

THE **ELEMENTS** OF USER EXPERIENCE

User-Centered Design for the Web

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User Experience and Why It Matters

Technology has been a part of our everyday environment for generations. It empowers us and frustrates us; it simplifies and complicates our lives; it separates us and brings us closer together. But even though we interact with technology every day, we easily forget that technology products are made by people, and that someone, somewhere should get the credit when technology works well for us—or get the blame when it doesn't.

Everyday Miseries

Everyone, every once in a while, has one of those days.

You know the kind of day I'm talking about: You wake up to sunlight streaming in your window and wonder why your alarm clock hasn't gone off yet. You look over to see that your clock thinks it's 3:43 a.m. You stumble out of bed to find another clock, which tells you that you can still make it to work on time—if you leave in 10 minutes.

You turn on the coffeemaker and hustle to get dressed, but when you go to retrieve your dose of life-sustaining caffeine, there's no coffee in the pot. No time to figure out why—you've got to get to work!

You get about a block from your house when you realize that the car needs gas. At the gas station, you try to use the one pump that takes ATM cards, but this time it won't accept your card. So you have to go inside and pay the cashier, but first you have to wait in a line while the cashier very slowly helps everyone in front of you. Finally, you pump your gas and leave the station—to the sound of your gas cap tumbling off the roof of your car and bouncing out into the street.

You have to take a detour because of a traffic accident, so the drive to work takes longer than you expected. It's official: Despite all your efforts, you are now late for work. Finally, you make it to your desk. You're agitated, harried, weary, and irritable—and your day hasn't even really started yet. And you still haven't had any coffee.

Introducing User Experience

It seems like a string of bad luck—just one of those days. But let's look closer and see if, somehow, all that bad luck could have been avoided:

The accident: The accident on the road happened because the driver took his eyes off the road for a moment to turn the radio down. He had to look down because it was impossible to identify which was the volume control by touch alone.

The cap: You lost your gas cap because you set it down on the roof of the car when you started to pump, but then you forgot it because you were feeling rushed. If the cap didn't need to be set down somewhere at all—if it were simply tethered to the car in some way—you couldn't have lost it.

The register: The line at the register in the gas station moved so slowly because the cash register was complex and confusing, and unless the clerk paid extra-close attention while ringing something up, he would make a mistake and have to start all over again. If the register had been simpler and the layout and colors of the buttons different, that line never would have formed.

The pump: You wouldn't have had to stand in that line at all if the pump had accepted your ATM card. It would have done so if you had turned the card around the other way, but nothing on the pump indicated which way the card should be turned, and you were in such a hurry that you didn't think to try every orientation.

The coffeemaker: The coffeemaker didn't make coffee because you didn't push down the On button all the way. The machine doesn't do anything to let you know that it has been turned on: no light, no sound, no little "click" when the button makes contact. You thought you had turned it on, but you were wrong. The problem could have been avoided altogether if you had set the coffeemaker to start brewing automatically first thing in the morning, but you never learned how to use that function—if you knew it existed at all.

The clock: And then, we come to the factor that started the whole chain of events—the alarm clock. The alarm didn't go off because the time was wrong. The time was wrong because your cat stepped on the clock in the middle of the night and reset it for you. (If this sounds implausible to you, don't laugh—it has happened to me. I have had to go to surprising lengths to find a clock that is impervious to cat meddling.) A slightly different configuration of buttons would have prevented the cat from resetting the clock, and consequently you would have been out of bed with plenty of time—no need to rush at all.

In short, every one of the previous incidents of “bad luck” could have been avoided had someone taken more care in designing a product. These examples all demonstrate a lack of attention to the **user experience**: how the product behaves and is used in the real world. When a product is being developed, people pay a great deal of attention to what it does. User experience is the other, often overlooked, side of the equation—how it works—that can often make the difference between a successful product and a failure.

User experience is not about how a product works on the inside (although that sometimes has a lot of influence). User experience is about how it works on the outside, where a person comes into contact with it and has to work with it. That interaction often involves pushing a lot of buttons, as in the case of technology products such as alarm clocks, coffeemakers, or cash registers. Sometimes, it's just a matter of a simple physical mechanism, such as the gas cap on your car. However, every product that is used by someone has a user experience: newspapers, ketchup bottles, reclining armchairs, cardigan sweaters.

No matter what kind of product is involved, it's the little things that count. Having a button click when you push it down doesn't seem like much, but when that click makes the difference between getting coffee and not getting coffee, it matters a great deal. Even if you never realized that the design of that button was causing you trouble, how would you feel about a coffeemaker that you were able to use successfully only part of the time? How would you feel about the manufacturer? Would you buy another product from that company in the future? Probably not. Thus, for the want of a button that clicks, a customer is lost.

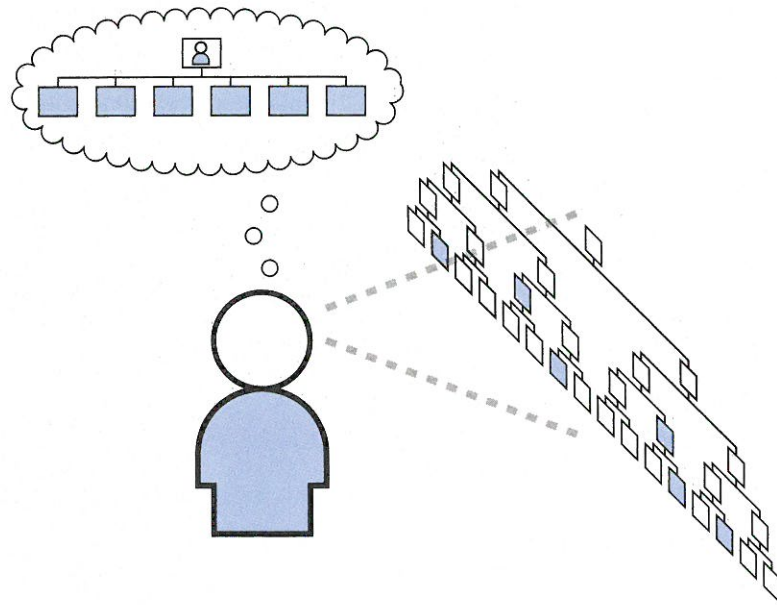
User Experience and the Web

This book is about the user experience of one particular kind of product: Web sites. On the Web, user experience becomes even more important than it is for other kinds of products.

In virtually every case, a Web site is a “self-service” product. There is no instruction manual to read beforehand, no training seminar to attend, no customer service representative to help guide the user through the site. There is only the user, facing the site alone with only her wits and experience to guide her.

It's bad enough that she's been stuck in the position of having to figure out the site on her own. The fact that most sites don't even acknowledge this only makes matters worse. Despite the vital strategic importance of user experience to the success of a Web site, the simple matter of understanding what people want and need has been a low priority for most of the history of the Web.

Faced with a wide array of choices, the user is left to her own devices to determine which features of a site will meet her needs.



How did this come to pass? In the earliest days of the Web, many thought being first to market was the key to success. Sites like Yahoo! built early leads that later competitors struggled to overcome. Established companies raced to set up Web sites, determined not to be perceived as falling behind the times. But in most cases, companies considered merely having deployed the site a great accomplishment; whether the site actually worked for people was, at best, an afterthought.

To gain market share against these “first-mover” sites, competitors began to emphasize features, adding more and more content and functionality to their sites in hopes of drawing in those who were new to the Web (and maybe stealing a few customers from the competition).

Having more features, however, turned out to be only a temporary source of competitive advantage. With the added complexity that came with an ever-expanding feature set, sites became increasingly unwieldy, hard to use, and unappealing to the very first-timers they were supposed to draw in. And still, many organizations paid little attention to what actual users liked, found valuable, or were really able to use.

Businesses have now come to recognize that providing a quality user experience is an essential, sustainable competitive advantage. It is user experience that forms the customer’s impression of the company’s offerings, it is user experience that differentiates the company from its competitors, and it is user experience that determines whether your customer will ever come back.

Competitive Advantage and ROI

Maybe you don’t sell anything on your site. All you provide is information about your company. It might seem that you have a monopoly on that information—if people want it, they have to get it from you. You don’t have competition in the same way that an online bookstore does. Nevertheless, you can’t afford to neglect the user experience of your site.

If your site consists mainly of what we Web types call “content”—that is, information—then one of the main goals of your site is to communicate that information as effectively as possible. It’s not enough just to put it out there. It has to be presented in a way that

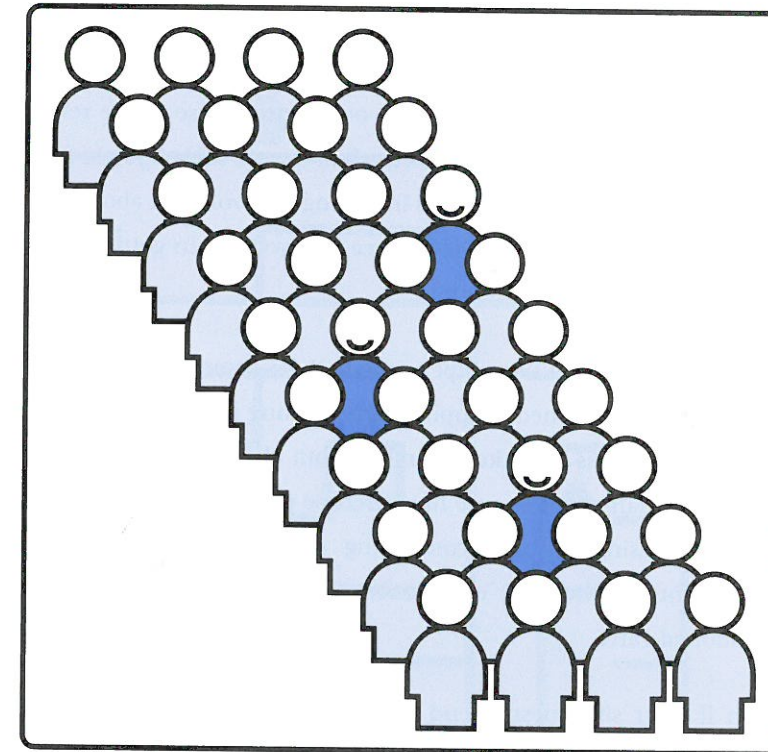
helps people absorb it and understand it. Otherwise, the user might not ever find out that you offer the service or product they're looking for. And even if they do manage to find that information, they're likely to draw the conclusion that if your site is difficult to work with, you probably are as well.

Even if your site mostly comprises interactive tools that people can use to accomplish certain tasks (like buying airplane tickets or managing bank accounts), effective communication is a key factor in the success of your product. The world's most powerful functionality will falter and fail if users can't figure out how to make it work.

Simply put, if your users have a bad experience, they won't come back. If they have an okay experience with your site but a better experience with your competitor's site, they'll go back to that competitor, not you. Features and functions always matter, but user experience has a far greater effect on customer loyalty. All your sophisticated technology and corporate messaging won't bring those customers back a second time. A good user experience will—and you don't get much of a second chance to get it right.

Customer loyalty isn't the only way that focusing on the user experience of your site can pay off. Businesses with an eye on the bottom line want to know about the **return on investment**, or ROI. ROI is usually measured in terms of money: For every dollar you spend, how many dollars of value are you getting back? That's the ROI. But return on investment does not have to be expressed in strictly monetary terms. All you need is a measurement that shows that your money going out translates into value for your company.

One common measure of return on investment is **conversion rate**. Any time you want to encourage your customers to take the next step in building a relationship with you—whether that involves something as complex as customizing the site to their preferences or as simple as signing up to receive an e-mail newsletter—there's a conversion rate you can measure. By keeping track of what percentage of users you "convert" to the next level, you can measure how effectively your site is meeting your business goals.



Conversion rate is a common way of measuring the effectiveness of a user experience.

3 subscription sign-ups

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36 visitors

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8.33% conversion rate

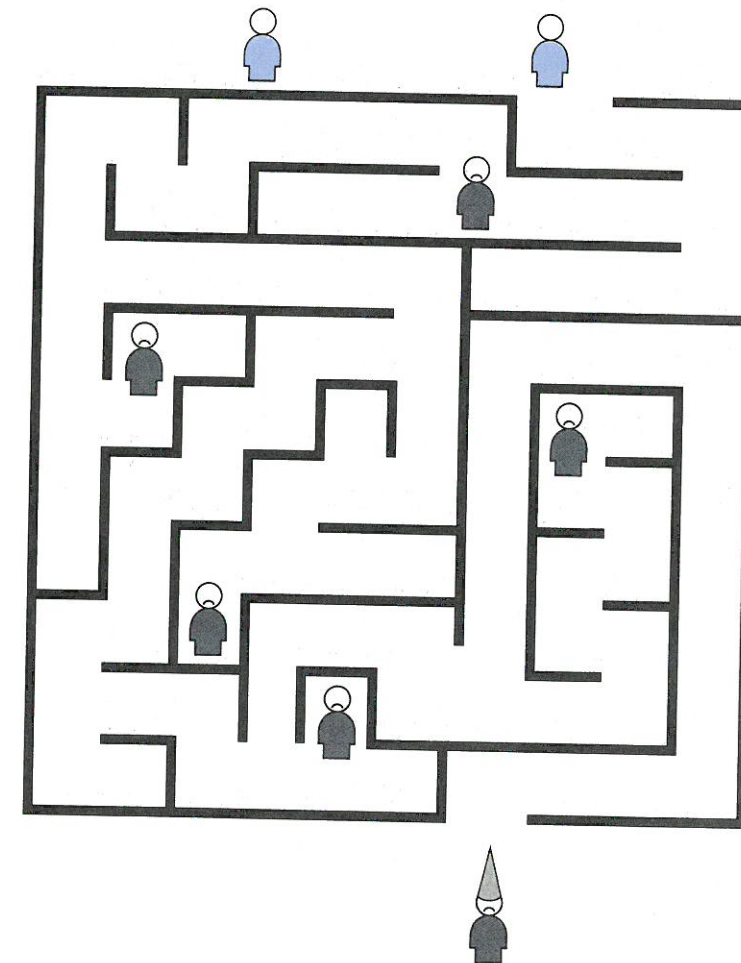
Conversion rate becomes even more important in the case of commerce sites. Far more people browse a commerce site than buy from it. A quality user experience is a key factor in “converting” these casual browsers into active buyers. Even a tiny increase in your conversion rate can translate into a dramatic leap in revenue. It’s not uncommon for a change in conversion rate of only one-tenth of one percent to result in a revenue increase of ten percent or more.

On any site where users have the opportunity to give you some money, you have a conversion rate you can measure, whether you’re selling books, cat food, or subscriptions to the content of the site itself. Conversion rate can give you a better sense of the return on your user experience investment than simple sales figures. Sales can suffer if you’re not successful in getting the word out about your site. Conversion rate tracks how successful you are in getting those who visit to spend some money.

A related measure of user experience ROI for commerce sites is the incidence of abandoned shopping carts. Putting items in a cart indicates a willingness to make a purchase, but all too frequently those carts simply languish because the purchase process itself was too difficult, confusing, or time-consuming. As with conversion rate, refinements to the user experience can reduce the incidence of abandoned carts.

Even if your site doesn’t lend itself readily to ROI measures like these, it doesn’t mean the effect of user experience on your business is any less significant. Whether they are used by your customers, your partners, or your employees, Web sites can have all kinds of indirect effects on the bottom line.

Web sites are complicated pieces of technology, and something funny happens when people have trouble using complicated pieces of technology: they blame themselves. They feel like they must have done something wrong. They feel like they weren’t paying enough attention. They feel stupid. Sure, it’s irrational. After all, it’s not their fault the site doesn’t work the way they expect it to. But they feel stupid anyway. And if you intend to drive people away from your site, it’s hard to imagine a more effective approach than making them feel stupid when they use it.



Technology products that don't work the way people expect make them feel stupid—even if they actually accomplished what they set out to do.

No one outside your company might ever see your site (as in the case of an intranet), but the user experience still makes a huge difference. Often, it can mean the difference between a project that creates value for the organization and a project that becomes a resource-consuming nightmare.

Any user experience effort aims to improve efficiency. This basically comes in two key forms: helping people work faster and helping them make fewer mistakes. Improving the efficiency of the tools you use improves the productivity of the business as a whole. The less time it takes to complete any given task, the more you can get done in a day. In keeping with the old notion that time is money, saving your employees time translates directly into saving your business money.

Efficiency doesn't only affect the bottom line, though. People like their jobs more when their tools are natural and easy to use, not frustrating and needlessly complex. If that person is you, these kinds of tools make the difference between coming home at the end of the day satisfied and coming home exhausted. (Or at least, if you are coming home exhausted, it's for the right reasons, not because you've been struggling with your tools.)

If that person is your employee, providing these kinds of tools increases not only their productivity, but also their job satisfaction, making the employee less likely to seek a new job. This, in turn, means you save on recruiting and training costs, plus you benefit from the higher level of quality that a more dedicated, experienced employee brings to the work she does.

Minding Your Users

The practice of creating engaging, efficient user experiences is called **user-centered design**. The concept of user-centered design is very simple: Every step of the way, take the user into account as you develop your product. The implications of this simple concept, however, are surprisingly complex.

Everything the user experiences should be the result of a conscious decision on your part. Realistically, you might have to make a compromise here and there because of the time or expense involved in creating a better solution. But a user-centered design process ensures that those compromises don't happen by accident. By thinking about the user experience, breaking it down into its component elements, and looking at it from several perspectives, you can ensure that you know all the ramifications of your decisions.

The biggest reason user experience should matter to you is that it matters to your users. If you don't provide them with a positive experience, they won't use your site. And without users, all you've got is a dusty Web server somewhere, idly waiting to fulfill a request that will never come. For the users who do come, you must set out to provide them with an experience that is coherent, intuitive, and maybe even pleasurable—an experience in which everything works the way it should. No matter how the rest of their day has gone.