

Customer Review Sentiment Analysis using NLP

Abstract

This project classifies customer feedback into positive negative and neutral sentiments using Natural Language Processing techniques.

Introduction

Businesses receive large volumes of reviews. Manual reading is difficult so automated sentiment detection is required.

Dataset

| Review | Expected Sentiment |
|-------------------------|--------------------|
| I love this phone | Positive |
| Average product quality | Neutral |
| Very bad experience | Negative |
| Good value for money | Positive |

Methodology

Text preprocessing, polarity scoring using TextBlob, and sentiment classification rules were applied.

Python Code

```
from textblob import TextBlob
reviews=['good product','bad quality']
for r in reviews:
    print(TextBlob(r).sentiment.polarity)
```

Results

Positive reviews had polarity >0 while complaints showed negative values. Neutral comments stayed around zero.

Applications

E-commerce companies can monitor customer satisfaction and improve product quality quickly.

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