

# Web Design and Usability

CSE 190 M (Web Programming) Spring 2008  
University of Washington

References: J. Nielsen's *Designing Web Usability* (2)

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## What is usability?

- **usability**: the effectiveness with which users can achieve tasks in one software environment
- studying and improving usability is part of **Human-Computer Interaction** (HCI)

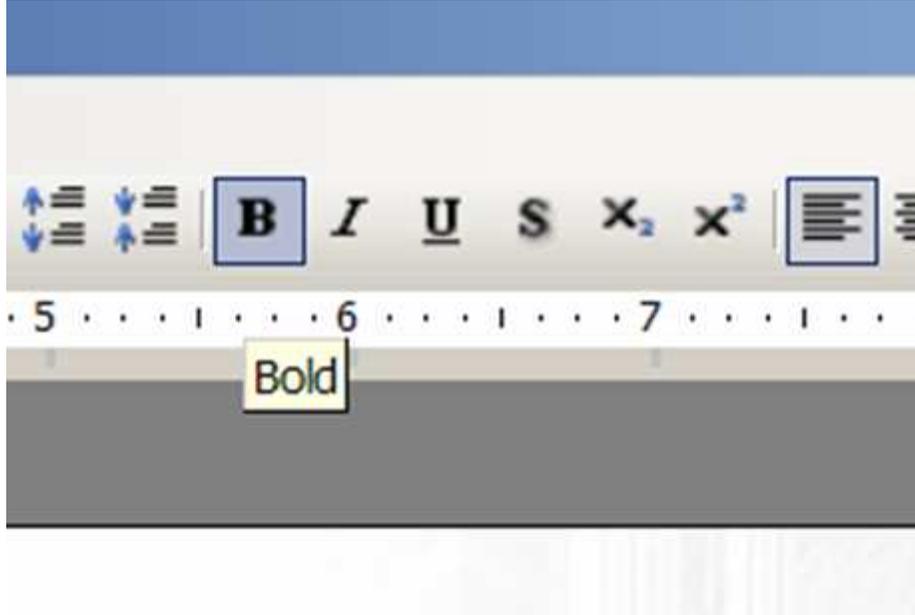


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# Visibility and feedback

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- **visibility**: ability for user to find controls that are meant to be interacted with
  - Where are they?
  - What is their state? ("Is this setting on or off?")
- **feedback**: response from the control to the user before, during, or after an interaction



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# Common web usability problems

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- cluttered or otherwise poor layout
- requires horizontal scrolling, or makes assumptions about user's screen size
- poorly chosen colors
- uses frames
- uses splash screen(s)
- poor or missing navigation controls (Back, Forward, Home)
- text is not scannable (can't be read quickly)

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# Content usability problems

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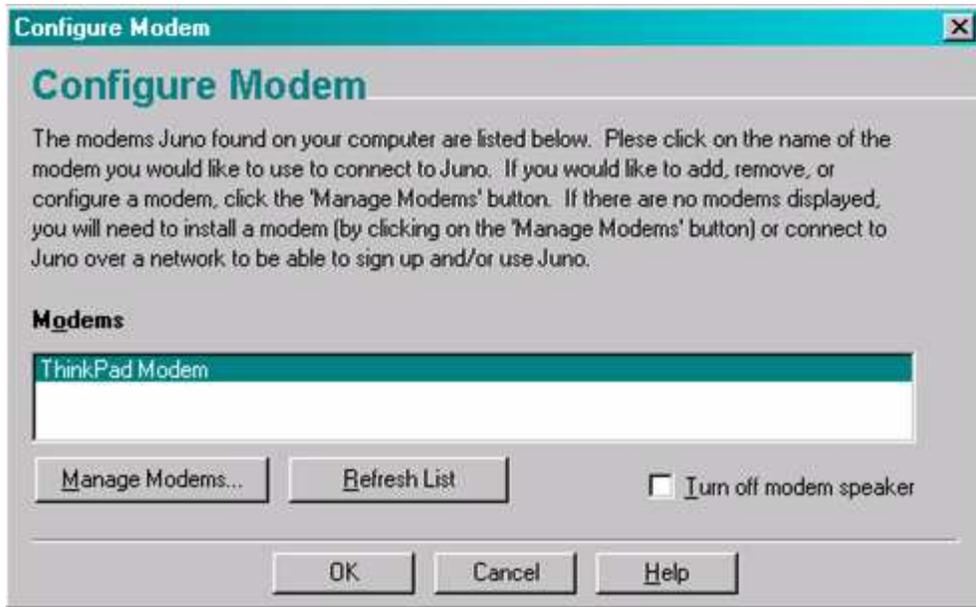
- most important content isn't on the first page / screenful
- nondescript headings
- too many ads (or things that appear to be ads)
- important site content is contained in PDF documents
- isn't designed to be easily indexed by a search engine (HTML title, meta tags, page text, link text, etc.)
- tiny thumbnails of detailed large photos:



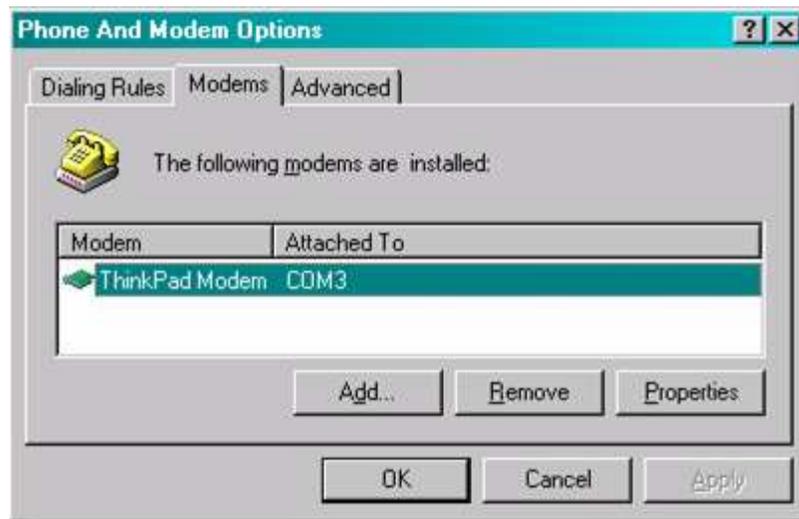
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# Users do not read

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vs.



- this also often applies to CSE students

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# Link usability problems

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- links that don't say where they go
- badly chosen link text (such as "Click [here](#) for more info")
- links that forcibly open a new browser window
- links opened by complex Javascript needlessly
- visited links don't appear in a different color

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# Feature usability problems

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- poorly performing site search
- having a web search feature (why??)
- not having a site map or other means to navigate the site
- relying on non-standard plugins or browser versions (e.g. Overly reliant on Flash, Java applets, etc.)

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# Web design suggestions

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- place your name and logo on every page and make the logo a link to the home page
- provide search if the site has more than 100 pages
- write straightforward and simple headlines and page titles that clearly explain what the page is about
- structure the page to facilitate scanning and help users ignore large chunks of the page in a single glance: for example, use grouping and subheadings to break a long list into several smaller units
- instead of cramming everything about a product or topic into a single, infinite page, use hypertext to structure the content space into a starting page that provides an overview and several secondary pages that each focus on a specific topic
- use link titles to provide users with a preview of where each link will take them, before they have clicked on it

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# More web design suggestions

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- Use relevance-enhanced image reduction when preparing small photos and images: instead of simply resizing the original image to a tiny and unreadable thumbnail, zoom in on the most relevant detail and use a combination of cropping and resizing.
- Ensure that all important pages are accessible for users with disabilities, especially blind users
- Do the same as everybody else: if most big websites do something in a certain way, then follow along since users will expect things to work the same on your site
- Jakob's Law of the Web User Experience: users spend most of their time on other sites, so that's where they form their expectations for how the Web works
- Test your design with real users as a reality check. People do things in odd and unexpected ways, so even the most carefully planned project will learn from usability testing.

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# Sites about web design

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- A List Apart
- CSS Play
- css/edge
- Design by Fire
- Jeffrey Zeldman Presents
- QuirksMode

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# Writing for the web

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- People read web page text differently than they read books, etc.
- Writing for the web includes:
  - subheads
  - bulleted lists
  - highlighted keywords
  - short paragraphs
  - the "inverted pyramid"
  - (put the most newsworthy information at the top, and then the remaining information follows in order of importance, with the least important at the bottom)
  - a simple writing style

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# Web pages that suck

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What's wrong with each of these web sites?

- <http://www.envy-hair.co.uk/index.html>
- <http://www.corvalliscommunitypages.com/>
- <http://www.pigletscatering.co.uk/>
- <http://www.bigbearparties.com/>
- <http://www.developingwebs.net/>
- <http://www.bobmarshall.com/>
- <http://www.orchy.com/dictionary/>
- <http://www.delmarvadatacenter.com/main.html>
- <http://www.videosphotosanddjs.com/>
- credit: [webpagesthatsuck.com](http://webpagesthatsuck.com)

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# Ajax usability

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- since Ajax requests happen in the background, users may not know the page is loading
- well-designed web sites give visual cues to the user so they know to wait

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# Forms and usability

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- client-side validation
- lighting up required elements left blank or filled out incorrectly
- avoiding `alert` unless absolutely necessary

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# Search Engine Optimization (SEO)

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- get people to link to your site (particularly popular sites!)
- use relevant keywords in link text
  - example: My friend Marty Stepp is a swell guy!
- set descriptive meta tags
- use a site URL and page title that contains the keywords you want to match
- don't do "black-hat" stuff (link farms, hidden text, etc.)
- use Google Webmaster Tools: <https://www.google.com/webmasters/tools/>