

Sentiment Analysis of Air Conditioning Users' comments on E-commerce Platform Based on NLP Technology

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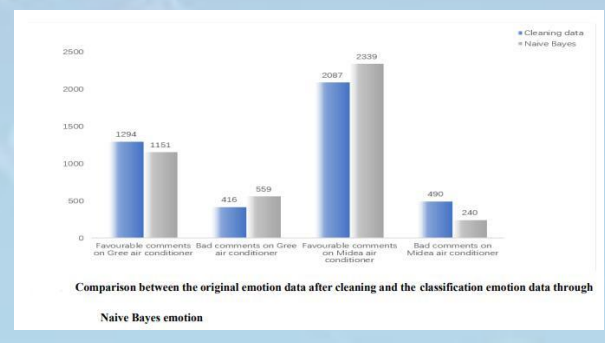
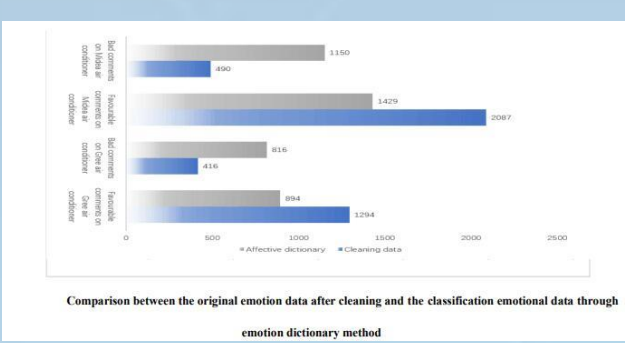
Introduction

With the rapid development of e-commerce, more and more users shop online through e-commerce platforms and leave a large number of user comments which are valuable for enterprises development.

Based on the air conditioning users' comments from JD and other e-commerce platforms, this paper uses Python to conduct data mining, preprocessing of data text and emotional tendency analysis.

Finally, the word cloud map method is used to analyze the advantages and disadvantages of Gree and Midea air conditioners in the products and services of e-commerce platforms, and corresponding suggestions for enterprises are promoted.

Methods

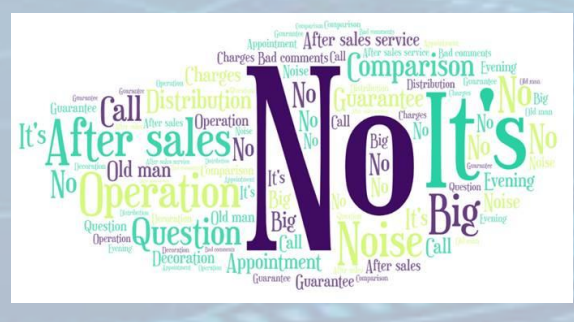


The sentiment dictionary cited in this article comes from the Sentiment Dictionary downloaded by BosonNLP, which gives all common words a unique score. We add up the scores for all the emotional word pairs. Then, the emotional scores of the comments are ranked from the highest to the lowest. An emotion score greater than or equal to 0 indicates that the user has a positive attitude, while an emotion score less than 0 indicates that the user has a negative attitude.

Naive Bayes model is a particularly effective classifier, which is mainly used in text classification, garbage filtering, disease diagnosis and other fields. Naive Bayes algorithm can process small-scale data. Even if there is missing data, it has little influence on the results of analysis. It is easy to classify text and the classification results are easy to be understood.

Compared with sentiment dictionary classification, naive Bayes model is more accurate in sentiment classification. It can be seen from Figure that the positive emotion data and negative emotion data obtained by naive Bayes model are basically consistent with the fact.

Results



Positive Comments

1. The cooling power.
2. High cost performance and relatively low noise.
3. The quality of air conditioning.
4. The energy saving of air conditioners.

Negative Comments

1. The communication with installation personnel is untimely.
2. The attitude of the service is not good.
3. It is to charge installation cost.
4. Noise problem.