

Steve Krug

UPDATED
with three
new chapters!

DON'T MAKE ME

THINK



A Common Sense Approach to Web Usability

SECOND EDITION

INTRODUCTION

Read me first

THROAT CLEARING AND DISCLAIMERS

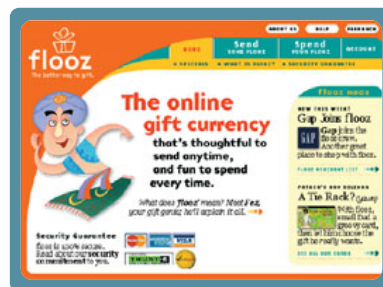
WHEN I STARTED TELLING PEOPLE THAT I WAS WRITING A book about how to do what I do, they all asked the same thing: “Aren’t you afraid of putting yourself out of a job?”

It’s true, I have a great job.

- People (“clients”) send me proposed page designs for the new Web site they’re building or the URL of the existing site that they’re redesigning.



New Home page design A



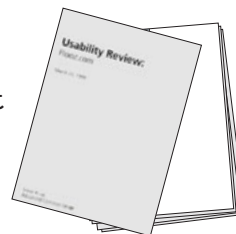
New Home page design B



Existing site

- I look at the designs or use the site and figure out whether they’re easy enough to use (an “expert usability review”). Sometimes I pay other people to try to use the site while I watch (“usability testing”).¹
- I write a report describing the problems that I found that are likely to cause users grief (“usability issues”) and suggesting possible solutions.²

A usability report



¹ ...not to be confused with “voyeurism.”

² Actually, this is one thing that has changed since the first edition. See Chapter 9 for the reason why I’ve pretty much stopped writing what I now refer to as the “big honking report.”

- › I work with the client's Web design team to help them figure out how to fix the problems.



Sometimes we work by phone...



...and sometimes in person

- › They pay me.

Being a consultant, I get to work on interesting projects with a lot of nice, smart people, and when we're finished, the sites are better than when we started. I get to work at home most of the time and I don't have to sit in mind-numbing meetings every day or deal with office politics. I get to say what I think, and people usually appreciate it. And I get paid well.

Believe me, I would not lightly jeopardize this way of life.³

But the reality is there are so many Web sites in need of help—and so few people who do what I do—that barring a total collapse of the Internet boom,⁴ there's very little chance of my running out of work for years.

Suddenly a lot of people with little or no previous experience have been made responsible for big-budget projects that may determine the future of their companies, and they're looking for people to tell them that they're doing it right.

³ *I have an even cushier job now. Since the book came out, I spend a lot of my time teaching workshops, where, unlike consulting, there's no opportunity to procrastinate and no homework. At the end of the day, you're done.*

⁴ *The boom obviously turned to bust not long after I wrote this (late in 2000). Even so, there are probably more people working on usability now than there were then.*

Graphic designers and developers find themselves responsible for designing interfaces—things like interaction design (what happens next when the user clicks) and information architecture (how everything is organized).

And most people don't have the budget to hire a usability consultant to review their work—let alone have one around all the time.

I'm writing this book for people who can't afford to hire (or rent) someone like me. I would hope that it's also of value to people who work with a usability professional.

At the very least, I hope it can help you avoid some of the endless, circular religious Web design debates that seem to eat up so much time.

It's not rocket surgery™

The good news is that much of what I do is just common sense, and anyone with some interest can learn to do it.

After all, usability really just means making sure that something works well: that a person of average (or even below average) ability and experience can use the thing—whether it's a Web site, a fighter jet, or a revolving door—for its intended purpose without getting hopelessly frustrated.

Like a lot of common sense, though, it's not necessarily obvious until *after* someone's pointed it out to you.⁵

No question: if you can afford to, hire someone like me. But if you can't, I hope this book will enable you to do it yourself (in your copious spare time).

⁵ ...which is one reason why my consulting business (actually just me and a few well-placed mirrors) is called *Advanced Common Sense*. "It's not rocket surgery" is my corporate motto.

Yes, it's a thin book

I've worked hard to keep this book short—hopefully short enough you can read it on a long plane ride. I did this for two reasons:

› **If it's short, it's more likely to actually be used.**⁶ I'm writing for the people who are in the trenches—the designers, the developers, the site producers, the project managers, the marketing people, and the people who sign the checks, and for the one-man-band people who are doing it all themselves. Usability isn't your life's work, and you don't have time for a long book.

› **You don't need to know everything.** As with any field, there's a lot you *could* learn about usability. But unless you're a usability professional, there's a limit to how much is *useful* to learn.⁷



⁶ *There's a good usability principle right there: if something requires a large investment of time—or looks like it will—it's less likely to be used.*

⁷ *I've always liked the passage in A Study in Scarlet where Dr. Watson is shocked to learn that Sherlock Holmes doesn't know that the earth travels around the sun. Given the finite capacity of the human brain, Holmes explains, he can't afford to have useless facts elbowing out the useful ones:*

"What the deuce is it to me? You say that we go round the sun. If we went round the moon it would not make a pennyworth of difference to me or to my work."

I find that the most valuable contributions I make to each project always come from keeping just a few key usability principles in mind. I think there's a lot more leverage for most people in understanding these principles than in another laundry list of specific do's and don'ts. I've tried to boil down the few things I think everybody involved in building Web sites should know.

Not present at time of photo

Just so you don't waste your time looking for them, here are a few things you *won't* find in this book:

- **“The truth” about the right way to design Web sites.** I've been at this for a long time, long enough to know that there is no one “right” way to design Web sites. It's a complicated process and the real answer to most of the questions that people ask me is “It depends.”⁸ But I do think that there are a few useful guiding principles it always helps to have in mind, and those are what I'm trying to convey.
- **Discussion of business models.** If history has taught us anything, it's that Internet business models are like buses: If you miss one, all you have to do is wait a little while and another one will come along. I'm no expert when it comes to making money on the Web, and even if I were, whatever I had to say would probably be passé by the time you read it.
- **Predictions for the future of the Web.** Your guess is as good as mine. The only thing I'm sure of is that (a) most of the predictions I hear are almost certainly wrong, and (b) the things that will turn out to be important will come as a surprise, even though in hindsight they'll seem perfectly obvious.
- **Bad-mouthing of poorly designed sites.** If you enjoy people poking fun at sites with obvious flaws, you're reading the wrong book. Designing, building, and maintaining a great Web site isn't easy. It's like golf: a handful of ways to get the ball in the hole, a million ways not to. Anyone who gets it even half right has my admiration.

⁸ *Jared Spool and his usability consulting cohorts at User Interface Engineering (www.uie.com) even have “It depends” T-shirts.*

As a result, you'll find that the sites I use as examples tend to be excellent sites with minor flaws. I think you can learn more from looking at good sites than bad ones.

- **Examples from all kinds of sites.** Most of the examples in the book are from e-commerce sites, but the principles I'm describing apply just as well to my next-door neighbor's vanity page, your daughter's soccer team's site, or your company's intranet. Including illustrations from all the different genres would have resulted in a much larger—and less useful book.

Who's on first?

Throughout the book, I've tried to avoid constant references to “the user” and “users.” This is partly because of the tedium factor, but also to try to get you to think about your own experience as a Web user while you're reading—something most of us tend to forget when we've got our Web design hats on. This has led to the following use of pronouns in this book:

- **“I” is me, the author.** Sometimes it's me the usability professional (“I tell my clients...”) and sometimes it's me speaking as a Web user (“If I can't find a Search button...”), but it's always me.
- **“You” is you, the reader**—someone who designs, builds, publishes, or pays the bills for a Web site.
- **“We” (“How we really use the Web”) is all Web users**, which includes “you” and “I.”

I may sidestep these rules occasionally, but hopefully the context will always make it clear who I'm talking about.

Is this trip really necessary?

I could recite some of the usual awe-inspiring statistics about how many umpteen gazillion dollars will be left on the table this year by sites that don't mind their usability P's and Q's.

But given that you're already holding a book about usability in your hands, you probably don't need me to tell you that usability matters. You know from your own experience as a Web user that paying attention to usability means less frustration and more satisfaction for your visitors, and a better chance that you'll see them again.

I think my wife put her finger on the essence of it better than any statistic I've seen:



I hope this book will help you build a better site and—if you can skip a few design arguments—maybe even get home in time for dinner once in a while.

CHAPTER

1

Don't make me think!

KRUG'S FIRST LAW OF USABILITY

People often ask me:

“What’s the most important thing I should do if I want to make sure my Web site is easy to use?”

The answer is simple. It’s not “Nothing important should ever be more than two clicks away,” or “Speak the user’s language,” or even “Be consistent.”

It’s...

“Don’t make me think!”

I’ve been telling people for years that this is my first law of usability. And the more Web pages I look at, the more convinced I become.

It’s the overriding principle—the ultimate tie breaker when deciding whether something works or doesn’t in a Web design. If you have room in your head for only one usability rule, make this the one.¹

It means that as far as is humanly possible, when I look at a Web page it should be self-evident. Obvious. Self-explanatory.

I should be able to “get it”—what it is and how to use it—without expending any effort thinking about it.

Just how self-evident are we talking about?

Well, self-evident enough, for instance, that your next door neighbor, who has no interest in the subject of your site and who barely knows how to use the Back button, could look at your site’s Home page and say, “Oh, it’s a ____.” (With any luck, she’ll say, “Oh, it’s a ____ *Neat*.” But that’s another subject.)

¹ *Actually, there is a close contender: “Get rid of half the words on each page, then get rid of half of what’s left.” But that one gets its own chapter later.*

Think of it this way:

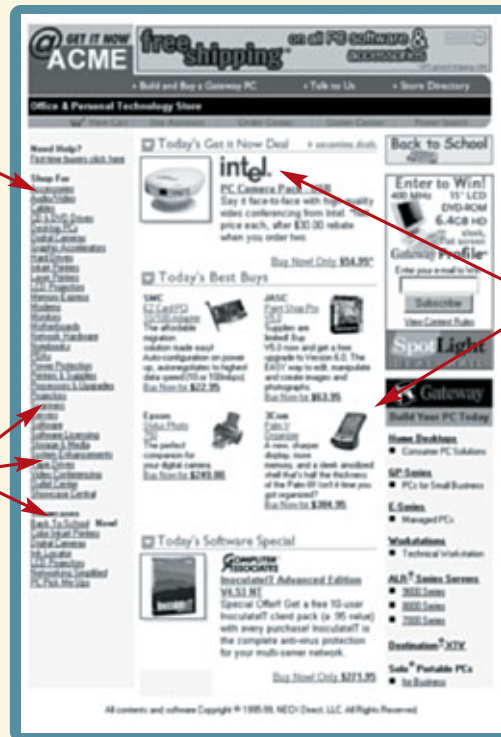
When I'm looking at a page that doesn't make me think, all the thought balloons over my head say things like "OK, there's the _____. And that's a _____. And there's the thing that I want."

NOT THINKING

OK. This looks like the product categories...



Memory, Modems... There it is: Monitors. **Click**



...and these are today's special deals.



DON'T MAKE ME THINK!

But when I'm looking at a page that makes me think, all the thought balloons over my head have question marks in them.

THINKING

Hmm. Pretty busy. Where should I start?

Hmm. Why did they call it that?

Can I click on that?

Is that the navigation? Or is *that* it over there?

Why did they put that *there*?

Those two links seem like they're the same thing. Are they really?

When you're creating a site, your job is to get rid of the question marks.

Things that make us think

All kinds of things on a Web page can make us stop and think unnecessarily. Take names of things, for example. Typical culprits are cute or clever names, marketing-induced names, company-specific names, and unfamiliar technical names.




For instance, suppose a friend tells me that XYZ Corp is looking to hire someone with my exact qualifications, so I head off to their Web site. As I scan the page for something to click, the name they’ve chosen for their job listings section makes a difference.

< OBVIOUS	REQUIRES THOUGHT >
<p>Jobs! <i>Click</i></p>  <p>Jobs</p>	<div data-bbox="472 758 971 1081"> <p>Hmm. <i>[Milliseconds of thought]</i> Jobs. <i>Click</i></p>  <p>Employment Opportunities</p> </div> <div data-bbox="976 758 1442 1081"> <p>Hmm. Could be Jobs. But it sounds like more than that. Should I click or keep looking?</p>  <p>Job-o-Rama</p> </div>

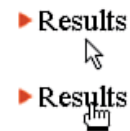
Note that these things are always on a continuum somewhere between “Obvious to everybody” and “Truly obscure,” and there are always tradeoffs involved.

For instance, “Jobs” may sound too undignified for XYZ Corp, or they may be locked into “Job-o-Rama” because of some complicated internal politics, or because that’s what it’s always been called in their company newsletter. My main point is that the tradeoffs should usually be skewed further in the direction of “Obvious” than we care to think.

Another needless source of question marks over people’s heads is links and buttons that aren’t obviously clickable. As a user, I should never have to devote a millisecond of thought to whether things are clickable—or not.

< OBVIOUSLY CLICKABLE		REQUIRES THOUGHT >
<p>Click</p> 	<p>Hmm. [<i>Milliseconds of thought</i>] I guess that's a button. Click</p> 	<p>Hmm. Is that a button?</p> 

You may be thinking, “Well, it doesn’t take much effort to figure out whether something’s clickable. If you point the cursor at it, it’ll change from an arrow to a pointing hand. What’s the big deal?”



The point is, when we’re using the Web every question mark adds to our cognitive workload, distracting our attention from the task at hand. The distractions may be slight but they add up, and sometimes it doesn’t take much to throw us.

And as a rule, people don’t *like* to puzzle over how to do things. The fact that the people who built the site didn’t care enough to make things obvious—and easy—can erode our confidence in the site and its publishers.

Another example: On most bookstore sites, before I search for a book I first have to think about *how* I want to search.²

MOST BOOKSTORE SITES




Let's see. "Quick Search."
That must be the same as
"Search," right?




Do I have to click on that drop-down
menu thing?

All I know about the book is that it's
by Tom Clancy. Is Clancy a keyword?

(What *is* a keyword, anyway?)




I guess I have to use the menu.

Clicks on the arrow




"Title. Author. Keyword."

OK. I want "Author."

Clicks "Author"




Types "Tom Clancy"

Clicks "Search"

Granted, most of this "mental chatter" takes place in a fraction of a second, but you can see that it's a pretty noisy process. Even something as apparently innocent as jazzing up a well-known name (from "Search" to "Quick Search") can generate another question mark.

² *This was still true when I checked about a year ago. Only now, in 2005, have most of them finally improved.*

Amazon.com, on the other hand, doesn't even mention the Author-Title-Keyword distinction. They just look at what you type and do whatever makes the most sense.

AMAZON.COM



OK. "Search books
for ____."



Types "Tom Clancy"
Clicks "Go"

After all, why should I have to think about *how* I want to search? And even worse, why should I have to think about how the site's search engine wants me to phrase the question, as though it were some ornery troll guarding a bridge? ("You forgot to say 'May I?'")

I could list dozens of other things that visitors to a site shouldn't spend their time thinking about, like:

- > Where am I?
- > Where should I begin?
- > Where did they put ____?
- > What are the most important things on this page?
- > Why did they call it *that*?

But the last thing you need is another checklist to add to your stack of Web design checklists. The most important thing you can do is to just understand the basic principle of eliminating question marks. If you do, you'll begin to notice all the things that make *you* think while you're using the Web, and eventually you'll learn to recognize and avoid them in the pages you're building.

You can't make everything self-evident

Your goal should be for each page to be self-evident, so that just by looking at it the average user³ will know what it is and how to use it.

Sometimes, though, particularly if you're doing something original or groundbreaking or something very complicated, you have to settle for *self-explanatory*. On a self-explanatory page, it takes a *little* thought to “get it”—but only a little. The appearance of things, their well-chosen names, the layout of the page, and the *small* amounts of carefully crafted text should all work together to create near-instantaneous recognition.

If you can't make a page self-evident, you at least need to make it self-explanatory.

Why is this so important?

Oddly enough, not for the reason you usually hear cited:



On the Internet, the competition is always just one click away, so if you frustrate users they'll head somewhere else.

This is *sometimes* true, but you'd be surprised at how long some people will tough it out at sites that frustrate them. Many people who encounter problems with a site tend to blame themselves and not the site.

³ *The actual Average User is kept in a hermetically sealed vault at the International Bureau of Standards in Geneva. We'll get around to talking about the best way to think about the “average user” eventually.*

The fact is, your site may not have been that easy to find in the first place and visitors may not know of an alternative. The prospect of starting over isn't always that attractive.

And there's also the "I've waited ten minutes for this bus already, so I may as well hang in a little longer" phenomenon. Besides, who's to say that the competition will be any less frustrating?

So why, then?

Making pages self-evident is like having good lighting in a store: it just makes everything *seem* better. Using a site that doesn't make us think about unimportant things feels effortless, whereas puzzling over things that don't matter to us tends to sap our energy and enthusiasm—and time.

But as you'll see in the next chapter when we examine how we *really* use the Web, the main reason why it's important not to make me think is that most people are going to spend far less time looking at the pages we design than we'd like to think.

As a result, if Web pages are going to be effective, they have to work most of their magic at a glance. And the best way to do this is to create pages that are self-evident, or at least self-explanatory.

CHAPTER

2

How we *really* use the Web

SCANNING, SATISFICING, AND MUDDLING THROUGH

*Why are things always in the last place you look for them?
Because you stop looking when you find them.*

—CHILDREN’S RIDDLE

IN THE PAST TEN YEARS I’VE SPENT A LOT OF TIME WATCHING people use the Web, and the thing that has struck me most is the difference between how we think people use Web sites and how they actually use them.

When we’re creating sites, we act as though people are going to pore over each page, reading our finely crafted text, figuring out how we’ve organized things, and weighing their options before deciding which link to click.

What they actually do most of the time (if we’re lucky) is *glance* at each new page, scan *some* of the text, and click on the first link that catches their interest or vaguely resembles the thing they’re looking for. There are usually large parts of the page that they don’t even look at.

We’re thinking “great literature” (or at least “product brochure”), while the user’s reality is much closer to “billboard going by at 60 miles an hour.”

WHAT WE DESIGN FOR... THE REALITY...

Read

Read

Read

Read

[Pause for reflection]

Finally, click on a carefully chosen link

Look around feverishly for anything that

a) is interesting, or vaguely resembles what you're looking for, and

b) is clickable.

As soon as you find a halfway-decent match, click.

If it doesn't pan out, click the Back button and try again.

As you might imagine, it's a little more complicated than this, and it depends on the kind of page, what the user is trying to do, how much of a hurry she's in, and so on. But this simplistic view is much closer to reality than most of us imagine.

It makes sense that we picture a more rational, attentive user when we're designing pages. It's only natural to assume that everyone uses the Web the same way we do, and—like everyone else—we tend to think that our own behavior is much more orderly and sensible than it really is.

If you want to design effective Web pages, though, you have to learn to live with three facts about real-world Web use.

FACT OF LIFE #1:

We don't read pages. We scan them.

One of the very few well-documented facts about Web use is that people tend to spend very little time *reading* most Web pages.¹ Instead, we scan (or skim) them, looking for words or phrases that catch our eye.

The exception, of course, is pages that contain documents like news stories, reports, or product descriptions. But even then, if the document is longer than a few paragraphs, we're likely to print it out because it's easier and faster to read on paper than on a screen.

Why do we scan?

- **We're usually in a hurry.** Much of our Web use is motivated by the desire to save time. As a result, Web users tend to act like sharks: They have to keep moving, or they'll die. We just don't have the time to read any more than necessary.
- **We know we don't *need* to read everything.** On most pages, we're really only interested in a fraction of what's on the page. We're just looking for the bits that match our interests or the task at hand, and the rest of it is irrelevant. Scanning is how we find the relevant bits.

¹ See Jakob Nielsen's October 1997 Alertbox column, "How Users Read on the Web" available at www.useit.com.

- › **We're good at it.** We've been scanning newspapers, magazines, and books all our lives to find the parts we're interested in, and we know that it works.

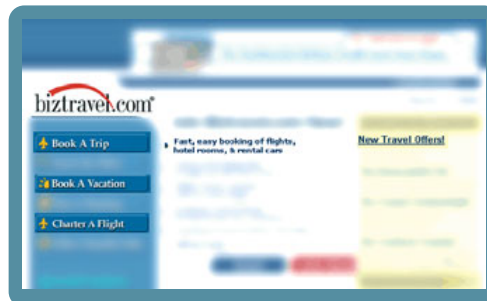
The net effect is a lot like Gary Larson's classic Far Side cartoon about the difference between what we say to dogs and what they hear. In the cartoon, the dog (named Ginger) appears to be listening intently as her owner gives her a serious talking-to about staying out of the garbage. But from the dog's point of view, all he's saying is "blah blah GINGER blah blah blah blah GINGER blah blah blah."

What we see when we look at a Web page depends on what we have in mind, but it's usually just a fraction of what's on the page.

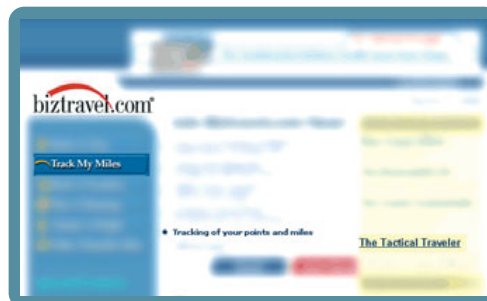
WHAT DESIGNERS BUILD...



WHAT USERS SEE...



I want to buy a ticket.



How do I check my frequent flyer miles?

Like Ginger, we tend to focus on words and phrases that seem to match (a) the task at hand or (b) our current or ongoing personal interests. And of course, (c) the trigger words that are hardwired into our nervous systems, like "Free," "Sale," and "Sex," and our own name.

FACT OF LIFE #2:**We don't make optimal choices. We satisfice.**

When we're designing pages, we tend to assume that users will scan the page, consider all of the available options, and choose the best one.

In reality, though, most of the time we *don't* choose the best option—we choose the *first reasonable option*, a strategy known as satisficing.² As soon as we find a link that seems like it might lead to what we're looking for, there's a very good chance that we'll click it.

I'd observed this behavior for years, but its significance wasn't really clear to me until I read Gary Klein's book *Sources of Power: How People Make Decisions*.³ Klein has spent many years studying naturalistic decision making: how people like firefighters, pilots, chessmasters, and nuclear power plant operators make high-stakes decisions in real settings with time pressure, vague goals, limited information, and changing conditions.

Klein's team of observers went into their first study (of field commanders at fire scenes) with the generally accepted model of rational decision making: Faced with a problem, a person gathers information, identifies the possible solutions, and chooses the best one. They started with the hypothesis that because of the high stakes and extreme time pressure, fire captains would be able to compare only two options, an assumption they thought was conservative.

As it turned out, the fire commanders didn't compare *any* options. They took the first reasonable plan that came to mind and did a quick mental test for problems. If they didn't find any, they had their plan of action.

² *Economist Herbert Simon coined the term (a cross between satisfying and sufficing) in Models of Man: Social and Rational (Wiley, 1957).*

³ *The MIT Press, 1998.*

So why don't Web users look for the best choice?

- › **We're usually in a hurry.** And as Klein points out, "Optimizing is hard, and it takes a long time. Satisficing is more efficient."
- › **There's not much of a penalty for guessing wrong.** Unlike firefighting, the penalty for guessing wrong on a Web site is usually only a click or two of the Back button, making satisficing an effective strategy. (The Back button is the most-used feature of Web browsers.)

Of course, this assumes that pages load quickly; when they don't, we have to make our choices more carefully—just one of the many reasons why most Web users don't like slow-loading pages.

- › **Weighing options may not improve our chances.** On poorly designed sites, putting effort into making the best choice doesn't really help. You're usually better off going with your first guess and using the Back button if it doesn't work out.
- › **Guessing is more fun.** It's less work than weighing options, and if you guess right, it's faster. And it introduces an element of chance—the pleasant possibility of running into something surprising and good.

Of course, this is not to say that users never weigh options before they click. It depends on things like their frame of mind, how pressed they are for time, and how much confidence they have in the site.

FACT OF LIFE #3:

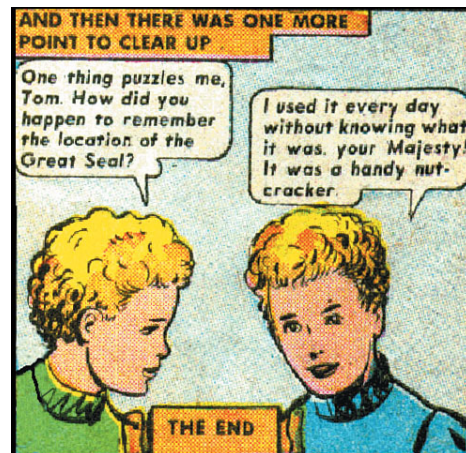
We don't figure out how things work. We muddle through.

One of the things that becomes obvious as soon as you do any usability testing—whether you're testing Web sites, software, or household appliances—is the extent to which people use things all the time without understanding how they work, or with completely wrong-headed ideas about how they work.

Faced with any sort of technology, very few people take the time to read instructions. Instead, we forge ahead and muddle through, making up our own vaguely plausible stories about what we're doing and why it works.

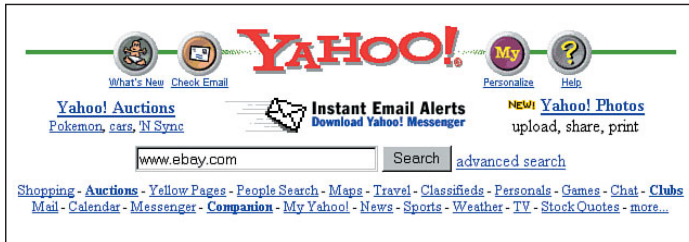
It often reminds me of the scene at the end of *The Prince and the Pauper* where the real prince discovers that the look-alike pauper has been using the Great Seal of England as a nutcracker in his absence. (It makes perfect sense—to him, the seal is just this great big, heavy chunk of metal.)

And the fact is, we get things done that way. I've seen lots of people use software and Web sites effectively in ways that are nothing like what the designers intended.



The Prince and the Pauper (Classics Illustrated)

My favorite example is the people (and I've seen at least a dozen of them myself during user tests) who will type a site's entire URL in the Yahoo search box every time they want to go there—not just to find the site for the first time, but *every time* they want to go there, sometimes several times a day. If you ask them about it, it becomes clear that some of them think that Yahoo *is* the Internet, and that this is the way you use it.⁴



Most Web designers would be shocked if they knew how many people type URLs in Yahoo's search box.

And muddling through is not limited to beginners. Even technically savvy users often have surprising gaps in their understanding of how things work. (I wouldn't be surprised if even Bill Gates has some bits of technology in his life that he uses by muddling through.)

⁴ *In the same vein, I've encountered many AOL users who clearly think that AOL is the Internet—good news for Yahoo and AOL.*

Why does this happen?

- › **It's not important to us.** For most of us, it doesn't matter to us whether we understand how things work, as long as we can use them. It's not for lack of intelligence, but for lack of caring. In the great scheme of things, it's just not important to us.⁵
- › **If we find something that works, we stick to it.** Once we find something that works—no matter how badly—we tend not to look for a better way. We'll use a better way if we stumble across one, but we seldom look for one.

It's always interesting to watch Web designers and developers observe their first usability test. The first time they see a user click on something completely inappropriate, they're surprised. (For instance, when the user ignores a nice big fat "Software" button in the navigation bar, saying something like, "Well, I'm looking for software, so I guess I'd click here on 'Cheap Stuff' because cheap is always good.") The user may even find what he's looking for eventually, but by then the people watching don't know whether to be happy or not.

The second time it happens, they're yelling "Just click on 'Software'!" The third time, you can see them thinking: "Why are we even bothering?"

And it's a good question: If people manage to muddle through so much, does it really matter whether they "get it"? The answer is that it matters a great deal because while muddling through may work sometimes, it tends to be inefficient and error-prone.

⁵ *Web developers often have a particularly hard time understanding—or even believing—that people might feel this way, since they themselves are usually keenly interested in how things work.*

On the other hand, if users “get it”:

- › There’s a much better chance that they’ll find what they’re looking for, which is good for them and for you.
- › There’s a better chance that they’ll understand the full range of what your site has to offer—not just the parts that they stumble across.
- › You have a better chance of steering them to the parts of your site that you want them to see.
- › They’ll feel smarter and more in control when they’re using your site, which will bring them back. You can get away with a site that people muddle through only until someone builds one down the street that makes them feel smart.

If life gives you lemons...

By now you may be thinking (given this less than rosy picture of the Web audience and how they use the Web), “Why don’t I just get a job at the local 7-11? At least there my efforts *might* be appreciated.”

So, what’s a girl to do?

I think the answer is simple: If your audience is going to act like you’re designing billboards, then design great billboards.

CHAPTER

3

Billboard Design 101

DESIGNING PAGES FOR SCANNING, NOT READING

*If you / Don't know / Whose signs / These are
You can't have / Driven very far / Burma-Shave*

—SEQUENCE OF BILLBOARDS PROMOTING SHAVING CREAM, CIRCA 1935

FACED WITH THE FACT THAT YOUR USERS ARE WHIZZING BY, there are five important things you can do to make sure they see—and understand—as much of your site as possible:

- › Create a clear visual hierarchy on each page
- › Take advantage of conventions
- › Break pages up into clearly defined areas
- › Make it obvious what's clickable
- › Minimize noise.

Create a clear visual hierarchy

One of the best ways to make a page easy to grasp in a hurry is to make sure that the *appearance* of the things on the page—all of the visual cues—clearly and accurately portray the *relationships* between the things on the page: which things are related, and which things are part of other things. In other words, each page should have a clear visual hierarchy.

Pages with a clear visual hierarchy have three traits:

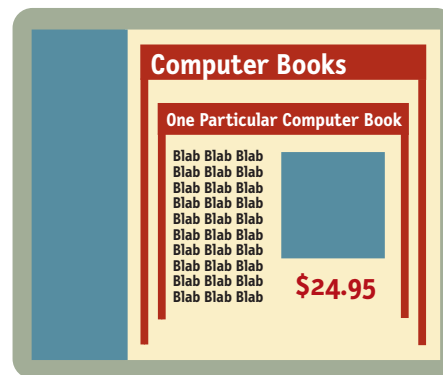
- › **The more important something is, the more prominent it is.** For instance, the most important headings are either larger, bolder, in a distinctive color, set off by more white space, or nearer the top of the page—or some combination of the above.



- Things that are related logically are also related visually.** For instance, you can show that things are similar by grouping them together under a heading, displaying them in a similar visual style, or putting them all in a clearly defined area.



- Things are “nested” visually to show what’s part of what.** For instance, a section heading (“Computer Books”) would appear above the title of a particular book, visually encompassing the whole content area of the page, because the book is part of the section. And the title in turn would span the elements that describe the book.



There’s nothing new about visual hierarchies. Every newspaper page, for instance, uses prominence, grouping, and nesting to give us useful information about the contents of the page before we read a word. *This* picture goes with *this* story because they’re both spanned by *this* headline. *This* story is the most important because it has the biggest headline, the widest column, and a prominent position on the page.

The headline spanning these three columns makes it obvious that they’re all part of the same story.



The size of this headline makes it clear at a glance that this is the most important story.

We all parse visual hierarchies—online and on paper—every day, but it happens so quickly that the only time we’re even vaguely aware that we’re doing it is when we *can’t* do it—when the visual cues (or absence of them) force us to think.

A good visual hierarchy saves us work by preprocessing the page for us, organizing and prioritizing its contents in a way that we can grasp almost instantly.

But when a page doesn’t have a clear visual hierarchy—if everything looks equally important, for instance—we’re reduced to the much slower process of scanning the page for revealing words and phrases, and then trying to form our own sense of what’s important and how things are organized. It’s a lot more work.

Besides, we want editorial guidance in Web sites, the same way we want it in other media. The publisher knows better than anyone which pieces of the site’s content are most important, valuable, or popular, so why not identify them for me and save me the trouble?

Parsing a page with a visual hierarchy that’s even slightly flawed—where a heading spans things that aren’t part of it, for instance—is like reading a carelessly constructed sentence (“Bill put the cat on the table for a minute because it was a little wobbly.”).

Even though we can usually figure out what the sentence is supposed to mean, it still throws us momentarily and forces us to think when we shouldn’t have to.



This flawed visual hierarchy suggests that all of the sections of the site are part of the Computer Books section.

Conventions are your friends

At some point in our youth, without ever being taught, we all learned to read a newspaper. Not the words, but the conventions.

We learned, for instance, that a phrase in very large type is usually a headline that summarizes the story underneath it, and that text underneath a picture is either a caption that tells me what it's a picture *of*, or—if it's in very small type—a photo credit that tells me who took the picture.

We learned that knowing the various conventions of page layout and formatting made it easier and faster to scan a newspaper and find the stories we were interested in. And when we started traveling to other cities, we learned that all newspapers used the same conventions (with slight variations), so knowing the conventions made it easy to read *any* newspaper.

Every publishing medium develops conventions and continues to refine them and develop new ones over time.¹ The Web already has a lot of them, mostly derived from newspaper and magazine conventions, and new ones will continue to appear.

All conventions start life as somebody's bright idea. If the idea works well enough, other sites imitate it and eventually enough people have seen it in enough places that it needs no explanation. This adoption process takes time, but it happens pretty quickly on the Internet, like everything else. For instance, enough people are now familiar with the convention of using a metaphorical shopping cart on e-commerce sites that it's safe for designers to use a shopping cart icon without labeling it "Shopping cart."

¹ Consider the small semitransparent logos that began appearing in the corner of your TV screen a few years ago to tell you which network you're watching. They're everywhere now, but TV had been around for 50 years before they appeared at all.

There are two important things to know about Web conventions:

- **They're very useful.** As a rule, conventions only become conventions if they work. Well-applied conventions make it easier for users to go from site to site without expending a lot of effort figuring out how things work.

There's a reassuring sense of familiarity, for instance, in seeing a list of links to the sections of a site on a colored background down the left side of the page, even if it's sometimes accompanied by a tedious sense of déjà vu.



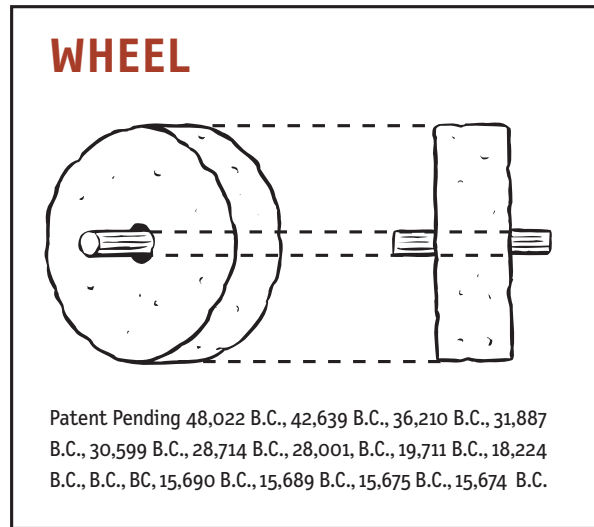
Conventions enable users to figure out a lot about a Web page, even if they can't understand a word of it.

- **Designers are often reluctant to take advantage of them.** Faced with the prospect of using a convention, there's a great temptation for designers to reinvent the wheel instead, largely because they feel (not incorrectly) that they've been hired to do something new and different, and not the same old thing. (Not to mention the fact that praise from peers, awards, and high-profile job offers are rarely based on criteria like “best use of conventions.”)

Sometimes time spent reinventing the wheel results in a revolutionary new rolling device. But sometimes it just amounts to time spent reinventing the wheel.

If you're not going to use an existing Web convention, you need to be sure that what you're replacing it with either (a) is so clear and self-explanatory that there's no learning curve—so it's as good as a convention, or (b) adds so much value that it's worth a small learning curve. If you're going to innovate, you have to understand the value of what you're replacing, and many designers tend to underestimate just how much value conventions provide.

My recommendation: Innovate when you *know* you have a better idea (and everyone you show it to says “Wow!”), but take advantage of conventions when you don't.



Break up pages into clearly defined areas

Ideally, users should be able to play a version of Dick Clark's old game show *\$25,000 Pyramid* with any well-designed Web page.² Glancing around, they should be able to point at the different areas of the page and say, “Things I can do on this site!” “Links to today's top stories!” “Products this company sells!” “Things they're eager to sell me!” “Navigation to get to the rest of the site!”

Dividing the page into clearly defined areas is important because it allows users to decide quickly which areas of the page to focus on and which areas they can

² Given a category like “Things a plumber uses,” contestants would have to get their partners to guess the category by giving examples (“a wrench, a pipe cutter, pants that won't stay up...”).

safely ignore. Several of the initial eye-tracking studies of Web page scanning suggest that users decide very quickly which parts of the page are likely to have useful information and then almost never look at the other parts—almost as though they weren't there.

Make it obvious what's clickable

Since a large part of what people are doing on the Web is looking for the next thing to click, it's important to make it obvious what's clickable and what's not.

For example, on Senator Orrin Hatch's Home page³ during his unsuccessful 2000 presidential bid, it wasn't clear whether everything was click-able, or nothing was. There were 18 links on the page, but only two of them invited you to click by their appearance: a large button labeled "Click here to CONTRIBUTE!" and an underlined text link ("FULL STORY").

The rest of the links were colored text. But the problem was that *all* of the text on the page was in color, so there was no way to distinguish the links at a glance.

It's not a disastrous flaw. I'm sure it didn't take most users long to just start clicking on things. But when you force users to think about something that should be mindless like what's clickable, you're squandering the limited reservoir of patience and goodwill that each user brings to a new site.



www.orrinhatch.com

³ *Orrin Hatch deserves at least a footnote in usability history, since he was—to the best of my knowledge—the first presidential candidate to make Web usability a campaign issue. In the first televised Republican candidates' debate of the 2000 campaign, he told George W. Bush, "I have to say, Governor, in contrast to [your Web site], it's easy to find everything on mine. [Chuckles.] It's pretty tough to use yours! Yours is not user-friendly." (His site was easier to use.)*

One of my other favorite examples is the search box at drkoop.com (C. Everett Koop's health site).



Every time I use it, it makes me think, because the button that executes the search just doesn't look like a button—in spite of the fact that it has two terrific visual cues: It contains the word “**SEARCH**,” which is one of the two perfect labels for a search box button,⁴ and it's the only thing near the search box.

It even has a little triangular arrow graphic, which is one of the Web's conventional “Click here” indicators. But the arrow is pointing *away* from the text, as though it's pointing at something else, while the convention calls for it to be pointing *toward* the clickable text.

Moving the arrow to the left would be enough to get rid of the question mark over my head.



Keep the noise down to a dull roar

One of the great enemies of easy-to-grasp pages is visual noise. There are really two kinds of noise:

- **Busy-ness.** Some Web pages give me the same feeling I get when I'm wading through my letter from Publisher's Clearing House trying to figure out which sticker I have to attach to the form to enter without accidentally subscribing to any magazines.

When everything on the page is clamoring for my attention the effect can be overwhelming: Lots of invitations to buy! Lots of exclamation points and bright colors! A lot of shouting going on!

- **Background noise.** Some pages are like being at a cocktail party; no one source of noise is loud enough to be distracting by itself, but there are a lot of tiny bits of visual noise that wear us down.

⁴ “Go” is the other one, but only if you also use the word “Search” as a label for the box.

For instance, MSNBC's menus are a powerful and slick navigation device that let users get to any story in the site quickly. But the lines between items add a lot of noise. Graying the lines would make the menus much easier to scan.



www.msnbc.com

Health Front Page
Oral sex not safe sex, study confirms
AIDS traced to 1930s
Workouts for the body and brain
Preventive breast cancer surgery may add ye...
Drug holiday eases HIV's burden
Study: Small babies underachievers
Test tailors AIDS therapy to patient
Report blasts diet of U.S. children
Gender bias found in heart exams
FDA OKs first digital mammogram

Before

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Users have varying tolerances for complexity and distractions; some people have no problem with busy pages and background noise, but many do. When you're designing Web pages, it's probably a good idea to assume that *everything* is visual noise until proven otherwise.