國立中興大學圖書資訊學研究所

碩士學位論文

網路書評的助益性分析應用於館藏採購之研究

Helpfulness Analysis for Online Book Reviews Applied to Collection Procurement

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摘要

網路書店整合了書目、評論、推薦書單、暢銷書排行榜等，提供採購館員數據來評估每本書的價值，其中「書籍評論」為網路書店中能給予的重要資訊。書評雖然代表著讀者的喜好，但它存在著有用與無用等的問題，沒有助益性的評論會阻礙真正有價值的資訊被傳遞。如果能將無助益性的書評刪除，提高評論的質量，採購館員在判斷選書時就能更為準確。因此，一套有效的評論助益性(Reviews Helpfulness)判斷規則除了能讓評論的質量更好，更能提高排序的準確率，幫助採購館員不被無助益性的書評所誤導。

本研究旨在得出書籍評論之助益性預測模型，用來瞭解評論有助益性之原因，並判斷評論的助益性，將無助益性評論刪除後，將其應用於館藏採購推薦中。採用實驗法，擷取博客來網路書店之網路評論，利用迴歸模型來瞭解書評有助益性之原因，用來判斷評論的有與無助益性，將無助益性評論刪除後，計算每則評論之星級分數，將其應用於圖書館的館藏採購推薦。

本研究從文獻探討中得出六個特徵值，將此六個特徵值設為迴歸模型中的自變數，從中探討特徵值對助益性的影響，分別為評論長度、星級、情緒性、主觀性、可讀性和行為動詞，最後得出最佳的助益性預測模型中，最具有解釋力的自變數為評論長度與主觀性，可以解釋 22.8%的依變數。將迴歸預測的書評助益性與人工判斷的書評助益性兩者做比較，最後得出的準確率為 80%。接著將 10 本書分為兩種排序，一種為書籍依有助益性書評之平均星級做排序，一種為書籍依全部書評之平均星級做排序，並比對兩種排序與採購館員所做排序，驗證得知，若能將無助益性的書評排除，再由有助益性的書評之星級平均將書籍做排序，此排序會比由全部書評所做的排序更加接近圖書館員的喜好排序。由此得知，將判斷評論助益性之機制應用於館藏採購中，提高圖書評論的質量，得出一份書籍排序清單，能使館員不會被無助益性的評論有所誤導。

關鍵字：網路書店、網路書評、助益性分析、圖書館採購

Abstract

The online bookstore provides a list of bibliographies, reviews, and best-selling list, allowing the purchasing librarian to evaluate the value of each book. Although the book review represents the reader's preferences, it has problems such as helpful and unhelpful, and unhelpful reviews are worthless. If the unhelpful book reviews can be deleted, the purchasing librarian can be more accurate in judging the book selection. Therefore, a set of effective review helpfulness judgment rules can improve the quality of reviews, improve the accuracy of sorting, and help purchasing librarians.

This study uses an experimental method. The purpose is to provide a predictive model for the helpfulness of book reviews, analyze the reasons for the helpfulness of reviews, and delete unhelpful reviews before applying them to collection procurement. Use the regression model to understand why book reviews are helpful and delete unhelpful reviews, calculate the star rating of each review, and apply it to the library collection recommendation.

This study has six book review feature values, namely review length, star rating, emotionality, subjectivity, readability, and behavior verbs. In the best helpful predictive model, the most explanatory independent variables are review length and subjectivity, which can explain 22.8% of the dependent variables. Comparing the predicted and manually judged book review helpfulness, the final accuracy is 80%. Sort the 10 books into two lists, one for the average star rating of helpful book reviews, and one for the average star rating of all book reviews, Compare the two lists with the sorting done by the purchasing librarian, It was verified that the ranking of helpful book reviews is closer to that of librarians. From this, applying the judgment review helpfulness model to collection procurement, it can improve the value of reviews and sort the list, so that librarians will not be misled by unhelpful reviews.

Keywords: online bookstores；book reviews；helpful analysis；library procurement