

Applications of Web Mining for Marketing of Online Bookstores

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Abstract

The purpose of this study is to identify potential customers of online bookstores through web content mining without customers' transaction records and demographic information. Our study first creates a list of scholars whose research field is in information technology and categorizes IT expertise. We then use a search engine to count the numbers of web pages related to scholars and expertise. These data are pre-processed with three key steps before being used: filtering abnormal data, normalizing data, and generating binary data. Association analysis and hierarchical cluster analysis are employed to generate the clusters of scholars and the clusters of expertise. In order to test the accuracy of using web mining to predict clients' interested booklists, our study evaluates the accuracy of prediction through survey. The results show that the accuracy rate of the recommended booklists targeted on potential customers (scholars) is statistically significant.

Keyword : web mining, association analysis, hierarchical cluster analysis, marketing, online bookstore.