ICT Web Design
Lesson 1
Principles of Web Design Objectives

Web Site Categories & Domains

Top Level Domain-Identifies the type of organization to which the Web site belongs

Domain suffix, (such as .com, .edu) provides visitors with a clue to the purpose or location of the organization that owns the Web site

Web address

Consists of three parts:

- Server (host) name: name given to a server (usually "www")– assigned by the network administrator
- Domain name: the registered company domain name
- Top level domain: tends to identify what "type" of web site it is (such as .com)

All 3 parts together create a "unique" address just like a street address

Aesthetic Web Design

What does aesthetics mean?

- The look and feel of a website
- How engaging it is to viewers
- Invites exploration, etc.

Is more than just graphics and images:

- Layout
- Color scheme
- Typography

Aesthetic Web Design - Layout

The layout helps form relationships and define meaning of page elements

- Creates visual hierarchy and visual interest
- Increases readability and usability

Should follow the CARP design principles

- Contrast
- Alignment
- Repetition
- Proximity

CARP

Alignment:

- The placement, position, orientation and grouping of elements.

Proximity:

- The use of white space and logical structure (such as grouping related items) to create visual unity.

Contrast:

- Two or more page elements display differently in color, size, shape, texture, orientation, position or movement to group or separate elements on the page

Repetition:

- Repeated elements can include colors, shapes, textures, fonts, typography, graphics, spatial relationships and so on.

Aesthetic Web Design - Color

Web site's color scheme should enhance the page and help establish or reinforce branding.

Should provide a good contrast

RGB Primary colors:

- Red
- Blue
- Green

RGB Secondary colors

(Two Primary Colors)

- Magenta
- Cyan
- Yellow

RGB Tertiary colors

(1 Primary & 1 Secondary)

Color Schemes

- *Analogous-* color schemes use colors that are next to each other on the color wheel. They are usually a good match and create eye-pleasing effects.
- *Triadic* -colors are colors that are evenly spaced around the color wheel.
- *Monochromatic-* color schemes use varying colors, shades or tints of the same hue.
- *Complementary* -colors are across from each other on the color wheel.

Aesthetic Web Design - Graphics

Can enhance Web pages and help to create an engaging, interesting experience.

Popular graphics applications:

- Adobe Photoshop
- Adobe Fireworks
- GIMP
- Inkscape
- Paint.net
- Pixlr

High-quality, web-optimized images are needed

- Raster – images made of pixels (small dots)
- Vector – composed of lines and curves

Bitmap - Raster

Made up of grid of pixels

File Extensions:

- JPG (JPEG) – PNG – GIF – BMP - TIFF

Used for:

- Graphics - pictures
- Web & print

- Loses clarity when enlarged

Graphics - Compression

Graphics should complement and be relevant to the website's look and feel.

Media Compression:

- Lossless compression = an image is compressed & all the information can be restored
- Lossy compression = permanently eliminates certain information and image cannot be fully restored

Graphic File Formats

JPEG

- Most common file type
- No transparent background
- "Lossy" compression – file is compressed from original size and loses some of it's detail

PNG

- Now commonly used on the web
- Does maintain a transparent background
- "Loss less" compression
- Animated with the .APNG extension

GIF

- Can be animated
- Maintains transparent background
- Fewer colors (256 RGB)

Aesthetic Web Design - Typography

Fonts are the style of "type face" used to display text, numbers, characters and other "glyphs"

Typography refers to the arrangement and appearance of text.

- Typography concerns not only the look of the glyphs, but how they are placed on the page.
- Typography includes page margins, the amount of empty space between paragraphs or lines, the alignment of text, etc.)

Text as Graphics

- It is important to use "real text" as opposed to text as graphics.
- Text as graphics can become pixelated when enlarged

Font Readability

- Best practice is to use the most readable fonts.
- It is best to use fonts that are native to modern operating systems (installed on pc).

Font Families

Fonts are categorized into "families" based on their characteristics.

- **Serif** fonts are characterized by the flared extensions, or strokes, on the tips of such letters as f, l, and i
- **Sans-serif** fonts have plain endings, and appear blockier than serif fonts.
  - They do not have the flared extensions, strokes, or other kinds of ornamentation.
  - "Sans" means without, and "serif" refers to the extra strokes, or lines.
- **Cursive** fonts resemble hand-written pen or brush strokes.

- **Fantasy** fonts are primarily decorative, and are not designed to be used as the main font for long passages of text.
- **Monospace** fonts get their name from the fact that each letter takes up the same width of space.
- **Electronic Media** fonts are designed for on-screen viewing. It has a simple, straightforward design, and the characters or glyphs are not easily confused.

Proper use of fonts

- **Capitalization**
  - Typing sentences or phrases IN ALL CAPITALS is rarely a good idea. It may make sense under some circumstances, but only rarely.
- **Number of fonts**
  - Use limited number of fonts
  - Using too many fonts can clutter the document and make it more confusing.

Functional and Usable Design

A **functional** Web site renders without error and functions as expected:

- All internal and external links work
- All forms of interactivity function
- The page loads quickly

Usability assesses how easy a user interface is to use.

- Measures the quality of a person's experience while interacting with a Web site.
- Anticipate and responds to the needs of visitors (FAQ)
- Visitors can quickly and easily locate needed information

HCI and Writing Web Content

Human-Computer Interaction (HCI) = the study, planning, design and uses of the interaction between people and computers.

- **Learnability** – How easy is it for people to use the first time they try?
- **Efficiency** – Once users are familiar with the design, how quickly can they do what they want or need to
- do?
- **Memorability** – If someone doesn't use the design for some time, how easy will it be for them to become familiar with it again?
- **Errors** – How many errors users make, how quickly do they recover from them and how much trouble is it to fix?
- **Satisfaction** – How pleasant is it to use this product?

Writing Tips for the Web:

- Do not use industry jargon or slang
- Be cautious using humor or clever headings
- Write headings that clearly communicate the content of the Web page or subtopic
- Do not underline text or headings. They may be confused for hyperlinks

Browser Compatibility

Web sites should be tested in variety of browsers and devices to verify that they display consistently

Accessibility

Accessibility is the practice of making Web sites usable by people of all abilities and disabilities.

- Provide text links as an alternative to image links.

- Choose a high amount of contrast between page background and text colors.
- Do not use color alone to convey meaning, because you will exclude people who are color blind or use screen readers.
- Provide alternative text description for images and other visual elements.
- Summarize tables and provide headings as appropriate for line-by-line reading.
- Provide transcripts for audio and captioning for video.

Multimedia and Interactivity

Multimedia is the combined use of audio, video, animation and other interactive features.

Common Web page interactivity components:

- Clicking a link
- Moving the mouse to cause an image to appear
- Clicking buttons on a form or survey
- Customizing a Web page view or contents
- Watching a video or listening to audio
- Taking surveys or live chats

Multimedia and interactivity can make Web pages more interesting and informative