

CS3724 Human-computer Interaction

Web Usability Design Guidelines

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Web Usability

Web usability: Users/customers won't tell you if you don't have it!



2

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Guidelines for Web Design

- General guidelines for Web design relate to:
 - Organization and structure
 - Navigation
 - Decide on these two aspects only very generally first, then start to look at:
 - Format, content, and appearance
 - But content and navigation have to be done together
 - Housekeeping
 - Both of site and of individual pages

3

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Organization and Structure

- Make important information easy to find
 - What are most likely and/or important tasks a user will do at the site?
 - What information are they most likely to want to find most frequently?

4

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Organization and Structure

- Users tend not to form mental model of sites
 - Sites usually designed toward moving forward, not backing out
 - E.g., people use Back button far less than one would expect!
 - E.g., when users get lost, they don't back out to familiar territory; just keep going
 - Don't think much about where they have been
 - Users tend to come back to Home page to go somewhere else, even though needed link might be on page where they were

5

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Organization and Structure

- Use "site bites": Organize information so each piece fits on a single screen
- Organize site, when possible, for speed of presentation of information
 - Common Web user complaint is slow downloads!

6

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Organization and Structure

- Make site as browser-, platform-, and resolution-independent as possible
- Take great care with home page design
 - First impression very important
 - Gets seen more often than any other page
- Use frames with caution
 - Disorienting, restrict amount of presented information, necessitate more scrolling

7

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Organization and Structure

- Allow user to adjust frame boundaries
- Generally use to hold navigation options if main area of site changes frequently
 - Frames as tables of contents (TOC) with links can help user performance
 - User clicks on link in TOC frame and regular frame changes content
- Separate frame can also be used effectively for glossary, index, help

8

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Navigation

- Two key questions:
 - Where am I?
 - How do I get to X?
 - This is as far as most users go towards a mental model of a site
- Keep navigation as simple as possible
 - E.g., by following hierarchical organization
- Show site map for larger sites
 - Make sure user can always determine current location within site

9

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Navigation

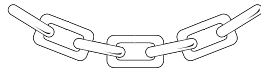
- Provide short-cuts for most likely task paths
- Never make a use scroll horizontally (from left to right)
- Minimize the need to scroll vertically (from top to bottom)

10

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Navigation

- Use links liberally but appropriately



- Text links are vital
 - Downloading delays can mean text links are visible first
 - Users may look at text links before trying image links
- Use meaningful link content-perhaps single most important factor in Web site
 - Use precise, unambiguous wording

11

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Navigation

- Avoid "click here" or "here" or "go to"
- Long (several words) links can be better for precision and differentiation; short wording often too vague
- Link *predictiveness*: Be clear where link will take user
 - May be single most important guideline of entire course! You might improve the average site's usability by 50% by following this one guideline.
- Roll-overs (fly-overs) may help explain link

12

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Navigation

- Corollary is *distinguishability*: How distinguishable is each link from the others?
- Users may select correct link by eliminating ones they do not want
- Text link layout
 - Affects user performance
 - Links embedded in text don't always work well especially for scanning
 - Studies found strong negative effect
 - Goes against intuition

13

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Navigation

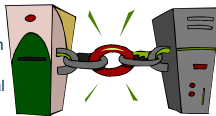
- Image (graphical) links
 - Often do not help performance much (over text links)
 - Often do not look selectable

14

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Navigation

- Link destination
 - Be consistent between words in links
 - Default user model of links takes user to another page in same site
 - Confusion can arise when link takes user to another site (especially one with totally different style)
 - User may find no links back into original site
 - Open new window with these links



15

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Format, Content, & Appearance

- Don't simply translate existing printed matter into hypermedia
- Don't overly use graphics, animation, and other distractions "just because you can"
 - "Gratuitous graphics" - costly in terms of downloading time, but distracting
 - E.g., blinking something clickable

Format, Content, & Appearance

- Graphic design doesn't automatically make a site "better"
 - Depends on how well graphics convey information
 - Graphics don't necessarily make sites more interesting ("sticky") to users
 - Study: Did not spend more time
 - Often not as important as some think in helping find information on Web
 - Some sites with best user performance have almost no graphics

Format, Content, & Appearance

- Maximize readability-fonts, color, contrast, layout, etc.
 - Old standards for books (typography) and GUI screens do not necessarily work on web
 - Primary design requirement: scanning
 - People skim and scan; people don't read all information

Format, Content, & Appearance

- Fonts
 - Use small number of fonts (generally up to three) with good legibility and distinctiveness
 - Put no more than 40-60 characters per line
 - Space words appropriately
 - Use upper- and lower-case characters

Format, Content, & Appearance

- Avoid ALL CAPS for blocks of text (e.g., except titles, captions, etc.)
- Generally use san serif fonts
- Minimize use of italics
- Don't underline text
 - Why? Confusing with links
- Make text large enough to read by someone over 40!
 - Regular text size can be controlled by user in browser

Format, Content, & Appearance

- Color
 - Probably the most misused and misunderstood characteristic of good design
 - Design first for monochromatic display
 - Use to emphasize important information: attention-grabber
 - Use to show object realistically
 - Use semantically to group, categorize, etc.

Format, Content, & Appearance

- Use no more than 5 or 6 colors semantically
- Use consistently throughout pages and site
- Remember many people are color blind!
- Black on light gray (not pure white), yellow on blue are good color combinations
- Don't use blue for large blocks of text

22

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Format, Content, & Appearance

- Layout
 - Have a "theme" for layout organization
 - Grid works well
 - Use template to guide design and ensure consistency
 - Can place emphasis on key parts of page
 - Generally put important information in upper left
 - English is read left to right and top to bottom

23

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Housekeeping

- Perform thorough usability evaluation of site before each release
 - Technical quality
 - Structure
 - Navigation
 - Readability

24

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Housekeeping

- Before each new release, view site with:
 - Numerous browsers
 - Different platforms
 - Images turned off
 - Different connection speeds
 - Different monitor sizes and resolutions
 - And at time of expected peak usage

25

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Housekeeping

- At least monthly, perform cobweb search: avoid link rot
 - Broken, stale links
- At least monthly, update site
 - Outdated, incorrect information
- Have contact information (e.g., to Webmaster) at least on home page



26

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