USABILITY EVALUATION OF WEB SEARCH ENGINES USING

NAVIGATIONAL QUERY MODEL EXAMPLES FROM LIBRARY

AND INFORMATION SERVICES

*ABSTRACT*

*This paper is on usability evaluation of web search engines using navigational query model examples from library and information services. The paper adapted laboratory experimental design in which a study population of five web search engines, namely: Ask.com, Bing, Excite, Google, and Yahoo! web search engines, were selected for the study, and twenty one master degree students from the Department of Library and Information Technology, Federal University of Technology Minna, Nigeria were recruited and trained to perform usability evaluation of the selected web search engines by submitting queries drawn from library and information services to the various web search engines and assessing/judging their performances based on the relevance of the output results. The instrument used for data collection was an observation template/form used to record the observations made by the participants. The instrument contains five queries each of which has six usability effectiveness constructs/statements developed. The study revealed that there is no significant difference in usability effectiveness between web search engines using navigational query model, i.e, overall the web search engines performed well, but at different levels of performances. Specifically, Google has the highest performance on usability effectiveness using navigational query model, as reflected in its mean score of*

*3.59. Yahoo! ranked second with a mean score of 3.50, the third is Ask.com which has the mean score of 3.29, followed by Bing with a mean score of 3.01, and lastly Excite which has a mean score of 2.73. Hence, it was recommended to Excite web search engine's designers to improve on their navigational query model for better performance and enhance their users' experience. This study will provide deeper understanding to search engine developers on the significance of usability performances of web search engines using navigational query models, so that they can put these into consideration when designing a web search engine.*

*Keywords: Information Retrieval Tools, Navigational Query Model, Library and Information Services, Usability Evaluation, Web Search Engines.*