

## Sentiment Analysis: Comparative Analysis of Multilingual Sentiment and Opinion Classification Techniques

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**Abstract :** Sentiment analysis and opinion mining have become emerging topics of research in recent years but most of the work is focused on data in the English language. A comprehensive research and analysis are essential which considers multiple languages, machine translation techniques, and different classifiers. This paper presents, a comparative analysis of different approaches for multilingual sentiment analysis. These approaches are divided into two parts: one using classification of text without language translation and second using the translation of testing data to a target language, such as English, before classification. The presented research and results are useful for understanding whether machine translation should be used for multilingual sentiment analysis or building language specific sentiment classification systems is a better approach. The effects of language translation techniques, features, and accuracy of various classifiers for multilingual sentiment analysis is also discussed in this study.

**Keywords :** cross-language analysis, machine learning, machine translation, sentiment analysis

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