Website Design

◆ What separates good websites from bad ones?

◆ Appeal to target audience
Outline

- Web Site Organization
- Web Site Navigation – Best Practices
- Design Principles
- Web Page Design – Best Practices
- Page Layout Design Techniques
- Text Design – Best Practices
- Graphic Design – Best Practices

Website Organization

- Hierarchical

- Linear

- Random
Website Organization
Hierarchical

- Clearly defined home page
- Links to major site sections
- Break down site into small, easily managed topics (chunking)
  - Humans can store only 5-9 chunks of information at a time in short-term memory
  - Try not to place more than 9 major navigation links on a page
    - or group links into no more than 9 sections
- Avoid too deep
  - three click rule – visitor should be able to get from any page on your site to any other page on your site with a max of three links
- Main section content pages should have same look and feel

http://memory.loc.gov/ammem/gmdhtml/gmdhome.html

Website Organization
Linear

- Pages are viewed sequentially (one after another)
  - often have 'next' and 'previous' buttons
- Often used for tutorial webpages

http://www.w3schools.com/html/
Website Organization

Random

- Offers no clear path through the pages
- Usually found on sites that try to be different
- Not used for commercial websites
  » why not??

Website Navigation

Best Practices

- Ease of Navigation
  » clearly labeled navigation links
  » breadcrumb trails

- Navigation Bars
  » make it clear where user is and where they can go next

http://www.grants.gov/index.jsp
Website Navigation

Best Practices

◆ Short Pages
  » less than three or more screen lengths
  » break long pages into multiple short pages

◆ Table of Contents
  » http://www.grants.gov/help/general_faqs.jsp

◆ Site Map and Site Search
  » site map – allows user to scan the options available over the entire website
  » http://www.grants.gov/sitemap/sitemap.jsp

Design Principles

◆ Repetition
  » repeat visual elements throughout design
  » ties the work together

◆ Contrast
  » add visual excitement and draw attention
  » good contrast between background color and text

◆ Proximity
  » group related items physically close together
  » unrelated items should have space between them

◆ Alignment
  » align elements to create visual unity
Web Page Design
Best Practices

◆ Load Time
  » want pages to load as quickly as possible
  » good practice to limit total file size of web page and all associated images to under 60 KB
    ✗ how long would it take a browser to download this?

◆ Perceived Load Time
  » amount of time user is aware of waiting while loading the page
  » break large page into smaller pages
  » divide large images into smaller component images
    ✗ each will display as it is loaded

Web Page Design
Best Practices

◆ Above the Fold
  » place important information near the top of the page
  » common screen resolution is 800x600, so amount of screen above the fold is about 410 pixels
    ✗ accounting for web browser menus and controls

◆ Web Page "Real Estate"
  » location of banners, headings, and navigation is important
  » eyes are most often drawn to the upper-left of the page, then go left to right
  » most valuable web real estate is upper-left corner and top center
Web Page Design
Best Practices

◆ Horizontal Scrolling
  » avoid it!
  » for 800x600 resolution, amount of viewable screen is about 760 pixels
◆ Adequate White Space
  » blank space in areas around blocks of text increases readability
◆ Target Audience
  » use of color http://www.usmint.gov/kids/
  » reading level http://underatedrock.com
  » animation http://www.drs.wa.gov/  
    ✗ don't use an animated GIF just because you have one!
  http://vischeck.com/vischeck/vischeckURL.php - check for color blindness

Web Page Design
Best Practices

◆ Browser-Friendly
  » design for browser most likely to be used by your target audience
    ✗ http://www.w3schools.com/browsers/browsers_stats.asp
  » test pages in various browsers
    ✗ http://browsershots.org/

◆ Common Screen Resolutions
  » 1024x768
  » 1280x1024
  » 800x600
Web Page Design
Components

- Page layout design
- Text design
- Graphic design

Page Layout Design Techniques

- Ice Design
  » solid or fixed design
  » page hugs the left margin
  » fixed-width block-level element used to format the page
  » right-hand side of page will often contain lots of empty space

Page Layout Design Techniques

◆ Jello Design
  » content is centered
  » may be of fixed width or 80% of page
  » typically more pleasing than Ice at higher resolutions
  » even margins on both sides

http://www.pbs.org/

Page Layout Design Techniques

◆ Liquid Design
  » fluid web page
  » content takes up 100% of window regardless of screen resolution
  » no blank margin on either side
  » often designed using CSS instead of tables

Page Layout Design Techniques

Differences

- Ice and Jello give the designer more control over layout than Liquid
  » but result in large empty areas when viewed at higher resolutions

- Liquid uses entire window no matter the resolution
  » important to test site with various resolutions

Text Design

Best Practices

- Long blocks of text and long paragraphs are hard to read
- Use short sentences and bulleted lists
- Use common fonts (Arial, Verdana, Times New Roman)
  » if visitor doesn't have an unusual font, a default will be displayed
- Sans serif fonts are easier to read on screen than serif fonts
- Be careful with font sizes
  » 12 point font is "medium" and 1 em
Text Design

Best Practices

◆ Use appropriate color combinations
  » contrast and look good together
  » http://www.colorcombos.com/
  » http://www.colorschemer.com/online.html

◆ Be aware of line length and alignment
  » use white space and multiple columns

◆ **Bold** or *emphasize* important text

◆ Hyperlink phrases or words, not entire sentences

◆ Avoid the use of "click here"

◆ Check spelling and grammar

---

Graphic Design

Best Practices

◆ Choose colors on the web color palette
  » 216 colors available
  » http://www.w3schools.com/Html/html_colors.asp

◆ Use antialiased text in images
  » smoothes jagged edges

◆ Use only necessary images
  » faster load times

◆ Keep images as small as possible
  » faster load times
Graphic Design
Best Practices for Accessibility

- Some users access webpages through screen readers can't handle images
- Make sure site is usable even if images are not displayed
- Use alternate text for images
- Consider a text-only version of the page
  » http://www.nhc.noaa.gov/?text
- Limit the use of animation
- Provide a method to skip repetitive navigation links
  » http://www.nihseniorhealth.gov/

Copyright and Fair Use

- We cannot arbitrarily copy others' text and images
- Copyright and fair use overview
  » http://fairuse.stanford.edu/
    Copyright_and_Fair_Use_Overview/
- Website permissions
  » http://fairuse.stanford.edu/
    Copyright_and_Fair_Use_Oversight/chapter6
    - Ways to stay out of trouble
    - Transferring information to and from a website
    - Connecting to other websites
Final Thoughts

◆ Google's Matt Cutts evaluates good and bad sites
  » http://www.youtube.com/watch?v=ecI_hCBGEIM
  » 1:00 – icarkits.com
  » 9:00 – fazalfurniture.com
  » 18:30 - hivinsite.ucsf.edu
  » 22:30 – blogsense.biz
  » 25:00 – comfortfeetshop.com
  » 32:00 – closebys.com
  » 40:25 – plug for Live HTTP Headers plug-in
  » 43:00 – plug for Google Webmasters console

◆ How well do ODU and ODU-CS websites follow best practices?
  » http://www.odu.edu
  » http://www.cs.odu.edu

Summary

◆ Web Site Organization

◆ Web Site Navigation – Best Practices

◆ Design Principles

◆ Web Page Design – Best Practices

◆ Page Layout Design Techniques

◆ Text Design – Best Practices

◆ Graphic Design – Best Practices