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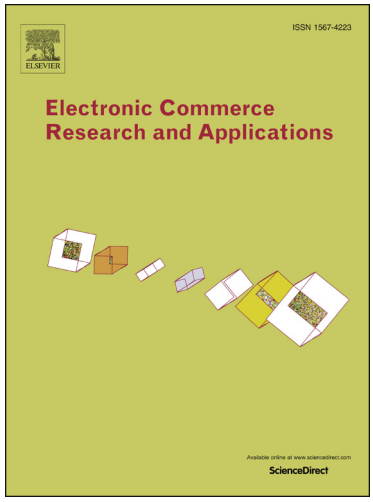

Measuring design-level information quality in online reviews

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MEASURING DESIGN-LEVEL INFORMATION QUALITY IN ONLINE REVIEWS

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ABSTRACT

Online product reviews are an important type of user-generated content. For product designers, they offer valuable information that identifies consumer likes, dislikes and desires. We investigate the volume and quality of product design information available in online reviews and introduce the *design-level information quality* (DLIQ) *measure*. DLIQ is indicative of the design contextual information stored in the online reviews for a given product. Three separate information components are evaluated: content, complexity, and relevancy. Key determinants of DLIQ are the number of reviews, sentences, words, noun words and feature matching noun words in a review database. DLIQ is formulated as an index and indicates information content relative to a sample of products. For a sample of ten products, RapidMiner was used to mine and illustrate the DLIQ. A hypothesis test confirms that significant levels of quality product design information can be efficiently extracted from online reviews.

Keywords: Big data; data analytics; design features; information quality; opinion mining; online reviews; product design

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