Review

Adaptive Web search based on user profile constructed without any effort from users

Sugiyama K., Hatano K., Yoshikawa M. World Wide Web (Proceedings of the 13th conference on World Wide Web, New York, NY, USA, May 17-20, 2004) 675-684, 2004.
Type: Proceedings

Date Reviewed: 06/15/04

This paper deserves a broader audience than just the conference participants who first saw it. The authors consider Web search, for example, information retrieval on the Web, using user profiles. What makes this unique is their attempt to model the profile without requiring user effort. Previous models used user demographics and/or relevance feedback, which in turn required user effort to provide those demographics or relevance judgments.

The authors first consider a pure browsing history methodology, to combine long-term and ephemeral preferences. Then, this model is expanded to consider neighborhoods of similar users, and their preferences. In both cases, preferences are determined from search logs rather than from user interviews. The models rely heavily on term frequencies, which is to be expected, and which is a tried and true methodology. Experiments using TREC data compare relevance feedback, pure browsing history, and user neighborhoods offer positive support for the models, especially when the authors compare them to Google search results. Clearly, this opens the door to more work in this area.

One minor quibble is that, while the paper contains a solid literature review on personalized search mechanisms, including recommender systems and personalized Web sites, the authors could have expanded their literature search to include other work, such as that by Korfhage [1].

1) Korfhage, R.R. *Information storage and retrieval.* John Wiley & Sons, Inc., New York, NY, 1997.

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