

Towards automatic profile construction.

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This paper discusses a methodology for aiding a user in modifying his interest profile for a selective dissemination of information system. The authors conducted the experiments at the United Kingdom Chemical Information Service using the *Chemical Abstracts Condensates* data base.

The principal technique augments the user's profile with additional terms. The procedure involves searching the data base using the existing user profile, and then having the user judge the relevance (based on title and abstract) of the documents retrieved by the search. The terms in the relevant documents are then ordered by a "specificity" ratio of the number of relevant documents in which the word occurs to the total number of documents in which the word occurs. Words with a specificity ratio above a cutoff level are used to enhance the profile in the next search of the data base. This iterant procedure continues until no new relevant items are found. Presented with the resulting list of terms, the user can then modify his profile.

When the original and (user modified) new profiles were evaluated, (for 118 profiles) there was a slight increase in the precision of the new profiles and a "statistically significant" increase in the "relative recall" of the new profiles.

*M. D. Cooper*, Berkeley, Calif.