

The background of the page is a teal color. It features a faint, large-scale photograph of two people, likely a woman and a man, in a service or office environment. Overlaid on this is a series of thick, diagonal teal stripes that run from the top left towards the bottom right. The number '8' is positioned in the upper right area, and the text 'Service Design' is centered horizontally across the middle of the page.

8

# Service Design

In San Francisco, if you want to buy a monthly pass to ride the local public transportation system, MUNI, there are only two ways to do it: either find (via the Web site or, seemingly, by randomly guessing) the stores that sell the pass, or buy it online and have it mailed to you. This plan has (at least) two flaws: very often the passes don't arrive at the stores in time for the beginning of the month, and buying a pass online costs an extra \$10 so that the monthly pass offers no savings at all to most commuters. Compared to New York City's MetroCard vending machines (**Figure 8.1**), or to Hong Kong's Octopus SmartCards, which not only allow passage on transportation systems but also work on everything from vending machines to public swimming pools, the MUNI system is terrible. It is a poorly designed service.

When people think of interaction design (if they do at all), they tend to think of it as tied to technology: Web sites, mobile phones, software. I'm as guilty as anyone—the subtitle of this book refers to the creation of applications and devices after all. But technological wonders aren't all interaction designers create. The new frontier of interaction design is services.

**Figure 8.1**

New York City's MetroCard kiosks are excellent examples of good use of technology in services. Designed by Antenna Design, they are a welcome addition to the New York subway service.



Up until this point in this book, we have been using the clunky phrase “products and services” to describe what interaction designers design without ever much explaining what a service is. Back in Chapter 1, we noted that interaction designers can design not only objects (things) and not only digital or physical things, but also the ephemeral—ways of performing tasks that are hard to pin down but easy to feel. These “ways of performing tasks” are services.

## What Is a Service?

A service is a chain of activities that form a process and have value for the end user. You engage in a service when you get your shoes shined or your nails manicured or when you visit a fast-food restaurant. Your mobile phone's usage plan is a service, and you participate in a service every time you travel on a plane, train, or taxi. Services can be small and discrete, such as the sale of postage stamps by some ATM machines, or they can be huge, such as the sorting and delivery of physical mail. Service providers are all around us and account for an enormous portion of the world economy: from restaurants and bars to dry cleaners, hospitals, construction companies, street cleaners, and even complete governments. Services are everywhere.

Services greatly affect our quality of life because we are touched by so many of them every day. A poor service can make your subway ride to work uncomfortable, your packages late or undelivered, your lunch distasteful, your mobile phone coverage poor, and your ability to find evening TV shows problematic.

Service design, like systems design (see Chapter 2), focuses on context—on the entire system of use. People use products (often with others) in environments in structured processes. Service design, really, is designing this whole system of use. The *system* is the service.

## The Characteristics of a Service

Most services have many of the following characteristics:

- ▶ **Intangible.** Although services are often populated with objects, as discussed later in this chapter, the service itself is ephemeral. Customers

can't touch or see the service itself—only the physical embodiments of it, such as the food in a restaurant or a firefighter's uniform.

- ▶ **Provider ownership.** Customers who use a service may come away from it with an owned object such as a cup of coffee or used car, but they don't own the service itself. It cannot be purchased by the customer.
- ▶ **Co-created.** Services aren't made by the service provider alone; they require the involvement and engagement of the customers as well. Salespeople don't do the shopping for customers (unless asked), waiters don't bring just any food they please, and doctors don't prescribe the same medicine to everyone.
- ▶ **Flexible.** Although a service must be standardized to some degree, each new situation or customer requires that the service adapt to it. A rude, pushy customer is treated differently than a meek or polite one. When a plane is delayed, the customers and the employees act (and react) differently than when a flight proceeds flawlessly.
- ▶ **Time based.** Services take time to perform, and that time cannot be recovered if it is lost. Service time that goes unused, such as the time a taxi driver spends looking for passengers, is a missed economic opportunity.
- ▶ **Active.** Services are created by human labor and are thus difficult to scale. How the people who provide a service act—the customer service, as it is frequently called—can often determine the success or failure of a service.
- ▶ **Fluctuating demand.** Most services vary by time of day, season, and cultural mood. Hair stylists are overwhelmed during wedding season but are considerably less busy after holidays.

### The Elements of Service Design

Traditional design focuses on the relationship between a user and a product. Service design, in contrast, works with multiple *touchpoints*—the store itself, the sign that drew you to the store, the salesperson in the store, what the salesperson says, the packaging the purchased product arrives in—and focuses on users' interaction with these touchpoints *over time*. These touchpoints typically are environments, objects, processes, and people.

### Environments

The environment (**Figure 8.2**) is the place where the service takes place. This can be a physical location such as a store or a kiosk, or a digital or intangible location such as a telephone or a Web site. The environment needs to provide the space necessary to perform the actions of the service, as well as cues for those actions, such as signs, posted menus, and displays. The environment tells users what is possible. It creates affordances (see Chapter 3).



**Figure 8.2**

Supermarkets, like this one in Kenya, have areas designed for the payment of products. One wonders, however, in the age of radio-frequency identification (RFID) tags, which can be embedded in product packaging and possibly allow automatic checkout when the product leaves the store, how much longer this part of the environment will be necessary.

Unlike products, services are often purchased, delivered, and used or consumed in the same place. Thus, the setting for any service needs to contain the resources for purchasing, creating, and consuming the service.

### Objects

These resources are often the objects that populate the environment. Objects in service design are meant to be interacted with—the menu at a restaurant, the check-in kiosk in an airport, or the cash register used to ring up a sale. These resources provide the potential for interaction and participation.

Some objects are complex machines, like the baggage sorters at airports (only a portion of which are visible to passengers; see **Figure 8.3**). Others are as simple as a cloth to clean up spills.

**Figure 8.3**

Objects in services can be huge, complex machines, such as the CrisBag baggage handling system from FKI Logistex, which uses RFID-tagged baggage totes to sort, track, and trace baggage.



### Processes

The process is *how* the service is acted out: how it is ordered, created, and delivered (**Figure 8.4**). Everything down to the words used can be designed (“Do you want fries with that?” or “For 25 cents more, you can supersize it”). Processes can be very simple and short—the customer puts money on the newsstand counter and takes a newspaper—or they can be very complicated—the vendor orders newspapers, the vendor pays for newspapers, the newspapers are bundled and shipped daily from printing presses and delivered to individual vendors.

Processes aren’t fixed. Customers can be exposed to multiple, varied experiences via repeated exposure to the service. The process can subtly or radically change from place to place or over time. Moreover, there are often multiple pathways through a service; there isn’t usually one way to do anything—people are simply too messy for that. Designers have to give up control (or, really, the *myth* of control) when designing a service process. Designers can’t control the entire experience.



**Figure 8.4**

Workers installing a concrete floor follow a set process.

However, interaction designers do have to define and design at least some of the pathways through the service. These pathways contain service moments—small parts of the experience—which, when hung together, constitute the service and its experience.

### People

People are an essential part of most services because only through people do most services come alive, usually through complex choreography. In service design, there are two sets of users to design for: the customers and

the employees. Customers and employees often perform different parts of the service for the purpose of achieving a particular result. For example, in a Starbucks, customers order their drinks, employees then make the drinks, and then customers customize the drinks, adding milk, sugar, and so on. The two user groups co-create the service *in real time*.

This real-time collaboration to create services means that services are tricky to design and the stakes are high. Failure happens face to face and can cause anger and embarrassment from both customers and employees. Designers, being divine beings only in their own minds, cannot create people; they can only, like a playwright, create *roles* for people within services, such as waiter, chef, or greeter (Figure 8.5), and give them parts to play. As Marshall McLuhan told us 40 years ago, people are focused on roles, not goals. Roles have a cluster of tasks surrounding them (“I take the product specifications to the engineers”) that are easy to specify and that have traits and skills associated with them, so they are easy to “cast” (“must be a people person”).

Figure 8.5

Chefs have clearly defined roles to play in restaurants and catering services and often have uniforms such as this one. Their skills and tasks—prepare and cook food—are also well defined.



### Why Design Services?

One of the best reasons for designing services is that services, more easily than most physical products, can be designed to be environmentally good. Making fewer things, especially fewer useless things, is good for the planet. What if, rather than everyone owning a car (especially in crowded urban environments), we shared cars, using them only when necessary? That’s the premise of car sharing services such as Zipcar (Figure 8.6), where subscribers to the service check out cars for a period of time, returning them to shared parking lots, where others can then check them out.

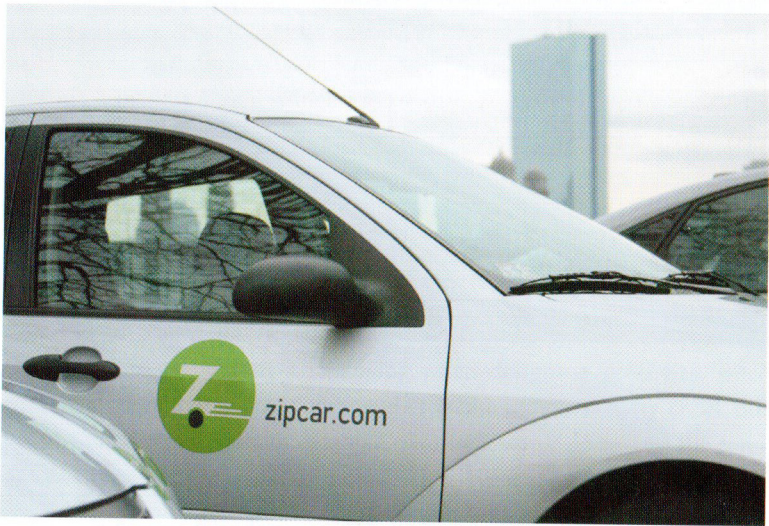


Figure 8.6

Zipcars allow people to share cars. In urban environments, where owning a car is often burdensome, Zipcars provide an alternative.

Another practical reason for designing services well is simply that good service makes good business. Certainly a poor service can survive if there is no or little competition. Would the Department of Motor Vehicles be such a horrible service if drivers could get their licenses elsewhere? People have shown that they will pay extra for unusual and unusually well-executed services. Even a slightly better service will cause people to seek it out and pay for it. Airlines, for instance, have taken advantage of this with business- and first-class service (Figure 8.7). Budget airlines like JetBlue have noticed that fliers will seek them out if the experience of flying with them is much

better than that of flying with most of their competitors. All other things (price, convenience, and so on) being equal, their service has become their differentiator in the marketplace.

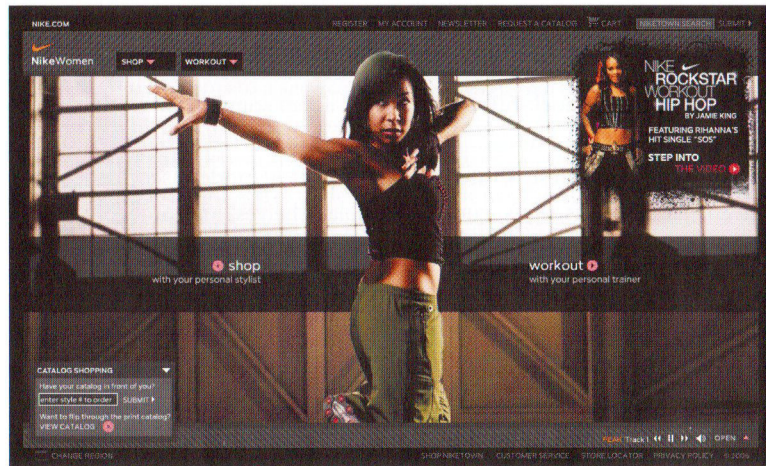
**Figure 8.7**

Virgin Airlines spends a considerable amount of time and effort on service design, and it shows. The airline's posh amenities for even coach-class travelers have other airlines scrambling to catch up.



## Services and Branding

Interaction designers can't design services without taking full account of branding. Indeed, one of the roots of service design is the "total brand experience" movement of the past two decades, in which marketers and brand managers try to make sure that every time a customer interacts with a company, they have a consistent, branded experience. While that is an interesting goal that still plays out for companies such as Nike (**Figure 8.8**), it starts from a different point of view than does service design: namely, from the *company's* point of view. Total brand experience asks, How can the company imprint itself on the customer? Service design, in contrast, asks, How can the *customer's* experience with the company be a positive one (and thus strengthen the brand)?

**Figure 8.8**

Nike's Web site reflects its careful attention to brand. Nike's stores, Web site, advertising, and packaging all convey the company's distinctive brand message.

Branding boils down to two elements: the characteristics of the company or organization and the way in which those characteristics are given expression. Tiffany's blue box, the Disney handwriting script, and the green of John Deere are all expressions of brand. In designing services, interaction designers have to figure out how the brand translates in each of the aspects of the service design: environments, objects, processes, and people. This translation is particularly challenging when designing processes, since these are often intangible. You wouldn't create a dainty, fussy check-out process for Home Depot, for example, because it would go against the company's rugged, no-nonsense branding.

In service design, brand can be designed into small details that can have power to delight. In upscale hotels during the room clean-up service, the end of the toilet paper roll is often folded into a neat triangle; this small moment lets the customer know the level of care being provided. When designing services, interaction designers should strive to give users something extra that reflects the company's branding.

## The Differences Between Services and Products

Thanks to technology, our products and services are intertwined as never before. We subscribe to phone services to use our mobile phones. We pay to

connect our devices to the Internet. We order goods online that are delivered to our homes, and withdraw money from our banks via machines.

Most services are chock-full of products—a fact sometimes overlooked in discussions of service design. Signage, physical devices, Web sites, phone services, lighting, and so on are all part of a typical modern service ecology. The corner store has signs, counters, display shelves, and probably even a Web site. Many of these are specialized products made specifically for that service (**Figure 8.9**). The TiVo box, for example, is a specialized product that you have to buy before you can even use the TiVo service, which provides not only the TV listings, but also the TiVo operating system. (Imagine subscribing to Microsoft Windows.)

**Figure 8.9**

A very clever map, using the otherwise wasted space of a utility box, designed for that particular box as part of a tourism service for the city of Victoria, British Columbia.



Services, however, have different emotional resonances with users than do individual products. While users may strongly like a service such as TiVo, the attachment that forms to a service is different than that to a physical product. For one thing, services are intangible and likely to change. Services mutate, stagnate, and shift depending on the people supplying them and the business rules that guide them. The experiences at McDonald's and Starbucks can vary wildly, and those businesses both have very controlled service processes.

### Shelley Evenson on Service Design



*Shelley Evenson is an associate professor and director of graduate studies at Carnegie Mellon University's School of Design. Prior to her academic career, she was vice president and chief experience strategist for Scient, director of design at DKA/Digital Knowledge Assets, director at Doblin Group, and vice president of Fitch. She has published a number of articles and presented papers at numerous conferences on design languages in hypermedia, interaction design, design research, and service design.*

#### **Why is service design important?**

According to one IBM report, today more than 70 percent of the U.S. labor force is engaged in service delivery. New technology has enabled internationally tradable services. We are at a tipping point. A huge portion of the economy is now focused on knowledge-based information services. I believe that as we shift to this service-centered society, it won't be good enough to view services from a purely management or operations-based perspective. Companies will need to turn to service design and innovation to differentiate themselves in increasingly competitive markets and to create opportunities that address new challenges in the service sector.

#### **How is designing a service different from designing a product?**

When designing a product, much of the focus is on mediating the interaction between the person and the artifact. Great product designers consider more of the context in their design. In service design, designers must create resources that connect people to people, people to machines, and machines to machines. You must consider the environment, the channel, the touchpoint. Designing for service becomes a systems problem and often even a system of systems challenges. The elements or resources that designers need to create to mediate the interactions must work on all these levels and at the same time facilitate connections that are deeply personal, open to participation and change, and drop-dead stunning.