A Study of Web Usability for Older Adults Seeking Online Health Resources

By Shirley Ann Becker
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This article describes a study which evaluated whether older adults encounter barriers when searching health resources online. Specifically, the author argues that with a growing elderly population, it is pivotal to provide accessible health information online. She concludes that improvements in web design are necessary to accommodate vision, cognition, and motor skills of older adults

To test the accessibility of health information online, Becker ran a usability study that evaluated 125 web sites for design, performance, translation, and reading complexity. In our discussions, the group questioned how this subject pool was selected. Specifically, we questioned why she chose to evaluate 25 newspapers, 25 commercial sites, 25 non-profit sites, 50 state government sites. In addition, we questioned how the sites studied were selected. No reason is given for why the state government sites were chosen. It was unclear why state governments could be considered a major source for health information online. The author also makes a reference to using a search engine to generate the most popular commercial websites but does not identify what search engine was used or how it ranks retrieved documents. Finally, we questioned why the author did not make a listing of the sites evaluated available as part of the journal article.

In the usability study, a “qualified rater” evaluated the accessibility of the 125 websites. Our group questioned whether having only one evaluator of the sites was adequate to generate unbiased results. We also questioned why Becker did not identify the person who rated the web sites. It would have been helpful to know how the rater was qualified and what preexisting biases he or she might have.

To evaluate design, the author looked at pull-down menus, font-size, screen length, help and contact features, privacy statements, and existence of a site map. Her design criteria were heavily influenced by the National Institute of Aging/National Library of

Medicine web usability guidelines. We questioned why the author used some parts of the NIA/NIH guidelines and not others to evaluate design. In addition, it was unclear why she added some criteria that are not part of the NIA/NIH guidelines. For instance, it was unclear how the existence of a privacy statement would aid usability for older adults. In addition, we questioned why font size is a relevant design measure given that font size can be expanded in the browser window. However, we appreciated that Becker explained that not all browsers allow for text resizing and presented statistics on what percent of browsers allow for text resizing.

To evaluate web site performance, Becker looked at the speed of download time. While the group thought that this was a good element of accessibility to evaluate, we questioned why the researcher chose to use a FrontPage download time tool to measure download time. The FrontPage download time measure may be a good measure but no supporting evidence was provided.

When evaluating the accessibility of the sites studied, the author chose to test whether the sites offered a Spanish version. In the Spanish version, the evaluator primary looked at whether links, menu items, and buttons were in English. The author found that many Spanish websites had buttons in English. Our group had a number of critiques related to the translation part of the study. First, we questioned why the author chose to investigate the issue of translation and how it related to the accessibility of web sites for older adults. We questioned whether the inclusion of this issue might be connected to the fact that the author works in an area with a large Spanish-speaking population. We also questioned whether a representative sample of Spanish health information websites was studied. The author mentions that only 12 percent of the websites studied had a Spanish version. This would equate to approximately 15 websites. The group pointed out that it would have been helpful for the author to identify which sites had Spanish versions.

To evaluate reading complexity, the author used the Automated Readability Index (ARI) and Kincaid measures. She concluded that most sites were in the 9^{th} to 12^{th} grade reading level, significantly above the desired 6^{th} grade reading level. Our group questioned whether the desired reading level for health information should be as low as 6^{th} grade. It appeared to us that to accurately communicate health information you need to use higher grade level words for medical terms such as leukemia. In addition, we

thought the paper could have been improved by providing clarification on the advantages and disadvantages of the ARI and Kincaid readability measures.

In summary, although we agreed with the author that web site usability for older adults is an important issue, we questioned a number of aspects of her study. First, we questioned how and why she tested certain web sites and not others. We also questioned whether her evaluation process could ensure unbiased results. Second, we questioned why the author chose to test certain accessibility guidelines and not others. Finally, we questioned her emphasis on reading level and second language speakers and wondered whether these issues are relevant to the population of older adults as a whole.