

CIS 300

Web Design and Development

Chapter 3 | Web Design Basics

Learning Outcomes

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- Describe the most common types of website organization
- Describe principles of visual design
- Design for your target audience
- Create clear, easy-to-use navigation
- Improve the readability of the text on your web pages
- Use graphics appropriately on web pages
- Apply the concept of Universal Design to web pages
- Describe web page layout design techniques
- Describe the concept of responsive web design
- Apply best practices of web design

Design for Your Target Audience

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Consider the target audience of these sites.

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Web Page Design Browser Compatibility

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- Web pages do NOT look the same in all the major browsers
- Test with current and recent versions of:
 - Internet Explorer
 - Firefox
 - Chrome
 - Safari

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Web Page Design Screen Resolution

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- Test at various screen resolutions
- Most widely used: 1024x768, 1366x768, and 1280x800



- Design to look good at various screen resolutions
- Centered page content
- Set to either a fixed or percentage width

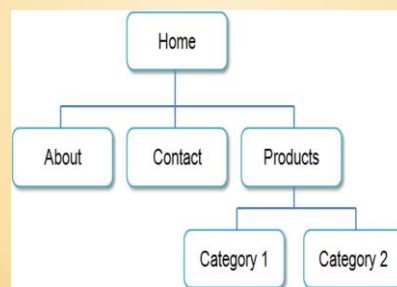
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Hierarchical Organization

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- A clearly defined home page
- Navigation links to major site sections
- Often used for commercial and corporate websites



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Linear Organization

- A series of pages that provide a tutorial, tour, or presentation.
- Sequential viewing

Visual Design Principles

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- Repetition
 - Repeat visual elements throughout design
- Contrast
 - Add visual excitement and draw attention
- Proximity
 - Group related items
- Alignment
 - Align elements to create visual unity



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Design to Provide for Accessibility

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“The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect.” – Tim Berners-Lee

- Who benefits from increased accessibility?
 - A person with a physical disability
 - A person using a slow Internet connection
 - A person using an old, outdated computer
 - A person using a mobile phone
- Legal Requirement: Section 508
- Standards: WCAG 2.0

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Design for Accessibility

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- Web Content Accessibility Guidelines 2.0
WCAG 2.0
 - <http://www.w3.org/TR/WCAG20/Overview>
 - <http://www.w3.org/WAI/WCAG20/quickref>
- Based on Four Principles (POUR)
 - Perceivable - Content must be easy to see or hear
 - Operable - Interface components in the content must be operable by both mouse and keyboard
 - Understandable - Content and controls must be easy to read and well-organized
 - Robust - Content use correct syntax and function on popular operating systems, browsers, and assistive technologies.

Writing for the Web

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- Avoid long blocks of text
- Use bullet points
- Use headings and subheadings
- Use short paragraphs

Design “Easy to Read” Text

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- Use common fonts:
 - Arial, Helvetica, Verdana, Times New Roman
- Use appropriate text size:
 - Medium, 1em, 100%
- Use appropriate line length
 - Between 50-75 characters is recommended
- Use strong contrast between text & background
- Use columns instead of wide areas of horizontal text

More Text Design Considerations

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- Carefully choose text in hyperlinks
- Avoid “click here”
- Hyperlink key words or phrases
- Do not hyperlink not entire sentences
- Chek yur spellin (Check your spelling)

Using Color on Web Pages

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- Computer monitors display color as intensities of red, green, and blue light
- RGB Color
- The values of red, green, and blue vary from 0 to 255.
- Hexadecimal numbers (base 16) represent these color values.

#FFFFFF	#FFFFCC	#FFFF99	#FFFF66	#FFFF33	#FFFF00
#FFCCFF	#FFCC99	#FFCC66	#FFCC33	#FFCC00	
#FF99FF	#FF99CC	#FF9999	#FF9966	#FF9933	#FF9900


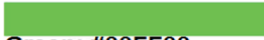

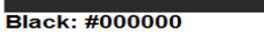
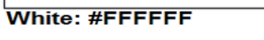
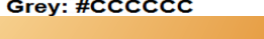
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Hexadecimal Color Values

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- # indicates a hexadecimal value
- Hex value pairs range from 00 to FF
- Three hex value pairs describe an RGB color


Red: #FF0000

Green: #00FF00

Blue: #0000FF

Black: #000000

White: #FFFFFF

Grey: #CCCCCC

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Web Color Palette

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- A collection of 216 colors
- Display the most similar on the Mac and PC platforms
- Hex values:
00, 33, 66, 99, CC, FF
- Color Chart : <http://webdevbasics.net/color>

#FFFFFF	#FFFFCC	#FFFF99	#FFFF66	#FFF333	#FFF000
#FFCCFF	#FFCC99	#FFCC66	#FFCC33	#FFCC00	
#FF99FF	#FF99CC	#FF9999	#FF9966	#FF9933	#FF9900
#FF66FF	#FF66CC	#FF6699	#FF6666	#FF6633	#FF6600
#FF33FF	#FF33CC	#FF3399	#FF3366	#FF3333	#FF3300
#FF00FF	#FF00CC	#FF0099	#FF0066	#FF0033	#FF0000

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Use of Color

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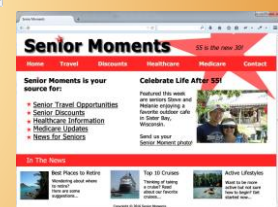
Appealing to Kids & Preteens



Appealing to Everyone



Appealing to Young Adults



Appealing to Older Adults

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Making Color Choices

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- How to choose a color scheme?
 - Monochromatic
 - <http://meyerweb.com/eric/tools/color-blend>
 - <http://www.0to255.com>
 - Choose from a photograph or other image
 - <http://www.colr.org>
 - Begin with a favorite color
 - Use one of the sites below to choose other colors
 - <http://www.colorschemedesigner.com>
 - <http://www.colorsontheweb.com/colorwizard.asp>



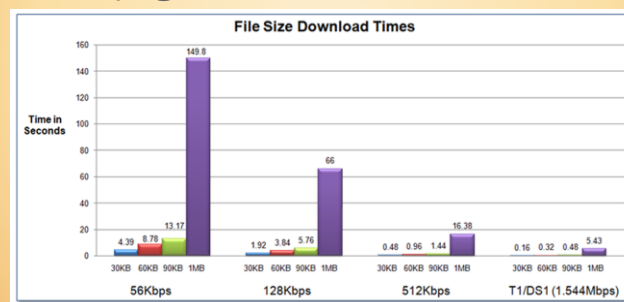
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Web Page Design Load Time

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- Watch the load time of your pages
- Try to limit web page document and associated media to under 60K on the home page



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Navigation Design

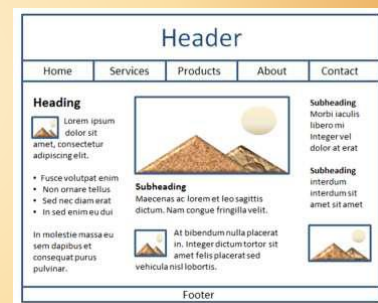
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- Make your site easy to navigate
 - Provide clearly labeled navigation in the same location on each page
 - Most common – across top or down left side
- Consider:
 - Navigation Bars
 - Breadcrumb Navigation
 - Using Graphics for Navigation
 - Dynamic Navigation
 - Site Map
 - Site Search Feature

Wireframe

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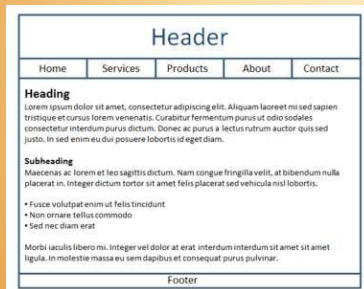
- A sketch of blueprint of a web page
- Shows the structure of the basic page elements, including:
 - Logo
 - Navigation
 - Content
 - Footer



Web Page Design Page Layout (1)

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- Place the most important information "above the fold"
- Use adequate "white" or blank space
- Use an interesting page layout



This is usable, but a little boring. See the next slide for improvements in page layout.

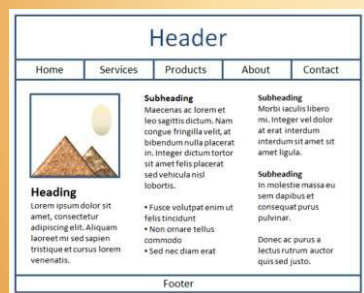
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Web Page Design Page Layout (2)

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- Place the most important information "above the fold"
- Use adequate "white" or blank space
- Use an interesting page layout



Better

Columns make the page more interesting and it's easier to read this way.

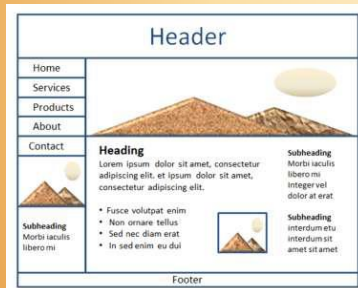
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Web Page Design Page Layout (3)

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- Place the most important information "above the fold"
- Use adequate "white" or blank space
- Use an interesting page layout



Best

Columns of different widths interspersed with graphics and headings create the most interesting, easy to read page.

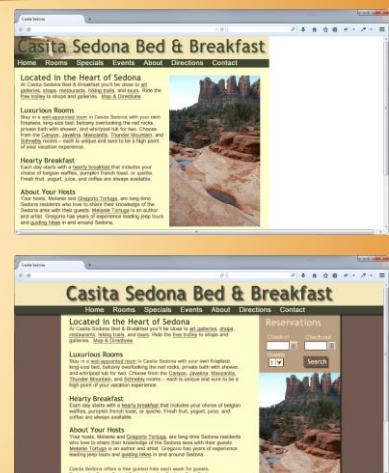
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Page Layout Design Techniques

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- Fixed Layout
 - AKA rigid or "ice" design
 - Fixed-width often at left margin
 - More appealing if fixed with content is centered



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Page Layout Design Techniques

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- Fluid Layout
 - AKA “liquid” design
 - Expands to fill the browser at all resolutions.
 - Adaptation:
 - Page content typically centered and often configured with a percentage width such as 80%



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Design for the Mobile Web

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- Predicted that by 2015, more users will access websites using mobile devices than with desktop computers.
- Three Approaches:
 - Separate .mobi mobile site
 - Host the mobile site within your current domain
 - Configure your current website for mobile display using responsive web design techniques



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Responsive Web Design

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- Ethan Marcotte, noted web developer
<http://www.alistapart.com/articles/responsive-web-design>
- Progressively enhancing a web page for different viewing contexts (such as smartphones and tablets) through the use of coding techniques, including flexible layouts and media queries.
- Examples:
 - <http://www.mediaquery.es>

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See you in the next video!