

Navigation

CS 4640 Programming Languages for Web Applications

[Jakob Nielsen and Hoa Loranger, "Prioritizing Web Usability," Chapter 6]

[Sean McManus, "Web Design," Chapter 5]

[Nielsen 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: <https://www.escaladesports.com/>
- **Proper** categorization example: <https://www.sandiego.gov/>
 - **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 : <https://www.pixar.com/>
- Check out <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**
 - Example: [US Postal Service](#) (2003) vs [US Postal Service](#) (now)
 - 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**”

What do users want?

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 `` 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!