TOPICS:

• Organizing usability issues: The User Action Framework
• Selected design guidelines, with examples
• Guidelines specifically for Web design
• Usability inspection
• In-class exercises on guidelines
USABILITY INSPECTION

• Sometimes called *heuristic* evaluation or *expert* evaluation
  [Nielsen, 1990]

* A guidelines-based formative usability evaluation
  technique performed by usability expert as inspector

- Role is "usability problem detective"

- Inspector gives expert *opinion* predicting a usability
  problem (not just own critical incidents)

• Typical usability inspection process

* Expert user interaction designers (not on user interaction
  design team) assess specific user interaction design by
  determining guidelines violated and supported

  "Double expert" even better

- Typically 2 or 3 inspectors

  Because of the limitation that one inspector finds about 30% of problems. Can have up
  to 5 inspectors for important part of design

* Inspectors ask themselves questions about what would
  cause users problems
USABILITY INSPECTION

• Typical usability inspection process (continued)

* First, each inspector separately assesses design of site
  - Open, no pre-defined tasks
  - Take notes
  - Watch especially for first impressions

* 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
ASSESSING A WEB DESIGN VIA INSPECTION

• Some suggested categories for inspection of Web site (very broad)

* Availability and accessibility of needed information
   Info is there AND user can easily find it

* User-centered wording
   Speak user's language

* User-centered control
   Keep user feeling in control

* Consistency
   Use similar design for similar concepts, terminology, graphics

* Error prevention
   Make it goof-proof; recognition vs. recall

* Feedback
   Let user know what has happened, to determine where in site they are.
ASSESSING A WEB DESIGN VIA INSPECTION

• Specific guidelines for category: Availability and accessibility of needed information

* Is important information available?

* Is important information easy to find?

* Are pages/frames organized into good "sight bites"?

* Are frames used effectively and efficiently?

* Is text laid out attractively and effectively?

* Are color/graphics/animation used appropriately?

* Are layout, graphic, and text components easily "scan-able" by user?

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USABILITY INSPECTION

• Reporting results

* List guidelines used in inspection

   Does the design give good user *feedback* throughout?

* For each guideline

   - Give specific examples of design violations (and excellent examples of support!)

   Message resulting from clicking twice (about 5 sec. apart) to request information:
   "Processing; do not make duplicate requests"

   - Give URL, explanation, and screen image (if available)

   - Give suggestion for redesign (if appropriate)

* 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
USABILITY INSPECTION

• Advantages

* Probably single most cost-effective method to improve usability [C. Kreitzburg, Cognetics Corp.]

* Provides design team with perspectives and experience of independent expert inspectors from outside development team

* Complements usability evaluations with users

* Especially appropriate for early development stages

* Gives diversity of opinion and is efficient
USABILITY INSPECTION

• Disadvantages

* Does not use real users

* Not a substitute for lab-based formative evaluation

* Inspectors may not know application in depth

* May find "false positives"

  Things that violate, but for good reason

  E.g., Non-alphabetized (randomly ordered) list of service providers to prevent unfair advantage

* Individual inspectors usually detect less than 30% of usability problems (need a team)

* May find higher proportion of lower severity problems