



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

Examining Web Design Conventions Across Site Types

Guest Contributor: [M.R. Patel](#), Managing Director of Fifosys Limited www.fifosys.com¹

This study examined the viability of a Category-Based Usability Theory, which indicates that usability of websites should be accounted for on the basis of the category the website is in. While Web design experts have provided general design guidelines, it is believed that with different site types, design guidelines may differ.

If the conceptual model of the user is to be observed then true usability must come from analyzing current practices of Web design of the most popular websites within a category or field, and not merely by following recommendations from Web usability experts.

To determine if there are categorical differences across websites, home pages from the 30 most popular websites of 2001 voted for by the general public. The following were evaluated for each site: (i) Layout (tables or frames, frozen or liquid), (ii) Text (number of words on page, use of color, animation), (iii) Links (number of links, color of links), (iv) Images (number), (v) Screen size (to determine if horizontal and vertical scrolling required), (vi) Speed, and (vii) User Aids.

It was hypothesized that:

- 1) Significant differences will exist between most category averages, implying certain conventions existing within those categories.
- 2) Websites within a certain category will be better represented by the results of the category than the overall results.
- 3) No website will load within the 10-second download guideline on a 56.6K Modem Internet connection (Nielsen, 1996). However the majority of websites should do so with a 1Mbps Internet Connection.
- 4) Website's with an e-commerce objective will download noticeably quicker than those that only provide information.

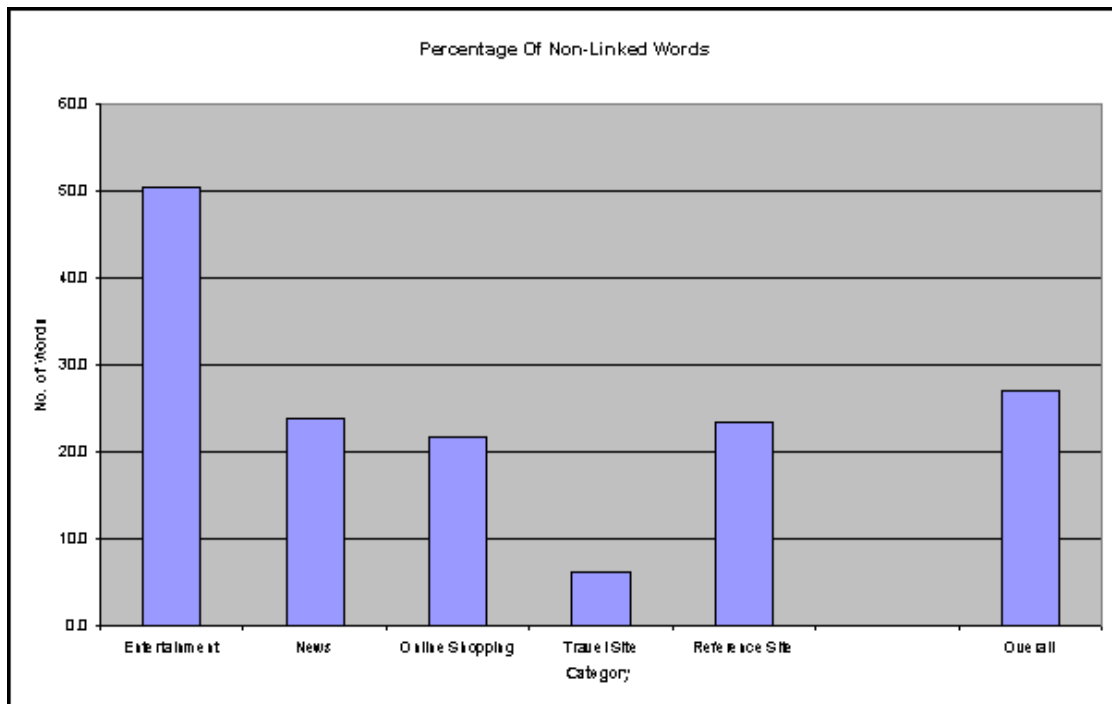
RESULTS

Layout

The testing of page layout showed that 93% of providers had designed their page using tables. Interestingly, all of the websites within On-line Shopping were liquid, whereas with the other categories only a third and at most in the Entertainment category 50% were liquid and the rest frozen. We defined sites as being liquid when their content width adjusts itself to the users screen size. The fact that all On-line Shopping websites have implemented this function in their design could imply that by squeezing as much content into the window as possible there are more products visible, hence more sales. It may also suggest that they are more concerned about the users of their sites who open up multiple windows when perhaps comparing products.

Text

Travel sites in particular have the lowest percentage of non-linked words. Entertainment sites had more information than any other category. The fact that 66% of Entertainment sites had pop-ups also shows that they may be trying to provide even more information. E-commerce sites as expected had the lowest number of non-linked words. This implies that very little information exists on these pages that do not have the objective of trying to encourage the user to click to a purchase page.

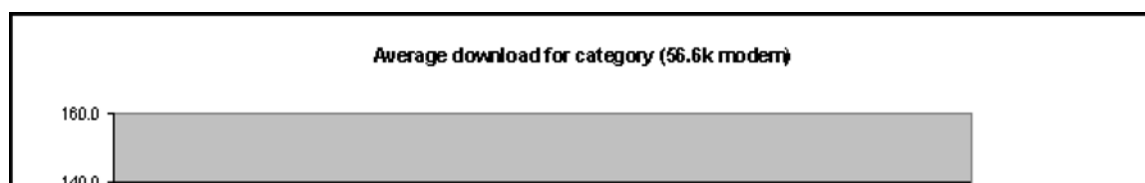


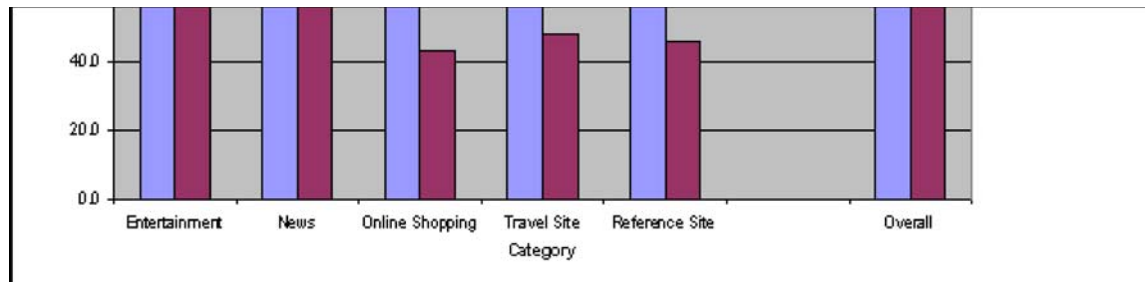
Screen Size

The general level of scroll for each home page was not that different between any particular categories. First, all websites were tested on an 800 x 600 screen size, which is very common on the smaller 15" monitors. The results showed that only 33% in the categories of On-line shopping and Reference sites had a horizontal scroll bar. When testing the larger screen size, 1024 x 768, 10% had a scroll bars. It is expected that the rest would have vertical scroll bars as they are popular on websites and have a large amount of content to provide the users, especially the information sites.

Speed

Sites in the on-line shopping category had the fastest download time (and smallest standard deviation) compared to the overall average. When carrying out the speed test using a 1Mbps connection all the websites downloaded from 3-10 seconds.





User Aids

User Aids were considered features such as Search, Account Log-ins, and About Us. All the websites to a certain extent had accounted for these functions. However, it was particularly interesting that in the category of on-line shopping all websites had a 'sign-in' field and 83% had 'search' and 'about us.' We could take this to imply that the provider understands that the user wishes to know more about the organization they are shopping from and wants to maximize the users experience by making it easier for them to purchase by including the search. With only 46% of other categories including a sign-in field it can be suggested that the on-line shopping providers plan and expect for return traffic to their websites.

CONCLUSION

In evaluating the resulting data we can identify that On-line shopping and Travel sites particularly stood out in that they were the fastest to download and had the least number of words. The fact that these sites have an e-commerce objective clearly shows in the design of the website. The fact that the majority of text on an e-commerce home page is links rather than detailed textual information, indicates that they have accounted for usability by giving the user exactly what he or she wants: direct links to make a purchase. This study demonstrated that there are differences in web design across site categories. Understanding these design conventions will help web designers address the needs of their target audience and enhance the usability of their site.

¹This article is part of a larger research thesis, which can be obtained by contacting Mitesh Patel at m.patel@fifosys.com.

REFERENCES

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