparison	Market	Trusted sources, preferred suppliers	Place	Optimized value chain, distribution, channels, platforms, marketing, sales	Channel, sales, demos, shows as source of info	x	Channel has power if initial source of info
P	**Packaging**, fit , finish, style, design	Vision (dominant sense)	-	Visual clues, forms, styles, classes	**9**	Inspired industrial design, packaging	Visual clues , trade dress	x	Scan to sort few among many
P	**Performance,** size, capacity, speed, functions, benefits	Perceived performance	Benefit	Scenarios of use, shortcuts to judge performance	Product	Innovative mechanical, electrical, materials, software etc. engineering	Category of product, specs, tests	x	Key in interest scenario, then a factor in choice
E	**Ease of use**, ease of learning, feel, controls, user interface, usability	All senses: incl. hearing, touch, taste, smell, kinesthesis . . .	-	Observed or personal experience in use (a main factor in loyalty)	**8**	Delightful ergonomics, human factors, usability, feel -- often difficult to articulate	Judged by trials while buying, then in use		Often key for experienced buyers
A	**Assurances**, quality, MTBF, warranty, good-better-best	One source of perceptual filters	Risk	Keyed to fears, past failures, or stories of failure in use	**8**	Superior quality, safety, and reliability. Create kick-out criteria.	Warranties, guarantees, assurances.		Often a kick-out criterion
L	**Life cycle** cost, cost of ownership, hidden costs, operating cost, administration	Tends to be a cognitive appeal, not subconscious perception	Social costs	Cost of ownership, unexpected costs & problems frame next buying decisions	**8**	Energy efficiency, maintainability, serviceability, supportability, recycling	Third party info sources?		Tie breaker in close decisions, a factor in loyalty
S	**Social influences,** standards, approvals, recommendations	Effect of norms on judgement	-	Who do we trust to advise us?	Promotion	Brilliant public relations, advertising, regulatory process, word-of-mouth	Standards, de-facto standards, others' influence		Key in defacto standard markets & novice buyers

*$APPEALS originated as a way of probing the matchups behind individual decisions. Competitive and market trends are simply the summation of individual decisions. If half of all customers decide that brand X is best due to one or more matchups, then brand X gets 50% market share. Broad industry trends also have their roots in individual decisions. Low cost competitors might try to dislodge name brands by offering essentially equivalent offerings at lower prices. This tactic will succeed if customers can't easily distinguish quality of products (or don't perceive a difference) and the price differential is worth whatever risk remains. Once the tactic works for many individuals, we have "today's trend toward generic brands." As another example, wishful thinkers may see a "trend toward green products." However, this won't be significant until it shows up as a larger factor in individual decisions, perhaps through legislative mandate or evolving norms.

Each of the $APPEALS also has a social context. As a society we worry about free markets and price fixing ($); unfettered access to markets or universal access to services (availability); protections for trade dress (packaging); patent protection for advances (performance); ease of use for most citizens, including the disabled; government's role in regulating unsafe or predatory practices (assurances); a fair accounting for the full social costs of production (energy, pollution, landfill, health care, and other use-related costs); and the role of informal and formal governmental standards and sanctions.

Several companies use $APPEALS as a framework for negotiating the tradeoffs between functional departments. For example, the right balance between lowest cost and highest performance is in the eyes of the customer and not the agendas of either manufacturing or engineering.

Similarly, our governments have departments (commerce, food and drug, alcohol and tobacco, labor, OSHA, transportation, defense, the IRS, education, trade, etc.) with narrowly defined agendas. They might work more effectively together given a shared understanding of social $APPEALS and a government philosophy that explicitly seeks *and measures* maximum social $APPEALS. We'd still face tough questions, but fewer stupid policies where one department wants to spend $10,000,000 to prolong a life and another fails to spend $10,000 to save a life.

Action: Customer $APPEALS or its equivalent is the best way to understand whole customers, whole products, whole markets, and even whole governments. While the $APPEALS acronym is one of many possible formulations, it offers a nearly ideal balance. It is relatively simple, memorable, and actionable, yet it is also powerful, multi disciplinary, and complete. Most companies can start with the eight $APPEALS, in the $APPEALS sequence, then tailor these to their own situation.

Increasing Returns

Increasing returns. Ever since the economics of increasing returns was articulated, every investor has wanted to own one of these businesses. At least three factors are required. First, we need a market where each additional customer adds increasing benefits (1+1=3). Second, we need an initial edge in $APPEALS over our competitors, so the magic of increasing returns works for us and not some competitor. Third, we need an unassailable proprietary position in one or more $APPEALS, so the increasing returns go to our company and not the category.

We've noted elsewhere that categories and competitors tend to settle into relatively few patterns of competition. Much of this is due to the limitations of human decision making. We can't juggle dozens of competitors or features in our minds, so we use kick out criteria to reduce decision-making complexity. Only commodity categories, which lack kick-out criteria other than $, usually have more than three suppliers seriously considered by individual buyers. Binary decisions are easiest for us to make -- and even enjoyable for high involvement offerings. This favors a top two or three suppliers within most mature categories.

Patterns of competition typically coexist. For example, there will be niche players and low cost clones in industries that are dominated by two or three top players. While individuals rarely consider more than three or so suppliers, different individuals have different buying criteria. So while Coke and Pepsi dominate soft drink sales, both niche players and store brands survive. Starrett and Brown & Sharpe have battled for over 100 years in precision measuring tools, but they have been challenged by niche players throughout their history. Patterns of competition also apply to social offerings, such as political parties, since the same underlying mechanisms of human choice are at work. "Patterns of Competition" in the author's *Defining Great Products* paper has a bit more of an introduction.

A few markets end up with a single dominant player, as with Microsoft in operating systems or eBay in on-line auctions. Increasing returns are usually part of this story. The idea of increasing returns is that the more customers, the more valuable the offering. If I own a car and my neighbor buys a car, my own car doesn't become more valuable. Indeed, it might become slightly less valuable due to less exclusivity and more traffic on the roads. However, if I own a telephone and my neighbor buys a telephone, my own phone has just become more valuable. That's increasing returns.

Communications businesses are frequently characterized by increasing returns. The ubiquity of Microsoft's products is part of their appeal -- we can reasonably assume

colleagues will be able to share our work. Cell phone services are more valuable when they reach most everyone -- an advantage of scale for companies like AT&T.
Even popular forms of entertainment like the Super Bowl may have an increasing returns component. The more people that watch, the easier it is to reprise the highlights. Religions and political parties have an increasing returns component, since the more believers the more believable the position. Even Polio vaccinations have an increasing returns aspect. The more people vaccinated, the more protection everyone (including the unvaccinated) has from disease. Indeed most every market has some aspect of increasing returns, where having more customers increases one or more $APPEALS. However, in most categories this is at least partially offset by the attraction of differentiated $APPEALS. Even giants like Microsoft face niche competitors.

Increasing returns do not necessarily convey market dominance to a single supplier. Usually the top suppliers in the entire category benefit. Every maker and user of fax machines benefitted from growth in the market. It takes a proprietary edge in winning customer buying decisions to turn increasing returns into unassailable market leadership. Microsoft would not own all the benefit of increasing returns, if the data formats were put into the public domain or easily reverse engineered. Ebay might lose its lock on auctions, if meta sites could easily index its auctions. The strategy for an inherently increasing returns business is to move early when an increasing returns category opens up, pretend it's a public bandwagon to fuel rapid adoption, reserve a critical proprietary edge, and thwart upstarts in their tracks. With increasing returns, even a slight initial advantage in $APPEALS can avalanche toward leadership. The strategy for number two is to try to neutralize the competitive edge, at least within significant segments, before a rival gains strength.

Absolute market dominance has rarely been (successfully) plotted in advance. Neither Microsoft nor eBay foresaw their dominance. No steering committee plotted the worldwide dominance of the English language in commerce, though many, especially in France, have tried to slow it down. For most offerings, there's little to be gained in having everyone eat the same food, wear the same clothes, or drive the same car. A mix of a few dominant and niche suppliers serves us well in most categories. Even when there are increasing returns, the open-it-up-to-create-a-bandwagon stage (consider relational databases, Java, and Linux) usually gives competitors a foot in the door. Social and technological revolutions can also eventually unseat even the most powerful incumbents. So, natural checks and balances usually keep companies from an all-time lock on business.

The benefits of increasing returns arguably belong as much to the customers powering the effect as to the enterprise that is positioned at the right place and time. It's not easy to decide what portion of the benefits belongs to the vendor that pioneered an increasing returns business (or created a slight initial edge) and what portion belongs to the customers

whose acts of buying create greater value for everyone. The Chinese government, which is presently not happy with Microsoft's alleged monopoly power, could claim that it won an increasing returns position fair and square with a popular revolution and is only punishing dissenters to preserve the benefits of increasing returns for all its people. The framers of the U.S. Constitution took care, through separation of powers, to keep politics from being an increasing returns business with one dominant player. Despite this, that principle is continually challenged.

On another note, many Web startups claim to be first movers with unassailable leads in increasing returns markets. They often have the increasing returns potential right, but are in businesses where the returns will likely go to the category, not a single vendor.

Action: It's pretty easy to spot a potential increasing returns business, but hard to keep the advantages proprietary to a company rather than the category. Patents can be reverse engineered. Gaining initial acceptance may require deals to share the spoils (e.g. dual sourcing of Intel chips in the early days, which Intel subsequently fought). However, winning $APPEALS will help us whatever the outcome. If a dominant player emerges, it will be the supplier with a slight edge. If an increasing returns business settles into a many-competitor pattern of competition, we still benefit from differentiation.

e-BUSINESS VALUATIONS

Knowing when e-business valuations will hit the wall

How is it that e-companies with ten million of revenues and no profits are being rewarded with billion dollar valuations? Here's one way to make sense of this, using customer buying principles. The old business model was that companies provided value (differentiation) to customers. Investors recognized this value and rewarded the companies with appropriate P-E valuations. More recently, e-companies have turned this logic partly around, spending as much time appealing to investors as customers. The "product" is the stock and the "customer" is the investor. From an investor-as-customer standpoint, millions of us are interested in being wealthy and (until recently) most of the information available to these customers were success stories (Microsoft, Cisco Systems, Yahoo, Ariba, etc.). It's hard to imagine a more compelling scenario of advantage or a more one-sided presentation of the $APPEALS of investing. Couple this with real opportunities, the elimination of barriers to trading by unsophisticated investors, and a host of market timers amplifying the effect -- and we have a boom.

So, here's the prediction. The information available to investor/customers will become more balanced. We'll increasingly hear of e-companies that don't make it and fortunes lost. As the press coverage approaches a balance, hope and fear will vie for dominance leading to market ups and downs. The suggested "test" is to literally count the stories in channels that reach investors. Market gyrations will probably occur around the 50-50 point. This approach isn't going to help time the market, but it does provide a framework for building real value. Investors will soon realize that only strongly differentiated e-businesses will thrive. These will continue to get high valuations, while the others will fall.

For pure e-companies the opportunity is to use their presently high valuations to acquire differentiating assets (which is what AOL is trying to do with the Time-Warner merger and what Cisco Systems continues to do well despite the challenges of integrating so many new companies). Note than many e-mergers add technology or customers with virtually no impact on long-term differentiation -- a bad move for the future. Adding two undifferentiated businesses together rarely creates one differentiated business. For traditional companies the opportunity is to leverage their present competitive strengths and differentiation via the Web.