Quality of Healthcare Websites: A Comparison of a General-Purpose vs. Domain-Specific Search Engine

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Abstract

In a pilot study, we had five typical Internet users evaluate the quality of health websites returned by a general-purpose search engine (Google®) and a healthcare-specific search engine (Healthfinder®). The evaluators used a quality criteria developed by Mitretek/Health Information Technology Institute. Although both search engines provided high quality health websites, we found some important differences between the two types of search engines.

Introduction

The explosive growth of Internet has led to an increased demand for health information. To guide consumers in selecting the appropriate search engines to use when seeking health information, we need to better understand the quality of the websites provided by the search engines. Therefore, we conducted a pilot study to compare the quality of the websites provided by a general-purpose search engine (Google®) and domain-specific one (Healthfinder®) using the Mitretek criteria.

The purpose of this study was to evaluate the effectiveness of a general-purpose and domain-specific search engine in retrieving high quality health websites. Keyword searches were conducted on three diseases using Google (general-purpose) and Healthfinder (domain-specific). Evaluators used the Mitretek criteria[1] for an in-depth analysis of the websites. We recruited five participants to evaluate the search engines using the Mitretek criteria. All the participants were familiar using search engines and had a medium level of health literacy. Each evaluator was given an overview of the Mitretek criteria and a brief demonstration on how to use the criteria in website evaluation. The criteria are: Quality of the source, Currency of the website, Relevance of the website, Recency of site evaluation, Quality of content, Design aspects, Interactivity of the site and availability of disclosures.

Procedure & Results

The study was conducted between January and March, 2006. We asked evaluators to find information on three medical conditions: Rheumatism, Back Pain, and Sudden Infant Death Syndrome (SIDS). We also interviewed the evaluators to get a better insight on their perceptions about quality of the websites. The results from our evaluation are shown in Table 1 below.

![Table 1](hit-web.mitretek.org/iq/default.asp)

Table 1. Evaluation Results for Google and Healthfinder

P-Value of the ANOVA test for the Aggregate Scores at α = 0.05 = .0369

Discussion and Conclusion

Completeness of Search Results: Healthfinder returned websites that were more complete in terms of information regarding the disease though Google returned a larger number of websites. The limited coverage provided users with more in-depth information on the search topic although they may not have access to as many websites when using a domain-specific search engine. Google because of its commercial nature appealed to the evaluators. When questioned about Healthfinder, the evaluators stated that they did not like the limited information coverage afforded by Healthfinder. They still seemed to want a wider selection (though irrelevant) provided by Google. In addition, we found that Google returned more informative .com websites and Healthfinder returned more informative .gov and .org websites. This leads to an interesting question about which domains provide more credible healthcare websites.

Designing Guidelines for Consumers: First, some criteria while being comprehensive were also cumbersome. Second, the guidelines did not match the user’s perception of quality criteria or they will not be utilized. Finally, the guidelines need to be explicitly incorporated into the design of the website so that search engines could use the guidelines as criteria in their filtering mechanisms.

References