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Estimating The Helpfulness And Economic Impact Of Product Reviews

J. Izhavarasi Devi

Centre for Information Technology and Engineering,
Manonmaniam Sundaranar University,
Tirunelveli, Tamil Nadu, India.

Abstract:

The rapid growth of the internet, the ability of users to create and publish product content has created active electronic communities that provide wealth of that information. A large number of reviews for a single product may also make it harder for individuals and evaluate the true underlying quality of a product. We reexamine the impact of reviews that product sales and how different factors affect social outcomes. Our approach explores multiple aspects of review text, such as subjectivity levels, various measures of readability and extent of spelling errors to identify text-based features. We examine multiple reviewer-level features such as average of past reviews and identify the measure of reviewers that are displayed to next review.

Econometric analysis reveals the extent of subjectivity, readability, in formativeness, correctness in review matters and subject sentence are negatively associated with product sales. These all give the aware of product usefulness. Then reviews are rated by using "random forest-based classifiers". These are more informative by other users. We examine three broad feature categories:"reviewer-related" features, "review subjectivity" features, and "review readability" features. These three features sets results in a statistically performance. Using this text mining and product modeling techniques how prevent the text of reviews affect product sales and the perceived helpfulness of these reviews.

Introduction

With the rapid growth of the Internet, product related word-of-mouth conversations have migrated to online markets, creating active electronic communities that provide a wealth of information. Reviewers contribute time and energy to generate reviews, enabling a social structure that provides benefits both for the users and the firms that host electronic markets. Indeed, the provision of forum facilitating information and social exchanges in the form of user-generated product reviews is an important part of many electronic markets, such as Amazon.com.

Unfortunately, a large number of reviews for a single product may also make it harder for individuals to track the gist of users' discussions and evaluate the true underlying quality of a product. Recent work has shown that the distribution of an overwhelming majority of reviews posted in online markets is bimodal. Online shopping or online retailing is a form of electronic_commerce whereby consumers directly buy goods or services from a seller over the Internet without an intermediary service. An online shop, e-shop, e-store, Internet shop, web shop, web_store, online store, or virtual store evokes the physical analogy of buying products or services at a bricks-and-mortar retailer or shopping centre. The process is called business-to-consumer (B2C) online shopping. When a business buys from another business it is called business-to-business (B2B) online shopping. The largest online retailing corporations are EBay and Amazon.com both are US-based.

Proposed Methodology

Our goal is to analysis the subjectivity level to find out the informatics and non informatics reviews. This is to predict the text of review affect the product sales. For this we use component weight assignment algorithm. Our algorithm based on under the condition we sum of all component weight is equal to 1 informatics and non informatics weight should be close to 0. This assignment trying to identify the probability of subjective comments and increase in product sales. Further, reviews with that rate product can be associated with increased product sales when the review text is informative and detailed. The review rating of the product given by the reviewer. The rating that a reviewer allocates to the reviewed product is denoted by a number of stars on a scale of 1 to 5. For this, we collect the past reviews for each reviewer, and collected the helpful and total votes for each of the past reviews. Using this we can find that which product review is valuable and received a large number of helpful votes.

Registration

An authentication factor is a piece of information used to authenticate or verify a person's identity on appearance or in a procedure for security purposes and with respect to individually granted access rights.

Product And Sales Data

We collected various product-specific characteristics over time. Specifically, we collected the manufacturer suggested list price of the product, its retail price, sales rank (which serves as a proxy for units of demand , as we will describe later).

Individual Review Data

For each review, we retrieve the actual textual content of the review and the review rating of the product given by the reviewer. The rating that a reviewer allocates to the reviewed product is denoted by a number of stars on a scale of 1 to 5.From the textual content, we generated a set of variables at the lexical, grammatical, and at the stylistic level. We has a voting system whereby community members provide helpful votes to rate the reviews of other community members.

Textual Analysis Of Reviews

Readability Analysis: We are interested to examine what types of reviews affect most sales and what types of reviews are most helpful to the users. For example, everything else being equal, a review that is easy to read will be more helpful than another that has spelling mistakes and is difficult to read.

Econometric Analysis

Our econometric analyses imply that we can quickly estimate the helpfulness of a review by performing an automatic stylistic analysis in terms of subjectivity, readability and linguistic correctness. Hence, we can immediately identify reviews that are likely to have a significant impact on sales and are expected to be helpful to the customers. Therefore, we can immediately rank these reviews higher and display them first to the customers

Conclusion

we build on our previous work by expanding our data to include multiple product categories and multiple textual features such as different readability metrics, information

about the reviewer history, different features of reviewer disclosure and so on. The present paper is unique in looking at how lexical, grammatical, semantic, and stylistic levels in the text of reviews affect product sales and the perceived helpfulness of these reviews.

Future Enhancement

Future work can look at real demand data. Our sample is also restricted in that our analysis focuses on the sales at one e-commerce retailer. The actual magnitude of the impact of textual information on sales may be different for a different retailer. Additional work in other on-line contexts will be needed to evaluate whether review text information has similar explanatory power that are similar to those we have obtained. Despite these limitations, we hope our paper motivates future research in this area

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