

Usability News is a free web newsletter that is produced by the Software Usability Research Laboratory (SURL) at Wichita State University. The SURL team specializes in software/website user interface design, usability testing, and research in human-computer interaction.

[Barbara S. Chaparro](#), Editor

Sitemap Design: Alphabetical or Categorical?

By [Michael Bernard](#)

Not finding what you are looking for is one of the most common problems users have when using the World Wide Web. In fact, it has been stated by users that they fail to find specific information that they are searching for 42% of the time (Nielsen, 1998). This can be attributed to our natural inability to simply sift through large amounts of seemingly unorganized information. It has even been suggested that the presentation of too many information paths may create what is known as the "art museum phenomena," in which a user fails to pay appropriate attention to the hyperlinks in a website because of their sheer number and their lack of organization (Chen & Wang, 1997). One recommended method to reduce this phenomenon is to organize websites' primary hyperlinks within a single webpage, known as a sitemap (Utting & Yankelovich, 1989).

Sitemaps may help users conceptualize the framework of a website and enable them to become more efficient in finding information. For this reason, it is becoming more common to see sitemaps within websites. However, it seems as though each website follows a different sitemap design. In an attempt to sort out which sitemap design is most appropriate, we compared search performance with three of the major types of sitemap designs. In our last issue of [Usability News](#), which examined the websites of the Fortune 500 companies in the US, we reported that of the websites that included a sitemap, categorical and alphabetical sitemaps were used the most. In this study, we compared search performance with these two types of sitemap designs. We defined search performance as the number of attempts needed to find specific information, the number of successful searches, and user preference. One sitemap (called Alphabetized) had hyperlinks organized alphabetically, as with common alphabetized hyperlink indexes (see Figure 1).

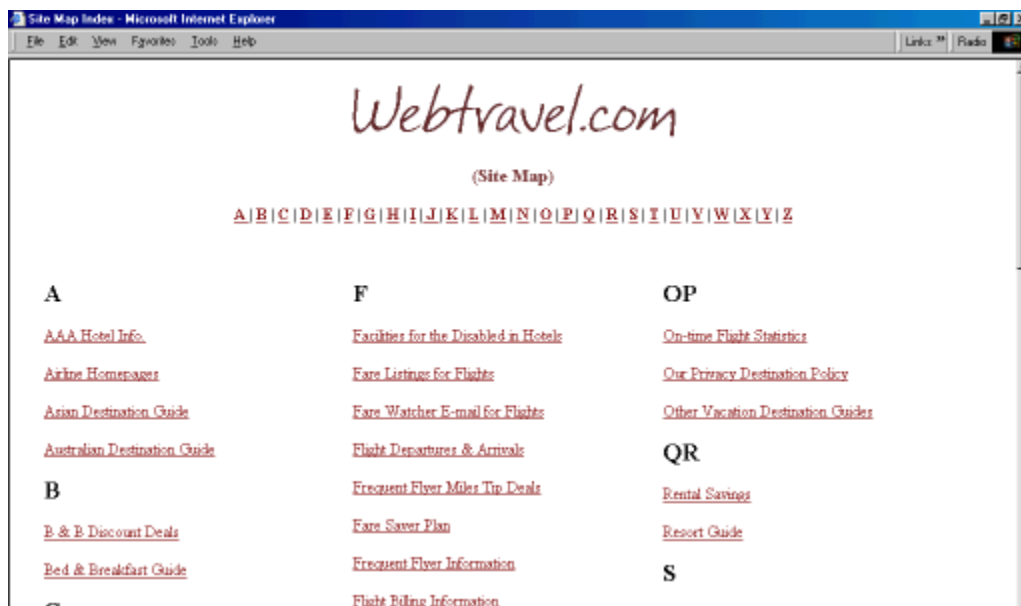




Figure 1. Alphabetized Index sitemap.

Another sitemap (called Full) had hyperlinks organized by category, whereby all hyperlinks under six respective categories were presented on the computer screen at one time (see Figure 2). This menu structure resembled the most common type of sitemap used today.



Figure 2. Full categorical sitemap.

The third type of sitemap (called Restricted) initially presented only the six main hyperlink categories (see Figure 3). The users had to click each topic category in order to see the hyperlinks for that category. This type of sitemap is designed to make the content more manageable by reducing the amount of presented information at one time. Thus, once users have decided which category is most appropriate, he/she would click the specific category button to display the corresponding hyperlinks for that category. The users could then choose the appropriate hyperlink from that category.

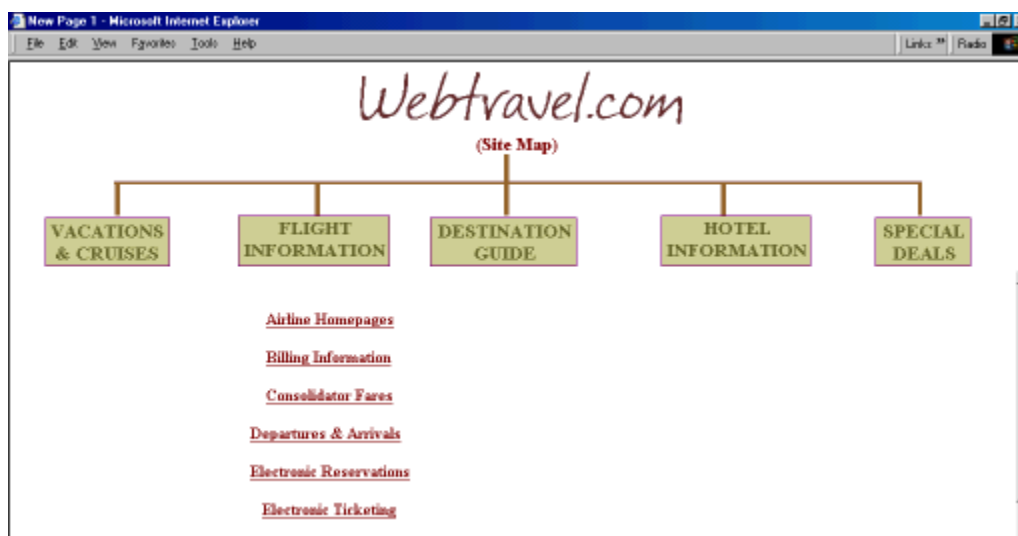




Figure 3. Restricted categorical sitemap.

Our results found that the Full and Restricted categorical sitemaps had significantly higher numbers of successful searches (fewer failed attempts) than the Alphabetized sitemap. In addition, users had significantly higher perceptions of ease-of-use for Full and Restricted sitemaps over the Alphabetized sitemap (see Figure 4). They were also significantly more satisfied and found the searches to be easier with the Full and Restricted sitemaps than with the Alphabetized sitemap. In the ranking of the three sitemap designs, the Full sitemap was most preferred.

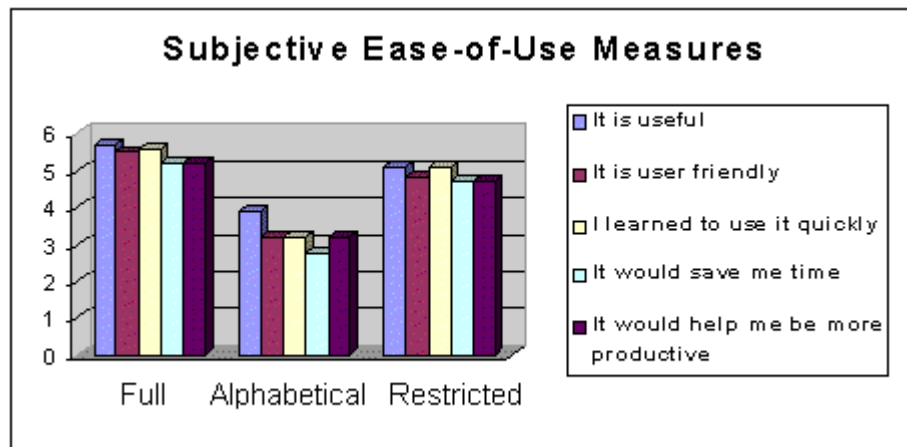


Figure 4. Ease-of-Use Measures (6-point Likert scale)

The results from this study demonstrate that sitemaps with categorical menus are superior in both search performance and satisfaction to alphabetized sitemaps. One of the main reasons that was cited by the participants for this superiority, was that it was more difficult to find information in the Alphabetized sitemap because they had to guess how this information was worded in the menu. Since index menus are generally based on the alphabetization of the first letter of the hyperlink names in the menus, users may have to guess the wording of the hyperlink name in order to search in the appropriate area. This may have led to lower levels of search performance and satisfaction.

The participants also stated that they favored the categorical sitemap designs (Full & Restricted) because the information was organized into specific categories. Moreover, the Full sitemap design was considered superior to the Restricted sitemap because it was, according to the participants, easier to compare information between the categories. This was said to be more important to the participants than reducing the number of presented hyperlinks to a more manageable number. However, some participants who initially preferred the Full sitemap stated that the Restricted sitemap may be superior if they were more familiar with the hyperlink menus. That is, if they used the sitemap on a regular basis, the benefit of reducing display crowding may outweigh the greater ease of comparing these menus within different categories. Future studies could examine this question by studying the familiarity of hyperlink menus within specific sitemaps for differences in rates of performance and satisfaction.

Note: A paper based on this work was presented at the Human Factors and Ergonomics Society 44th (2000) Annual Meeting in San Diego, California and can be found in the conference proceedings.

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