

# Engineering Customer Experiences

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## Executive summary

***When it comes to repeat business, some managers are clueless.***

Customers always get more than they bargain for, because a product or service always comes with an experience. By "experience," we mean the "takeaway" impression formed by people's encounters with products, services, and businesses—a perception produced when humans consolidate sensory information.

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We constantly filter a barrage of clues, organizing them into a set of impressions—some of them rational, some emotional. These impressions can be very subtle—even subliminal—or extremely obvious. They may occur by happenstance or by purposeful design. They may exist as isolated episodes or as managed suites. Collectively, they become an experience.

Experience clues may be either performance—or context-based. Performance clues relate to the function of the product or service e.g., the bank did or did not dispense the right amount of cash or the razor did or did not give a close, smooth shave. But over and above the performance of the service, context clues are telegraphed by the appearance of the ATM (or the demeanor of the teller); by the decor, smell, cleanliness, and privacy of the location; by the legibility of the print on the receipt; and by a host of other signals. Similarly, the clues generated by the way the razor shaves are complemented by clues sent out by its look, smell, feel, and sound as well as from the people and things in the environment when a customer inquires about, buys, pays for, uses, and maintains it.

Unmanaged, these clues may cancel each other out and leave no net impression on the customer, or worse, induce a strong net negative perception.

But if systematically crafted into a positive net impression, the clues promote customer preference, which a company can leverage to differentiate otherwise commodity-like products and services.

Engineering an experience begins with the deliberate setting of a targeted customer perception and results in the successful registration of that perception in the customer's mind. Systematically designing and orchestrating the signals generated by products, services, and the environment is the means to that end.

Our designs are represented by a pictorial blueprint. When implemented, the blueprint establishes a specific "takeaway" customer impression that engenders preference (see Exhibit 1).

One experience we recently designed for a regional retail chain showed impressive payoff, even before any store implemented even 10% of the clues in the design. Comparative systemwide year-to-year sales increased for the first time in 9 years, and have continued to do so for 22 consecutive weeks.

Shopper attitudes have improved demonstrably, as measured against a baseline prior to engineering any clues, and the average sale per customer visit has increased significantly.

## **Orchestrating Experience**

Several paths can lead to customer preference: the product's performance, the service's performance, and the experience that context clues create (see Exhibit 2). Experience management is primarily concerned with the systematic design and implementation of the context clues that are emitted by the product and/or service and the environment; it is, therefore, distinct from (though it should be related to) product and service design.

Sometimes a product or service design explicitly incorporates context clues-such as engineering the distinct sound of a door closing on a Mercedes Benz. In fact, products such as fashion clothing and services such as entertainment typically incorporate more context than performance clues in their design. The design of a total experience orchestrates the context created by products and services, as well as the environment in which customers acquire, use, and maintain them.

People are naturally inclined to prefer pleasant, uplifting "special" experiences, and examples abound that demonstrate the important and lasting effect an experience can have on an individual. A physician's "bedside manner," for example, is a collection of clues that not only influences a patient's choice of a physician, but also may enhance or undermine confidence, motivation, and ultimately the effectiveness of treatment.

### **Purposeful Design**

The late Walt Disney is a prime exemplar of a visionary with exceptional perceptiveness who consciously embedded clues in his cartoons and theme parks to create the unique Disney experience. The Disney Co., perhaps better than any other firm, understands the value of purposefully stimulating as many senses as possible. When the company hosted an indoor "beach party" for the press at one of its hotels, for example, the setting included sand, the smell of suntan oil, a boardwalk arcade, music, lighting, the sound of surf, and other clues to produce an overall impression of a beach environment.

Such detailed focus on sensory clue design extends to each of Disney's park attractions, and to the parks as a whole. As you enter the Magic Kingdom, for instance, your senses pick up an important clue that most people never consciously register: The street is inclined and the building facades are sloped to produce a "Hollywood" perspective, making Main Street appear longer than it really is.

At the beginning of your Magic Kingdom experience, the prospect of a stroll down a fairly long street to the Castle seems inviting, given the many attractions packed together on each side of the street. But the opposite perspective- looking down Main Street from the Castle toward the train station (entrance/exit)-makes the street look shorter than it is, which comes as a relief to most people after a long day. It also serves the dual purpose of alleviating a potentially major transportation problem for Disney, because only a limited number of buses can be put in service.

In addition, frequently painted sidewalks send off high maintenance and cleanliness clues at Disney parks; weaving lines provide a people-watching opportunity; a trash container is always in view, sending a message that littering is not OK here; and the estimated wait times posted at each attraction set expectation levels that are regularly improved upon in actuality.

These are a small sample of the tens of thousands of service experience clues carefully planted in Walt Disney's theme parks. The positive experience of most guests has been scripted well in advance of their arrival.

### **The 'Naturals'**

Some people seem to be "naturals" at orchestrating experiences. In addition to Disney, several other individuals have institutionalized their personal concepts of special experiences:

- McDonald's founder Ray Kroc has elevated cleanliness to a corporate obsession.
- Satisfaction Guaranteed Eateries' founder Timothy Firstahl conceptualizes his restaurant business as an "excuse" for making his customers happy.
- Barnes & Noble's founder Leonard Riggio sees shopping as a form of entertainment.

**A mass-produced experience, with fries.** Ray Kroc successfully institutionalized his personal dedication to providing customers a uniform dining experience in a spotlessly clean environment. Kroc's view that McDonald's was in the business of selling experiences, not hamburgers, led him to orchestrate the specific experience he wanted his customers to have. He made the kitchen visible to customers to show off its cleanliness and positioned the beverage, French fry, and hamburger stations to choreograph employee movement and suggest speed-"fast" food.

This design was replicated in every one of his restaurants, in effect, mass-producing the McDonald's experience. To maintain the uniformity of this experience, he flew American potatoes to Paris every day to ensure that his "French" fries tasted the same on the Champs Elysees as they did on Main Street, U.S.A.

**Guaranteed happiness.** Timothy Firstahl, self-styled "zealot" when it comes to creating uplifting experiences for the customers of his restaurants, promises them: "Your Enjoyment Guaranteed. Always." In his restaurant training manual, he tells employees that if a customer doesn't like her salad, the response should not be, "We'll replace it," but rather, "We really regret your inconvenience and want to make you happy."

He goes on to instruct and empower employees with the following: "By all means, give her the [new] salad free of charge. But buy her a drink or dessert as well-or whatever else it takes to make her happy." In Firstahl's mind, success in the restaurant business comes from happy customers, not satisfied customers.

**Take a page from this bookseller.** Leonard Riggio, founder and CEO of Barnes & Noble, the No. 1 bookseller in the United States, has realized his vision of shopping-as-entertainment in the design of his superstores-upscale, sophisticated, wood rich, library-like, people-watching, family oriented, "feel-good" public gathering spaces. The design objective is to keep people enjoying themselves in a superstore for two hours at a time.

Company CFO Irene Miller, told Fortune magazine that "The feel-good part of the store, the quality-of-life contribution, is a big part of [our] success." And security analysts, whom one might expect to look with disfavor on large capital investments that drive down sales-per-square-foot ratios, expect the stores to return 28% on the investment made in them.

Disney, Kroc, Firstahl, and Riggio created and managed service clues to engineer what their customers expect from, and feel about, their companies.

Except for Firstahl, they are mass-producing common experiences. But we expect mass-customized personal experiences-like the products and services they surround-to become prevalent by the year 2000, as technology makes this an economically feasible option.

### **Design Principles**

Capitalizing on customer experience to create preference on a broad scale calls for new management disciplines and tools. There simply won't be enough "naturals" to go around-any more than there were enough Fords, Watsons, Vails, and Sloans to manage all of the successful product-centric firms of the industrial era.

A systematic approach to creating, implementing, and measuring the impact of experience clues is needed that:

- Is based on a set of principles differentiating the essential from the optional, and what is likely to work from what is not.

- Incorporates a robust methodology.
- Establishes a symbolic mechanism for communicating the customer experience design throughout the organization.

The following is a description of some emerging concepts and principles of experience engineering as well as a method for applying them to your products and services.

### **Assume Control, With Style**

Disney takes control of a visitor's experience at The Magic Kingdom from the moment he or she exits Interstate 4 in Orlando, Fla. The way an experience-provider assumes and exercises control establishes its style.

Boldness or subtlety, commands or suggestions, politeness or bluntness, personal or impersonal are but a few of the many choices that must be made in setting a service design.

But the "PixieDust" nature of clues appropriate to a Disney theme park differs markedly from the "Confident Experts at Work" clues suitable for a hospital operating room.

Style must be consistent with the targeted perception of the experience, and should not come across as manipulative. People are properly wary of being manipulated, and a clumsy style can itself send a negative clue about that.

Of course, companies run a risk that the very act of engineering a pleasant experience might be considered manipulative. But we have found that customers' reactions to engineered experiences are similar to their reactions to another person's good manners: A perception of "hypocritical" or "genuine" depends largely upon the style with which they are delivered.

Although great leverage can be gained if clue choices are made consciously and systematically rather than by whimsy, style often will in which direction the leverage works.

### **Mechanics and Humanics**

There are two types of context clues. "Mechanics" are the sights, smells, tastes, sounds, and textures generated by things, for example, landscaping, graphics, scents, recorded music, handrail surfaces, and so on. In contrast, "humanics" clues emanate from people. They are engineered by defining and choreographing the desired behavior of employees involved in the customer encounter.

Managers have a fairly good understanding of mechanics clues because they are often an important part of product design-the shape, quiet operation, colors, smells, and textures of a new car, for example. Not as obvious, perhaps, is the extent to which new technologies can enhance the range and impact of mechanics.

We are using new 3M technology for scent management in some of our experience designs. 3M is now looking at the potential of "experience management systems" that can be readily turned into customized sound and smell clues. This is important, because nothing is more evocative of certain experiences than sounds and smells. (Anyone who hears a certain song from his or her high school days is subject to instant and involuntary flashback.) Without doubt, opportunities abound for skilled experience engineers to create "signature scents and sounds" for particular brands of movie theaters, hotel lobbies, commuter train cars, computers, and virtually any other object or space.

Humanics determine the interpersonal relationships in a buying experience-how employees make customers feel. In many firms today, humanics creation is either not managed at all or is implicitly delegated to employees. But empowering personnel to deal with customer problems "on the spot" is unlikely to have consistent success unless employees are selected for, and trained in, the

highly intuitive skills needed to sense customer reactions to service encounter clues and respond appropriately.

Disney's training program is an example of successful on-the-job behavior modification. Employees audition for roles, don costumes, work with props, and rehearse extemporaneously "in character." When they are at work, they are on stage. In fact, Disney engineers the work experience of its employees by carefully crafting their roles to include picking up specific signals from customers' behavior and responding in specified ways.

Humanics are most effective when they are integrated with mechanics. In a recent retail service experience engineering project, for example, we determined that the payment experience had a significantly higher positive impact on the perceptions of departing customers when the service employee looked them in the eye. We designed a simple mechanics clue to trigger an appropriate humanics clue. We added a few dummy keys to the register and modified the checkout software so that a customer's contract doesn't print until the dummy key labeled with the color of the customer's eyes is depressed.

Needless to say, the effectiveness of this design-and of all humanics clues-is directly related to employee skills and "buy-in," which also can be engineered.

The hospitality industry affords many examples of the way humanics and mechanics service clues can work together to leave a trail of favorable impressions. Some hotels make it a practice to sculpt a copy of their logo in the sand when they clean their floor standing ash trays. This simple mechanics clue accomplishes two things. First, it allows management to monitor the activities of hourly employees, ensuring that they take care of important details and leave behind tangible evidence that they have done so. The logo in the sand also communicates to guests that the company takes pride in paying attention to detail, that management is dedicated to keeping the property clean, and that littering is inappropriate.

### **Thematic 'Sticktion'**

"Sticktion" is a term 3M engineers use to describe a design point between abrasion and slippage that should exist when a magnetic head "reads" information by sensing the magnetic particles on a tape. In the context of experience management, it refers to a limited number of special clues that are sufficiently remarkable to be registered and remembered for some time, without being abrasive. Sticktion stands out in the experience, but does not overpower it; well-designed, it is both memorable and related to the "motif" of the experience.

A motif is a succinct, verbal characterization of the desired take-away customer perception. "Extraordinary people," "classy treatment," "state-of-the-art," "come back again," "special," "friendly," "partnership," and "no sweat" are some of the choices made by companies with which we have worked.

Sticktion can be very powerful in generating and perpetrating the kinds of myths and legends built up over decades around icons such as Disney, Nordstrom's, AT&T, IBM, WalMart, and others who benefited from an enormous amount of favorable word-of-mouth advertising. It is the "talkability" of sticktion, along with sustained quality of the services and products it promotes, that perpetuates an exceptional reputation.

In developing a Service Experience Blueprint for a large regional grocery chain, we established an "Expectant Mother Parking" service clue-a special, preferred parking space for expectant mothers, signaling that the company cares about this kind of customer.

To test the clue, the company planted a prototype signpost featuring an outline of a stork in a parking spot near the entrance of one of its stores. While the company was preparing to research the impact of this service clue, a local newspaper ran a story with a picture of the Expectant Mother Parking space.

The story generated complimentary letters to the editor, which led local radio and TV stations to pick it up. Then a big city newspaper featured an article on its front page-with photos- and CNN

and the wire services followed suit. Further research into the question of whether or not that particular clue created sticktion was not really necessary.

The objective of sticktion is to catalyze positive stories: "They actually offered to deliver that swimming suit to me at the airport," "She insisted on giving me a refund, even though I'd worn the shirts for four months," "My hotel room door opened when I walked up to it, and it wouldn't for anyone else," "Their maintenance people wear ties and carry briefcases," "They have special parking places for expectant mothers." Such seeds, if cultivated over a long enough period, can propagate meaningful preference.

But these clues also can backfire if they are not part of a designed experience.

Dramatic, isolated gestures-such as driving 300 miles to get a special brand of ketchup for a transient customer- only add expense and perhaps a reputation for eccentricity. Sticktion is not effective when it consists of a few exceptional clues embedded in a welter of negatives. It can also be negative in and of itself, e.g., rusty shopping carts or a foul tempered clerk.

One example of how a planted clue can backfire was demonstrated by a fast-food chain that decided to position a butcher shop at the front of its food service operation. The intent was to generate "freshness clues," which it did, but its overall sticktion was negative because customers had to look at bloody sides of beef hanging on hooks just prior to eating their hamburger.

Positive sticktion must ride on a firm foundation of consistency, in the encounter experience as well as in the product performance. And, like other clues, it has cost/benefit attributes that must be part of the design decision process.

### **Integrate Process and Experience Designs**

The process of designing preference-creating experiences must be intimately related to the motivational, training, financial, and operational business processes of a company. For example, if not reinforced by a complementary employee motivational scheme, experience designs can easily become sterile signposts of an experience that exists only in the designers' imaginations.

Business process design entails the identification and sequencing of tasks, resources, decisions, and human accountabilities that define the behaviors needed to run the business. To them can be added processes for delivering the humanics and mechanics that establish a differentiating experience along with the product or service. Experience design teams should therefore include individuals with expertise in business design, so that customer expectations, product performance, service delivery, and experience clues all reinforce one another.

Sometimes the result can be synergistic in a startling way. A clue designed to create sticktion at one of the stores in a grocery chain ended up changing the entire service design. The clue was a wine-tasting booth run by a knowledgeable wine stewardess who served samples and answered questions two days a week. Within four months of implementation, that particular store became one of the largest retail wine outlets in the entire region. What was created as a humanics in an experience design turned out to be a service component that unleashed a substantial latent demand.

Because of such potential for synergy, we believe that business design/transformation/reengineering projects are only half complete if they do not incorporate the design of customer experiences-especially in the case of services companies.

### **A Systematic Approach**

A four-phase process has proved effective for us in applying the principles of experience engineering to situations ranging from shopping at retail to building a home.

- Phase 1: Acquisition of service experience design skills.

- Phase II: Data collection and analysis.
- Phase III: Service clue design.
- Phase IV: Implementation and verification.

### **Acquiring Skills**

We begin by assembling a team with representatives from all the major functions and operational processes of the business, making certain to include a large complement of people who have day-to-day contact with customers.

This "horizontal" group clarifies the experience that will be delivered.

The experience is then evaluated against a number of criteria to identify an over-arching theme (the motif) and isolate those places where sticktion could support this motif.

The team is educated on the concepts and methodology of engineering customer experiences. A major objective is to sensitize team members to recognize and evaluate the impact of service clues. Beyond this, we conduct training programs to increase clue-consciousness and customer empathy throughout the organization, thereby maximizing a firm's ability to anticipate and respond in a consistent and reinforcing manner.

Particular focus is placed on developing employees' intuitive and perceptive skills. This process is critical to creating a culture that positions employees as facilitators of an experience architecture, rather than as executors of a service delivery mechanism.

### **Collecting and Analyzing Data**

We recruit representative customer panels and expose them to an existing experience or a realistic mockup of a planned experience. What they see, hear, taste, touch, smell, and feel is captured in detail in each phase. We record how they feel about these clues as well as their way of expressing their reaction to the overall experience. The entire experiment is filmed for later examination in detail.

This exercise frequently provides solid evidence that sensory impressions can outweigh factual evidence in forming perceptions. In one case, a nursing home received multiple negative evaluations about the cleanliness of its facilities.

However, objective investigation revealed no evidence of this. Only after analyzing what signals outsiders were picking up, and how these signals were being interpreted, did the real culprit—a strong disinfectant odor—emerge. To management's surprise, this was perceived as a "dirtiness" clue; the unusual strength of the odor was subconsciously translated by inspectors into a conclusion that the premises must be exceptionally dirty to require such a strong disinfectant. Using disinfectants with a pleasant odor didn't help, because that was interpreted as a "cover-up" clue. The solution was to use a neutral scent.

Wherever possible, we conduct comparable studies at competitor locations and benchmark for "best of breed" clues. Then, after leveraging the imagination of the team to generate additional clue candidates, we create a detailed index that qualifies clues in terms of their specific impact, and how they enhance or detract from the intended takeaway perception.

### **Designing and Integrating Clues**

An "experience architect" leads the process of analyzing, creating, and modifying humanics and mechanics clues. The goals, as shown in Exhibit 2, are to:

- Either eliminate negative service clues or move them into the "commodity zone."
- Insert highly differentiated clues known to build preference, and reinforce them in other parts of the experience.
- Test each clue and weight it in terms of its impact, cost, and operational consequences.

Clues that "make the cut" are integrated into an engineered Experience Blueprint™ (see Exhibits 3-5). This is a set of blueprint drawings that divides the experience into layers corresponding to the various phases of a particular experience. Each layer is supported by a graphic depiction of the service clues to be experienced in that phase of the total experience (Exhibit 4). A set of specifications that summarize the ranking, impact, estimated costs, and operational impact is prepared on a corresponding page for each layer (Exhibit 5).

Skillful layering of clues can differentiate an otherwise unexceptional experience by building a cumulative perception. Over the course of a day or two, for example, many details integrated into Disney attractions build a strong perception about Disney's attention to detail and cleanliness.

Layering clues also can produce different, "customized" versions of a single target perception. Again, it is the aggregate effect of the detailed clues that establishes a composite experience impression for each individual—each of whom has experienced a different subset of all the clues. In some experience designs, we have isolated as

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Many as 13 distinct layers, some of which have several hundred embedded service clues.

### **Implementing and Verifying**

We then organize the clues into three groups: those that should have been implemented yesterday, including the removal of negative clues; those we can implement today; and those to be done in the future. Some clues must be held for the future because the technology required to implement them doesn't exist yet. For example, the audio-animatronics for Walt Disney World were developed only after the overall experience had been designed. Disney "Imagineers" created the experience in model form, after which Disney workshops developed the mechanics that produced the clues in the design.

The blueprint is prototyped with as many constituencies as possible, and a subset of the clues is chosen to validate costs, specifications, and impact. We use the pictorial blueprint to communicate the design to the entire organization, promoting understanding, buy-in, and organizational learning by employees on the service line. We also include the names of the employees who participated in the design as the title page of the blueprint (Exhibit 3).

### **A New Frontier**

Wherever shorter life cycles make products and services more commodity-like, differentiation and preference migrate from the offerings themselves to the institutions that create the experiences associated with their acquisition, use, and maintenance.

Engineering customer experiences is an important—and largely unexploited—strategy for establishing and maintaining customer preference for an institution. It should, therefore, be in the capability portfolio of any firm investing in long-term customer relationships.

Creating customer experiences is not new. Occasional purposeful design of these experiences by intuitive individuals also is not new. But rendering the design and execution of experiences as a management discipline with principles, tools, and techniques is new.

Starting with an understanding that the manufacturing management paradigm is insufficient for sense-and respond service firms, academics, consultants, and managers have begun to fashion a service management discipline. The service quality management focus in the 1980s was an especially important contribution to this effort.

Experience clue management now promises to become a new frontier in marketing-most obviously in services and retail marketing. It is not a panacea any more than quality management was; it is a different domain in which to exercise judgment, apply skills, and make considered investments in order to create competitive advantage and customer loyalty.

With this in mind, here are some predictions:

- Understanding all the implications of various clues and determining how their impact on preference varies by region, market, store, demographic profile, and other factors will occupy researchers for years to come.
- Finding those combinations of clues that have highest impact for well-defined audiences will create wealth for a new breed of specialists.
- Being able to mass customize clues for individual customers will be as important for experience managers as flexible production systems are becoming for product and service managers.
- Having an established and disciplined approach to the design and creation of human experience will not be enough; the deciding role will be played by the skill, taste, perceptiveness, and business acumen of its practitioners.
- Quick-and-dirty dramatics trumped up to create instant legends will almost certainly and unfortunately be a part of the scene as the power and potential of engineering the experience becomes more evident.

The risks of experience designs are those associated with any learning curve, and may be exacerbated by the potential for high negative leverage if poorly done. The reward is customer preference that is designed, implemented, and managed -preference not for a set of products and services, but for an institution.

A formerly intuitive and highly subjective domain of business is being transformed from an episodic art form into a replicable process managed by people who are skilled, but not necessarily geniuses. Walt is gone, but Disney experiences endure and multiply, shaped by talented people who never met him.