Customer-Centered Web Design: More Than a Good Idea
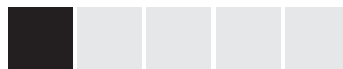
The World Wide Web is no longer a novelty. To many companies and organizations, the Web is a necessity, the foundation of their businesses. As the cost of maintaining a customer service operation increases, the ability of Web site visitors to find information and complete specific tasks themselves can easily mean the difference between profit and loss. Customer-centered Web site design is therefore no longer a luxury adopted only by forward-thinking companies with a special interest in customer satisfaction.

Many of the design elements presented in this book are now the minimum requirements for an effective, professional Web site. As you work your way through the patterns that we discuss, consider how many high-quality sites you've seen that use the techniques described, and how much thought must have gone into their development. Implementing a customer-centered design is relatively easy when you have examples to work from and a wheel that has already been invented.

In this chapter you will discover the thinking behind customer-centered design and learn how to apply it to your projects using the principles, processes, and patterns that we present throughout this book.

1.1 The Evolution of Web Design

First Generation

The mantra was "build it, and they will come." Talented individuals and large teams alike built Web sites. These creative and visionary people managed everything from business planning to graphic design and software development in this new medium. Once having built the site, though, all they could say was that they had a Web site. They could not say how their

site was performing from the customer's perspective, or how the site was related to the business's bottom line.

Second Generation

The mantra was "advertise that you sell it online, and they will come." Start-ups invested large amounts of capital in expensive ads to draw visitors to their e-commerce sites. Even established companies put ".com" on their letterhead and ran costly campaigns to let people know they hadn't been left behind.

Unfortunately, this strategy did not work, because Web design was complex and still misunderstood. *For the first time, organizations were building interactive computer interfaces to their products and services.* This task proved to be difficult to execute well. Building a Web site too quickly, in fact, made its probability of being both compelling and easy to use practically zero.

Third Generation

With the first edition of this book we helped shift the mantra to "customer-centered design"—to constructing powerful Web sites that provide real value and deliver a positive customer experience.[1] When visitors consistently give a Web site high marks for content, ease of use, performance, trustworthiness (as well as other indicators of brand value), and overall satisfaction, we call it a **customer-centered Web site.** Consideration of these additional factors is what differentiates customer-centered design from other design approaches (see Figure 1.1).

Fourth Generation

Today new technologies and business models have resulted in more innovative designs, but they also present greater challenges for building

---

1   We use the term *customer* rather than *user* for three reasons. First, only two types of businesspeople refer to their customers as *users:* drug dealers and computer companies. Second, and more importantly, the term *customer* evokes the idea that successful Web sites account for issues that go beyond ease of use and satisfaction, such as trustworthiness, brand value, and even how well a company's traditional interactions with the customer work, such as telephone-based customer service or the return of merchandise. Finally, taking a cue from Beyer and Holtzblatt's *Contextual Design*, we use *customer* to refer to anyone who uses or *depends* on the site. Customers can be administrators, partners, managers, and producers, among others. To manage the site, many of these individuals will see a completely different interface. We chose the term *customer* because it is more expansive than *user,* referring to all of these individuals and their myriad needs.

Figure 1.1

The key issues driving customer-centered Web design.
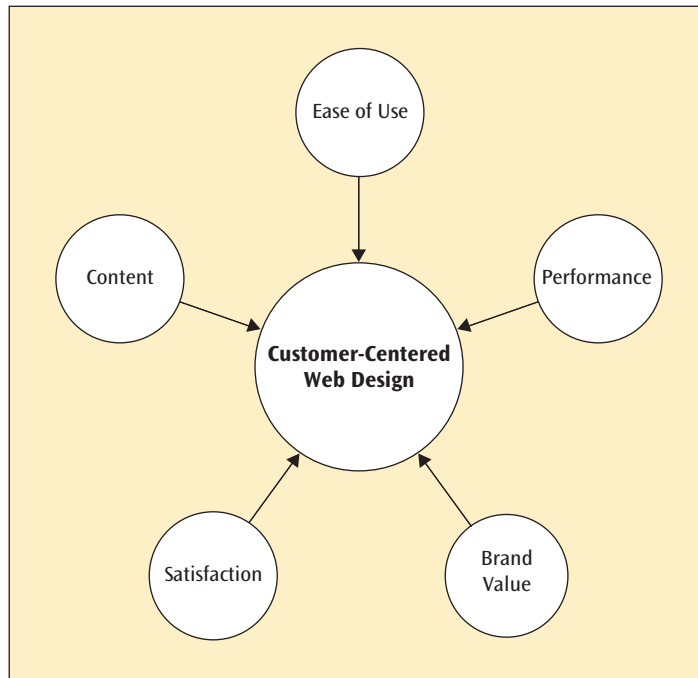
1.1

customer-centered Web sites. With the advent of AJAX (Asynchronous JavaScript And XML), the Mobile Web, and other Web 2.0 capabilities, sites can now provide features that are more compelling, more powerful, easier to access, and easier to use. However, building better interfaces now requires skills that are more specialized and harder than ever to acquire. In this edition of the book, we provide additional design patterns that enable you to build these customer experience–enhancing capabilities into your Web sites.

The challenge to be customer centered exists for all enterprises: large multinationals, government agencies, internal corporate services, small businesses, and nonprofit organizations, to name just a few. General Motors, for example, must manage its customer experience for more than three hundred end-customer, supplier, and distributor Web sites. Government sites, with responsibilities to help the citizenry and other agencies, need to satisfy "customer" requirements as well. Intranet applications that optimize a corporation's workforce must provide positive experiences to employee "customers."

The Importance of Customer-Centered Design

Over the years we have learned that the criteria for building customer-centered Web sites are based on providing a positive experience for all customers, whether those customers are there to find information, to be part of a community, to purchase items, or to be entertained. This focus is called **customer-centered design.** Customer-centered design increases the value of Web sites through better design and evaluation. It is about how you empathize with customers—how well you understand their needs, the tools and technologies they use, and their social and organizational context. It is about how you use this understanding to shape your designs and then test those designs to ensure that the customers' needs are met.

Why go to all this trouble? What will happen if you don't? Suppose your site overruns its budget or schedule. Management could pull the plug before it is completed. Or what if your Web site is finished but turns out to be too hard to learn or use? Customers might visit your site once and never return.

With customer-centered design, you do the work up front to ensure that the Web site has the features customers need, by determining and planning for the most important features and by making certain that those features are built in a way that customers will understand. This method actually takes less time and money to implement in the long run. In short, customer-centered design helps you build the right Web site and build the Web site right!

Here's an example that underscores the importance of customer-centered design. Several years ago, IBM found that its Web site was not working well. Quick analysis revealed that the search feature was the most used function. The site was so confusing that IBM's customers could not figure out how to find what they wanted. IBM also discovered that the help feature was the second most popular function. Because the search feature was ineffective, many people went to the help pages to find assistance. Paying close attention to customer needs, IBM redesigned the site from the ground up to be more consistent in its navigation. A week after launching the redesigned site, customers' reliance on the search and help features dropped dramatically and online sales rose 400 percent.

This is just one of many stories highlighting the increasing importance of good design. But does good Web design really affect the bottom line? You bet! Web sites founded on solid fundamentals and extensive customer research can make the difference between success and failure. A clear,

easy-to-use, and customer-centered Web site can help garner better reviews and ratings, reduce the number of mistakes made by customers, trim the time it takes to find things, and increase overall customer satisfaction. Furthermore, customers who really like a Web site's content and quality of service are more likely to tell their family, friends, and coworkers, thereby increasing the number of potential customers. A great example of this result is Google, which has become the dominant search site with little or no advertising. It simply works better than most other search sites, and customers tell their friends about it.

There is also a strong correlation between increased satisfaction and increased profits for commercial Web sites. Underscoring this point, our research shows that increasing customer satisfaction by just 5 percent can lead to a 25 percent or greater increase in revenues. There are two reasons for the revenue increase and the related increase in profits. The first is that customers can find products and services more easily and are thus more likely to return in the future. The second is that support costs are reduced because of a lower number of phone calls, e-mails, and instant messages to help desks, as well as a lower number of product returns.

The stakes are higher now than ever before. Commercial Web sites that are not relevant, fast, trustworthy, satisfying, and easy to use will have a hard time attracting new customers and retaining existing customers, especially if competitors are only a click away.

Providing Tangible Value

Yahoo! is one of the top Web sites today, and it's likely to remain near the top for the foreseeable future. Why? Is it because it has slick graphic design? Hardly. Yahoo!'s homepage uses graphical images sparingly, and most of its other pages have even fewer. Even though Yahoo! was once pointed to as the poster child of boring interfaces, its mostly text interface still is very quick to load because it has so few graphics. So why is Yahoo! so popular? It's pretty simple actually: Yahoo! provides quality services that are useful, fast to download, and easy to use. One of the reasons it is such a popular Web site is that interaction design and usability research are integral parts of Yahoo!'s development process. Yahoo! identifies its customer needs through field studies, interviews, and usability evaluations, and then it tailors its designs to match those needs.

People will leave your Web site if they

- Are frustrated
- Think that navigating the site is too difficult
- Think that you don't have the product or service they want
- Get big surprises that they don't like
- Feel that the site takes too long to load

You cannot afford to abandon a single customer.

Even if your site does not have direct competitors, as is the case with educational institutions and corporate intranets, it can benefit from being customer centered. Simple, clean, and well-designed Web sites can cut down on wasted time for customers, reduce Web site maintenance costs for clients, and improve overall satisfaction.

Our First Steps toward Unifying Design, Usability, and Marketing

1.3

In 1997 we noticed that a few companies had dramatically jumped ahead of the competition and were now leaders on the Web. These companies had publicly stated and acted on making the customer experience their top priority, and they raised the bar for everyone.

While we were actively helping clients develop sites in an ever more competitive environment, we realized we had to move beyond the traditional boundaries of usability, market research, and software design. It was not an easy task, because our clients had committed to these means at varying levels, in different parts of the organization that usually did not talk to one another.

Drawing on our experience in design, consulting, marketing, communications, and human–computer interaction research, we evaluated our clients' Web sites on many levels. We discovered that although a customer focus existed, often it was not reflected on the Web sites. We also discovered that some clients were not improving the customer experience on their Web sites at all. This was not surprising, considering that these companies did not have a clear Web strategy. It was not uncommon for a client's Web design team to have an inadequate budget and little authority to integrate operations with the rest of the company.

Sometimes our clients were simply too busy trying to stay afloat to care about getting a full wind in their sails. One Web business we studied thought that it was doing very well with its health-related news, information, and products. It was receiving thousands of Web-based orders

per week. It spent heavily on advertising to draw people to its site, and as advertising spending increased, so did sales. Our team evaluated the ease of use of the site, doing some customer research over a short period of time (later we'll explain how you can run studies like this yourself). We looked at many factors, from first impression, to ease of use, to overall satisfaction.

We found some surprising results that led us to important conclusions. The developers of the site had done a great job of creating a powerful first impression. All the customers in our research panel liked the site, thought it looked easy to use, and said it appeared to have relevant content.

Next, however, we asked the same customers to use the site to carry out a realistic task: finding products for the common cold. Only 30 percent of the customers could find any products at all for colds, or for any other medical condition. This research suggested that about 70 percent of customers who came to the site to solve particular health problems could not find what they were looking for, revealing that, despite the company's perception that its Web site was serving it well, a substantial amount of revenue was being lost to user interface problems. The cost of dissatisfied customers' abandonment of this site could have reached into the millions of dollars over the course of a year.

Our experience with the health site is not uncommon. The bottom line is that poorly designed Web sites frustrate people, fritter away customer loyalty, and waste everyone's time.

1.4 Why We Prefer Customer-Centered Design

One way to explain the value of customer-centered design is to compare it to other design styles. In this section we look at four styles centering in turn on the user, the company, technology, and the designer.

User-Centered Design

Customer-centered design is most closely related to what is known as **user-centered design,** an effort pioneered in the 1980s for engineering useful and usable computer systems. Customer-centered design builds on user-centered design, addressing concerns that go beyond ease of use and satisfaction. In particular, it also focuses on the fusion of marketing issues with usability issues.

On the Web it is much easier to get an audience than by traditional means, but a trickier goal is to convert Web site visitors to customers and

keep them coming back. Unlike someone selling shrink-wrapped software to a customer who buys before using it, you want to convince Web site visitors to become customers while at the same time making their first use enjoyable. Pay special attention to business goals, marketing goals, usability goals, and customer experience goals. These goals often conflict with each other, and you will be able to find a balance among them only if you are aware of them all at once. These issues are much more intertwined and harder to design for on the Web than for shrink-wrapped software.

Company-Centered Design

A style that used to be quite popular among Fortune 500 companies is what we call **company-centered design.** Here the needs and interests of the company dominate the structure and content of the Web site. The fatal flaw is that what companies think should be on a Web site is not necessarily what customers need or want. You have probably seen Web sites that are organized by internal corporate structure, with sparse information about the products and services they offer. These kinds of sites are derisively termed **brochureware.** They contain little useful information and completely ignore the unique capabilities of the Web as a medium. Brochureware sites are acceptable only if they are a short-term first step toward more sophisticated and more useful sites.

Another example of company-centered design is the use of jargon known only to those in the business. When one of our friends wanted to buy a digital camera, he turned to the Web for information. As an amateur, he wanted a camera that was easy to use, one that would help him take clear pictures. Most of the sites he found, though, bombarded him with terms like *CCDs, FireWire, PC card slots,* and *uncompressed TIFF mode.* The fact that he didn't know what these terms meant embarrassed him. He was put off and confused. The companies had made the wrong assumption about their customers' knowledge. None of them answered the simple question of which camera was best for amateurs. This is an example of why company-centered design is almost always a bad style.

Technology-Centered Design

Sites constructed on the basis of **technology-centered design** are often built with little up-front research about business needs and customer needs—just a lot of hacking and caffeine. We have all seen Web sites like

this—the ones overloaded with animation, audio, video, and streaming banners. The problem with this approach is that it often results in an amateurish Web site that is not useful, usable, or desirable. Technology-centered Web sites were pervasive in the early days of the Web, but thankfully they are becoming less common as the Web matures.

Designer-Centered Design

Designer-centered design (also known as *ego-centered design*) is still popular in certain circles. One designer was quoted in a popular industry rag as saying, "What the client sometimes doesn't understand is the less they talk to us, the better it is. We know what's best." This is exactly what we mean by *designer-centered design.*

Don't get us wrong, though. Some design teams have deep-seated creative urges that are matched only by their incredible technical ability. They can create sites that are cool, edgy, and loaded with the latest technologies. Sometimes this is exactly the image a company wants to project. Unfortunately, such sites can also be slow to download and hard to use, and they may not work in all Web browsers. Designer-centered design is fine for some art Web sites, but not for e-commerce or informational sites whose livelihood depends on a large number of repeat visitors.

The Advantages of Customer-Centered Design

In company-centered design, designers give no thought to why people would visit the company's Web site and what they would want to do there. In technology-centered design, technology is an end rather than a means of accomplishing an end. In designer-centered design, the needs of other people are given less importance than the creative and expressive needs of the design team. Contrast these styles with customer-centered design, which emphasizes customers and their tasks above all, and sees technology as a tool that can empower people.

Company-centered, technology-centered, and designer-centered design styles were understandable in the early days of the Web, when designers were still finding their way. In the old worldview, few people really considered what customers wanted. Now, successful and easy-to-use sites like amazon.com, yahoo.com, flickr.com, and ebay.com are designed from the ground up to meet the needs of their customers. In the new worldview, your careful consideration of customers, as reflected in your Web site, will help you achieve long-lasting success.

Top Ten Signs That Things Are Going Badly

1. "Customers? Our Web site is already intuitive and user-friendly."
2. "We need to start doing some usability tests before our launch next month."
3. "We can use [*XML/SOAP/insert other buzzword technology*] to fix that."
4. "If you stop and think about how the interface works for a second, it makes complete sense."
5. "How can our customers be so stupid? It's so obvious!"
6. "Well, they should read the fantastic manual."
7. "We don't need to do any user testing. I'm a user, and I find it easy to use."
8. "We'll just put an 'Under Construction' sign there."
9. "Shrink the fonts more so that we can put more content at the top."
10. "We need a splash screen."

Nine Myths of Customer-Centered Design   1.5

Why are there so many organizations that do not embrace customer-centered design? In this section we will try to dispel the myths that keep companies from moving forward with customer-centered design.

Myth 1: Good Design Is Just Common Sense

If Web site design is just common sense, why are there so many bad Web sites? Thinking that design is just common sense leads us to think that we know what everyone needs and wants. Time and time again, however, this notion has been shown to be incorrect.

Web design teams always have to keep in mind that they are not the customers. They cannot always predict the way customers will think or act. In addition, they know too much about how the Web site works. They cannot look at it in the same way that customers will. They can avoid this problem by observing and talking to customers and getting feedback from them as often as possible.

Myth 2: Only Experts Create Good Designs

Although experts might apply customer-centered design techniques more quickly or conduct more rigorous analyses, anyone can understand and

use these techniques. Anyone devoted to the process can create a good design.

Myth 3: Web Interfaces Can Be Redesigned Right before Launch

Sentiments like "we'll spend a few days working on our site's interface" or "we'll solve the interface problems after all the programming is done" are common. However, these ideas assume that the Web site has the right features and that those features are being built correctly. These are two very risky assumptions that can be costly to fix, especially if the Web site is near completion. Customer-centered design helps minimize these risks by getting constant feedback on designs so that the Web site will be in good shape the day it is launched.

Myth 4: Good Design Takes Too Long and Costs Too Much

Customer-centered design does add some up-front costs because you will be talking to customers, creating prototypes, getting feedback on those prototypes, and so on. However, customer-centered design can considerably reduce **back-end costs**—that is, costs incurred as a result of responding to customer dissatisfaction through help desk calls, returned purchases, general Web site maintenance, and so on. Evaluate the trade-off between spending more time and money at the start of your project and losing revenue over the long run.

Customer-centered design can even reduce the total development time and cost because it focuses on finding problems in the early stages of design when they are still easy to repair, preventing them from ever causing serious problems that are time-consuming and expensive to fix. Of course, your team will not always have the time and budget to do everything possible, so throughout this text we try to identify the trade-offs among the different actions you can take to improve your site. This book discusses many effective approaches that you can use to test your assumptions and to test your Web site, to make sure that it is a winner in the long run.

Myth 5: Good Design Is Just Cool Graphics

An aesthetically pleasing design is an important part of any Web site because it helps communicate how to use a particular interface and it conveys a certain impression. However, graphics are only one part of the larger picture of what to communicate and how. Customer-centered design takes into account what customers want, what they understand, the tasks they perform, and the context in which they do things. Cool graphics by themselves do not address these issues.

Myth 6: Web Interface Guidelines Will Guide You to Good Designs

Web interface guidelines are a good checklist to ensure that the final design has no obvious minor problems. However, guidelines address only how a Web site is implemented. They do not address what features a Web site should have, the overall organization of the Web site, or the flow between individual Web pages. In contrast, the design patterns described in this book are generative. Using them will help you create solutions to your design problems. Furthermore, guidelines do not address the trade-offs of Web site development. Customer-centered principles, processes, and patterns, on the other hand, do take these issues into account.

Myth 7: Customers Can Always Rely on Documentation and Help

Documentation and help are important, but customers are unlikely to be patient enough to sift through a great deal of documentation just to use a Web site. Documentation and help are the last resorts of a frustrated customer.

Think about it this way: When was the last time you read a help page? Did you wish the design team had gone the extra mile in the first place to make using the site straightforward so that you would not need to read the help? Customer-centered design provides tools to see the world from your customers' eyes, to help you understand their worldview, and then to design Web sites to fit their needs.

Myth 8: Market Research Reveals All Customer Needs

Although market research is invaluable for helping to understand customer attitudes and intentions, it does not suffice when it comes to understanding customer behavior. Be careful also about using market research to create lists of customer feature requests. Implementing a laundry list of new features might satisfy customers who have asked for a particular feature, but all these features are more likely to get in the way of offering most of your customers a satisfying and successful customer experience.

What customers say in a market research study can be useful, but when it comes to interfaces, what they *do* is critical. That's why market research must be balanced with direct observation. A customer-centered design team uses a variety of techniques—from observations to interviews—to elicit true customer needs and focus on the areas that will be the most important for most customers.

Myth 9: Quality Assurance Groups Ensure That Web Sites Work Well

Software testing is key to ensuring that you are not launching a buggy, poorly performing site. Although quality assurance is important, its purpose

and focus are different from those of customer-centered design. Software testing is often technology driven rather than customer driven. Expert testers try to make sure the product does what the specification says it should. This is different from seeing what happens with real customers working on real problems.

More importantly, Web sites often are tested only *after* being built. At that point it's too late to make major changes. Software testing can help you find and fix only coding mistakes, not major design mistakes. Customer-centered design, in contrast, focuses on quality from the very start—before anyone has written a line of code.

1.6   Applying Customer-Centered Design

Over time we have evaluated the best practices to use when designing powerful, compelling, and useful interactive Web sites. We realize that designers need concepts that they can quickly integrate into their Web site design practices, as well as a process that can be applied universally, from entertainment sites to e-commerce sites, from sites for informal clubs to sites for large corporations. Our experiences, research, and discussions with other Web designers have helped us refine our ideas on customer-centered design into three parts: principles, processes, and patterns.

Principles

Principles are high-level concepts that guide the entire design process and help you stay focused. For example, as we state in one of our key principles, you must acquire a deep understanding of your customers' needs. Another major principle is to design your Web site iteratively, moving from rough cuts to refined prototypes, before creating the production Web site. These principles—described in Chapters 3 (Knowing Your Customers: Principles and Techniques) and 4 (Involving Customers with Iterative Design)—can be applied to any design problem and are the foundation for the patterns that we describe in the second half of the book.

Processes

Processes are how you put the principles into practice. In Chapter 5 (Processes for Developing Customer-Centered Sites), we describe our Web site development process, providing a guide that explains the major steps and milestones for developing a Web site. We also provide a collection of how-to tips, such as how to conduct a focus group, how to run a survey, and how to conduct a usability test (most of these tips are included

in the appendixes). If your firm has similar processes, use Chapter 5 to update your process so that the key principles of customer-centered design are supported.

Patterns

Design **patterns** solve recurring design problems, so you can use pattern solutions to design your sites without reinventing the wheel. Patterns are a **language,** a common vocabulary that allows you and your team to articulate an infinite variety of Web designs.

These patterns let you focus your energies on solving new problems, rather than addressing problems that have been worked out hundreds of times before. But design patterns do not make cookie-cutter sites—far from it. Because no two businesses are the same, we created the design patterns for you to tailor to your particular business needs. This book shows you how to create an overall solution that works for your customers and your business.

Using the Principles, Processes, and Patterns

Design is about making informed trade-offs between competing constraints. Customer-centered design tries to make these trade-offs clearer, but only you can solve the problems. The principles help you decide between different process activities at a particular stage of your project. For example, in evaluating whether to iterate on a paper design one more time or to build a high-fidelity version of the design, you might decide to stick with paper because you can easily bring in potential customers to evaluate the design.

You can also use the principles to help you decide among the different design solutions that you developed using the patterns. Say, for example, that you're not sure whether your branding is prominent enough during checkout on your site. You could use online surveys, a common tool of market researchers, to quickly see what potential customers think.

Take-away Ideas
1.7

Your opportunities on the Web are vast, but so are the difficulties of delivering a site that customers will give high marks for content, ease of use, performance, trustworthiness (as well as other indicators of brand value), and overall satisfaction. These problems are not insurmountable if you solve them with the set of principles, processes, and patterns that we describe in this book.

In the rest of this book you will find more reasons to implement customer-centered design, descriptions of techniques to use in your current projects, and over a hundred design patterns proven to enhance your customers' experience. Guidelines for instituting customer-centered design will help you through the process.

This book is meant as the first step in an ongoing conversation to improve the Web. We have not identified all of the useful Web design patterns. New patterns will be found, and the patterns we describe here will evolve as new techniques are invented and customer knowledge and skills change. In fact, this second edition of the book adds 17 new patterns and includes major revisions to 25 of the existing patterns. We encourage you to join in the conversation and keep moving the Web toward the new, raised bar for success.

H1 PROCESS FUNNEL

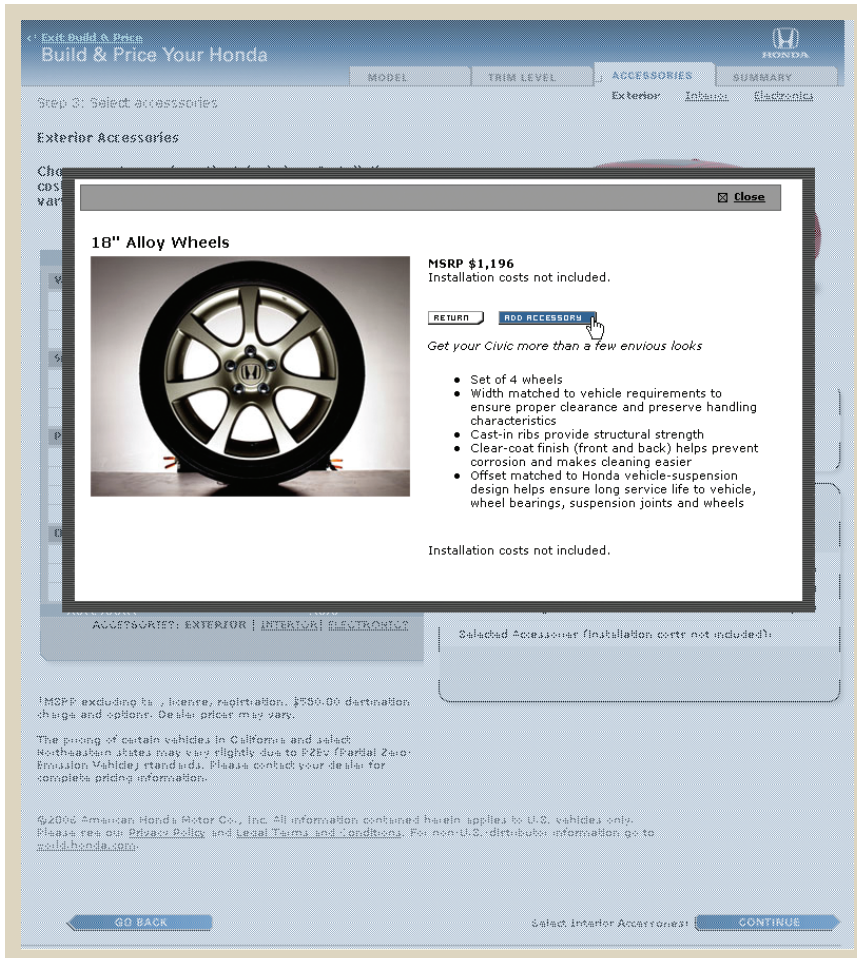**H1.1** (**www.automobiles.honda.com**, April 27, 2006)

Figure H1.1

Honda uses a process funnel consisting of several logical steps that guide customers to quickly configure a car with the desired options. Information in floating windows shows additional details but keeps customers in the funnel so that they can continue to completion.

✳ BACKGROUND

All Web sites that lead visitors through stepped tasks—PERSONAL E-COMMERCE (A1), SELF-SERVICE GOVERNMENT (A4), WEB APPS THAT WORK (A10), and ENABLING INTRANETS (A11)—need ways to help people succeed at completing the tasks.

A1 **A4** **A10** **A11**

✳ PROBLEM

Customers often need to complete highly specific tasks on Web sites, but pages with tangential links and many questions can prevent them from carrying out these tasks successfully.

People enjoy completing the tasks they start. Yet all kinds of distractions—including links that lead off the critical path, extra steps, and extra content—can inadvertently lead them away from accomplishing their goals. These diversions can have legitimate purposes, however, such as providing continuity, giving visitors opportunities to explore, providing instructions, or providing extra details. Striking a balance between these various forces and the actual task can be challenging.

Minimize the Number of Steps Required to Complete a Task • Customers find tasks daunting if there are too many steps. A process funnel might have anywhere from two to six discrete steps. Anything less than two steps is not a process, and a process of more than six steps can be unmanageable. If there are more than six steps, try to split the process into two or more separate process funnels, or try combining multiple steps on one page. You don't want to intimidate customers with too many steps. However, these are not always viable solutions, because one choice may precede another, and not every page can hold all the information that customers might need at certain points.

H13
Provide a Progress Bar to Let Customers Know Where They Are in the Process Funnel • Showing a PROGRESS BAR (H13) at each step lets your customers know how much farther they need to go to complete the task (see Figure H1.2). Note that it's often not worth your effort to make the individual steps on the progress bar clickable because doing so adds more

Figure H1.2

Many Web sites use a progress bar like this one at Half.com to let customers know where they are in the process funnel and how much farther they have to go.

H1.2 (**www.half.com**, October 24, 2001)

complexity but little benefit for customers. See the PROGRESS BAR (H13)   **H13**
pattern for situations where it makes sense to allow this.

Remove Unnecessary Links and Content While Reinforcing the Brand •
Removing links and content that are unrelated to the task at hand will
reduce the number of distractions, making it more likely that your
customers will successfully complete their tasks. Remove extraneous
NAVIGATION BARS (K2), TAB ROWS (K3), LOCATION BREAD CRUMBS (K6),   **K2** **K3** **K6**
and EMBEDDED LINKS (K7), leaving only the links and ACTION BUTTONS (K4)   **K7** **K4**
that help visitors reach their goals, as well as an obvious exit that
cancels the process funnel. Take out any content that is superfluous
to the task.

   Reinforce the Web SITE BRANDING (E1) to minimize any disorientation   **E1**
that customers might feel from sudden changes in navigation options.
Use the same fonts, images, colors, layout, and logo throughout the
Web site so that, no matter where they are, people know they're still
on the same site.

**Use Floating Windows to Provide Extra Information, without Leading Visitors
Out of the Process Funnel •** Sometimes customers need additional infor-
mation that you have not provided on a page, such as extra help or prod-
uct details. Provide a link to a FLOATING WINDOW (H6) containing CLEAN   **H6**
PRODUCT DETAILS (F2) (see Figure H1.1), CONTEXT-SENSITIVE HELP (H8), or   **F2** **H8**
information from the FREQUENTLY ASKED QUESTIONS (H7) page, to make   **H7**
the extra information less intrusive. Your challenge is to implement this
extra content without detracting from the main purpose.

Make Sure the Back **Button Always Works •** Customers often use the **Back**
button on browsers to modify answers that they've typed in on previous
pages. If the Web site is not implemented correctly, however, the infor-
mation that they've already entered may be lost when they hit the **Back**
button, forcing them to type everything again. In the worst case, people
get a cryptic error message saying that the posted information was lost.
You can address this annoying problem by temporarily storing the infor-
mation entered on each page, redisplaying this information if customers
hit the **Back** button, and then overriding the temporarily stored informa-
tion on the page if it is changed.

Always Make It Clear How to Proceed to the Next Step • Some Web pages are longer than can be displayed on a customer's Web browser, and people sometimes get lost if the critical ACTION BUTTON (K4), the one that takes them to the next step, is hidden below the fold. Place HIGH-VISIBILITY ACTION BUTTONS (K5) both high *and* low on the page, ensuring that at least one of the critical action buttons will always be visible without scrolling.

Allow Customers to Skip Unnecessary Steps • Customers sometimes need to be able to skip unnecessary steps in a process. For example, customers do not always choose the gift-wrap option on Amazon.com during the check-out process. Some steps might automatically be skipped if the required information is automatically supplied, as when name and address information comes from a customer database, such as in SIGN-IN/NEW ACCOUNT (H2), rather than being supplied manually by a customer logging on with a GUEST ACCOUNT (H3). A step also can be skipped, for example, when customers supply a billing address and then check the **Shipping Address Same as Billing Address** box so that they don't have to type the whole address again.

   If a choice that the customer makes early in the process eliminates the need for one or more subsequent steps, then simply skip the subsequent steps in the PROGRESS BAR (H13) and treat them as if they were completed. Don't remove steps from the progress bar in the course of the process (or add them, for that matter) because this might confuse the customer.

Prevent Errors and Provide Error Messages Whenever Errors Do Occur • People will always make mistakes, even with the best of designs. You can help PREVENT ERRORS (K12) if you use CLEAR FORMS (H10) with structured fields, sample input, and PREDICTIVE INPUT (H11). At the same time, provide MEANINGFUL ERROR MESSAGES (K13) whenever errors do occur.

❋ SOLUTION

Minimize the number of steps required to complete a task, keeping them between two and six. Remove unnecessary and potentially confusing links and content from each page, while reinforcing the brand to maintain a sense of place. Use floating windows to provide extra information without leading people out of the process funnel. Make sure the Back **button always works so that customers can correct errors. Use high-visibility action buttons to make it clear how to proceed to the next step. Let customers skip steps that may be unnecessary. Prevent errors where possible, and provide error messages whenever errors do occur.**
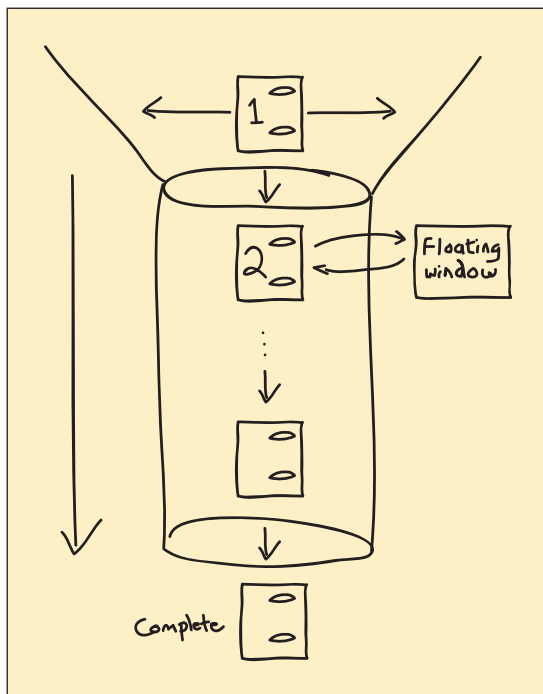
H1.3

Figure H1.3

A process funnel lets people complete their goals by breaking down complicated tasks into a small number of steps, using floating windows for detailed information, and including only critical links, so that people are not distracted.

❋ OTHER PATTERNS TO CONSIDER

Many kinds of Web sites use process funnels, including sites for PERSONAL E-COMMERCE (A1), SELF-SERVICE GOVERNMENT (A4), WEB APPS THAT WORK (A10), and ENABLING INTRANETS (A11). Customers use process funnels when they finalize purchases through QUICK-FLOW CHECKOUT (F1), when they

A1 A4 A10
A11
F1

H2
G4
create new accounts through SIGN-IN/NEW ACCOUNT (H2), and when they post new messages to a RECOMMENDATION COMMUNITY (G4), to name some examples.

K2 **K3**
K4 **K6** **K7**
Remove NAVIGATION BARS (K2), TAB ROWS (K3), irrelevant ACTION BUTTONS (K4), LOCATION BREAD CRUMBS (K6), and EMBEDDED LINKS (K7) to ensure that customers stay on their paths. However, keep strong SITE

E1
BRANDING (E1) so that customers still know where they are.

K12
H10
K13
H13
Design process funnels to PREVENT ERRORS (K12) by using CLEAR FORMS (H10) for each step of the process funnel and provide MEANINGFUL ERROR MESSAGES (K13) when errors do occur. Consider also adding a PROGRESS BAR (H13) that tells people where they are in the process and how much farther they have to go.

H5
Track your customers through PERSISTENT CUSTOMER SESSIONS (H5) to avoid problems with the **Back** button, and to save customer-entered information.

H8
H7 **H6**
Move extra content, such as CONTEXT-SENSITIVE HELP (H8) and FREQUENTLY ASKED QUESTIONS (H7), to FLOATING WINDOWS (H6) to keep the main task page on the screen. Make the next action visible by keeping it ABOVE THE

I2 **K5**
FOLD (I2) and by using HIGH-VISIBILITY ACTION BUTTONS (K5).