Navigation

CS 4640
Programming Languages for Web Applications

[Jakob Nielsen and Hoa Loranger, “Prioritizing Web Usability,” Chapter 6]
[Neilsen Norman Group, https://www.nngroup.com/]
Outline

• Am I there yet?
• Match the site structure to user expectations
• Navigation: Be consistent
• Navigation: Beware the coolness factor
• Reduce clutter and avoid redundancy
• Links and label names: Be specific
• Vertical dropdown menus: Short is sweet
• Multilevel menus: Less is more
• Can I click on it?
• Direct access from the homepage

Good navigation requires clear structure, controls, and links
Am I There Yet?

- Four key “findability” problems cause huge problems
  1. Navigation and menus
  2. Category names
  3. Links
  4. Information architecture (*How the information space is structured*)

- Good navigation design …
  * Shows users *where they are*
  * Shows users *where things* are located
  * Shows users *how* to access things in a methodical way

**Navigation is a map**
**Poor navigation is the worst problem in websites today**
Match the Site Structure to User Expectation

• Design for users, not builders (or managers!)
  • Do not show internal corporate organization
    • Users do not care about your org charts
  • Arrange products by user attributes, not brand
    • Example: Escalade sports

• Proper categorization example: City of San Diego
  • Optimized for ordinary citizens
Navigation: Be Consistent

• **Consistency** is fundamental to good navigation

• **Prime offenders**: Large sites with subsites or affiliates
  • Any university!

• **Pretty good example**: Pixar

• Check out [https://www.yale.edu/](https://www.yale.edu/) and search for Yale School of Art
Navigation: Beware the Cool Factor

• Save your **creative juices** for areas of site users care about
  • Moving menus is annoying and decreases user’s subjective satisfaction

• Minesweeping
  • Definition: Moving mouse in **search** of something clickable
  • Some **young children** enjoy minesweeping
  • Most users **hate** it

• Reduce **clutter** and avoid **redundancy**
  • Note: Options in middle **identical** to links at top
Navigation: Beware the Cool Factor

• Make sure your users understand your labels
  • Honda: 2006 vs. Now
  • What are the different car types? Pictures help a lot!

• Be brief
  • Users do not want to scan

• Start with keywords or information words
  • Do not use labels with redundant prefixes
  • Do not use “Here” or “Verify Here” or “More”
Menus

• Vertical **drop down** menus: Short is sweet
  • The longer the menu is, the harder it is to **control**
  • The farther users travel, the more they get **lost**

• **Multilevel** menus: Less is more
  • Limit fly-out menu to **two levels** *(American Pearl)*
  • **Three** levels is usually bad; **four** levels is a disaster
  • Avoid **unpredictability** of which menu items fly out

• Always a usability problem if menu **disappears** or is replaced by a different menu

  **Limit 1:** 7 +/- 2
  **Limit 2:** A mouse is hard to use
Can I Click It?

• Users should always know what is clickable
  • Blue is the default: Do not use blue for nonclickable text
  • High-lighting on mouse-over helps
    • But may require minesweeping
  • Standard button shapes imply clickability
  • Do not rely on the “hand” pointer
    • Novice users think arrow and hand pointer are identical

• Affordances: Whatever can be done with an object
  • Perceived affordance is crucial to design
  • Clickable objects need a perceived affordance of clickability
  • Unclickable objects should not look clickable

Doors should look like doors and walls should look like walls
Direct Access From The Homepage

• Directly link just a few high priority operations
  • Need to balance with other goals of homepage
  • Setting stage for site and informing users of full range of options

• Nielsen suggests 3 to 5 direct links from any specific area of homepage

• Good example: Chrome

Maximize what users want without overwhelming
Navigation within Pages

• Try to avoid horizontal scrolling

• **Navigation buttons** should always be visible
  • Top and bottom of the page

• **Action buttons** should always be visible
  • Top and bottom of the page

• Put most important content on the top

• **Logos and headers** should not use too much space

• Use **intra-page links** to help users keep their hands on the mouse
  • (“home” button is on the keyboard)
Navigation Anchors

• Make clickable items **obvious**
  • Use standard color (blue) and underline

• **Do not use** blue and underline for **emphasis**
  • Users will get confused

• **Highlight** clickable items with mouseover

• **Navigation should be on the top or the left**

• **Navigation buttons should not use much space**
Connecting with the World

• Remember that users do not always come in through the “front door”
  • Bookmarks, URLs emailed from friends, search engines

• Each page should have:
  • Clear identifiers to indicate its context
  • Titles that are meaningful without the context
  • Navigation to other pages in the website

• Every page must have a meaningful <TITLE> tag

• For every <img> tag, include a meaningful alt attribute

• Clearly indicate non-HTML links

• Add last modified notes – remember that creation is fun, but maintenance is hard
Summary

• Getting the structure and navigation right is very hard
• Maintenance and evolution are even harder!