Getting Them There: A Small-Scale Usability Test of a University Library Website

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Prior Situation

- 2011: Old text-heavy site needed a redesign
- University introduces new CMS requiring all university sites to migrate in a short time-frame.
  - Quickly discovered that all advanced code/includes would be stripped
- Some discussion amongst librarians over layout of content, but time was limited.
Old old site
Migration to CMS
Need to Redesign

- Consensus existed in the library that there were problems
- Needed to do some testing before making changes
- Identified areas of focus:
  - What the library provides:
    - Services
    - Resources
  - What Students want/need:
    - How do I...?
Testing Models

- Some standardized question areas were identified based on prior research (Letnikova, 2008)

- Format Type:
  - Form for user to fill out
    - Pros: no user anxiety
    - Cons: problem with accuracy of data (users may treat it like test, and think they have to “get it right”)

- Observation
  - Pros:
    - Can observe actions
    - Can provide clear instructions
  - Cons: user might be nervous with observer
    - IRB Approval needed
Test Model: Observation

- Test subject seated at computer
- Monitor shows mouse movement of the test subject
- Two observers enables one to catch things that another might miss.
Sample

- **Who to use**
  - Student Workers
  - **Rationale:** point of study is to identify initial problems of layout. These students are theoretically knowledgeable.
    - If they have trouble → clear indication of problems

- **Sample size**
  - While larger studies may be more granular (VandeCreek, 2005) Small numbers can work for this type of test.
  - Testing one user is better than none.
Nielsen model

\[ N \left( 1 - \left(1 - L \right) ^ n \right) \]

“where \( N \) is the total number of usability problems in the design and \( L \) is the proportion of usability problems discovered while testing a single user. The typical value of \( L \) is 31%, averaged across a large number of projects we studied. Plotting the curve for \( L =31\% \) gives the following result:” (Nielsen, 2000).
Instrument

- Test required no name, a number was given to each test subject.
  - Each observer had the associated number on their result form
- Instructions
  - Read aloud to subject
- Demographics
  - User fills out
- Content:
  - Action statements, not questions.
  - Results observed and recorded by observers
  - User-told to indicate when done with each action (or told to move on if it was clear that a solution was not being found)
Sample Questions

- Find if the library has a copy of *Huckleberry Finn* by Mark Twain.
  - Find whether it is checked out or not.
  - Find instructions on how to locate it on the shelves

- How can you find scholarly articles on humor, child development and education?
  - Assume you have been unable to find anything satisfactory. Find a guide or a person to help you in your research

- Find out if the library has the item referenced in the citation below:
Analysis

- Since the sample was small, mostly qualitative
- Able to group some answers together
- Could tie together some results based on various demographic characteristics
  - Not looking for statistical data
  - Looking for any cases of confusion
Results

- Some Expected
- Some not
- No student spent more than 20 minutes
  - No subject wanted to spend more than 3 minutes, most less
- Minor problems with Testing Instrument
  - Instructional wording, briefer, more explicit
  - Convert to Action Statements
  - Sampling issues
Results (cont)

- No trouble finding catalog
  - (note: sample were student workers who should have been familiar with this)
  - Keyword search seemed okay
  - Trouble with title or author searching

- Need for less “library language”
  - e.g. “Interlibrary Loan”

- “Research Help”
  - Concept of “Research Guides” seemed alien

- Needed clearer access to citation help
Results (cont)

- Need for content which did not exist:
  - Tutorials; guides
    - Students did not understand what “Research Guides” were
  - More explanatory terminology
  - New navigation systems

- Overall navigation troubles
  - Artifacts of CMS (e.g. left navigation)
  - Users unwilling to go more than one click deep

- Need to have better system of content promotion
Current Site
Current site (2)
Current site (2a)
Current site (3)
Conclusions/Discussion

- Potential problems with redesign
  - Evidence students still have trouble understanding some concepts
  - No significant change in usage stats
  - Problems may be due to
    - Usage may be tied to instruction
    - Trouble with overall site (outside of library control)

*but*

- Tool can be re-used
  - Larger sample, different groups:
    - Undergrads
    - Grad Students
    - Faculty
