Usability Inspection

**Topics**

- Heuristic, or expert, inspection
- Advantages and disadvantages
- Web usability inspection
- Usability inspection process

**Usability Inspection**

- Sometimes called heuristic evaluation or expert evaluation (Nielsen 1990)
  - A guidelines-based formative usability evaluation technique
  - Team selects small, tractable set (about 10) most important guidelines as basis for inspection questions
Usability Inspection

- Performed by usability expert as inspector
  - Does not use actual users
  - Role of expert is “usability problem detective”
  - Inspectors ask themselves questions about what would cause users problems
  - Inspector gives expert opinion predicting usability problems (not just own critical incidents)

Advantages

- Some think inspection is single most cost-effective method to improve usability (my experience tends to support this)
- Provides design team with perspectives and experience independent of design team
- Complements usability testing with users
- Especially appropriate for early development stages

Disadvantages

- Does not use real users
- Not a substitute for lab-based usability testing
- Experts may not know system in depth
- May find “false positives”
- May find higher proportion of lower severity problems
Assessing a Web Design Via Inspection

- Web inspection is same as for GUI, but based on Web-specific design guidelines (next section in this course)
- Examples
  - Availability and accessibility of needed information
    - Information is there AND user can easily find it
  - Navigation
    - Helps user avoid getting 'lost in space'
  - Scanability of links
    - Users can follow sequences of link without having to read much text

Usability Inspection

- Typical usability inspection process
  - Expert usability specialists (not on interaction design team) assess specific user interaction design by determining guidelines violated and supported
  - "Double expert" even better
  - Typical 2 or 3 inspectors
    - Gives diversity of opinion
    - Typically, one inspector finds only about 30% of problems
    - Can have up to 5 inspectors for important part of design

Usability Inspection

- Typical usability inspection process
  - First, each inspector separately assesses design of site
    - Open, no pre-defined tasks
    - Take notes
    - Watch especially for first impressions
Usability Inspection

- Then, all inspectors work together
  - Merge problem lists
  - Select most important to fix
  - Brainstorm suggested solutions
- Based on findings, experts recommend modifications to improve usability of site

Usability Inspection

- Reporting results
  - List guidelines used in inspection
    - Example: Does the design give good user feedback throughout?
  - For each guideline
    - Give specific examples of design violations (and excellent examples of support!)
    - Give URL, explanation, and screen image (if available)
    - Give suggestion for redesign (if appropriate)

Usability Inspection

- List “Top 3” (or 4 or 5) suggestions for modifications
  - To give biggest improvement in usability
  - Based on most frequently visited screens, screens with most usability problems, guidelines most often violated, minimum resources to make changes