

INTRODUCTION

Read me first

THROAT CLEARING AND DISCLAIMERS

Is this trip really necessary?

—SLOGAN ON WORLD WAR II POSTERS ENCOURAGING GAS RATIONING

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



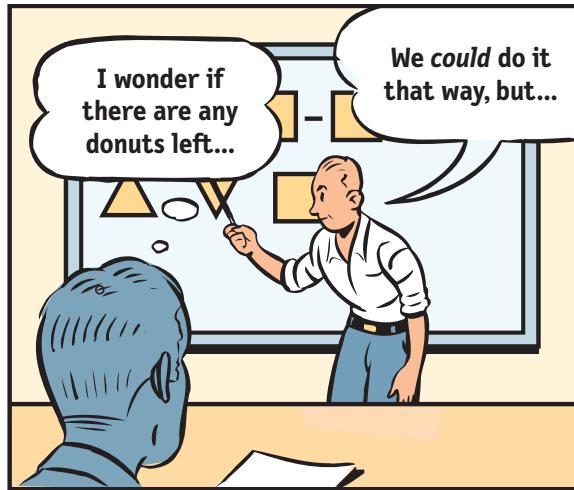
¹ ...not to be confused with “voyeurism.”

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

Michael, why are the drapes open?

—KAY CORLEONE IN *THE GODFATHER, PART II*

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—withou expending any effort thinking about it.

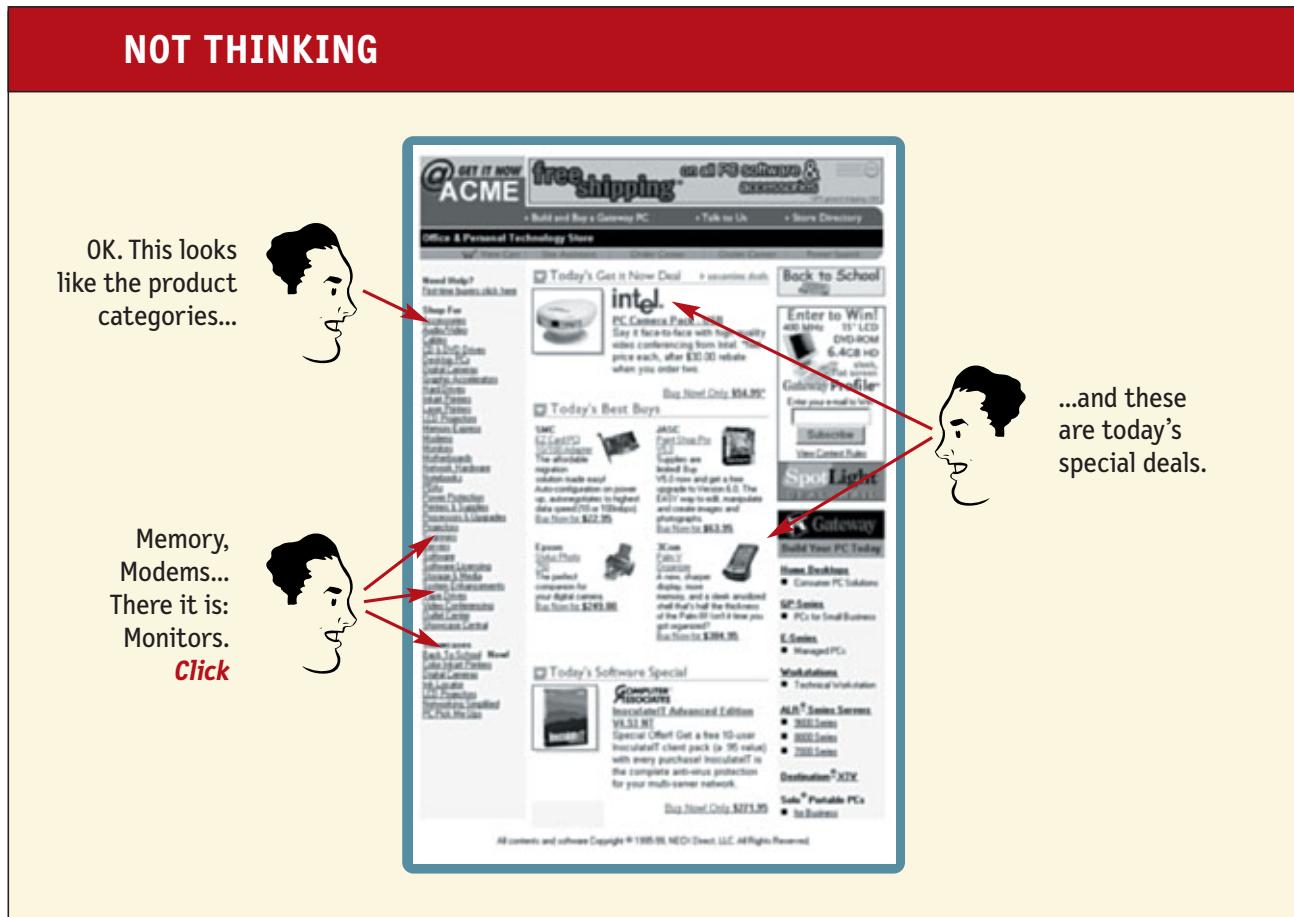
Just how self-evident are we talking about?

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.)

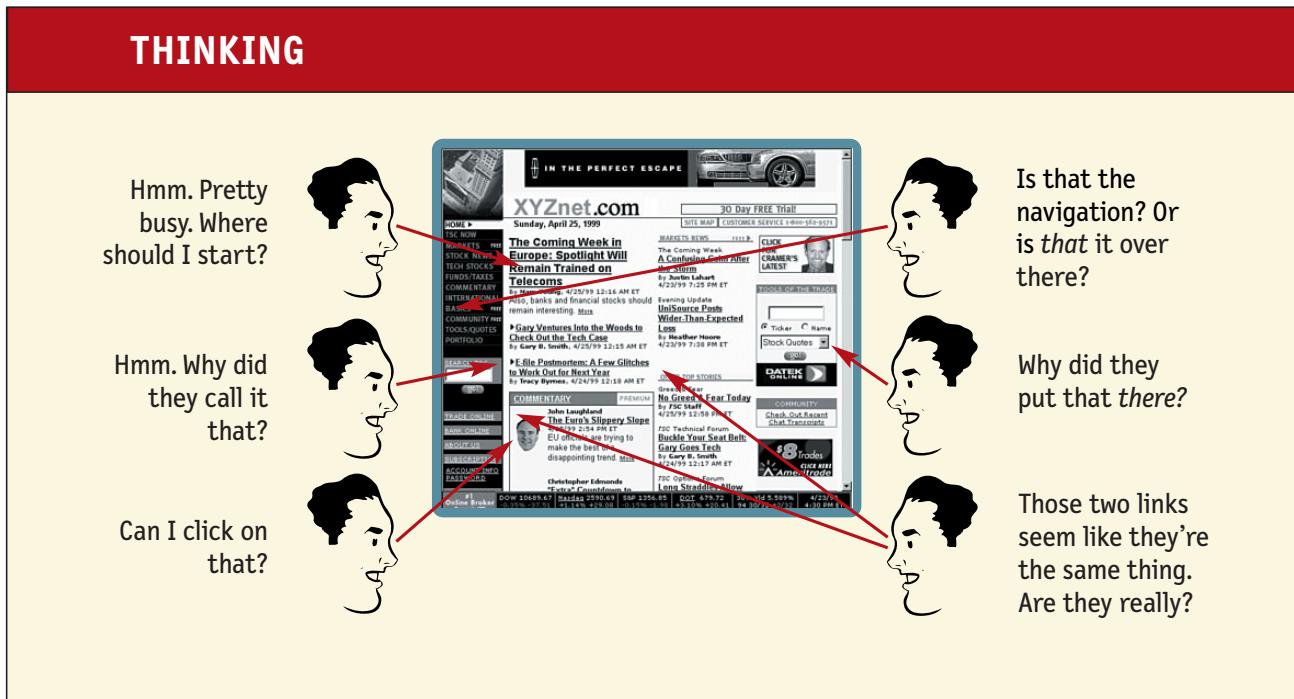
¹ Actually, there is a close contender: “Get rid of half the words on each page, then get rid of half of what’s left.” But that one gets its own chapter later.

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."



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



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.

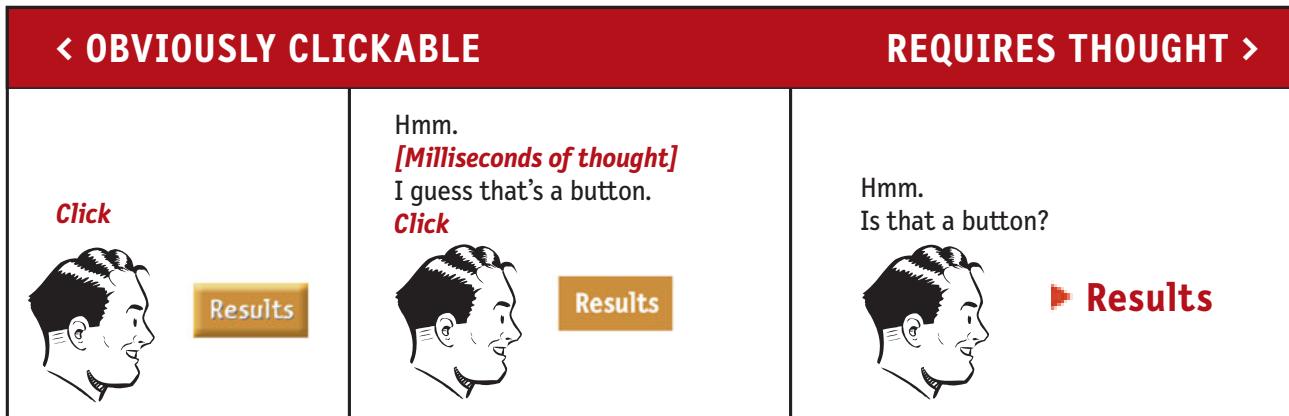
For instance, suppose a friend tells me that XYZ Corp is looking to hire someone with my exact qualifications, so I head off to their Web site. As I scan the page for something to click, the name they've chosen for their job listings section makes a difference.

< OBVIOUS		REQUIRES THOUGHT >
Jobs! Click 	Hmm. [Milliseconds of thought] Jobs. Click 	Hmm. Could be Jobs. But it sounds like more than that. Should I click or keep looking? 

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.



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

A screenshot of a search interface. It features a teal header bar with the text "QUICK SEARCH". Below it is a white input field. To its right is a dropdown menu labeled "Keyword" with a small arrow icon. To the right of the dropdown is a black "Search" button.



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

A screenshot of a search interface, identical to the one above, showing the "QUICK SEARCH" button, search input field, "Keyword" dropdown menu, and "Search" button.



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?)

A screenshot of a search interface. The "QUICK SEARCH" button is at the top. Below it is a search input field. To its right is a dropdown menu labeled "Keyword" with a small arrow icon. A mouse cursor is hovering over the arrow. A dropdown menu is open, listing "Title", "Author", and "Keyword". The "Author" option is highlighted with a blue selection bar. To the right of the dropdown is a black "Search" button.



I guess I have to use the menu.

Clicks on the arrow

A screenshot of a search interface. The "QUICK SEARCH" button is at the top. Below it is a search input field. To its right is a dropdown menu labeled "Keyword" with a small arrow icon. A mouse cursor is hovering over the "Author" option in the dropdown menu. The "Author" option is highlighted with a blue selection bar. To the right of the dropdown is a black "Search" button.



"Title. Author. Keyword."

OK. I want "Author."

Clicks "Author"

A screenshot of a search interface. The "QUICK SEARCH" button is at the top. Below it is a search input field containing "Tom Clancy". To its right is a dropdown menu labeled "Author" with a small arrow icon. A mouse cursor is hovering over the "Author" option in the dropdown menu. The "Author" option is highlighted with a blue selection bar. To the right of the dropdown is a black "Search" button.



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

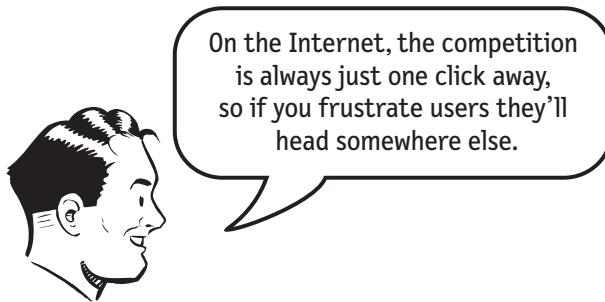
Your goal should be for each page to be self-evident, so that just by looking at it the average user³ will know what it is and how to use it.

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:



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

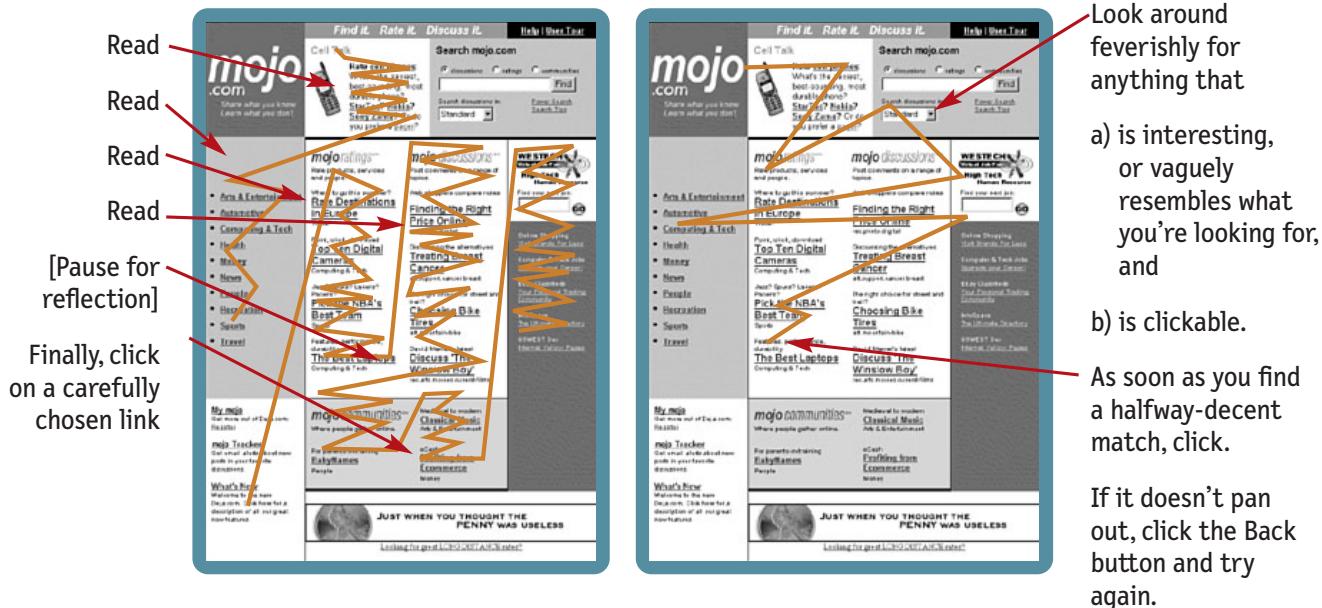
IN THE PAST TEN YEARS I'VE SPENT A LOT OF TIME WATCHING people use the Web, and the thing that has struck me most is the difference between how we think people use Web sites and how they actually use them.

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...



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.

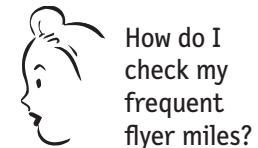
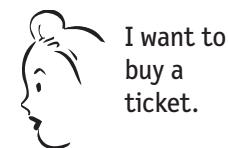
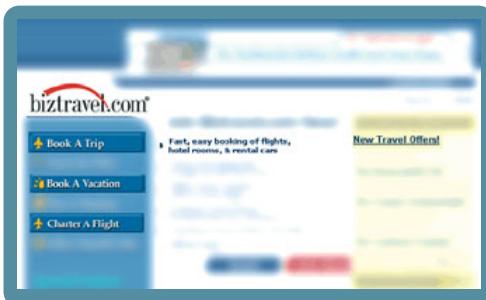
The net effect is a lot like Gary Larson's classic Far Side cartoon about the difference between what we say to dogs and what they hear. In the cartoon, the dog (named Ginger) appears to be listening intently as her owner gives her a serious talking-to about staying out of the garbage. But from the dog's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



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.

Very important

A little less important

Nowhere near as important

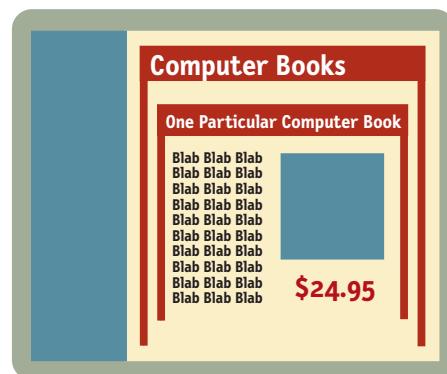
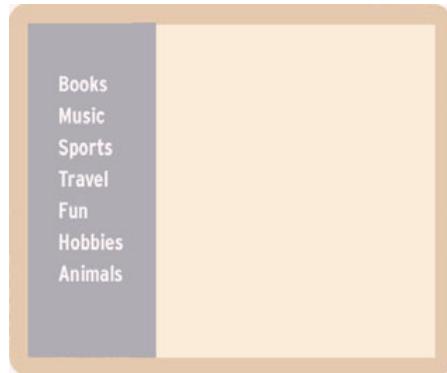
- › **Things that are related logically are also related visually.** For instance, you can show that things are similar by grouping them together under a heading, displaying them in a similar visual style, or putting them all in a clearly defined area.
- › **Things are “nested” visually to show what’s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

- **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.")



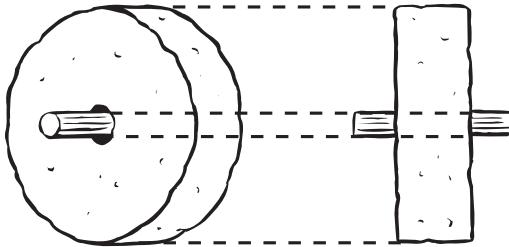
Conventions enable users to figure out a lot about a Web page, even if they can't understand a word of it.

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.

WHEEL



Patent Pending 48,022 B.C., 42,639 B.C., 36,210 B.C., 31,887 B.C., 30,599 B.C., 28,714 B.C., 28,001, B.C., 19,711 B.C., 18,224 B.C., B.C., BC, 15,690 B.C., 15,689 B.C., 15,675 B.C., 15,674 B.C.

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.

Before

www.msnbc.com

After

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

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.

CHAPTER

4

Animal, vegetable, or mineral?

WHY USERS LIKE MINDLESS CHOICES

It doesn't matter how many times I have to click, as long as each click is a mindless, unambiguous choice.

—KRUG'S SECOND LAW OF USABILITY

WEBSITE DESIGNERS AND USABILITY PROFESSIONALS HAVE spent a lot of time over the years debating how many times you can expect users to click to get what they want without getting too frustrated.¹ Some sites even have design rules stating that it should never take more than a specified number of clicks (usually three, four, or five) to get to any page in the site.

On the face of it, “number of clicks to get anywhere” seems like a useful criteria. But over time I’ve come to think that what really counts is not the number of clicks it takes me to get to what I want (although there are limits), but rather how *hard* each click is—the amount of thought required, and the amount of uncertainty about whether I’m making the right choice.

In general, I think it’s safe to say that users don’t mind a lot of clicks as long as each click is painless and they have continued confidence that they’re on the right track—following what Jared Spool calls “the scent of information.” I think the rule of thumb might be something like “three mindless, unambiguous clicks equal one click that requires thought.”²

The classic first question in the word game Twenty Questions—“Animal, vegetable, or mineral?”—is a wonderful example of a mindless choice. As long as you accept the premise that anything that’s not a plant or an animal—including things as diverse as pianos, limericks, and encyclopedias, for

¹ *It's actually just one part of a much broader debate about the relative merits of wide versus deep site hierarchies. A wide site is broken into more categories at each level but has fewer levels, so it takes fewer clicks to get to the bottom. A deep site has more levels and requires more clicks, but there are fewer options to consider at each level.*

² *Of course, there are exceptions. If I'm going to have to drill down through the same parts of a site repeatedly, for instance or repeat a sequence of clicks in a Web application, or if the pages are going to take a long time to load, then the value of fewer clicks increases.*

instance—falls under “mineral,” it requires no thought at all to answer the question correctly.³

Unfortunately, many choices on the Web aren’t as clear.

For instance, if I go to Symantec’s Virus Updates page because I want to update my copy of Norton AntiVirus, I’m faced with two choices I have to make before I can continue.

Product:	NAV for Windows 95/98
Language:	English, US
Next	

One of the choices, Language, is relatively painless. It takes only a tiny bit of thought for me to conclude that “English, US” means “United States English,” as opposed to “English, UK.”

If I bothered to click on the pulldown menu, though, I’d realize that I was actually just muddling through, since there is no “English, UK” on the list.



I’d also probably be a little puzzled by “Español (English, Int’l)” but I wouldn’t lose any sleep over it.

The other choice, Product, is a bit dicier, however.

The problem is that it refers to “NAV for Windows 95/98.” Now, I’m sure that it’s perfectly clear to everyone who works at Symantec that NAV and “Norton AntiVirus” are the same, but it requires at least a small leap of faith on my part.

And even though I know for certain that I’m using Windows 98, there’s at least the tiniest question in my mind whether that’s exactly the same as “Windows 95/98.” Maybe there *is* something called “Windows 95/98” that I just don’t know about.

³ In case you’ve forgotten the game, there’s an excellent version that you can play against on the Web at <http://www.2oq.net>. Created by Robin Burgener, it uses a neural net algorithm and plays a mean game. They’ve made it even more mindless, though, by adding “Other” and “Unknown” as acceptable answers to the first question.

Another example: When I'm trying to buy a product or service to use in my home office, I often encounter sites that ask me to make a choice like...

[Home](#)

[Office](#)

Which one is me? It's the same way I feel when I'm standing in front of two mailboxes labeled Stamped Mail and Metered Mail with a business reply card in my hand. What do *they* think it is—stamped or metered? And what happens if I drop it in the wrong box?

The point is, we face choices all the time on the Web and making the choices mindless is one of the main things that make a site easy to use.

CHAPTER

5

Omit ~~needless~~ words

THE ART OF NOT WRITING FOR THE WEB

*Get rid of half the words on each page,
then get rid of half of what's left.*

—KRUG'S THIRD LAW OF USABILITY

OF THE FIVE OR SIX THINGS THAT I LEARNED IN college, the one that has stuck with me the longest—and benefited me the most—is E. B. White's seventeenth rule in *The Elements of Style*:

17. Omit needless words.

Vigorous writing is concise. A sentence should contain no unnecessary words, a paragraph no unnecessary sentences, for the same reason that a drawing should have no unnecessary lines and a machine no unnecessary parts.¹

When I look at most Web pages, I'm struck by the fact that most of the words I see are just taking up space, because no one is ever going to read them. And just by being there, all the extra words suggest that you may actually *need* to read them to understand what's going on, which often makes pages seem more daunting than they actually are.

My Third Law probably sounds excessive, because it's meant to. Removing half of the words is actually a realistic goal; I find I have no trouble getting rid of half the words on most Web pages without losing anything of value. But the idea of removing half of what's left is just my way of trying to encourage people to be ruthless about it.

Getting rid of all those words that no one is going to read has several beneficial effects:

- › It reduces the noise level of the page.
- › It makes the useful content more prominent.
- › It makes the pages shorter, allowing users to see more of each page at a glance without scrolling.

I'm not suggesting that the articles at Salon.com should be shorter than they are. I'm really talking about two specific kinds of writing: happy talk and instructions.

¹ William Strunk, Jr., and E B. White, *The Elements of Style* (Allyn and Bacon, 1979).

Happy talk must die

We all know happy talk when we see it: It's the introductory text that's supposed to welcome us to the site and tell us how great it is, or to tell us what we're about to see in the section we've just entered.

If you're not sure whether something is happy talk, there's one sure-fire test: If you listen very closely while you're reading it, you can actually hear a tiny voice in the back of your head saying, "Blah blah blah blah...."

A lot of happy talk is the kind of self-congratulatory promotional writing that you find in badly written brochures. Unlike good promotional copy, it conveys no useful information, and it focuses on saying how great we are, as opposed to delineating what makes us great.

Although happy talk is sometimes found on Home pages—usually in paragraphs that start with the words "Welcome to..."—its favored habitat is the front pages of the sections of a site ("section fronts"). Since these pages are often just a table of contents with no real content of their own, there's a temptation to fill them with happy talk. Unfortunately, the effect is as if a book publisher felt obligated to add a paragraph to the table of contents page saying, "This book contains many interesting chapters about ___, ___, and ___. We hope you enjoy them."

Happy talk is like small talk—content free, basically just a way to be sociable. But most Web users don't have time for small talk; they want to get right to the beef. You can—and should—eliminate as much happy talk as possible.

Instructions must die

The other major source of needless words is instructions. The main thing you need to know about instructions is that no one is going to read them—at least not until after repeated attempts at “muddling through” have failed. And even then, if the instructions are wordy, the odds of users finding the information they need is pretty low.

Your objective should always be to eliminate instructions entirely by making everything self-explanatory, or as close to it as possible. When instructions are absolutely necessary, cut them back to the bare minimum.

For example, when I click on Site Survey at the Verizon site, I get an entire screen full of instructions to read.

The screenshot shows a web page titled "Site Survey". At the top, there's a banner with the Verizon logo and the text "For Your Home". On the left, a vertical sidebar has links for "For Your Home", "State Selector", "Area Codes", "Site Survey" (which is highlighted in blue), "En Español", and "Contact Us". The main content area starts with an introduction: "The following questionnaire is designed to provide us with information that will help us improve the site and make it more relevant to your needs. Please select your answers from the drop-down menus and radio buttons below. The questionnaire should only take you 2-3 minutes to complete." Below this, there's a note about leaving contact information: "At the bottom of this form you can choose to leave your name, address, and telephone number. If you leave your name and number, you may be contacted in the future to participate in a survey to help us improve this site." Another note follows: "If you have comments or concerns that require a response please contact Customer Service." Finally, there's a question: "1. How many times have you visited this site?" with a dropdown menu containing the option "This is my first visit".

www.verizon.com

I think some aggressive pruning makes them much more useful:

BEFORE: 103 WORDS

The following questionnaire is designed to provide us with information that will help us improve the site and make it more relevant to your needs.

Please select your answers from the drop-down menus and radio buttons below.

The questionnaire should only take you 2-3 minutes to complete.

At the bottom of this form you can choose to leave your name, address, and telephone number. If you leave your name and number, you may be contacted in the future to participate in a survey to help us improve this site.

If you have comments or concerns that require a response please contact Customer Service.

The first sentence is just introductory happy talk. I know what a survey is for; all I need is the words “help us” to show me that they understand that I’m doing them a favor by filling it out.

Most users don’t need to be told how to fill in a Web form, and the ones who do won’t know what a “drop-down menu” and a “radio button” are anyway.

At this point, I’m still trying to decide whether to bother with this questionnaire, so knowing that it’s short is useful information.

This instruction is of no use to me at this point. It belongs at the end of the questionnaire where I can act on it. As it is, its only effect is to make the instructions look daunting.

The fact that I shouldn’t use this form if I want an answer is useful and important information. Unfortunately, though, they don’t bother telling me *how* I contact Customer Service—or better still, giving me a link so I can do it from right here.

AFTER: 41 WORDS

Please help us improve the site by answering these questions. It should only take you 2-3 minutes to complete this survey.

NOTE: If you have comments or concerns that require a response don’t use this form. Instead, please contact [Customer Service](#).

And now for something completely different

In these first few chapters, I've been trying to convey some guiding principles that I think are good to have in mind when you're building a Web site.

Now we're heading into two chapters that look at how these principles apply to the two biggest and most important challenges in Web design: navigation and the Home page.

You might want to pack a lunch. They're very long chapters.

CHAPTER

6

Street signs and Breadcrumbs

DESIGNING NAVIGATION

*And you may find yourself, in a beautiful house, with a beautiful wife
And you may ask yourself, Well...How did I get here?*

—TALKING HEADS, “ONCE IN A LIFETIME”

It's a fact:

People won't use your Web site if they can't find their way around it.

You know this from your own experience as a Web user. If you go to a site and can't find what you're looking for or figure out how the site is organized, you're not likely to stay long—or come back. So how do you create the proverbial “clear, simple, and consistent” navigation?

Scene from a mall

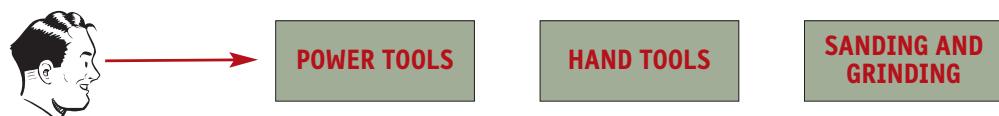
Picture this: It's Saturday afternoon and you're headed for the mall to buy a chainsaw.

As you walk through the door at Sears, you're thinking, “Hmmm. Where do they keep chainsaws?” As soon as you're inside, you start looking at the department names, high up on the walls. (They're big enough that you can read them from all the way across the store.)

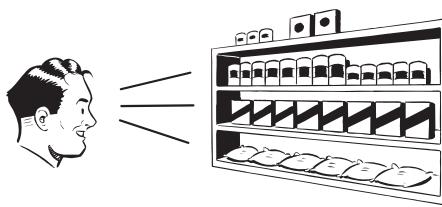


“Hmmm,” you think, “Tools? Or Lawn and Garden?” Given that Sears is so heavily tool-oriented, you head in the direction of Tools.

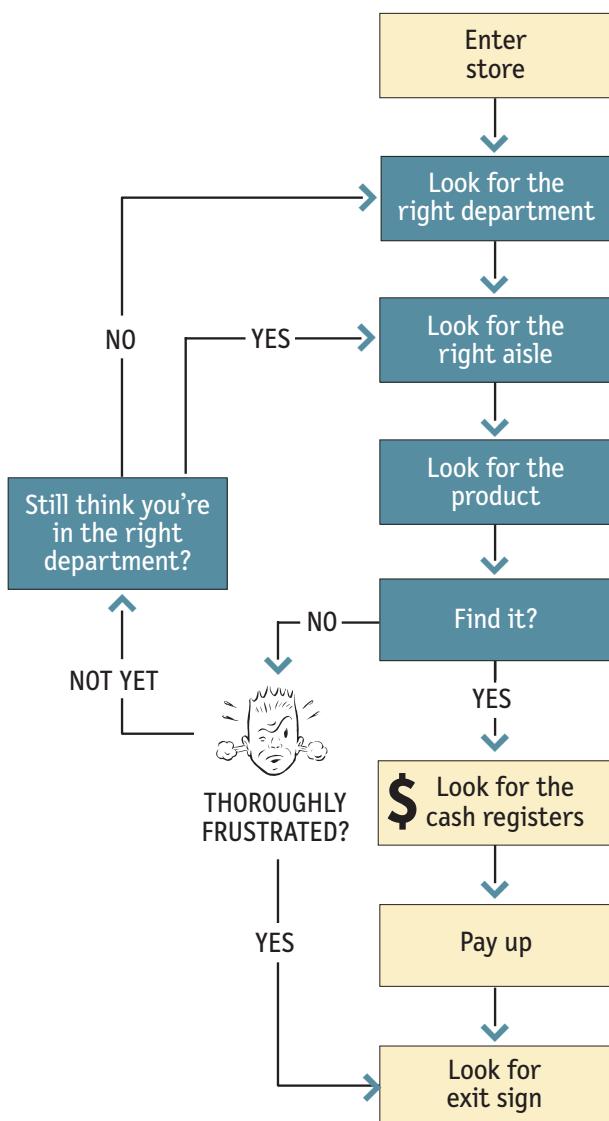
When you reach the Tools department, you start looking at the signs at the end of each aisle.



When you think you've got the right aisle, you start looking at the individual products.



If it turns out you've guessed wrong, you try another aisle, or you may back up and start over again in the Lawn and Garden department. By the time you're done, the process looks something like this:

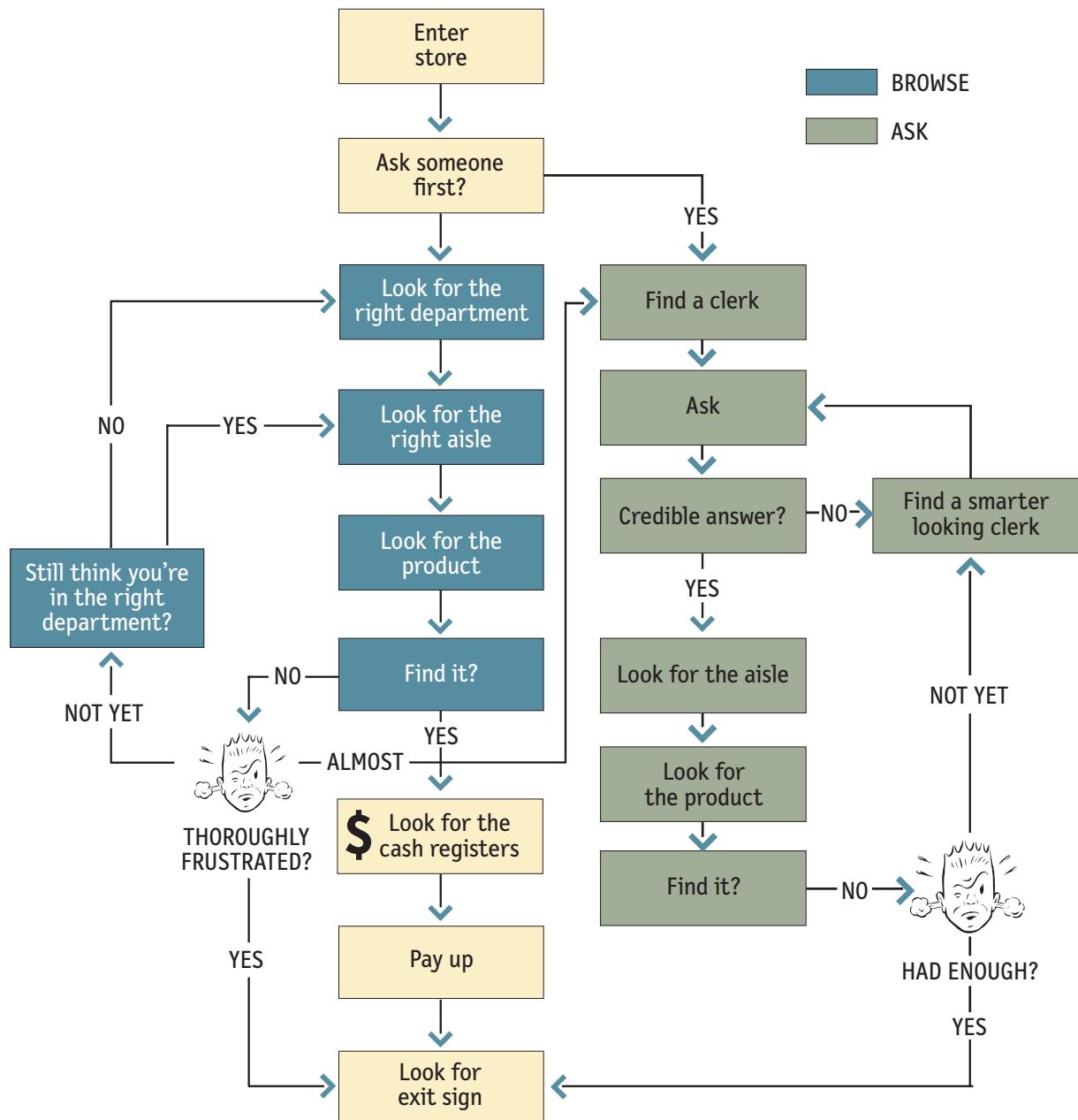


Basically, you use the store's navigation systems (the signs and the organizing hierarchy that the signs embody) and your ability to scan shelves full of products to find what you're looking for.

Of course, the actual process is a little more complex. For one thing, as you walk in the door you usually devote a few microseconds to a crucial decision: Are you going to start by looking for chainsaws on your own or are you going to ask someone where they are?

It's a decision based on a number of variables—how familiar you are with the store, how much you trust their ability to organize things sensibly, how much of a hurry you're in, and even how sociable you are.

When we factor this decision in, the process looks something like this:

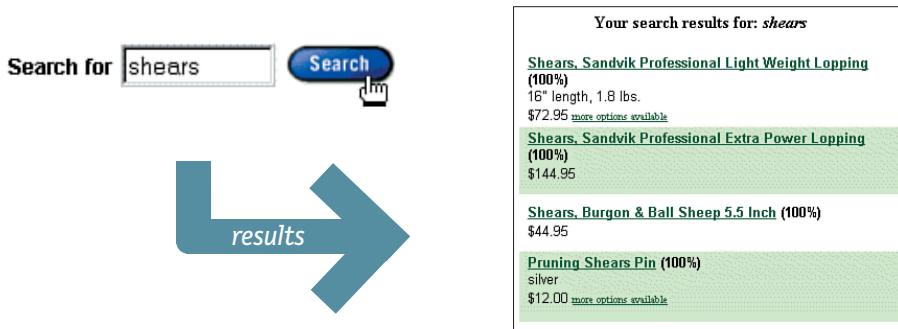


Notice that even if you start looking on your own, if things don't pan out there's a good chance that eventually you'll end up asking someone for directions anyway.

Web Navigation 101

In many ways, you go through the same process when you enter a Web site.

- › **You're usually trying to find something.** In the “real” world it might be the emergency room or a can of baked beans. On the Web, it might be the cheapest 4-head VCR with Commercial Advance or the name of the actor in Casablanca who played the headwaiter at Rick’s.¹
- › **You decide whether to ask first or browse first.** The difference is that on a Web site there’s no one standing around who can tell you where things are. The Web equivalent of asking directions is searching—typing a description of what you’re looking for in a search box and getting back a list of links to places where it *might* be.



Some people (Jakob Nielsen calls them “search-dominant” users)² will almost always look for a search box as soon as they enter a site. (These may be the same people who look for the nearest clerk as soon as they enter a store.)

¹ S. Z. “Cuddles” Sakall, born Eugene Sakall in Budapest in 1884. Ironically, most of the character actors who played the Nazi-hating denizens of Rick’s Café were actually famous European stage and screen actors who landed in Hollywood after fleeing the Nazis.

² See “Search and You May Find” in Nielsen’s archive of his Alertbox columns on www.useit.com.

Other people (Nielsen's "link-dominant" users) will almost always browse first, searching only when they've run out of likely links to click or when they have gotten sufficiently frustrated by the site.

For everyone else, the decision whether to start by browsing or searching depends on their current frame of mind, how much of a hurry they're in, and whether the site appears to have decent browsable navigation.

- › **If you choose to browse, you make your way through a hierarchy, using signs to guide you.** Typically, you'll look around on the Home page for a list of the site's main sections (like the store's department signs) and click on the one that seems right.



Then you'll choose from the list of subsections.



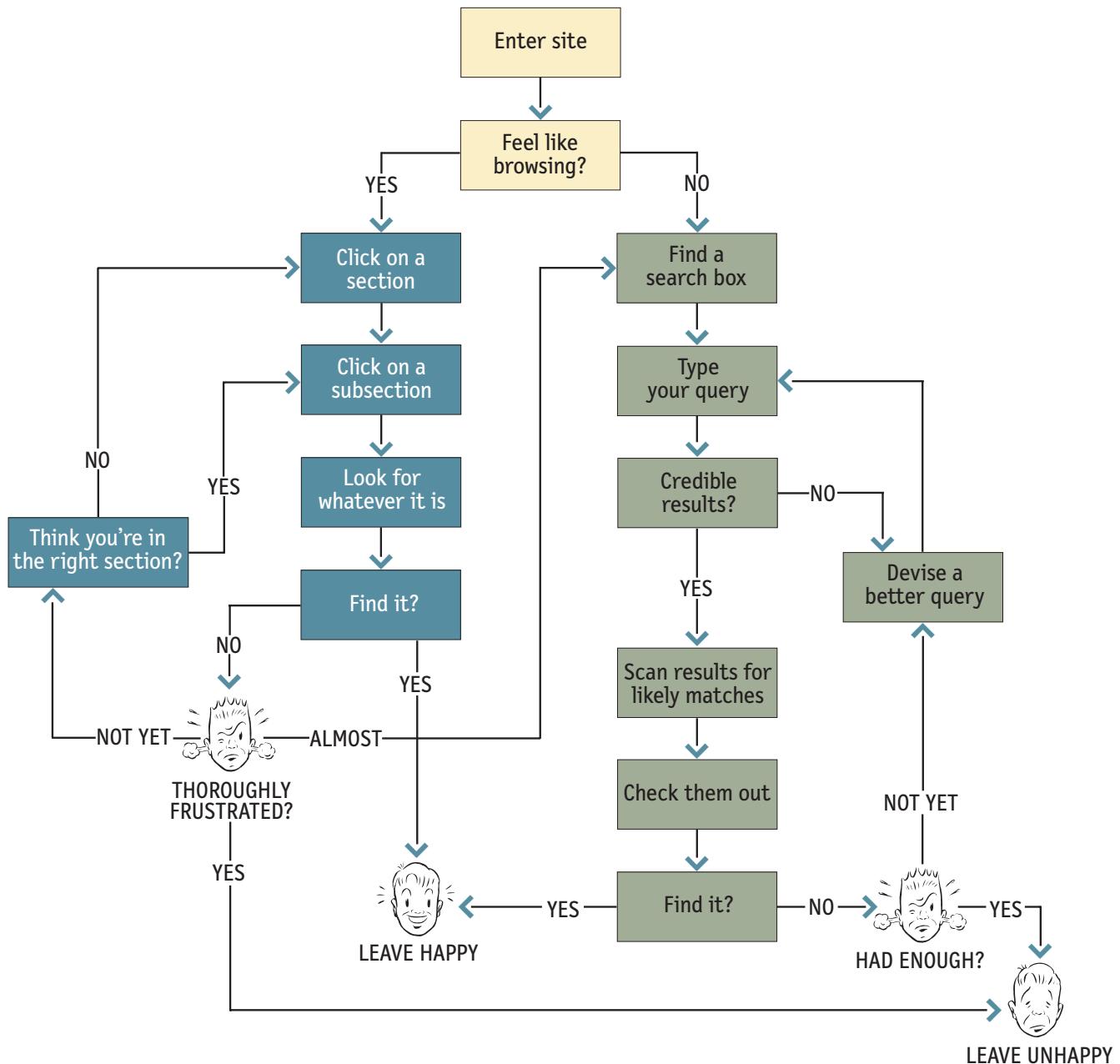
With any luck, after another click or two you'll end up with a list of the kind of thing you're looking for:

[42cc Chain Saw](#)
[6.5hp Log Splitter](#)
[6.75hp Mower](#)
[Backpack Blower](#)
[Brushcutter](#)
[Gas Blower/vac](#)
[Pro 51cc Chain Saw](#)

Then you can click on the individual links to examine them in detail, the same way you'd take products off the shelf and read the labels.

- › **Eventually, if you can't find what you're looking for, you'll leave.** This is as true on a Web site as it is at Sears. You'll leave when you're convinced they haven't got it, or when you're just too frustrated to keep looking.

Here's what the process looks like:



The unbearable lightness of browsing

Looking for things on a Web site and looking for them in the “real” world have a lot of similarities. When we’re exploring the Web, in some ways it even *feels* like we’re moving around in a physical space. Think of the words we use to describe the experience—like “cruising,” “browsing,” and “surfing.” And clicking a link doesn’t “load” or “display” another page—it “takes you to” a page.

But the Web experience is missing many of the cues we’ve relied on all our lives to negotiate spaces. Consider these oddities of Web space:

- › **No sense of scale.** Even after we’ve used a Web site extensively, unless it’s a very small site we tend to have very little sense of how big it is (50 pages? 1,000? 17,000?).³ For all we know, there could be huge corners we’ve never explored. Compare this to a magazine, a museum, or a department store, where you always have at least a rough sense of the seen/unseen ratio.

The practical result is that it’s very hard to know whether you’ve seen everything of interest in a site, which means it’s hard to know when to stop looking.⁴

- › **No sense of direction.** In a Web site, there’s no left and right, no up and down. We may talk about moving up and down, but we mean up and down in the hierarchy—to a more general or more specific level.
- › **No sense of location.** In physical spaces, as we move around we accumulate knowledge about the space. We develop a sense of where things are and can take shortcuts to get to them.

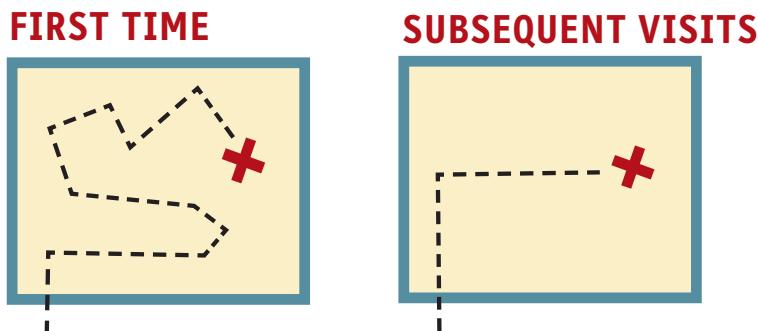
³ Even the people who manage Web sites often have very little idea how big their sites really are.

⁴ This is one reason why it’s useful for links that we’ve already clicked on to display in a different color. It gives us some small sense of how much ground we’ve covered.

We may get to the chainsaws the first time by following the signs, but the next time we're just as likely to think,

“Chainsaws? Oh, yeah, I remember where they were:
right rear corner, near the refrigerators.”

And then head straight to them.



But on the Web, your feet never touch the ground; instead, you make your way around by clicking on links. Click on “Power Tools” and you’re suddenly teleported to the Power Tools aisle with no traversal of space, no glancing at things along the way.

When we want to return to something on a Web site, instead of relying on a *physical* sense of where it is we have to remember where it is in the conceptual hierarchy and retrace our steps.

This is one reason why bookmarks—stored personal shortcuts—are so important, and why the Back button accounts for somewhere between 30 and 40 percent of all Web clicks.⁵

It also explains why the concept of Home pages is so important. Home pages are—comparatively—fixed places. When you’re in a site, the Home page is like the North Star. Being able to click Home gives you a fresh start.

This lack of physicality is both good and bad. On the plus side, the sense of

⁵ L. Catledge and J. Pitkow, “Characterizing Browsing Strategies in the World-Wide Web.” In Proceedings of the Third International World Wide Web Conference, Darmstadt, Germany (1995).

weightlessness can be exhilarating, and partly explains why it's so easy to lose track of time on the Web—the same as when we're “lost” in a good book.⁶

On the negative side, I think it explains why we use the term “Web navigation” even though we never talk about “department store navigation” or “library navigation.” If you look up *navigation* in a dictionary, it’s about doing two things: getting from one place to another, and figuring out where you are.

I think we talk about Web navigation because “figuring out where you are” is a much more pervasive problem on the Web than in physical spaces. We’re inherently lost when we’re on the Web, and we can’t peek over the aisles to see where we are. Web navigation compensates for this missing sense of place by embodying the site’s hierarchy, creating a sense of “there.”

Navigation isn’t just a *feature* of a Web site; it *is* the Web site, in the same way that the building, the shelves, and the cash registers *are* Sears. Without it, there’s no *there* there.

The moral? Web navigation had better be good.

The overlooked purposes of navigation

Two of the purposes of navigation are fairly obvious: to help us find whatever it is we’re looking for, and to tell us where we are.

And we’ve just talked about a third:

- › **It gives us something to hold on to.** As a rule, it’s no fun feeling lost. (Would you rather “feel lost” or “know your way around?”) Done right, navigation puts ground under our feet (even if it’s virtual ground) and gives us handrails to hold on to—to make us feel grounded.

But navigation has some other equally important—and easily overlooked—functions:

- › **It tells us what’s here.** By making the hierarchy visible, navigation tells us what the site contains. Navigation reveals content! And revealing the site may be even more important than guiding or situating us.

⁶ Which may be one more reason why slow-loading pages are so bothersome: What’s the fun of flying if you can only go a few miles an hour?

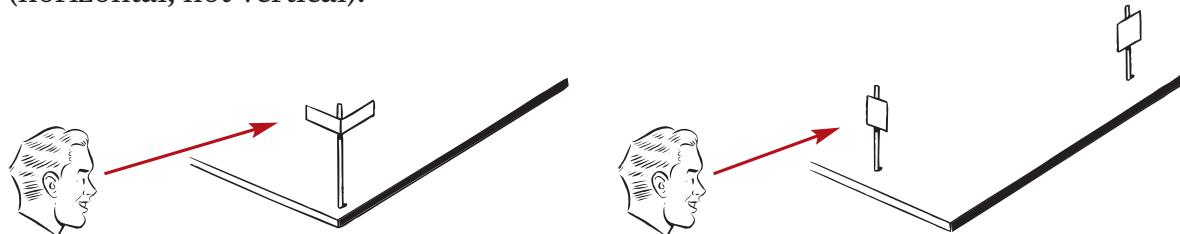
- › **It tells us how to use the site.** If the navigation is doing its job, it tells you *implicitly* where to begin and what your options are. Done correctly, it should be all the instructions you need. (Which is good, since most users will ignore any other instructions anyway.)
- › **It gives us confidence in the people who built it.** Every moment we're in a Web site, we're keeping a mental running tally: "Do these guys know what they're doing?" It's one of the main factors we use in deciding whether to bail out and deciding whether to ever come back. Clear, well-thought-out navigation is one of the best opportunities a site has to create a good impression.

Web navigation conventions

Physical spaces like cities and buildings (and even information spaces like books and magazines) have their own navigation systems, with conventions that have evolved over time like street signs, page numbers, and chapter titles. The conventions specify (loosely) the appearance and location of the navigation elements so we know what to look for and where to look when we need them.

Putting them in a standard place lets us locate them quickly, with a minimum of effort; standardizing their appearance makes it easy to distinguish them from everything else.

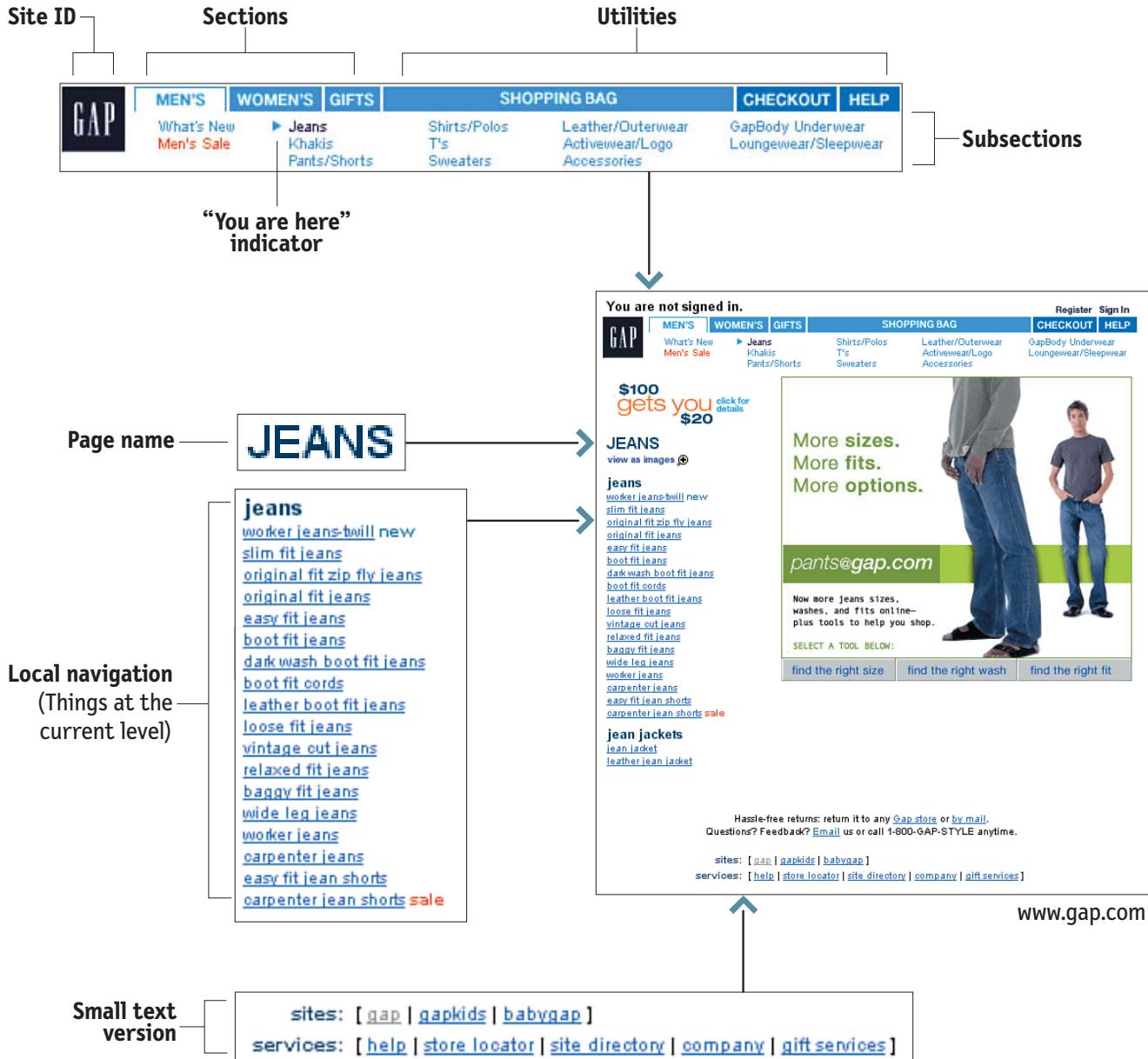
For instance, we expect to find street signs at street corners, we expect to find them by looking up (not down), and we expect them to look like street signs (horizontal, not vertical).



We also take it for granted that the name of a building will be above or next to its front door. In a grocery store, we expect to find signs near the ends of each aisle. In a magazine, we know there will be a table of contents somewhere in the first few pages and page numbers somewhere in the margin of each page—and that they'll look like a table of contents and page numbers.

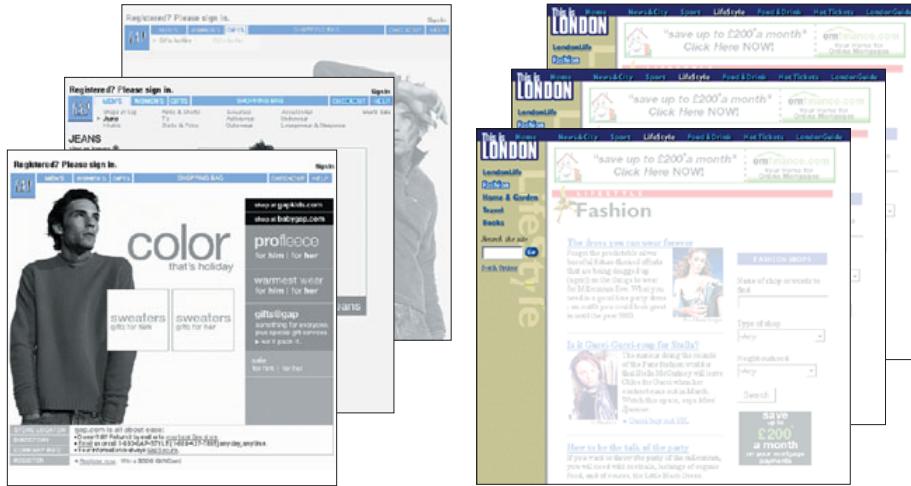
Think of how frustrating it is when one of these conventions is broken (when magazines don't put page numbers on advertising pages, for instance).

Navigation conventions for the Web have emerged quickly, mostly adapted from existing print conventions. They'll continue to evolve, but for the moment these are the basic elements:



Don't look now, but I think it's following us

Web designers use the term *persistent navigation* (or *global navigation*) to describe the set of navigation elements that appear on every page of a site.

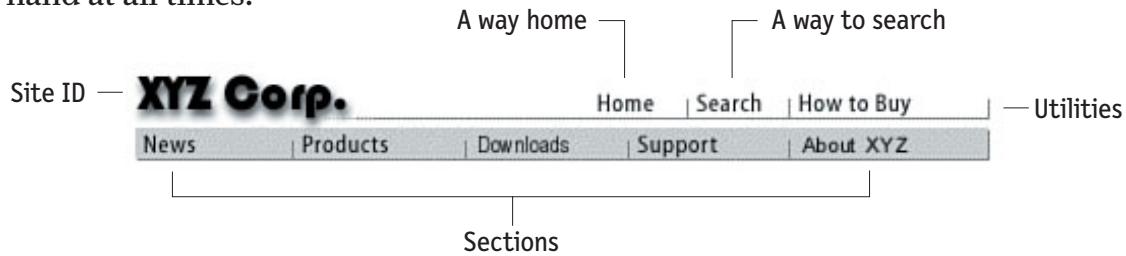


Done right, persistent navigation should say—preferably in a calm, comforting voice:

“The navigation is over here. Some parts will change a little depending on where you are, but it will always be here, and it will always work the same way.”

Just having the navigation appear in the same place on every page with a consistent look gives you instant confirmation that you're still in the same site—which is more important than you might think. And keeping it the same throughout the site means that (hopefully) you only have to figure out how it works once.

Persistent navigation should include the five elements you most need to have on hand at all times:



We'll look at each of them in a minute. But first...

Did I say every page?

I lied. There are two exceptions to the “follow me everywhere” rule:

- › **The Home page.** The Home page is not like the other pages—it has different burdens to bear, different promises to keep. As we’ll see in the next chapter, this sometimes means that it makes sense *not* to use the persistent navigation there.
- › **Forms.** On pages where a form needs to be filled in, the persistent navigation can sometimes be an unnecessary distraction. For instance, when I’m paying for my purchases on an e-commerce site you don’t really want me to do anything but finish filling in the forms. The same is true when I’m registering, giving feedback, or checking off personalization preferences.

For these pages, it’s useful to have a minimal version of the persistent navigation with just the Site ID, a link to Home, and any Utilities that might help me fill out the form.

Now I know we’re not in Kansas

The Site ID or logo is like the building name for a Web site. At Sears, I really only need to see the name on my way in; once I’m inside, I *know* I’m still in Sears until I leave. But on the Web—where my primary mode of travel is teleportation—I need to see it on every page.



In the same way that we expect to see the name of a building over the front entrance, we expect to see the Site ID at the top of the page—usually in (or at least near) the upper left corner.⁷

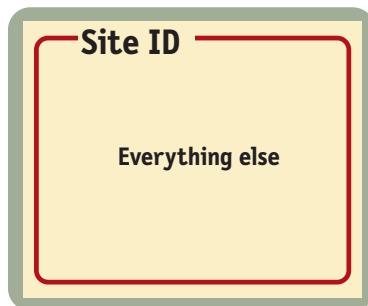
Why? Because the Site ID represents the whole site, which means it's the highest thing in the logical hierarchy of the site.

- This site
- Sections of this site
- Subsections
- Sub-subsections, etc.
- This page
- Areas of this page
- Items on this page

And there are two ways to get this primacy across in the visual hierarchy of the page: either make it the most prominent thing on the page, or make it frame everything else.

Since you don't want the ID to be the most prominent element on the page (except, perhaps, on the Home page), the best place for it—the place that is least likely to make me think—is at the top, where it frames the entire page.

And in addition to being where we would expect it to be, the Site ID also needs to *look* like a Site ID. This means it should have the attributes we would expect to see in a brand logo or the sign outside a store: a distinctive typeface, and a graphic that's recognizable at any size from a button to a billboard.



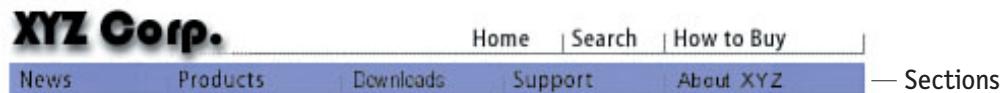
⁷ ...on Web pages written for left-to-right reading languages, that is. Readers of Arabic or Hebrew pages might expect the Site ID to be on the right.



www.opus.com.il

The Sections

The Sections—sometimes called the *primary navigation*—are the links to the main sections of the site: the top level of the site’s hierarchy.



In most cases, the persistent navigation will also include space to display the *secondary navigation*: the list of subsections in the current section.



The Utilities

Utilities are the links to important elements of the site that aren’t really part of the content hierarchy.



These are things that either can help me use the site (like Help, a Site Map, or a Shopping Cart) or can provide information about its publisher (like About Us and Contact Us).

Like the signs for the facilities in a store, the Utilities list should be slightly less prominent than the Sections.

Men's Shoes

- ▶ Restrooms ▶
- ◀ Telephones
- ◀ Customer Service
- ▶ Gift Wrapping ▶

Utilities will vary for different types of sites. For a corporate or e-commerce site, for example, they might include any of the following:

About Us	Downloads	How to Shop	Register
Archives	Directory	Jobs	Search
Checkout	Forums	My _____	Shopping Cart
Company Info	FAQs	News	Sign in
Contact Us	Help	Order Tracking	Site Map
Customer Service	Home	Press Releases	Store Locator
Discussion Boards	Investor Relations	Privacy Policy	Your Account

As a rule, the persistent navigation can accommodate only four or five Utilities—the ones users are likely to need most often. If you try to squeeze in more than that, they tend to get lost in the crowd. The less frequently used leftovers can be grouped together on the Home page.

Just click your heels three times and say, “There’s no place like home.”

One of the most crucial items in the persistent navigation is a button or link that takes me to the site’s Home page.

Having a Home button in sight at all times offers reassurance that no matter how lost I may get, I can always start over, like pressing a Reset button or using a “Get out of Jail free” card.

There’s an emerging convention that the Site ID doubles as a button that can take you to the site’s Home page. It’s a useful idea that every site should implement, but a surprising number of users still aren’t aware of it.

For now, it's probably a good idea to either:

- › include a Home page link in either the Sections or the Utilities, or
- › add the word "Home" discreetly to the Site ID everywhere but the Home page to let people know that it's clickable.



A way to search

Given the potential power of searching⁸ and the number of people who prefer searching to browsing, unless a site is very small and very well organized, every page should have either a search box or a link to a search page. And unless there's very little reason to search your site, it should be a search box.

Keep in mind that for a large percentage of users their first official act when they reach a new site will be to scan the page for something that matches one of these three patterns:



It's a simple formula: a box, a button, and the word "Search." Don't make it hard for them—stick to the formula. In particular, avoid

- › **Fancy wording.** They'll be looking for the word "Search," so use the word Search, not Find, Quick Find, Quick Search, or Keyword Search. (If you use "Search" as the label for the box, use the word "Go" as the button name.)
- › **Instructions.** If you stick to the formula, anyone who has used the Web for more than a few days will know what to do. Adding "Type a keyword" is like saying, "Leave a message at the beep" on your answering machine message: There was a time when it was necessary, but now it just makes you sound clueless.

⁸ *Unfortunately, I have to say "potential" because on most sites the odds of a search producing useful results are still about 50:50. Search usability is a huge subject in itself, and the best advice I can give is to pick up a copy of Information Architecture for the World Wide Web by Louis Rosenfeld and Peter Morville (O'Reilly, 2002) and take to heart everything they have to say about search.*

- › **Options.** If there is any possibility of confusion about the *scope* of the search (what's being searched: the site, part of the site, or the whole Web?), by all means spell it out.

Search
THIS SITE

Search
for a Book

But think very carefully before giving me options to limit the scope (to search just the current section of the site, for instance). And also be wary of providing options for how I specify what I'm searching for (search by title or by author, for instance, or search by part number or by product name).

I seldom see a case where the potential payoff for adding options to the persistent search box is worth the cost of making me figure out what the options are and whether I need to use them (i.e., making me think).

If you want to give me the option to scope the search, give it to me when it's useful—when I get to the search results page and discover that searching everything turned up far too many hits, so I *need* to limit the scope.

I think one of the primary reasons for Amazon's success is the robustness of its search. As I mentioned in Chapter 1, Amazon was one of the first online bookstores (if not *the* first) to drop the Title/Author/Keyword option from their search box and just take whatever I threw at them.

I've done several user tests of online bookstores, and left to their own devices, inevitably the first thing people did was search for a book they knew they should be able to find to see if the thing worked. And in test after test, the result was that people's first experience of Amazon was a successful search, while in sites that offered options many people were left puzzled when their search failed because they had misinterpreted their options.

And of course, if you're going to provide options, you need to make sure that they actually work.

For instance, when I went looking for the “Stinking badges” quote from *Treasure of the Sierra Madre* on the Internet Movie Database site, my search for “badges” using the default scope “All” found only one match—an old TV show.

Search → Results

The screenshot shows a search interface on the left with a dropdown menu set to "All" and the word "badges" entered in the search field. A red arrow points from the "Search" label to this interface. To the right, the search results are displayed in a box. The top result is for the TV series "Broken Badges" (1990) [TV-Series]. It includes a thumbnail image of the show, the title, and a list of cast members: Eileen Davidson, Miguel Ferrer, Ernie Hudson, Jay Johnson, and Charlotte Lewis.

But when I changed the scope to “Quotes,” there it was.

Search → Results

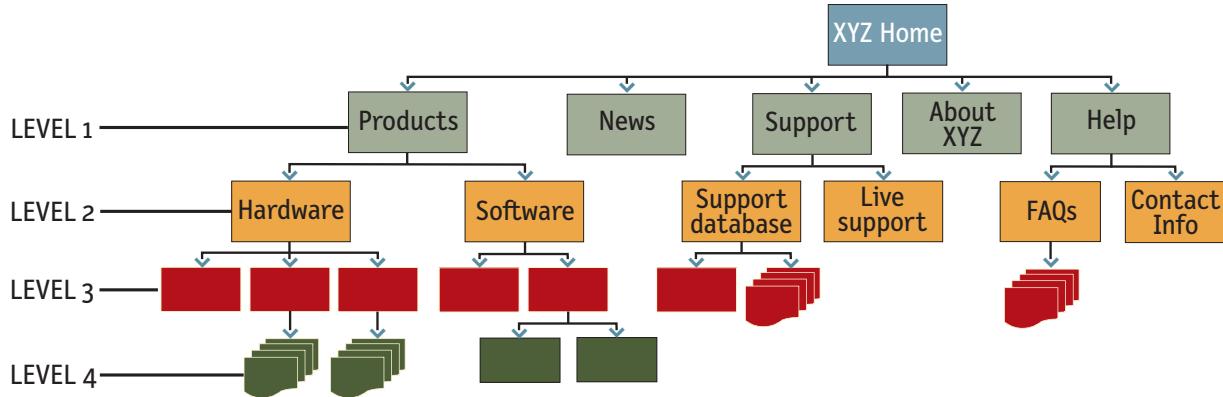
The screenshot shows a search interface on the left with a dropdown menu set to "Quotes" and the word "badges" entered in the search field. A red arrow points from the "Search" label to this interface. To the right, the search results are displayed in a box titled "Quote Search". It lists five entries, each with a title and a brief description of the quote:

1. ["Press Gang" \(1989\)](#)
Colin: Maybe I should just mention my extra-specially-close friends get a preferential loan rate *and* badges. I do have vacancies in my peer group...
2. ["Blazing Saddles" \(1974\)](#)
Mexican Bandolero: Badges? We don't need no stinkin badges!
3. ["Chain Reaction" \(1996\)](#)
Eddie Sinclair: Not cops. Cops carry badges.
4. ["Lethal Weapon 4" \(1998\)](#)
[Holding & M their captain's badges.]
5. ["Treasure of the Sierra Madre, The" \(1948\)](#)
Gold Hat: Badges? We ain't got no badges. We don't need no badges. I don't have to show you any stinkin badges.

Care to take a guess what the effect was on my confidence in IMDB.com?

Secondary, tertiary, and whatever comes after tertiary

It's happened so often I've come to expect it: When designers I haven't worked with before send me preliminary page designs so I can check for usability issues, I almost inevitably get a flowchart that shows a site four levels deep...



...and sample pages for the Home page and the top *two* levels.



I keep flipping the pages looking for more, or at least for the place where they've scrawled, "Some magic happens here," but I never find even that. I think this is one of the most common problems in Web design (especially in larger sites): failing to give the lower-level navigation the same attention as the top. In so many sites, as soon as you get past the second level, the navigation breaks down and becomes *ad hoc*. The problem is so common that it's actually hard to find good examples of third-level navigation.

Why does this happen?

Partly, I think, because good multi-level navigation is just plain hard to design—given the limited amount of space on the page, and the number of elements that have to be squeezed in.

Partly because designers usually don't even have enough time to figure out the first two levels.

Partly because it just doesn't seem that important. (After all, how important can it be? It's not primary. It's not even secondary.) And there's a tendency to think that by the time people get that far into the site, they'll understand how it works.

And then there's the problem of getting sample content and hierarchy examples for lower-level pages. Even if designers ask, they probably won't get them, because the people responsible for the content usually haven't thought things through that far, either.

But the reality is that users usually end up spending as much time on lower-level pages as they do at the top. And unless you've worked out top-to-bottom navigation from the beginning, it's very hard to graft it on later and come up with something consistent.

The moral? It's vital to have sample pages that show the navigation for all the potential levels of the site before you start arguing about the color scheme for the Home page.

Page names, or Why I love to drive in L.A.

If you've ever spent time in Los Angeles, you understand that it's not just a song lyric—L.A. really *is* a great big freeway. And because people in L.A. take driving seriously, they have the best street signs I've ever seen. In L.A.,

- › Street signs are big. When you're stopped at an intersection, you can read the sign for the next cross street.
- › They're in the right place—hanging *over* the street you're driving on, so all you have to do is glance up.

Now, I'll admit I'm a sucker for this kind of treatment because I come from Boston, where you consider yourself lucky if you can manage to read the street sign while there's still time to make the turn.



The result? When I'm driving in L.A., I devote less energy and attention to dealing with where I am and more to traffic, conversation, and listening to *All Things Considered*. I love driving in L.A.

Page names are the street signs of the Web. Just as with street signs, when things are going well I may not notice page names at all. But as soon as I start to sense that I may not be headed in the right direction, I need to be able to spot the page name effortlessly so I can get my bearings.

There are four things you need to know about page names:

- › **Every page needs a name.** Just as every corner should have a street sign, every page should have a name.

I'm at the corner of
Auctions and Sell an Item.



Designers sometimes think, “Well, we've highlighted the page name in the navigation.⁹ That's good enough.” It's a tempting idea because it can save space, and it's one less element to work into the page layout, but it's not enough. You need a page name, too.

- › **The name needs to be in the right place.** In the visual hierarchy of the page, the page name should appear to be framing the content that is unique to this page. (After all, that's what it's naming—not the navigation or the ads, which are just the infrastructure.)

⁹ See “You are here” on page 74.



- › **The name needs to be prominent.** You want the combination of position, size, color, and typeface to make the name say “This is the heading for the entire page.” In most cases, it will be the largest text on the page.
- › **The name needs to match what I clicked.** Even though nobody ever mentions it, every site makes an implicit social contract with its visitors:

The name of the page will match the words I clicked to get there.

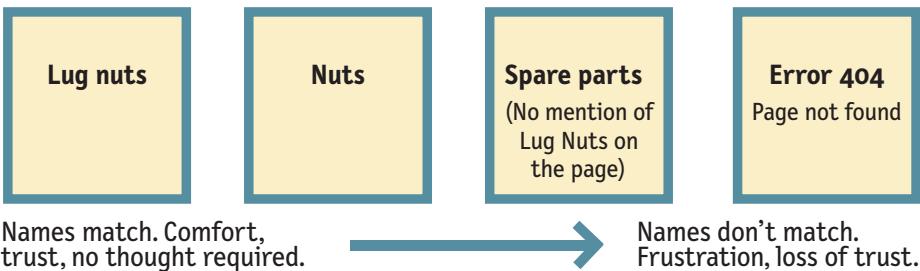
In other words, if I click on a link or button that says “Hot mashed potatoes,” the site will take me to a page named “Hot mashed potatoes.”

It may seem trivial, but it’s actually a crucial agreement. Each time a site violates it, I’m forced to think, even if only for milliseconds, “Why are those two things different?” And if there’s a major discrepancy between the link name and the page name or a lot of minor discrepancies, my trust in the site—and the competence of the people who publish it—will be diminished.

WHAT I CLICK...

Lug nuts 

WHAT I GET...



Of course, sometimes you have to compromise, usually because of space limitations. If the words I click on and the page name don't match exactly, the important thing is that (a) they match as closely as possible, and (b) the reason for the difference is obvious. For instance, at Gap.com if I click the buttons labeled "Gifts for Him" and "Gifts for Her," I get pages named "gifts for men" and "gifts for women." The wording isn't identical, but they feel so equivalent that I'm not even tempted to think about the difference.

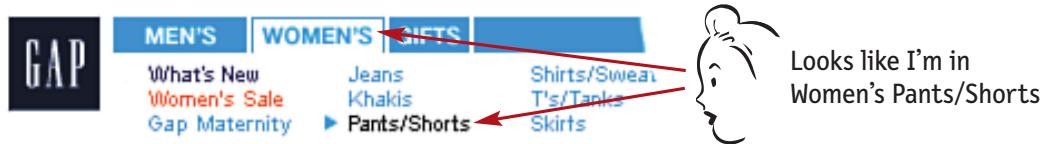
"You are here"

One of the ways navigation can counteract the Web's inherent "lost in space" feeling is by showing me where I am in the scheme of things, the same way that a "You are here" indicator does on the map in a shopping mall—or a National Park.



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On the Web, this is accomplished by highlighting my current location in whatever navigational bars, lists, or menus appear on the page.



In this example, the current section (Women's) and subsection (Pants/Shorts) have both been “marked.” There are a number of ways to make the current location stand out:

Put a pointer next to it

Change the text color

Use bold text

Reverse the button

Change the button color

Sports Business ▶ Entertainment Politics	Sports Business Entertainment Politics	Sports Business Entertainment Politics	Sports Business Entertainment Politics	Sports Business Entertainment Politics
---	---	---	---	---

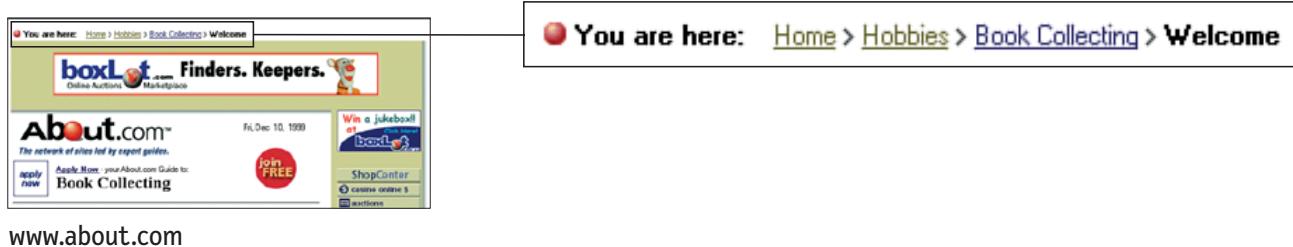
The most common failing of “You are here” indicators is that they’re too subtle. They need to stand out; if they don’t, they lose their value as visual cues and end up just adding more noise to the page. One way to ensure that they stand out is to apply more than one visual distinction—for instance, a different color *and* bold text.

Too-subtle visual cues are actually a very common problem. Designers love subtle cues, because subtlety is one of the traits of sophisticated design. But Web users are generally in such a hurry that they routinely miss subtle cues.

In general, if you’re a designer and you think a visual cue is sticking out like a sore thumb, it probably means you need to make it twice as prominent.

Breadcrumbs

Like “You are here” indicators, Breadcrumbs show you where you are. (Sometimes they even include the words “You are here.”)



www.about.com

They’re called Breadcrumbs because they’re reminiscent of the trail of crumbs Hansel dropped in the woods so he and Gretel could find their way back home.¹⁰

Unlike “You are here” indicators, which show you where you are in the context of the site’s hierarchy, Breadcrumbs only show you the path from the Home page to where you are.¹¹ (One shows you where you are in the overall scheme of things, the other shows you how to get there—kind of like the difference between looking at a road map and looking at a set of turn-by-turn directions. The directions can be very useful, but you can learn more from the map.)

You could argue that bookmarks are more like the fairy tale breadcrumbs, since we drop them as we wander, in anticipation of possibly wanting to retrace our steps someday. Or you could say that visited links (links that have changed color to show that you’ve clicked on them) are more like breadcrumbs since they mark the paths we’ve taken, and if we don’t revisit them soon enough, our browser (like the birds) will swallow them up.¹²

¹⁰ In the original story, H & G’s stepmother persuades their father to lose them in the forest during lean times so the whole family won’t have to starve. The suspicious and resourceful H spoils the plot by dropping pebbles on the way in and following them home. But the next time(!)H is forced to use breadcrumbs instead, which prove to be a less-than-suitable substitute since birds eat them before H & G can retrace their steps. Eventually the tale devolves into attempted cannibalism, grand larceny, and immolation, but basically it’s a story about how unpleasant it is to be lost.

¹¹ Actually, the truth is a little more complicated than that. If you’re interested, Keith Instone has an excellent treatment of the whole subject of Breadcrumbs at <http://user-experience.org>.

¹² Visited links eventually expire and revert to their original color if you don’t revisit them. The default expiration period varies from 7 to 30 days, depending on which browser you use. I

For a long time, Breadcrumbs were an oddity, found only in sites that were really just enormous databases with very deep hierarchies, like Yahoo's Web directory...

[Home](#) > [Arts](#) > [Visual Arts](#) > [Photography](#) > [Nature and Wildlife](#) > [Photographers](#) >

Personal Exhibits

www.yahoo.com

or grafted on to the top of very large multi-site conglomerates, like CNET...

CNET : About CNET : Editorial and Disclosure Policy

www.cnet.com

CNET : Games : Action : Unreal Tournament

www.gamecenter.com

CNET : Downloads : PC : Utilities : File & Disk Management

www.download.com

where they managed to give users some sense of where they were in the grand scheme of things while still allowing the sub-sites to keep their independent—and often incompatible—navigation schemes.

But these days they show up in more and more sites, sometimes in lieu of well-thought-out navigation.

For most sites, I don't think that Breadcrumbs *alone* are a good navigation scheme. They're not a good replacement for showing at least the top two layers of the hierarchy, because they don't reveal enough. They give you a view, but it's like a view with blinders. It's not that you can't make your way around using just Breadcrumbs. It's that they're not a good way to *present* most sites.

Don't get me wrong. Done right, Breadcrumbs are self-explanatory, they don't take up much room, and they provide a convenient, consistent way to do two of the things you need to do most often: back up a level or go Home. It's just that I

wish I'd thought of the imaginary-birds-eating-visited-links connection myself, but Mark Bernstein first wrote about it in 1988. I came across it in Peter Glour's book Elements of Hyper-media Design, which you can read for free online at www.ckn.org/elements/hyper/hyper.htm.

think they're most valuable when used as part of a balanced diet, as an accessory to a solid navigational scheme, particularly for a large site with a deep hierarchy, or if you need to tie together a nest of sub-sites.

About.com has the best Breadcrumbs implementation I know of, and it illustrates several “best practices.”

› **Put them at the top.**

Breadcrumbs seem to work best if they're at the top of the page, above everything. I think this is probably because it literally marginalizes them—making them seem like an accessory, like page numbers in a book or magazine. When Breadcrumbs are farther down on the page they end up contending with the primary navigation. Result? It makes me think. (“Which one is the real navigation? Which one should I be using?”)



www.about.com

› **Use > between levels.** Trial and error seems to have shown that the best separator between levels is the “greater than” character (>).



www.about.com

The colon (:) and slash (/) are workable, but > seems to be the most satisfying and self-evident—probably because it visually suggests forward motion down through the levels.

- › **Use tiny type**—again, to make it clear that this is just an accessory.
- › **Use the words “You are here.”** Most people will understand what the Breadcrumbs are, but since it's tiny type anyway it doesn't hurt to make them self-explanatory.
- › **Boldface the last item.** The last item in the list should be the name of the current page, and making it bold gives it the prominence it deserves.

- › **Don't use them instead of a page name.** There have been a lot of attempts to make the last item in the Breadcrumbs list do double duty, eliminating the need for a separate page name. Some sites have tried making the last item in the list the largest.



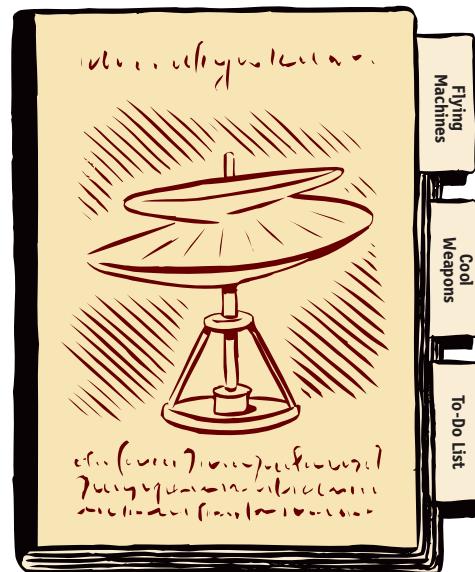
This seems like it should work, but it doesn't, probably because it fights our expectation that headings are flush left or centered, not dangling in the middle of the page at the end of a list.

Four reasons why I love tabs

I haven't been able to prove it (yet), but I strongly suspect that Leonardo da Vinci invented tab dividers sometime in the late 15th century. As interface devices go, they're clearly a product of genius.¹³

Tabs are one of the very few cases where using a physical metaphor in a user interface actually works.¹⁴ Like the tab dividers in a three-ring binder or tabs on folders in a file drawer, they divide whatever they're sticking out of into sections. And they make it easy to open a section by reaching for its tab (or, in the case of the Web, clicking on it).

Many sites have started using tabs for navigation.



¹³ *Memo to self: Check to see if Microsoft began using tabbed dialog boxes before Bill Gates bought the da Vinci notebook.*

¹⁴ *The idea of dragging things to a trash can icon to delete them (conceived at Xerox PARC and popularized by Apple) is the only other one that springs to mind. And sadly, Apple couldn't resist muddying the metaphorical waters by using the same drag-to-trash action to eject diskettes—ultimately resulting in millions of identical thought balloons saying, “But wait. Won’t that erase it?”*



www.catalogcity.com



www.drugstore.com



mitsloan.mit.edu

And...

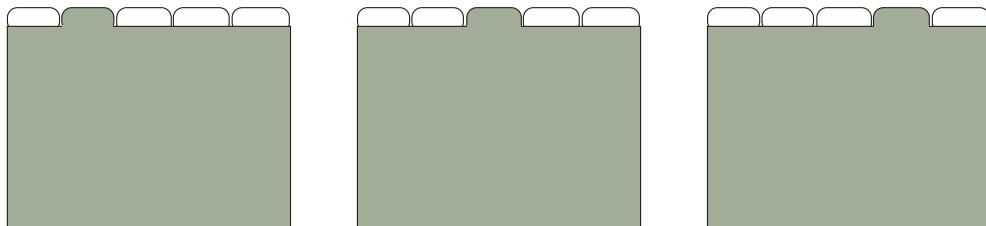
800.com
Amazon.com
Beyond.com
bn.com
Borders.com
Buy.com
CDNOW
eToys.com
Fatbrain.com
Fidelity.com
LandsEnd.com
Pets.com
Quicken.com
Schwab.com
Snap.com
ToysRUs.com

I think they're an excellent navigation choice for large sites. Here's why:

- › **They're self-evident.** I've never seen anyone—no matter how "computer illiterate"—look at a tabbed interface and say, "Hmmm. I wonder what *those* do?"
- › **They're hard to miss.** When I do point-and-click user tests, I'm surprised at how often people can overlook button bars at the top of a Web page.¹⁵ But because tabs are so visually distinctive, they're hard to overlook. And because they're hard to mistake for anything *but* navigation, they create the kind of obvious-at-a-glance division you want between navigation and content.
- › **They're slick.** Web designers are always struggling to make pages more visually interesting. If done correctly (see below), tabs can add polish *and* serve a useful purpose.

¹⁵ *I shouldn't be. I managed to use My Yahoo dozens of times before it dawned on me that the row of links at the top of the page were more sections of My Yahoo. I'd always assumed that My Yahoo was just one page and that the links were other parts of Yahoo.*

- They suggest a physical space. Tabs create the illusion that the active tab physically moves to the front.

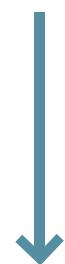


It's a cheap trick, but effective, probably because it's based on a visual cue that we're very good at detecting ("things in front of other things"). Somehow, the result is a stronger-than-usual sense that the site is divided into sections and that you're *in* one of the sections.

If you love Amazon so much, why don't you marry it?

As with many other good Web practices, Amazon was one of the first sites to use tab dividers for navigation, and the first to really get them right. Over time, they tweaked and polished their implementation to the point where it was nearly perfect, even though they had to keep adding tabs as they expanded into different markets.

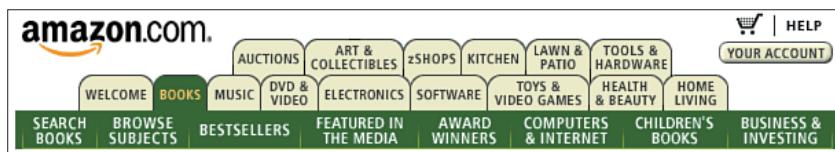
October 1998



October 1999



Eventually, they were forced to push the tab metaphor to the breaking point, but even their short-lived two-row version was remarkably well designed.



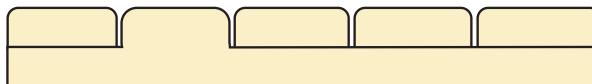
Anyone thinking of using tabs should look carefully at the design of Amazon's classic tabs, and slavishly imitate these three key attributes:

- › **They were drawn correctly.** For tabs to work to full effect, the graphics have to create the visual illusion that the active tab is *in front* of the other tabs. This is the main thing that makes them feel like tabs—even more than the distinctive tab shape.¹⁶

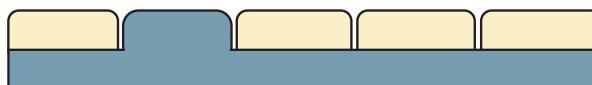
To create this illusion, the active tab needs to be a different color or contrasting shade, and it has to physically connect with the space below it. This is what makes the active tab “pop” to the front.



BAD: No connection, no pop.



BETTER: Connected, but no contrast.
Limited pop.



BEST: Duck! It's coming right at you.

¹⁶ Whatever you do, don't use tab-shaped graphics if they're not going to behave like tabs. The Internet Movie Database—owned by Amazon, and in some ways one of the best sites on the Web—makes this mistake.



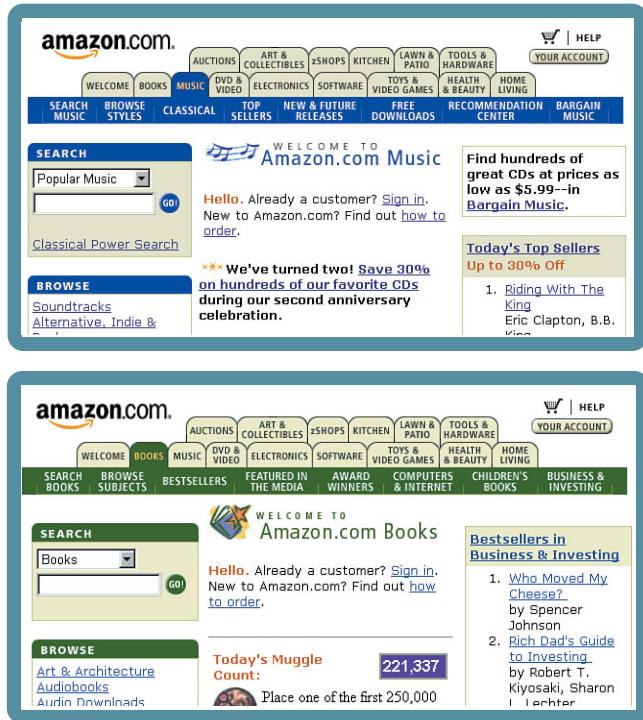
The buttons at the top of each page look like tabs, but they act like ordinary buttons.

- They were color coded. Amazon used a different tab color for each section of the site, and they used the same color in the other navigational elements on the page to tie them all together.

Color coding of sections is a very good idea—as long as you don’t count on everyone noticing it. Some people (roughly 1 out of 200 women and 1 out of 12 men—particularly over the age of 40) simply can’t detect some color distinctions because of color-blindness.

More importantly, from what I’ve observed, a much larger percentage (perhaps as many as half) just aren’t very *aware* of color coding in any useful way. Color is great as an additional cue, but you should never rely on it as the *only* cue.

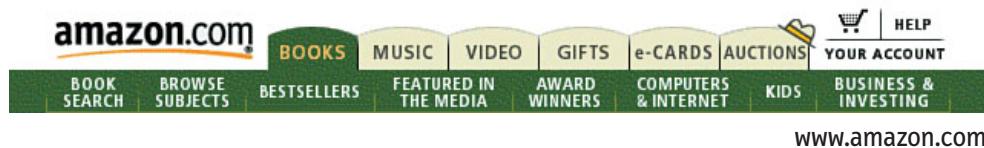
Amazon made a point of using fairly vivid, saturated colors that are hard to miss. And since the inactive tabs were a neutral beige, there was a lot of contrast—which even color-blind users can detect—between them and the active tab.



- **There was a tab selected when you enter the site.** If there's no tab selected when I enter a site (as on Quicken.com, for instance), I lose the impact of the tabs in the crucial first few seconds, when it counts the most.



Amazon has always had a tab selected on their Home page. For a long time, it was the Books tab.



Eventually, though, as the site became increasingly less book-centric, they gave the Home page a tab of its own (labeled “Welcome”).



Amazon had to create the Welcome tab so they could promote products from their other sections—not just books—on the Home page. But they did it at the risk of alienating existing customers who still think of Amazon as primarily a bookstore and hate having to click twice to get to the Books section. As usual, the interface problem is just a reflection of a deeper—and harder to solve—dilemma.

Try the trunk test

Now that you have a feeling for all of the moving parts, you're ready to try my acid test for good Web navigation. Here's how it goes:

Imagine that you've been blindfolded and locked in the trunk of a car, then driven around for a while and dumped on a page somewhere deep in the bowels of a Web site. If the page is well designed, when your vision clears you should be able to answer these questions without hesitation:

- › What site is this? (Site ID)
- › What page am I on? (Page name)
- › What are the major sections of this site? (Sections)
- › What are my options at this level? (Local navigation)
- › Where am I in the scheme of things? ("You are here" indicators)
- › How can I search?

Why the *Goodfellas* motif? Because it's so easy to forget that the Web experience is often more like being shanghaied than following a garden path. When you're designing pages, it's tempting to think that people will reach them by starting at the Home page and following the nice, neat paths you've laid out. But the reality is that we're often dropped down in the middle of a site with no idea where we are because we've followed a link from a search engine or from another site, and we've never seen this site's navigation scheme before.¹⁷

And the blindfold? You want your vision to be slightly blurry, because the true test isn't whether you can figure it out given enough time and close scrutiny. The standard needs to be that these elements pop off the page so clearly that it doesn't matter whether you're looking closely or not. You want to be relying solely on the overall appearance of things, not the details.¹⁸

¹⁷ This is even truer today than it was five years ago, since for many people everything they do on the Web now begins with a Google search.

¹⁸ Tom Tullis of Fidelity Investments did an ingenious experiment along the same lines to evaluate the effectiveness of different page templates. He populated each template with nonsense text and asked people to identify the various elements like the page title and the site-wide navigation simply by their appearance.

Here's how you perform the trunk test:

Step 1 Choose a page anywhere in the site at random, and print it.

Step 2 Hold it at arm's length or squint so you can't really study it closely.

Step 3 As quickly as possible, try to find and circle each item in the list below.
(You won't find all of the items on every page.)

Here's one to show you how it's done.

CIRCLE:

- | | |
|-----------------------------|--------------------------------|
| 1. Site ID | 4. Local navigation |
| 2. Page name | 5. "You are here" indicator(s) |
| 3. Sections and subsections | 6. Search |



Now try it yourself on the four web pages below. Then compare your answers with mine, starting on page 90.

And when you've finished, try the same exercise on a dozen random pages from different sites. It's a great way to develop your own sense of what works and what doesn't.

1

The screenshot shows a Quicken.com page titled "Annuities". A sidebar on the left lists four steps: "Step by Step", "Annuities Home", "Intro", "Step 1", "Step 2", "Step 3", and "Step 4". The "Intro" section contains text about the benefits of annuities compared to other savings plans. The "Step 1" section says "Fund other plans first". The "Step 2" section asks "Is an annuity right for you?". The "Step 3" section says "Compare annuities to funds". The "Step 4" section is partially visible. The main content area has a heading "Retirement Plans At A Glance" and a table with four columns: Plan, Sponsor, Annual Contribution Limit, and Advantages. The table shows one row for a 401(k) plan.

Retirement Plans At A Glance			
Plan	Sponsor	Annual Contribution Limit	Advantages
401(k)	Corporations with more than 25 employees	Maximum employee contribution is \$10,000	You choose how to allocate your investments

Answers on page 90

2

The screenshot shows the Global Mart website. At the top, there are links for Current Specials, Customer Service, Order Tracking, Site Directory, and View Cart/Checkout. A banner on the right says "CLICK HERE To View Our Home Appliance Selection" with an image of a washing machine. On the left, a sidebar lists various product categories under "DEPARTMENTS". The main content area displays a grid of DVD players from different brands: Toshiba, Go.Video, JVC, Pioneer, Samsung, Sharp, Philips, and Panasonic. Each brand has a small image of their respective DVD player model.

*Answers on page 91***3**

The screenshot shows the CNET Builder.com website. At the top, there is a navigation bar with links to CNET, News, Hardware, Downloads, Trends, Games, Jobs, Auctions, Prices, Tech Help, and Free Email. Below the navigation is a search bar and a "Go!" button. A FedEx advertisement for their ShipAPI and TrackAPI services is displayed. The main content area features a "CRITIQUE of the Week" section for Fool.com. It includes a brief description of the critique, a screenshot of the Fool.com homepage, and a list of other critiques from Builder.com such as Adobe.com, ITVS, Blair Witch Project, The Internet Movie Database, Breakup Girl, and Labwerks Interactive.

Answers on page 92

4

Answers on page 93

You are here

QSite ID.com

Home Investing Mortgage Insurance Taxes Banking Retirement Shopping Small Business

Retirement Home | 401(k) | IRA Subsections Utilities | Wills & Estates | Boards

Annuities Step by Step

- [Annuities Home](#)
- [Intro](#)
- [What is an annuity?](#)
- Step Local navigation first**
- [Step 2](#)
- [Is an annuity right for you?](#)
- [Step 3](#)
- [Compare annuities to funds](#)
- [Step 4](#)

Before thinking about annuities, fully fund the tax-deductible and tax-deferred savings plans (other than annuities) that you're qualified to take part in. Individual and employer-sponsored plans are great ways to squirrel away money for the post-work years. They're more effective than annuities because they usually have lower fees and most give you a bigger break on taxes. For example, both a 401(k)'s principal and earnings grow tax-deferred, whereas only an annuity's earnings do so. Also, most plans give you a wide variety of investment options.

The following chart shows contribution limits, advantages, and other comparison points for the different plans.

Retirement Plans At A Glance			
Plan	Sponsor	Annual Contribution Limit	Advantages
401(k)	Corporations with more than 25 employees	Maximum employee contribution is \$10,000	You choose how to allocate your investments

WHAT'S WRONG WITH THIS PICTURE?

"Annuities Step by Step" looks like the page name, but it's not.

The page name is actually "Fund other plans first," but you wouldn't know it because (a) there's no page name, and (b) there's no "You are here" indicator in the list on the left.

And there's no search box or search button, which is amazing for a site as large and varied (and full of useful content) as Quicken.com.

Quicken.com

Home Investing Mortgage Insurance Taxes Banking Retirement Search Shopping Small Business

Retirement Home | 401(k) | IRAs | Planning Annuities | Wills & Estates | Boards

Annuities Step by Step

- [Annuities Home](#)
- [Intro](#)
- [What is an annuity?](#)
- Step 1**
- [Fund other plans first](#)
- Step 2**
- [Is an annuity right for you?](#)
- Step 3**
- [Compare annuities to funds](#)
- [Step 4](#)

Step 1: Fund other plans first

Before thinking about annuities, fully fund the tax-deductible and tax-deferred savings plans (other than annuities) that you're qualified to take part in. Individual and employer-sponsored plans are great ways to squirrel away money for the post-work years. They're more effective than annuities because they usually have lower fees and most give you a bigger break on taxes. For example, both a 401(k)'s principal and earnings grow tax-deferred, whereas only an annuity's earnings do so. Also, most plans give you a wide variety of investment options.

The following chart shows contribution limits, advantages, and other comparison points for the different plans.

Retirement Plans At A Glance			
Plan	Sponsor	Annual Contribution Limit	Advantages
401(k)	Corporations	Maximum employee...	You choose how...

< MY VERSION

I've added...

- A page name at the top of the content space,
- A "You are here" indicator in the list on the left, and
- A search link, in the Utilities list.



WHAT'S WRONG WITH THIS PICTURE?

The Site ID is below the navigation, and hard to spot. It looks too much like the internal promo next to it, and because the Site ID isn't in the upper left corner, it ends up looking like an ad.

The heading DVD is positioned above the link Audio/Video Main, but it is lower in the hierarchy. And there's no search, which is baffling in a large e-commerce site full of products.



< THEIR REVISED VERSION

While I was writing this chapter, Global Mart redesigned their site and did most of the right things themselves. For instance, they moved the Site ID to the top of the page and added a search box.

But as so often happens with redesigns, for every step forward there's one step back. For instance, the Utilities went from one legible line to two illegible ones. (Always avoid stacking underlined text links; they're very hard to read.)



< MY VERSION

I moved the link to Audio/Video above the page name, so the visual hierarchy matches the logical hierarchy. I also made the page name a little more prominent, and moved it flush left instead of centered. (In most cases, I find left or right alignment is more effective than centering in “telegraphing” a visual hierarchy.)

For the same reason, I moved the search button next to the search box, instead of centered below it.



WHAT'S WRONG WITH THIS PICTURE?

The navigation is spread out all over the page, making it much harder to tell what's navigation and what isn't. The navigation, ads, promos, and content all run together.

There is no list of major sections. The list at the top looks like sections, but it's actually a list of other sub-sites of CNET.com. What makes it particularly confusing is that Builder.com (the site I'm in) doesn't appear in that list.

The only navigation that tells me where I am in Builder.com is the Breadcrumbs.

It's also hard to tell where the content actually starts. This is one of those pages that seems to keep starting over, forcing you to scroll down just to find out what it is.

< MY VERSION

This is one of those pages where you have to have the gumption to say, "This is beyond tweaking." There are underlying dilemmas here that need to be resolved before you even think about the page layout.

All I did was tighten up the top a little and try to make the content space easier to spot by adding a background to the column on the left.

At the same time, I made sure that the page name was positioned so it was clearly connected to the content space.

You are here

Subsections

Page name

Local navigation

Browse Blues

New and Notable

Blues Editor's Picks

Amazon.com

Search

Enter Keyword: Popular Music

Browse: Rock

Page name

Local navigation

Browse Blues

New and Notable

Blues Editor's Picks

WHAT'S WRONG WITH THIS PICTURE?

Not much. Did you have trouble finding anything?

I rest my case.

SEARCH

BOOKS

MUSIC

VIDEO

CLASSICAL

TOP SELLERS

NEW & FUTURE RELEASES

ELECTRONICS

e-CARDS

AUCTIONS

zSHOPS

RECOMMENDATION CENTER

Search

for

Browse

Rock

Blues

New and Notable

Blues Editor's Picks

< MY VERSION

There's really almost nothing to improve here.

I did redo the search. (I don't know why they used "Enter Keywords" here when they use just plain "Search" almost everywhere else in the site.)

And if you're going to scope a search, it's worth adding the word "for" so it reads like a sentence: "Search ____ for ____."

I also made the page name a little more prominent to help make the division between the content and navigation spaces even clearer.