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TC 518

May 7, 2008

Exercise 4 – Wants & Needs & Cognitive Walkthrough: “TiddlyWiki Thesaurus”

Introduction and Procedure

Due to the nature of our project, we decided a contextual inquiry was out of the question. The web application is not routinely used and there is not yet a well developed user population. We chose to run a wants and needs analysis session followed by a cognitive walkthrough, making use of the think-aloud protocol. Three Information School graduate students were recruited from the current LIS 537 course, Construction of Index Languages. They were familiar with principles of thesaurus construction, but were unfamiliar with TiddlyWiki applications in general and the TiddlyWiki Thesaurus in particular.

Wants and Needs Analysis

We met in small room in Mary Gates Hall. Marisa facilitated the session, and Khue acted as scribe, recording user comments on a whiteboard. Ann and Michael observed and took notes. We posed a question to the participants: “Imagine an ideal software-based thesaurus building tool. What would it look like, and what would it do?” The following ideas featured prominently:

- Search and browse: by category, maintain history (recent searches)
- Different ways to view and display the terms: hierarchical, associative, tag clouds
- Sort and manipulate terms: graphical representation of sorting (drag and drop terms into buckets), visual relationships (Soergel “card sort” of thesaurus terms)
- Minimize tedium of data entry: reduce typing, include auto-completion, variant spellings, display relationships during term harvesting, tag terms with source document

Cognitive Walkthrough

Each researcher accompanied a participant to a different computer, and asked them to perform a series of exploratory tasks. The participants were asked to:

- “Take a few minutes to explore and tell us what you find/think.”
- “Search for the term **eclipse** as many ways as you can.”
- “A new planet called **Goofy** was found:”
 - “Tell/show us how you would add the term.”
 - “Why did you do it that way?”
- “Use the classified schedule to find **coordinate systems** and tell us the relationships you find.”
- “Find **astronomical seeing** and tell us about it.”

Several themes emerged from the two sessions:

- Functional expectations: the application didn't function like a normal website, and didn't follow website conventions)
- Unfamiliar/unclear names of tools and features
- Hidden features and controls
- No help or guidance documentation
- Seems disconnected from the thesaurus construction processes

Design Implications

- New documentation should be written that focuses on using the TWT to construct a thesaurus
 - Brief introduction
 - Context sensitive help.
 - Answers to Frequently Asked Questions
 - Wizards for commonly performed tasks.
- Look and feel should be consistent with standard web site conventions
 - Use of color, highlighting, and fonts.
 - Handle browser operations (back button, CTRL-F for find, etc.)
- Provide more advanced search features
 - Maintain search history.
 - Enable search by categories, facets, tags.
- Make data entry easier and more efficient
 - Auto-completion feature.
 - Anticipate relationships between terms.
 - Track source of harvested terms (cite documents).
- Visualize term relationships
 - Tag clouds
 - Trees
 - Buckets
 - Soergel card sort