

The Usability Audit: A Do-It-Yourself Approach to Improving Usability

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Session Overview

- Backstory
- Survey of Usability Approaches
- Designing the Usability Audit
- Conducting the Usability Audit
- Results
- Lessons Learned
- Q&A

The Backstory

- Financial Software Services Company
- Several Suites of Web Applications
- Need to Write UI Standards
- Need to Assess Current Usability
- Perfect Job for a Doc Specialist

Primer on Usability Methods

- Inquiry Methods
- Inspection Methods
- Testing Methods

***Classification scheme copied from James Horn*

Usability Methods Primer

Inquiry Methods

Ask users questions about a product or their work.

- Contextual Inquiry
- Ethnographic Study/Field Observation
- Interviews / Focus Groups
- Questionnaires

Usability Methods Primer

Inspection Methods

Inspect a product or interface to evaluate usability.

- Heuristic evaluation
- Cognitive Walkthrough
- Formal Usability Inspection

Testing Methods

Test an interface or prototype with representative users.

- Thinking aloud protocol
- Question-asking protocol
- Performance measurement

Designing the Usability Audit

Heuristic Evaluation seemed to match our needs but...

Wanted to use Tasks as in a Cognitive Walkthrough, but...

Needed to work with resource limits, so...

Combined Principles of Heuristic Evaluation with Cognitive Walkthrough use of tasks.

Design Tasks

1. Define a set of heuristics to evaluate against
2. Define a set of questions to ask in evaluating each heuristic
3. Define the user task scenarios to test
4. Devise a scheme for measuring usability problems

Defining the Heuristics

- “Universal” heuristics from Jakob Nielsen
- Adapted for Financial sites
- Additional Comments by Bruce Tognazzini

Defining the Heuristics

1. Make users feel secure
2. Easy navigation
3. Visibility of system status
4. Match between system and the real world
5. User control and freedom
6. Consistency and standards

Defining the Heuristics

7. Error prevention
8. Recognition rather than recall
9. Flexibility and efficiency of use
10. Aesthetic and minimalist design
11. Help users recognize, diagnose, and recover from errors
12. Provide Help

Defining the Heuristics

1. Make Users Feel Secure

Users need to feel secure when doing Internet banking. Sites need to be secure, make security measures visible and explain to users how to use sites in the most secure manner, providing appropriate warnings where necessary.

Define Questions to Ask

- Wanted to make the process objective and repeatable.
- Clarify standard points to consider when evaluating for each heuristic
- Formatted these into a checklist for evaluation = Reusable Tool!

Define Questions to Ask

Easy Navigation

- Do menu choices and links effectively set expectations?
- Do menu choices and links match the destination page titles?
- Do menus give easy access to any part of the application?
- Are procedures that span screens linked by Next and Previous controls if appropriate?
- Is the user's place in procedures and in the application plainly indicated?
- Are "transition points" to outside vendor sites or functions clearly demarcated and easy to navigate?

Define Questions to Ask

Consistency and Standards

What are some Questions to Ask?

Define Questions to Ask

Consistency and Standards

- Is screen layout and the placement of controls consistent with the rest of the product?
- Is scrolling used consistently?
- Are tables used consistently?
- Are controls--such as list boxes, check boxes, and radio buttons--used in standard fashion?
- Are keyboard actions consistent internally and with other web applications? ?

Define the User Tasks

- Purpose: To evaluate products in terms of real user behavior
- Deliberately high-level and generic
- Attempt to find common tasks across products
- Examples:
 - Logging In
 - Forgot Password
 - Check Account balance
- Product Task Matrix – another Reusable Tool!

Devise a Method of Measuring Problems

- Purpose: To quantify results
- Nielsen again the font of wisdom
- Severity Scale and Score sheets – Another Reusable Tool.

Devise a Method of Measuring Problems

| Severity Scale | |
|----------------|--|
| 0 | I don't agree this is a usability problem. |
| 1 | Slight problem. Correction might be a useful enhancement to the product. |
| 2 | Minor problem. Likely to cause users some delay or confusion. |
| 3 | Major problem. Likely to cause users significant delay or frustration. |
| 4 | Severe problem. Likely to prevent users from completing a task. |

Conducting the Usability Audit

1. Attempt to perform each defined task and observe each UI component encountered along the way.
2. At each step of each task, evaluate whether the UI satisfied the relevant usability heuristics.
3. Complete a usability checklist for each task, noting each problem and also "usability bonuses."
4. Compiled the checklists for the product, then ranked each problem according to the severity scale.
5. Report for the product, including a narrative of each task (with screen captures) and the resulting usability checklists and severity score sheets.

Conducting the Usability Audit

Take a look...

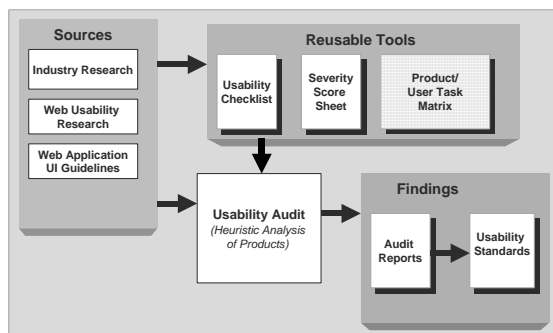
UI: Amazon.com

Task: Purchase a Gift Certificate

Results

- A Usability Report on each product
- Spreadsheet for statistical analysis
- Reusable tools
 - Usability checklist and severity scoresheet
 - User/product task matrix
- Usability Standards
 - Focused on products and industry
 - Addressing actual usability issues

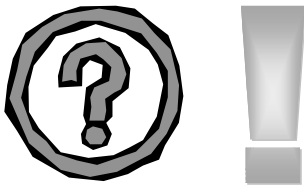
Project Summary



Lessons Learned

- Obtain executive buy-in
- Sell Early / Sell Often
- Focus on actual user tasks
- Create tools for reuse
- Make standards clear and easy to implement

Questions or Comments



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Sources

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Bruce Tognazzini, "First Principles of Interactions Design" at <http://www.asktog.com/basics/firstPrinciples.html>