CGT 141/CPT 141 Lecture 12 Wk 7
Information Architecture, Accessibility and Internationalization

Information Architecture and Design
- Process
  - **Analysis**
    - Content – graphics, text, media assets, copyrights
    - Audience
      - Human attributes: age, background, skill, knowledge
      - Technical attributes: connection speed, browser, resolution, color depth
    - Development – what do you have to develop with
      - How much *time* will it take you?
      - How much *time* do you actually have?
      - Are you up to the *task*?
        - Is the project within your skill level?
        - Will it be too easy for you?
      - *Resources*
        - Do you have the Server(s), software, people…
  - **Design**
    - Content
      - Site Functional Analysis – features, unique capabilities
      - Culminates in a site content/function diagram (site map)
      - Created with "known" variables
      - (it takes a long time to copy content…)
        - Hire a monkey
    - Visual Design
      - What will it look like?
      - And what will the user expect it to look like?
      - Compare to the competition and receive feedback.
      - Usability perspective – perform testing
      - Don't allow them to nit-pick
        - You'll never finish the job
        - YOU are the expert
    - Technical Architecture
      - File structure diagram
        - Site structure
          - Directories, drives, etc
          - Number of certain types of files (asp, html)
      - Connection to resources
        - Resource diagram
          - Where is the server? – Where is the DB?

- **Prototyping**
  - Generally set up multiple prototype dates
    - Initial prototype
      - Contains the new aesthetics – look & feel
    - Second prototype
      - Contains "mostly" functional links
      - Begins to show client how the site will function
    - Final prototype
      - Fully functional, ready to deploy
  - Testing
    - Usability testing
      - Is the navigation effective? How many clicks does it take to find a given piece of data?
      - Is the site intuitive – do you find items where you expect them to be?
    - Web accessibility testing
      - Haptic devices
      - Voice / Handwriting recognition
      - Many others
  - Revision and analysis
    - Make final revisions based on feedback from prototypes and testing.
- **Production**
  - Issues
    - Feature creep
      - Don't let it happen to you!!!
      - This is when you are asked to complete a task that was not initially mentioned in the contract.
      - My answer: "Sure, let refigure the budget to see how much additional cost that will be."
    - Check-offs
      - Usually after each of these steps.
      - Checkpoint after the analysis phase, after each prototype, etc.
- **Quality Assurance Testing**
  - Additional testing to ensure that the product you are delivering is, in fact, a quality product.
  - Fully functional, no broken links, etc.
- **Implementation**
  - Port it to their production server to go live.
  - This should be your final stage of the contract.
- **Maintenance**
  - Add a maintenance clause to your contract.
  - i.e.: "a separate contract will be drawn up for maintenance if the client wishes to retain the developer's services for a given period."

Content Organization Structures (what the end-user will see)
- Logic
  - Alphabetical
  - Chronological
  - Geographical

- Audience/Content
  - Topical
  - Task-oriented
  - Authentication credentials (audience specific)
  - Metaphorical
- Navigation structures
  - Hierarchical
    - Broad – long pages, few links
    - Narrow – short pages, many links
  - Global versus local labeling
  - Ad hoc structures
- Recommendations
  - Most web content structures are a combination of various types
  - Think like the end user would. Where and when will they need what?
  - Ultimately: present the user with what s/he needs, when s/he needs it, not before and not after. Provide the easiest way for them to get what they need.

Accessibility
- Concerns three things:
  - Maintaining backward compatibility with older user agents
  - Maintaining compatibility with a variety of physical devices
  - Maintaining specific compatibility with alternative (usually non-visual) user agents
- Based on W3C recommendations (http://www.w3.org/WAI/)
  - Web Accessibility Initiative (WAI)
  - Guidelines:
    - Provide alternatives to auditory and visual content
    - Don't rely on color alone.
    - Use markup and Stylesheets to properly separate content from formatting (style)
    - Clarify natural language (for speech devices)
    - Don't use tables for page formatting (data tables only).
    - Ensure that new technologies transform gracefully (e.g. test!)
    - Permit user control of time-based elements (animation, blinking, etc.)
    - Ensure accessibility of embedded interfaces (Java, Flash etc.)
    - Design for device independence.
    - Be aware of and use interim solutions. In some cases, acknowledge non-compliance.

- Provide content and orientation information. What would your site be like if your eyes were shut?
- Provide clear navigation mechanisms.
- Best approach: ensure documents are clear and simple.
  - Ultimately: testing is the only true way to ensure compatibility with all these. However testing in all environments, under all conditions, is impossible. Design for as much of your audience as you can.
  - Shoot for at least 84% of the audience. Try to reduce the other 16% as low as possible.

Internationalization
- Primarily deals with issues concerning character sets in the digital environment

Also deals with content provided by a site.