

# The Impact of Readability on the Usefulness of Online Product Reviews: A Case Study on an Online Bookstore

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**Abstract.** Online product reviews is an important advantage for consumers of experience goods in online marketplaces and act as a useful source of information during the purchase of a good. Furthermore in some online marketplaces consumers have the opportunity to evaluate how helpful a review was by using a binary evaluation interface provided by the online marketplace. This results to the usefulness score of a review which is calculated as a fraction of helpful votes over the total votes that this review has received. Our early results indicate that the usefulness score of a particular review is affected in a significant way by the qualitative characteristics of the review as measured by readability tests applied to a large dataset of reviews collected from the UK section of the popular online marketplace *Amazon*.

**Keywords:** Readability tests, Online services.

## 1 Introduction

One of the most profound advantages of online marketplaces and electronic commerce to the product choice process and purchase is the ability to encapsulate and promote the opinions of their customers for the products that they have purchased. This has led to a massive amount of product reviews accessible online, which a consumer may use for an informed decision about the product or the service that is considering to purchase.

The importance of online reviews on the choice process of a certain product by an individual on the internet has been a subject of several recent studies in the literature [1,2,3]. Due to the digital nature of delivery, most of the goods available for purchase online are experience goods [4]. An experience good is a product or a service which quality and utility for a consumer can only be determined upon consumption. This provides that in order for a consumer to

make a decision for the purchase of this good or service, she/he has to rely on previous experiences which will provide an indicator whether this good or service is worthy for purchase or not. One example of an experience good can be the case of a book where the utility that the consumer perceives by reading such a book can be extracted only after reading it. Therefore, in experience goods such as books, the producers (e.g. publishers) often use the reviews by authoritative sources such as literature experts to provide an opinion and endorse the book, so that consumers trusting these sources will continue to the purchase of this good.

However the inclusion of a prior experience to the promotion of an experience good can actually pose a problem for the consumer mainly due to following factors:

- The cost for the producers of publishing experiences by previous consumers and especially in cases where negative views might reach new customers. Such a cost makes the producers not willing to do so [5].
- The obvious search costs that arise for a consumer in order to search acquire and evaluate the prior experiences.
- The variance between the different versions of the same good which may confuse a consumer (e.g. an mp3 player with a large set of characteristics vs. a simpler mp3 player).

The development of Internet marketplaces where consumers can establish interaction has undoubtedly has affected the way a review –as an expression of prior experience– influences the way consumers make a choice about a product or a service based on prior experiences [6,7]. First and foremost, the use of online mechanisms for the reporting and categorization of reviews by a product or a service in conjunction with the development of modern search engines has eliminated the search costs for the consumers. Online marketplaces such as the popular bookstores *Amazon.com*<sup>1</sup> and *Barnes and Noble*<sup>2</sup> provide the ability for a consumer to read a series of reviews about the product that a consumer is interested in purchasing. Furthermore, apart from the description of the experience deriving by the purchase of the reviewed product a consumer is able also to rate the usefulness of the product usually by rating on a standard Likert scale.

The later comes into connection with an important field in marketing literature, which has to do with the referral value of a specific product. In particular in “word of mouth” scenarios consumers refer to a product or a service to fellow consumers usually by enthusiasm (if they are satisfied, or regret if they are unsatisfied). The extent to which the referral value of a specific customer might affect another one still remains an issue to identify.

In this study we assume that a review submitted by an individual reflects his/her experience from the product usage. Furthermore the review text acts as a “justification” of the rating so the potential buyer can evaluate if the review was fair or not. In addition, most online marketplaces use a way of meta-rating on

<sup>1</sup> <http://www.amazon.com/>

<sup>2</sup> <http://www.barnesandnoble.com/>