Workshop: Evaluating Web Sites – The Impact of Information Design

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In constructing a Web site, how you organize and present your data can be key to making your site accessible by both naive and skilled users. That was the point stressed by presenters from Carnegie Mellon University’s School of Design. The group discussed the importance of information design and demonstrated how organizations can evaluate Web sites.

Dan Boyarski described information design as the process of transforming data into pertinent and usable material. Keeping the audience in mind is important in designing an accessible Web site, he said.

In many cases, the way the data are organized can help or hurt a user’s ability to answer questions. To make that point, Boyarski showed a clump of text without punctuation, spacing, or indentations. By adding periods, returns, bullets, and color, he transformed the virtually unreadable text into an easy-to-access document. Dividing the information into meaningful chunks makes it easier for readers to find needed material, he said.

Boyarski also provided five “interaction design principles” to consider when designing a Web site, as follows.

**Consistency**
Web-page features should appear and function similarly throughout the site. Consistent site design will make it easier for users to find what they are looking for.

**Predictability**
Consistent site design leads to a predictable site. Users should be able to predict how and where to go on the site to find information.

**User control**
Web-site users “are more comfortable and productive if they feel they are in control.”

**Visual appeal**
Making the site visually appealing can be important because “much human-computer communication takes place in the visual realm.”

**Logical navigation**
To make the data usable to users of all abilities, the site should be designed in a logical manner. Some questions for designers to consider are, Where am I? Where have I been? Where can I go? This makes it easy for users to find the specific information they are looking for.

Through a series of case studies, the presenters demonstrated how to use volunteers to evaluate the accessibility of Web sites. This technique, known as “think-aloud protocols,” asks people to verbalize their thoughts as they attempt to navigate a site and complete specific tasks. In one case study, Jean Wible discussed how she used four Carnegie Mellon University students to help her evaluate a Web site, www.nextwave.org. She assigned each student a list of tasks and then listened as students talked through their attempts to find the information.

First, Wible asked her volunteers to locate an article on finding a job. Her first participant tried to find a search option on the site but could not. That participant ended up leaving the Web site to find the article.

Her second volunteer also found the site hard to navigate because it did not have consistent features throughout. This participant “did not know where to go next”, Wible explained.

Her third participant gave up on a task when it was not clear where to go for the information. This volunteer thought the site was more focused on design than on information.

The fourth participant liked the Web site because it was relevant to her pursuits. She also thought that a more prominent search function would be helpful, Wible said.

Using real user experiences, Wible concluded that the Web site’s editors’ expectations did not match the users’ needs. Some possible solutions were to add a full-search function to the site. She also thought site editors could make clearer where users should start.

Diane Kucharczyk demonstrated the “thinking-aloud protocol” with Philippa
Benson. Kucharczyk asked Benson to find information on www.mrs.org, a site Benson had never used before. Sitting in front of the group, Benson scanned the site looking for specific articles, subscription information, and submission deadlines. She spoke as she moved around the site, making comments like “I have no idea where to go” and “It bugs me that I can’t see the whole site.” After looking throughout the site, she gave up on finding the specific article. She eventually found the submission information and fairly easily found the subscription details.

With a group at Carnegie Mellon University, Kucharczyk evaluated the same site. Many of the participants had trouble in searching the site because it had too many choices and the vertical navigation bar was confusing. She suggested possibly restructuring the site, inserting a search by keywords to cut down on the text, and separating the parent organization from the current journal issue.

Overall, Boyarski concluded that the “think-aloud protocol” works as an evaluation technique for many Web sites because it is not expensive and provides practical information to the editors and designers by having real users do the evaluation.

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