LibRank

New Approaches for Relevance Ranking in Library Information Systems

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Abstract

The aim of the research project LibRank is to identify, to implement and to systematically evaluate factors for relevance ranking in library information systems. This poster provides a short overview on the main objectives and used research methods with selected first results.

Keywords: Relevance ranking, Evaluation, Library catalogs

1 Background and objectives

Searching behavior of library users nowadays is strongly influenced by web searching (Hennies & Dressler 2006: 12). Queries usually consist only of a few words, users rely on default search and display settings and they expect ranked results with the most relevant documents on top positions of the result page. In order to meet the users' demands, search engine technology has become essential for library information systems (Lewandowski 2006; 2010). Discovery software (e.g. *Primo* by ExLibris or *Summon* by Serial Solutions), allows full text indexing and searching ("discovery"), full text access

("delivery") and a search result list ranked by relevance. Although ranking is provided, the particular algorithms are mostly not completely transparent and the potential of integrated search engine technology in terms of ranking has not been exploited to its fullest, yet.

The main objective of the LibRank project is to develop sophisticated ranking methods for library information systems based on relevance ranking in web search. That means, quality indicators, e.g. popularity, freshness, and the availability of materials (Lewandowski 2009: 587) need to be considered, as well as the usage context. Furthermore, the presentation of the search results has to be in consistence to users' expectations.

2   Methods

In a first work package, ranking factors suitable for library information systems have been identified. The factors can mostly be assigned to the group *popularity*, i.e. factors that indicate document quality or credibility based on the "wisdom of the crowds" principle. Such ranking factors are, for example, usage frequency, click popularity or the purchasing behavior of one particular library or library network.

Based on a practical application EconBiz, the information portal provided by the ZBW – Leibniz Information Centre for Economics, the ranking factors are being empirically evaluated. During a number of evaluation runs using the Relevance Assessment Tool (Lewandowski & Sünkler 2013), the implemented ranking factors are being systematically adjusted based on the particular assessments.

As a result of the project, a demonstrator and the evaluation framework, including search tasks and relevance assessments, will be stored in an Open Source Repository for reusability purposes.

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