Smart Online Library Catalog System with Query Expansion for the University of the Cordilleras

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Abstract : The Smart Online Library Catalog System with Query Expansion seeks to address the low usage of the library because of the emergence of the Internet. Library users are not accustomed to catalog systems that need a query to have the exact words without any mistakes for decent results to appear. The graphical user interface of the current system has a rather skewed learning curve for users to adapt with. With a simple graphical user interface inspired by Google, users can search quickly just by inputting their query and hitting the search button. Because of the query expansion techniques incorporated into the new system such as stemming, thesaurus search, and weighted search, users can have more efficient results from their query. The system will be adding the root words of the user's query to the query itself which will then be cross-referenced to a thesaurus database to search for any synonyms that will be added to the query. The results will then be arranged by the number of times the word has been searched. Online queries will also be added to the results for additional references. Users showed notable increases in efficiency and usability due to the familiar interface and query expansion techniques incorporated in the system. The simple yet familiar design led to a better user experience. Users also said that they would be more inclined in using the library because of the new system. The incorporation of query expansion techniques gives a notable increase of results to users that in turn gives them a wider range of resources found in the library. Used books mean more knowledge imparted to the users.

Keywords : query expansion, catalog system, stemming, weighted search, usability, thesaurus search
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