

Curtin University  
School of Design

Internet Usability Design 391

Chapter 5  
**Designing for Usability**

By  
Joel Day

## Designing for Usability

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

Think about the last time you visited a shopping center or a department store. Think about how you were able to navigate your way to the products you wanted, starting with large general signs, and working your way down to more detailed ones.

Enter Store > look for the right department > look for the right aisle > look for the right product > get the size or version you need > look for cash registers > pay up > look for the exit.

If you can't navigate your way around the store, you always have the option of asking for help – which you probably won't be able to do online.

## Web Navigation 101

When someone visits a Web site, they'll:

1. Try to find something
2. Decide whether to ask (what Jakob Nielsen calls "Search-dominant users") or browse (what Jakob Nielsen calls "Link-dominant users") to find it.

Whether someone decides to browse or search depends on their current frame of mind, how much of a hurry they're in, and whether the site has decent browsable navigation.

If you browse, you'll usually work your way through a hierarchy – from the main links on the home page down to section links and individual items on other pages.

Eventually, if you can't find what you want, you'll leave. This is as true on Web sites as it is in real shops. Although we often feel like we're moving around in space online, there are some **notable differences**:

- **No sense of scale** – we usually have no idea how many pages exist on the site. Whereas we have a better idea of scale using magazines, museums, department stores, etc.
- **No sense of direction** – no up, down, left, or right. Any such talk on the Web is really about navigating through the hierarchy.
- **No sense of location** – in physical places, we move around and accumulate knowledge about the space. We develop a sense of where things are and can take shortcuts to get to them.

When we buy something from a store, we learn how to short cut our way there if we return in the future. If we find something on the Web, we have to go through the same process to get back in the future unless...

**We bookmark!** This is why bookmarks are so important on the Web.

This is also why the "Back" button is used somewhere between 30-40% of all Web clicks.

And this is also what "Home Pages" are important. Home Pages are the closest things we have to fixed places on the Internet.

We get inherently lost on the Web, and can't peek over the aisles to see where we are.

Steve Krug says '**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** [a department store]. Without it, there's no **there** there. The moral? **Web navigation had better be good.**"

According to the dictionary, there are two reasons for navigation:

- To help us find what we're looking for
- To tell us where we are

Steve Krug suggests a third:

- It gives us something to hold on to. Done right, navigation puts ground under our feet and gives us handrails to hold on to – to make us feel grounded.

He argues that navigation also has 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 the content! Revealing the site may be even more important than guiding or situating us.
- **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, because most users will ignore any other instructions anyway)
- **It gives us confidence in the people who built it.** Every moment we're in the Web site, we're keeping a mental running tally: "Do these guys know what they're doing?" Clear well-thought-out navigation is one of the best opportunities a site has to create a good impression.

### Web Navigation Conventions

The signs we use in real life are positioned where we expect to find them. Street signs are located at intersections up on poles, written horizontally. In the USA, addresses for every block start at a number divisible by 50. The name of a building is above or next to its front door. In a book, we know where to find the table of contents and the page numbers.

Think about how frustrating it is when these conventions are broken (like when magazines don't put page numbers on ad pages).

**Persistent Navigation** (or Global Navigation) is the navigation elements that appear on every page of the site. Persistent Navigation should always be in the same place and only change slightly.

The only places you don't put Persistent Navigation are on

- The Home Page (home pages serve other purposes)
- Forms (can be a distraction – keep it to a link to home page or utilities)

Navigation conventions for the Web have emerged quickly, mostly adapted from existing print conventions. They will continue to evolve, but for the moment consist of the following elements:

- **Site ID** – needs to be on every page, unlike the real world (ie We don't need Curtin University signs everywhere we look on campus. We know we're on campus). We expect to see it around the upper left corner. Make it the most prominent thing on the page or make it frame everything else. Your Site ID should have the attributes you see in a brand logo (see below) with a distinctive typeface, and a graphic that's recognizable at any size from billboard to button.
- **Sections** – Sometimes called 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

- **Utilities** – the links to important elements of the site that aren't really part of the content hierarchy. These are things that either help you use the site (like Help, Site Map, or Shopping Cart) or can provide information about the publisher (like About Us or Contact Us). Like the signs for the facilities in a store, Utilities should be slightly less prominent than sections.

Utilities will vary from site to site. You should always include a link to your home page (either in the Sections or Utilities. If you use a logo, add the word home discreetly to the site id everywhere but on the home page itself). Here are other some possibilities for e-commerce or corporate sites. Stick to only 4 or 5:

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

- **Page Name** – Four things to remember:
  - 1) Every page needs a name, just like every street has a name.
  - 2) The name needs to be in the right place.
  - 3) The name needs to be prominent. (Remember your visual hierarchy)
  - 4) The name needs to match what I clicked (or as closely as possible).
- **Local Navigation** – One of the most common problems with Web design (especially with larger sites) is failing to give lower level navigation the same attention as the top. It's vital to have sample pages that show navigation for all the potential levels of the site before designing the look of it.
- **Small Text Version**

### “You Are Here” Strategies

There are several ways you can let people know where they are in a site:

- Highlighting Words on Navigation Links
- Using Breadcrumbs
- Using Tabs

Usually “You Are Here” indicators are too subtle. They need to stand out, otherwise they’ll lose their value as visual cues and end up just adding noise to the page. Use different colors and bold type to make them stand out.

**Breadcrumbs** are to driving directions what Tabs are to maps. Tabs/Maps are better at giving you a perspective on your location. Webmonkey.com, About.com, Yahoo.com, and Cnet.com use breadcrumb navigation extensively.

Rules for using Breadcrumbs:

- **Put them at the top**, above everything else. Like page numbers in a book.
- Use “>” in-between levels. “:” and “/” don’t work quite as well.
- **Use tiny type** – make it clear that this is just an accessory.
- Use the words **“You are Here:**” like about.com does.
- **Boldface the last item**, the current page.
- **Don’t use them instead of a page name.**

**Tabs** have become quite popular, and can be found at the following sites:

800.com  
Amazon.com  
Beyond.com  
Bn.com  
Borders.com  
Buy.com  
CDNOW.com  
EToys.com  
Fatbrain.com  
Fidelity.com  
LandsEnd.com  
Pets.com  
Quicken.com  
Scwab.com  
Snap.com  
ToysRUs.com

Four Reasons Why Steve Krug Loves **Tabs**:

1. **They’re self-evident.** No one needs an explanation.
2. **They’re hard to miss.** Much more obvious than button bars.
3. **They’re slick.** Done correctly, they can add polish and serve a useful purpose.
4. **They suggest a physical space.** Tabs create the illusion that the active tab physically moves to the front. Gives a stronger-than-usual sense that the site is divided into sections and that you’re in one of the sections. (Krug, 2000)

Amazon.com was one of the first sites to use tabs, and does the best job with them by:

- **Drawing them correctly** (so the selected tab really appears in front, unlike imdb.com).
- **Making them load fast.** Amazon doesn't use rollovers.
- **Color Coding them.** Amazon uses a different tab color for each section. Never rely on color as the only cue for something. 1/12 men can't see them correctly. Amazon compensates for this by providing significant contrast (in addition to color) between what's selected and what's not on the tabs.
- **Pre-selecting a tab for you when you enter the site.** Sites that don't pre-select a tab for you lose the impact of the tabs in the crucial first few seconds.

### Steve Krug's Acid Test for Good Web Navigation

Imagine you've been blindfolded and locked in the boot 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 the 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?**

If you have to look closely, it's not good enough. You should be able to rely solely on the overall appearance of things, not the details.

### To test a site correctly you should:

1. **Choose a page anywhere in the site at random, and print it.**
2. **Hold it at arm's length or squint so that you can't really study it closely.**
3. **As quickly as possible, try to find and circle each item in the list above** (you won't find all the items on every page).

### A way to Search:

Unless your site is very small, **you should include search facilities.**

**Use this simple formula: A box, a button, and the word "Search".** Put the word "Search" on your button to the right of your box.

- **Do not use fancy wording** (like Find, Quick Find, Keyword Search, Quick Search, etc.)
- **Do not give instructions** (like "Type a keyword").
- **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. (Krug, 2000)

## **Designing Search Systems**

So far, in this and previous units, we've discussed ways of designing browsing systems. Another way of providing information is through search services.

Your site should, of course, support the *finding* of its information – but don't assume a search engine alone will satisfy *all* users' information needs....

### **When NOT to make your site searchable:**

Many site developers see search engines as the solution to the problems with poor navigation. Don't use them as bandages! Fix up your navigation first.

While search engines are fairly easy to get up and running, they are more difficult to set up effectively.

This can be seen with search engines that yield irrelevant results when you try them out.

### **When TO make your site searchable:**

Most Web sites are not planned out in much detail before they're built. This okay for small sites, but as larger sites grow rapidly with more and more content, they can become a navigation nightmare.

Yahoo started out as just a directory. As they grew very large, they added a search engine to complement their directory. Today most people use Yahoo's search engine over it's well planned browsing features (unfortunately).

Many people search when they don't really know what they're looking for. People who don't know what they're looking for should really browse instead – but many people don't realize this.

Search engines are also useful for sites that contain highly dynamic content. If you're constantly adding pages to your site, it may not be worth your time to continually add links. A frequently indexed search engine could solve the problem.

### **Understanding How Users Search:**

Searching systems can and should vary as much as browsing systems or any other components of web sites do, because all users aren't alike, and information retrieval is much harder than most people realize.

- Some people want simple answers.
- Some people want detailed assessments of everything there is to know about a topic.
- Some want only the most accurate, highest quality information
- Others don't care much about the reliability of the source
- Some people will wait for the results.
- Others want the information yesterday.
- Some people are just plain happy to get any info at all, regardless of how much is missing.

### **Types of searching (compare sites at C|Net's Search.com):**

1. Known-item Searching – Users' information needs are clearly defined and have a

single, correct answer. Share prices, exchange rates, weather, etc... (Weather.com, Citysoftware.com.au)

2. Existence Searching – Users know what they want but don't know how to describe it, or whether it exists at all. What stocks should I buy? What car should I buy? Searches based on abstract idea or concept. (Carsales.com)
3. Exploratory Searching – Users who know how to phrase their questions, but don't know exactly what they're hoping to find, and are really just exploring and trying to learn more. Tell me more about what multimedia designer jobs are like. (Askjeeves.com)
4. Comprehensive Searching – Users want everything available on a given subject. Scientific researchers, patent lawyers, postgraduate students wanting original dissertation topics, etc. (<http://wwwlib.umi.com/dissertations/>)

### **Searching and Browsing Integrated:**

Most people, especially those with more involved information needs, use many information systems for a particular search. This involves jumping from search engine to search engine – trying to use a variety of the four types of searches listed above. They search using one method, learn something, refine their query, and search again to learn something else – and so forth and so on.

### **Designing the Search Interface:**

With so much variation among user to account for, there can be no single ideal search engine interface. Here are a few factors to consider:

- The level of searching expertise users have – are they comfortable with Boolean search operators, or do they prefer natural language? (Microsoft.com Knowledge Base vs. av.com)
- The kind of information the user wants – Do they just want a taste, or are they doing a comprehensive search? (about.com)
- The type of information being searched – structured fields, navigation pages, HTML documents? Other formats? (PDFs?) Yahoo provides options. (hotbot.com advanced search page)
- How much information is being searched – will they be overwhelmed by the results?

Before you dive into design, think hard about why users are searching your site, and what they want to get out of their search. Try to use the same search interface to cater to different needs – possible with a radio button option to allow users to choose search type... (Curtin home page)

### **Searching and Browsing Systems Should Be Closely Integrated**

Like <http://www.yahoo.com> and <http://www.clearinghouse.net/>

### **Searching Should Conform to the Site's Look and Feel**

Don't use Excite's or Atomz free engine service, for example. The design of the results should fit into the look and feel of the rest of your site.

### **Search Options Should Be Clear**

On a Help or Documentation page, consider letting the user know the following:

1. What is being searched. Yahoo used to be confusing about this. Search was really of their listings, not complete Web pages. AV.com was added to serve as a larger search.
2. How they can formulate search queries. Give examples that show how to use your search engine to its fullest potential.
3. User options. Can users sort results? Let them know what options they have. (atomz.com search at stockphoto.net)
4. What to do if the user can't find the right information. Let user know what to do if they a) get too many results (show how to narrow), b) don't get any results (user shorter terms), or c) get the wrong results (how to subtract stuff they don't want).

### Display Search Results Sensibly

There is no right way to do it. How you configure the way your search engine displays results depends on two factors:

The first factor is the degree of structure your content has. Can you do more than display page titles? Can you parse out relevant search terms and highlight them? Atomz.com parses relevant passages very nicely, for example (used at <http://www.stockphoto.net>), but most web search engines (like <http://www.infoseek.com>) don't.

The second factor is what your site's users really want. What sorts of information do they need and expect to be provided as they review search results.

### Consider these issues:

1. **How much information should be displayed for each retrieved document?** Display less information when you anticipate users will get a large number of results. Display less info to users who know what they want, and more info to users who don't know what they want. Some search engines allow you to choose how you want your results displayed (atomz.com at stockphoto.net)
2. **What information should be displayed for each retrieved document?** Searching for phone numbers should present more concise info than other searches.
3. **How many retrieved documents should be displayed?** Depends on the preceding two factors.
4. **How should retrieved documents be sorted?** Chronologically? Alphabetically? (be sure to omit "A" & "The") By Relevance? Relevance done by search algorithms that weight words in titles and headings more highly than others. Sometimes it's hard to tell! Good to let users know, if possible.

### Always Provide the User With Feedback

Never let an empty results page go without advice on improving search. It's best to design a special results page for no-hit queries.

### Other Considerations

- Repeat back the original search query on the results page
- Let users know how many documents in total were retrieved

- Let the user know where she or he is in the current retrieval set.
- Always make it easy to revise a search and start a new one.

### **Indexing the Right Stuff**

Don't index an entire site. Try eliminating navigation-only pages from the database.

### **Search Zones: Selectively Indexing the Right Content**

Search Zones are subsets of a Web site that have been indexed separately from the rest of the site's content. <http://www.shareware.com> uses this when you choose an operating system.

Four common approaches to search zones are:

- By content type (navigation vs. destination pages)
- By audience (Buyers or Sellers)
- By subject (Yahoo allows for searching in specific categories)
- By date (<http://www.shareware.com> or <http://www.cnn.com/>)

Some search engines work with all of the above (<http://www.hotbot.com/>)

Should you use a Search Engine?

Many people complain about not being able to find what they want through them, but most people expect to find a search facility when they visit a site.

This is why it's important to understand your audience so you can design your search engine appropriately.

(Rosenfeld, L. and Morville, P., 1998)

### **What is a Logo?**

*A logo is an expression of the essential substance of a particular company, institution, or organization, of an idea, a special occasion, or a product. Logos are visual signs, and their form comes from the object they depict or from related associations.*

### **Good Logos Should...**

- Provide quick, easy identification at a glance.
- Project accurately the unique personality and expertise of the company/organization.
- Used consistently in all media, i.e. literature, video, Web site, signage, etc.
- Cause a minimum amount of confusion with similar marks.
- Be consistent in typestyle and weight throughout all materials.

### **Four Types of Logos**

1. Illustrative -
2. Graphic -
3. Font Based -
4. Combinations -

**Illustrative logos** are logos which clearly illustrate what the company does.

**Graphic logos** are logos that include a graphic, often an abstraction, of what the company does. Graphic Logos commonly contain Geometric, Geographic, Natural Forms, Scientific Symbols, Heraldic Forms, or Visual Representations of the word in question.

**Font-Based logos** use a text treatment to represent a company. A logo can also be developed from a company's initials or the name of the product. Logos that are made up of letters, monograms, and lettering of any kind demand the same treatment as pictorial symbols.

**Combinations:** It is, of course, possible to combine letters and pictorial elements in a single logo. Certain letters provoke associations such as a feeling of lightness or weight. Use these associations as well as any other emotional messages the forms may carry.

In Short, **A good logo catches the eye** - it makes the observer curious or engaged, if only for a short moment... a moment in which an image and the existence of the company is embedded in the mind rather than filtered out with a million other daily stimuli.

### Principles of Logo Design

- A logo must be easily recognizable; it has to be simple and memorable.
- The purpose of the logo should influence its form.
- There must be contrast and tension.
- Interior space and spaces between shapes carry as much weight as the shapes themselves, and all the graphic elements have to form a unit.
- A logo should be more than a conglomeration of unrelated elements that are held together by a border.
- Most graphic forms of advertisement are based on or include the logo of the subject
- The logo usually appears on letterheads, brochures, labels, packaging, and delivery vans. It may be necessary to render it in varied materials, such as cardboard, plaster, glass, metal, fabric, or even neon.

### Logo Design Objectives...

- Design Clear & Legible Type
- Create a Distinctive Look
- Differentiate from Competition
- Appropriate for the Business
- Express Client's Personality
- Aesthetic & Graphic Impact
- Balance & Unity
- Use Positive / Negative Space
- Make it Memorable
- Suitable for Color Reproduction as well as Black & White
- Suitable for Small & Large Reproduction
- Logos are Subject to Fashion

### Getting Started

To get started designing a logo, make a number of preliminary sketches. If one of these looks promising, play with it in a small format of about 5 to 6 centimeters in black and white. Make sure that you try all the possibilities you can imagine. New ideas or at least new points of view will surface during the process. Choose the best sketches and draw them more carefully at a larger scale - about 15 to 20 centimeters high. Now check to see if a photographic reduction to 5 millimeters still renders clear details.

### Technical Considerations

The technical requirements and restrictions of work in any of these materials must be taken into consideration from the earliest stages of design, since it is obvious that printing, embossing, punching, casting, or weaving require distinctly different approaches. Variations may be necessary if the same logo is to be executed in techniques as different as engraving in steel or modeling in plaster.

### **Working with Type**

Some logos are developed from the name of a product or a company. The letterforms should be chosen in relation to the particular product or company; the letters must form a word that stands on its own as a composition, and the word must stand out among other text elements. Again, the design must be easy to remember. To ensure that the word can be read easily, the letterforms must never be modified beyond their basic characteristics.

Logos may be executed with pen or brush as well as with type, but the field of application is more limited, because calligraphic forms cannot be transferred so easily to other media.

Finally, Keep it Simple!

(Parzek, 1997)

### Home Page Design

Your Home Page is a unique part of your Web site that has to live by different rules than the rest of your pages. If your site is an e-commerce site, your Home Page needs to accommodate the following:

- Site Identity and Mission – the home page has to tell what the site is and what it's for. It should also tell why your visitors should be there and not at some other site.
- Site Hierarchy – Visitors need to be able to answer two questions: "What can I find here?" and "What can I do here?" as well as how it's all organized.
- Search – Most sites need to have a prominently displayed search box on the home page.
- Teases – Acts like the cover of a magazine, enticing visitors to look inside, using content promos and feature promos.
- Timely Content – Should have content that's updated regularly to keep it looking fresh.
- Deals – space needs to be available for advertising, cross promotion, or co-branding.
- Short cuts – To the most frequently requested pieces of content so people don't have to hunt for them.
- Registration – If the site has registration, and place to sign in, and a way of letting people know they've signed in (with a personalized welcome message, for example)

See [www.edmunds.com](http://www.edmunds.com), [www.1800flowers.com](http://www.1800flowers.com), [www.liquidation.com](http://www.liquidation.com), [www.bamm.com](http://www.bamm.com), [www.hammacher.com](http://www.hammacher.com), [www.personalizedcreations.com](http://www.personalizedcreations.com), [www.oshmans.com](http://www.oshmans.com), [www.ice.com](http://www.ice.com), and [www.alibris.com](http://www.alibris.com) for good examples. See [www.uberdog.com.au](http://www.uberdog.com.au), [www.francisfrancis.com](http://www.francisfrancis.com), [www.mace.co.uk](http://www.mace.co.uk), [www.daltonmailingservice.com](http://www.daltonmailingservice.com), [www.hopt-schuler.com](http://www.hopt-schuler.com), and [www.qualcomm.com](http://www.qualcomm.com) for examples of bad e-commerce design.

### **Your Home Page also needs to:**

- Show me what I'm **looking** for – make it obvious how to get around the site.
- Show me what I'm **not** looking for – so it's known what else is available to look at.
- Show me where to start – there is nothing worse than encountering a home page and having no idea where to start.
- Establish credibility and trust – Possibly the only chance your site will get to create a good impression.

Problems you'll run into, designing a home page as part of a team-designed Web site:

- Everybody wants a part of it – Think of it as the waterfront property of the Web. Everybody with a stake in the site will want some connection from the home page.
- Too many cooks – Everyone, including the CEO, will have an opinion about it.
- One size fits all – The page needs to appeal to everyone who visits, no matter how diverse their interests.

You'll find that with all this considerations, your Home Page design won't be able to do it all. The most important thing you'll need to keep in mind is **conveying the big picture**.

How to get the big picture across:

- Use a Tagline (6-8 words next to your Site ID that aren't a motto)
- Use a terse Welcome Blurb (not a dry mission statement)

Visitors also need to answer these five questions when glancing at your Home Page, correctly and unambiguously:

1. What is this?
2. What do they have here?
3. What can I do here?
4. Why should I be here – and not somewhere else?
5. Where do I start? Including:
  - a. Where do I start if I want to search?
  - b. Where do I start if I want to browse?
  - c. Where do I start if I want to sample the best stuff?

## Home Page Navigation

Can be different from the rest of the site, but not too different...

- Use persistent navigation, but also give section descriptions
- Can use different orientation (horizontal vs. vertical)
- Allow for more space for identity

Ways more Real Estate can be created on your Home Page

Rollovers – can work if done subtly. More effective with graphics than text.

### Rollover Problems

- You have to seek them out, so they don't catch your eye
- You can only see one at a time
- They're twitchy and therefore harder to read
- They're ineffective unless the popup appears near where you're pointing (some sites have rollovers surface across the page)

Example of Problems with Rollovers: [www.francisfrancis.com](http://www.francisfrancis.com) or [www.mace.co.uk](http://www.mace.co.uk) or [www.daltonmailingservice.com](http://www.daltonmailingservice.com) or [www.hopt-schuler.com](http://www.hopt-schuler.com)

Pulldown Menus – most effective for alphabetical lists when visitors know what they're looking for. Like country lists at [www.fedex.com](http://www.fedex.com) or [www.dell.com](http://www.dell.com)

### Pulldown Menu Problems

- You have to seek them out
- They're hard to read. Designers have no control over font, spacing, or formatting.  
Can't be subdivided into groups, either.
- They're twitchy

Example of Problems with Pulldown Menus: [www.qualcomm.com](http://www.qualcomm.com)

(Krug, 2000)

### Other General Design Tips

- Don't create orphaned pages (which don't navigate and rely on the back button. Also known as tar pits).
- Name Categories in Terms of User Tasks and Goals (and use natural language)
- Keep Elements Consistent
- Test Your Work on Many Browsers and Conditions
- Keep Important Information "Above the Fold"
- Don't Make users Scroll Horizontally
- Think Globally (Internationalize your site)
- Warn Users about File Sizes
- Use 4-6 or fewer colors for table legends (and keep contrast between them)
- Provide an alternative content (for imageless visitors)
- Use ALT tags with your images
- Repeat images where possible (to help reduce download times)
- Use cross linking (cross referencing)
- Avoid animation altogether (or use it sparingly, for conveying useful info)
- Don't use images that look like ads (especially if you're using ads)
- Monitor Search Words used at your site (you can record them in a database)
- Make a site wide search feature available on every page
- Don't include a Web search facility on your site
- Use easy-to-understand URLs (with descriptive file names)
- Make printer friendly pages
- Design for nonlinear use (for people who stumble in sideways)
- Don't throw people off your site (without warning them first)

(Pearrow, 2000)

**Class Discussion: What's Your Opinion?****Jakob Nielsen's "Top Ten Mistakes in Web Design" (from 1996 & 1999)**

Mistake	1996 - 1999
<b>Frames</b>	Was a big problem with older browsers that couldn't print or back out properly in 1996. Most of these problems have since been fixed, but bookmarking is still difficult
<b>Bleeding-edge Technology</b>	Still a major problem. Web access speed increases have slowed. Too many millions of users to risk alienating with possible JavaScript errors on home page. Most of the latest Web users are the least technically savvy and tolerant.
<b>Scrolling Text &amp; Looping Animations</b>	Bigger problem today because animations are overused in advertising so visitors ignore animation.
<b>Complex URLs</b>	Most of the latest Web users are the least technically savvy and tolerant. Otherwise less important today
<b>Orphan Pages</b>	Most of the latest Web users are the least technically savvy and tolerant. But longer users know trick about cutting folders off URL to find what they want.
<b>Scrolling Navigation Pages</b>	Less of a problem now that users have learned to scroll. Most Important content should be placed above the fold.
<b>Lack of Navigation Support</b>	Less of a problem, but designers need to keep up with the latest popular conventions, such as logo links to home pages.
<b>Non-standard Link Colors</b>	Standard Blue, Purple, Red Link colors are not as important as they once were. Instead, designers need to have differentiate between visited, active, and unvisited link colors (which many ignore).
<b>Outdated Information</b>	Worse problem now that so many cob-Web sites have been created. Lots of people rushed to get content online, and then abandoned their sites.
<b>Slow Download Times</b>	The excuse that high-speed bandwidth is just around the corner is still not valid. It will take until about 2008 for low-end users.

(Nielsen, 1996) (Nielsen, 1999a)

**Jakob Nielsen's Top Ten New Mistakes of Web Design**

Mistake	Reason
<b>Breaking or Slowing Down the Back Button</b>	The back button is the lifeline and second most used navigation feature (after normal links). Designers are breaking this lifeline through <ul style="list-style-type: none"> <li>➤ new browser window openings</li> <li>➤ immediate redirects</li> <li>➤ preventing caching</li> </ul>
<b>Opening New Browser Windows</b>	Like a vacuum salesman who starts by dumping an ashtray on your floor. Implies

	taking over someone's computer. Can't back up.
<b>Non-standard use of GUI Widgets</b>	Applies to how radio button and checkboxes work. Some sites skip submit button, which is unconventional and, therefore, not good.
<b>Lack of Biographies</b>	Jakob thinks visitors want to know who's behind a site. Includes bios and photos! May be more valid for columnists than general content. Don't make e-mail links to author's address. Results are unexpected.
<b>Lack of Archives</b>	Adds 10% to the cost of running a site, but increases its value 50%. More suitable for magazine/news sites?
<b>Moving Pages to New URLs</b>	Don't forget forwarding pages from old sites – or don't move them in the first place.
<b>Headlines That Make No Sense Out of Context</b>	Should match links to page titles
<b>Jumping at the Latest Internet Buzzword</b>	Many technologies have come and gone, like Push. Don't believe the hype.
<b>Slow Server Response Times</b>	Minimize your download times as much as possible!
<b>Anything That Looks Like Advertising</b>	Users have learned to ignore anything that look like advertising. This has resulted in: <ul style="list-style-type: none"> <li>➤ Banner Blindness</li> <li>➤ Animation Avoidance</li> <li>➤ Pop-up Purges (users close before they load)</li> </ul>

(Nielsen, 1999b)

---

#### References

- Argus Associates (2000) *The Argus Clearinghouse: The Internet's Premier Research Library* [Online] Available: <http://www.clearinghouse.net/>
- Goto, K. and Cotler, E. (2001), *Web ReDesign: Workflow that Works*, New Riders Publishing, Indianapolis, IN.
- Graham, L. (1999), *The Principles of Interactive Design*, Delmar Publishers, Albany.
- Krug, S. (2000), *Don't Make Me Think: A Common Sense Approach to Web Usability*, New Riders Publishing, Indianapolis, IN.
- National Cancer Institutue (1998), *Usability.gov: Usability Basics*, [Online], Available <http://www.usability.gov/basics/>
- Nielsen, J. (1996), *Top Ten Mistakes in Web Design*, [Online], Available <http://www.useit.com/alertbox/9605.html>
- Nielsen, J. (1997), *How Users Read on the Web*, [Online], Available <http://www.useit.com/alertbox/9710a.html>
- Nielsen, J. (1998), *What is "Usability"?*, [Online], Available <http://www.zdnet.com/devhead/stories/articles/0,4413,2137671,00.html>
- Nielsen, J. (1999a), "Top Ten Mistakes" Revisited Three Years Later, [Online], Available <http://www.useit.com/alertbox/990502.html>
- Nielsen, J. (1999b), *The Top Ten New Mistakes of Web Design*, [Online], Available <http://www.useit.com/alertbox/990530.html>

- Nielsen, J. (2000), Why You Only Need to Test With 5 Users, [Online], Available  
<http://www.useit.com/alertbox/20000319.html>
- Parzek, E. (1997) *Design Your Logo Like A Pro* [Online] Available:  
<http://www.turtlesweb.com/articles/logo.html>
- Pearrow, M. (2000), Web Site Usability Handbook, Charles River Media, Rockland, MA
- Rosenfeld, L. and Morville, P. (1998) *Information Architecture for the World Wide Web*, O'Reilly and Associates, Sebastopol, CA
- Strunk, W. and White, E. B. (1979) *The Elements of Style*, Allyn and Bacon.