L2 Notes

Wednesday, 13 March, 2019 8:00 AM

Objective:

1. Storyboard a website
2. Understand web design
3. Design for multiple resolution
4. Understand web dev process
5. Create site specification
6. Publish & test website

Web Page Structures:

1. Storyboard

a. Show all pages, indicate how they are linked together
b. Important to determine which structure is best for the type of information in website

2. Well designed structure

a. Navigate website without losing important information

3. Linear structure (like a bus station)

a. Linked with following and preceding page in ordered chain
b. Best for defined order
c. **Augmented linear structure**: additional link back to first page

4. Hierarchical structure (like a structure chart)

a. Link from homepage to specific pages
b. Pros:
    i. Easily move from general to specific and vice versa
    ii. Can move quickly to specific page, don't need to linearly traverse

5. Mixed structures

a. Combination of several different structure
b. Ex: Overall=hierarchical, links allow user to move **linearly**
c. **Site index**: Page outlining entire site and content
d. Ex: An e-book with a content page.

Website without coherent structure

1. Frustrating to use

Protected Structure

1. Sections off-limit except to specific audience

Understanding web design environment

1. Variables affect how pages appear:
    a. Screen resolution
    b. Device type
2. Design should be:
    a. Portable
    b. Accessible
3. **Code to standards**
4. Test compatibility:
    a. View in multiple browser
    b. Multiple operating system
5. **Browser compatibility issues:**
    a. Test with older and newer browsers

b. Minimize differences
c. Modern browsers: better adherence to web standards
d. Follow guidelines:
    i. Follow W3C standards
    ii. Validate code
    iii. Know audience
    iv. Test work in multiple devices/browsers

6. Connection speed differences

a. Users don't like to wait
b. Test page at different connection speed
c. **Bandwidth:** Amount of data transmittable in fixed amount of time.

7. Browser cache/download time

a. **Web servers:** Store web pages
    i. Serve file for download
b. **Web address** connect to specific web server
    i. On return visit: computer load file locally unless content changed
c. **Browser cache:** stores local files
    i. Reuse graphics to decrease load time

8. Device & operating issues

a. Many devices used in the market
b. Test with as many devices on:
    i. Monitor & display software
    ii. Browser version
c. **Screen resolution**: width & height of computer screen in pixels
    i. Most common: 1024*768 & 1366*768
d. **Widescreen monitors:**
    i. Widespread used
    ii. Solutions:
        1) **Flexible layouts**, layout change depending on content
            a) Advantages:
                i) User can control view of content
                ii) Less horizontal scrolling
                iii) More suited to text-based/simpler website
        2) **Fixed design**, stay centered in browser, can be zoomed in
            a) Designer control view of content
            b) Allow more complex website
            c) More control over text length
e. **Mobile devices:**
    i. Solutions:
        1) Content designed for mobile
        2) CSS Media Queries: style rules for different devices
    ii. Strategies:
        1) Separate mobile content: Use mobile version instead
        2) Responsive site: adapt to different screen resolution

Crafting Look & Feel of Site

1. Balance design & content

a. Avoid unnecessary design elements
b. Choose simpler & direct design
    i. Pros: Easy access

2. Plan easy access to information

a. Determine how user access content

b. Provide navigation choice for user
c. Provide direct links to most popular pages

3. Plan clear presentation of information

a. Make info **easy to read**
b. **Break text** into reasonable segment
c. Use **contrasting colors** that is easy for eyes
d. Use **white space**
e. Use **headings**

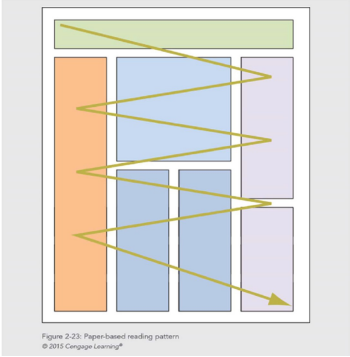
Creating unified site design

1. Plan **unifying theme and structure** for website
2. Plan **smooth transition**
    a. Use elements of consistency & repetition for smooth transition
        i. Eg:
            1) Place navigation element in same place
            2) Consistent font & colors
3. Take consideration of multiple pages
4. **Use grid** for visual structure
    a. Conceptual layout device
    b. Align content into columns in rows
    c. Provides visual consistency
    d. Provides page margins & gutters
5. **Use active white spaces**
    a. Use white space deliberately to guide the reader
    b. Active white space: White space used deliberately (eg: gutters)
    c. Passive white space: Result from mismatched shapes (eg: different shape size)
    d. Pros:
        i. Reduce clutter
        ii. Clarifies organization

Designing for user

1. Design for **user:**
    a. Find out users expectations
    b. Survey them
    c. Create profile of average user
    d. Find out their needs and wants (Eg: featured items, nested links)
2. Design for **interaction:**
    a. Decide whether user likely to read/scan content
    b. Design page for read/scan based on content type
3. Design for **location:**
    a. Consider **different ways** user can view websites (vertical/horizontal)
    b. Know expectations of user on navigation and content
    c. **Reading patterns:**
        i. Paper-based reading pattern (zig-zags across the page)

1)



ii. Landscape-based viewing pattern (a horizontal U that opens to the left side)

1)

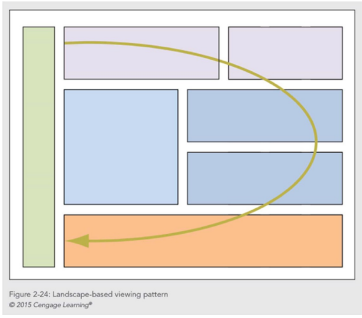


Figure 2-24: Landscape-based viewing pattern
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iii. F-based viewing pattern

1)

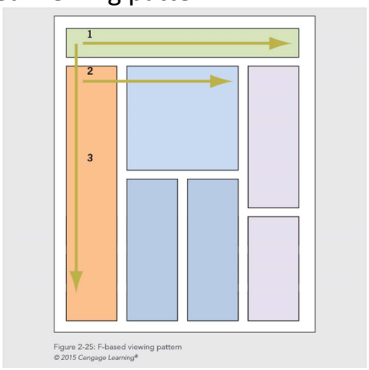

Figure 2-25: F-based viewing pattern
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4. **Keep flat hierarchy:**
    a. Don't make user navigate through too many layers of information
    b. Use **sections on topic-level navigation** pages
    c. Use **consistent navigation**
    d. Consider **providing site map**
    e. Organize content logically by theme
5. **Use effective hypertext linking**
    a. Determine where use can go
    b. Avoid "click here"
    c. Use contextual linking
    d. Provide plenty navigation options
6. **Prevent content overload**
    1. Divide content into smaller sections
    2. Present content structured well
    3. Provide navigation cues
7. **Reformat content for online presentation**
    1. Redesign paper content for online display

Designing for accessibility

1. Accessible to users with disabilities/technological barriers
2. Include common accessibility features
3. Follow W3 Accessibility Initiative

Understanding web site development process

1. Good project plan
2. Have project manager
3. Adopt development framework
4. **Utilize project life cycle**
5. Have requirements and specifications
    1. Client: give requirements for site -> list of customer needs
        i. Create task for them
    2. Prepare **project specification:**
        i. Page layout sketches

ii. Audience definition
iii. Technical requirements

6. **Information design & taxonomy**
    1. **User analysis:** guides design of site content
        i. Create meaningful content navigation
    2. **Taxonomy**
        i. Classify & name content in hierarchy
        ii. Structures hierarchy and navigation
7. **Graphic Design & Page Template creation**
    1. Prepare sketches & page mockups
    2. Mockups: easily edit with feedback
    3. Wireframe stable web design
        i. Wireframes:
            1) Show type of information and how it will be arranged
                a) Does not include design features (color/details)
            2) Offer complete view of final design.
        ii. Example:
            1)

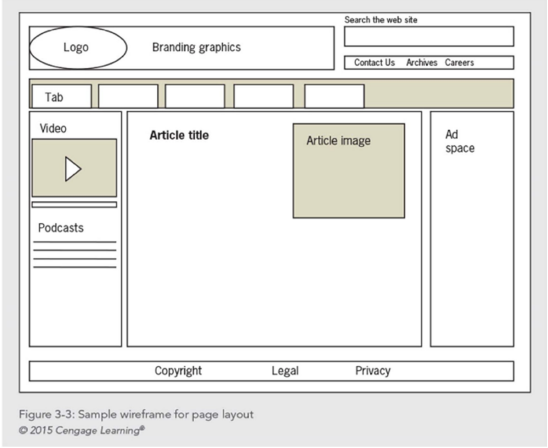

Figure 3-3: Sample wireframe for page layout

8. **Construction & content development**
    1. Technical development + testing
9. **Quality Assurance and User Testing**
    1. **QA:** Validate technology
    2. **User Testing:** Validate design
    3. Cross-platform testing and usability testing
        i. Ensure content easily accessible
10. **Publishing and Promotion**
11. **Ongoing Maintenance**
    1. Keep content fresh

Create site specification

1. Client
2. Site goals
3. What do you hope to gain
4. Requirements
5. Requirements feasibility
6. Judge success of site
7. Target audience
8. Limiting technical factors
9. Budget
10. New site or upgrade

Identify content goal

1. Examine type of site (billboard, special interest, blog, wiki, etc)

Usability testing

1. Vary subjects
2. Formalize testing
3. Feedback form
    1. Questions:
        i. Difficulty of accessing information
        ii. Difficulty of reading
        iii. Difficulty of navigation
        iv. Visual attractiveness of websites
        v. What area do you like most
        vi. What area do you like least
4. Multiple browsers, OS, devices, connection speed, link testing