**Chapter 5:**

Hierarchical Organization:

A clearly defined home page.

Navigation links to major site sections.

Often used for commercial and corporate websites.

Hierarchical & Shallow:

Be careful that the organization is not too shallow.

Too many choices 🡪 a confusing and less usable web site.

Information Chunking

Research by Nelson Cowan: adults typically can keep about four items or chunks of items in short-term memory (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2864034/>)

Be aware of the number of major navigation links.

Try group navigation links visually into groups with no more than about four links.

Hierarchical & Deep:

Be careful that the organization is not too deep.

This results in many “clicks” needed to drill down to the needed page.

User Interface “Three Click Rule”

A web page visitor should be able to get from any page on your site to any other page on your site with a maximum of three hyperlinks.

Linear Organization:

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

Sequential viewing.

Random Organization:

Sometimes called “Web” Organization.

Usually there is no clear path through the site.

May be used with artistic or concept sites.

Not typically used for commercial sites.

Design Principles:

Repetition - Repeat visual elements throughout design.

Contrast - Add visual excitement and draw attention.

Proximity - Group related items.

Alignment - Align elements to create visual unity.

Design to Provide for Accessibility:

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A person using an old, outdated computer.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.

Design for Accessibility:

Based on Four Principles (POUR):

**P**erceivable - Content must be **P**erceivable.

**O**perable - Interface components in the content must be **O**perable.

**U**nderstandable - Content and controls must be **U**nderstandable.

**R**obust - Content should be **R**obust enough to work with current and future user agents, including assistive technologies.

Writing for the Web:

Avoid long blocks of text.

Use bullet points.

Use headings and subheadings.

Use short paragraphs

Design “Easy to Read” Text:

Use common fonts:

Arial, Helvetica, Verdana, Times New Roman.

Use appropriate text size: medium, 1em, 100%.

Use strong contrast between text & background.

Use columns instead of wide areas of horizontal text.

More Text Design Considerations:

Carefully choose text in hyperlinks.

Avoid “click here”.

Hyperlink key words or phrases, not entire sentences.

Check your spelling.

Color Theory:

Color Theory: the study of color and its use in design

Color Wheel - Primary Colors, Secondary Colors, Tertiary Colors

Color Schemes Based on the Color Wheel:

**Monochromatic** – shades, tints, or tones of the same color.

**Analogous** – a main color and two colors adjacent to it on the color wheel.

**Complementary** – two colors that are opposite each other on the color wheel.

**Split Complementary** – a main color, the color opposite it on the color wheel (the complement) and two colors adjacent to the complement.

**Triadic**- three colors that are equidistant on the color wheel.

**Tetradic** – two complementary color pairs.

Implementing a Color Scheme:

Choose one color to be dominant.

Use other colors in the color scheme as accent colors:

headings, subheadings, borders, list markers, etc.

Use neutrals such as white, off-white, gray, black, or brown.

Do not restrict yourself to web-safe colors.

Feel free to use tints, shades, or tones of colors

Verify Sufficient Contrast:

When you choose colors for text and background, sufficient contrast is needed so that the text is easy to read.

Use of Graphics & Multimedia:

File size and dimension matter.

Provide for robust navigation.

Antialiased/aliased text considerations.

Provide alternate text.

Use only necessary multimedia.

Graphic Design Best Practices:

Be careful with large graphics!

Remember 60K recommendation.

Use the alt attribute to supply descriptive alternate text.

Be sure your message gets across even if images are not displayed.

If using images for navigation provide plain text links at the bottom of the page.

Use animation only if it makes the page more effective and provide a text description.

There is no requirement to limit your color choices to web safe colors.

Use anti-aliased text in images.

Use only necessary images.

Reuse images.

Goal: image file size should be as small as possible with acceptable display quality.

Web Page Design Browsers & Screen Resolution:

Test with multiple browsers.

Internet Explorer, Google Chrome, Mozilla Firefox, Apple Safari.

Test at various screen resolutions.

Design to look good at various screen resolutions.

Centered page content

Set to either a fixed or percentage width

Navigation Design:

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

“Skip to Content” Hyperlink

Wireframe:

A sketch or blueprint of a web page.

Shows the structure of the basic page elements, including: Header, Navigation, Content, Footer, Image locations.

Web Page Design Page Layout:

Place the most important information "above the fold".

Use adequate "white" or blank space.

Use an interesting page layout.

Page Layout Design Techniques:

Fixed Layout:

AKA rigid or “ice” design.

Fixed-width often at left margin.

More appealing if fixed with content is centered.

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%.

Design for the Mobile Web:

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.

Mobile Design Quick Checklist:

Small screen size.

Bandwidth issues.

Single-column layout.

Maximize contrast.

Optimize images for mobile display.

Descriptive alternate text for images.

Avoid display of non-essential content.

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.

Web Design Best Practices Checklist:

Page Layout

Browser Compatibility

Navigation

Color and Graphics

Multimedia

Content Presentation

Functionality

Accessibility