

APPROACHES TO PERSONALISED WEB SEARCH TO IMPROVE RETRIEVAL QUALITY

NAIF ALORFI

Monash University, Dandenong Road, Caulfield East, Victoria, Australia

ABSTRACT

As resources on the World Wide Web (WWW) are growing rapidly, search engines have become an essential tool for people to find what they need on the Web. Millions of users' queries are processed every day, but current Web search engines still have many disadvantages. Search engines serve all users in the same way, regardless of who submits the query, even though each user will have different information needs, associated with each query they submit. For that reason, search results should be adapted to users with different information needs. To solve this problem, a personalised web search is proposed that looks closely at each individual user to predict their intentions. This review focuses on two major tasks in developing a personalised Web search engine: user profile modelling and personalised query expansion, both of which can help to improve information retrieval quality. A user profile aims to find the best user model to help a system to predict user intentions or interests while searching the Web, without any additional activity from the user, such as explicit feedback. Personalised query expansion is widely used to decrease query ambiguity in information retrieval, expanding the user's query by, for instance, adding extra terms with statistical relations to a set of relevant documents or by adding terms with a similar meaning.

KEYWORDS: Personalized Search, Search Engine, Information Retrieval, Web Search