

## **Mining complaints to improve a product: A study about problem phrase extraction from user reviews**

Tutubalina E.

*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

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### **Abstract**

© 2016 Copyright held by the owner/author(s). The rapidly growing availability of user reviews has become an important resource for companies to detect customer dissatisfaction from textual opinions. There have been few recent studies conducted on business-related opinion tasks to extract more refined opinions about a product's quality problems or technical failures. The focus of this study is the extraction of problem phrases, mentioned in user reviews about products. We explore main opinion mining tasks to determine whether given text from reviews contains a mention of a problem. We formulate research questions and propose knowledge-based methods and probabilistic models to classify users' phrases and extract latent problem indicators, aspects and related sentiments from online reviews.

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### **Keywords**

Opinion mining, Problem phrase extraction, User reviews