Introduction

Different sentiment analysis models are used to process the sentiment distribution results of global audience comments on "Nezha 2" to explore possible cultural background influencing factors. Although multiple models are used for sentiment judgment, the core of this study is not to compare the advantages and disadvantages of the models, but to reflect the differences in cultural perceptions reflected in the comments.
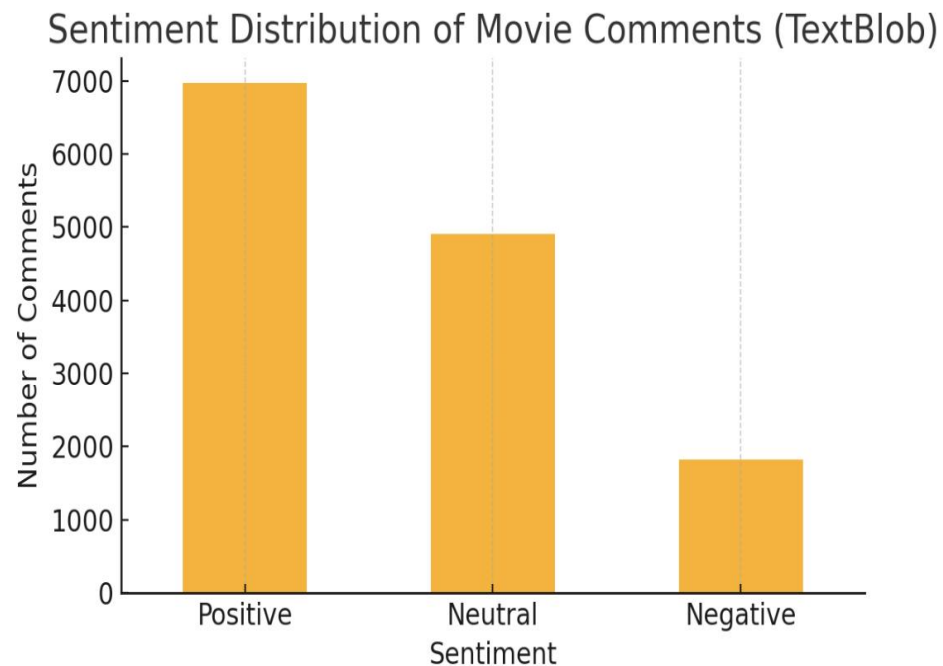
Sentiment Analysis Applications

Explore differences in acceptance and cultural background in different countries

Research Focus

Focus on the cultural differences reflected in the comments, rather than comparing the pros and cons of sentiment analysis models

Sentiment Distribution by overview

Sentiment Distribution of Movie Comments (TextBlob)

A dataset of 10,000 comments was used, among which positive comments dominated, the proportion of **Sentiment Distribution** neutral comments was also high, and the proportion of negative comments was the lowest.

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Sentiment Distribution by region

Region	Positive	Neutral	Negative
China	3440	569	222
Malaysia	2828	636	192
US	701	3702	1404

Positive emotions dominated the reviews in China and Malaysia, with most viewers approving and sympathizing with the film. In contrast, the number of neutral and negative reviews from American audiences was significantly higher, showing a more critical or distant attitude towards the film.

Sentiment Keyword Visualization

— Visual Effects and Animation Quality

The words "animation", "visuals" and "quality" appear frequently in the reviews, indicating that the production level of the film, especially the visual and technical presentation, has won recognition from the audience.


Word Cloud of Negative Movie Comments

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Sentiment Keyword Visualization

Word Cloud of Negative Movie Comments

— Plot and emotion

In the word cloud, words such as "story", "emotional", and "touching" have a high frequency, indicating that the film has a strong appeal in plot design and emotional expression, which resonates with the audience.

Sentiment Keyword Visualization

— Differences in culture or values

Keywords such as "propaganda", "CCP", and "China" appearing in a negative context may mean that some foreign audiences associate the film content with politics and ideology, triggering negative emotions.


Negative Comments Word Cloud (Red Theme)

Sentiment Keyword Visualization

Negative Comments Word Cloud (Red Theme)
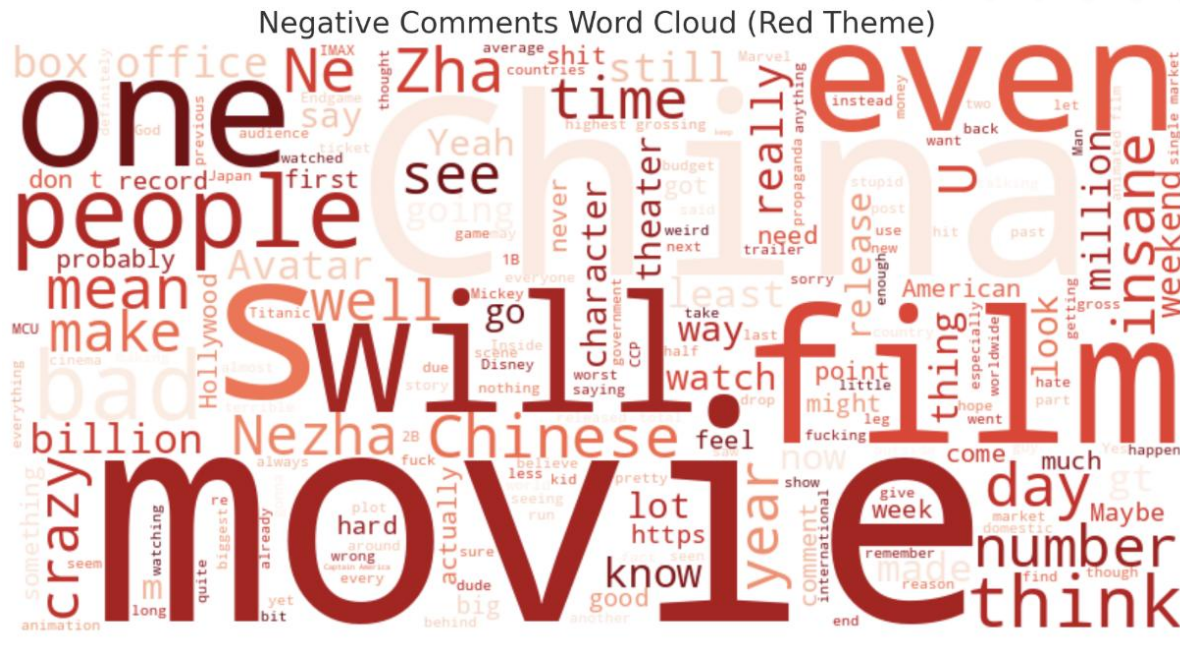
— Character image or emotional expression Words including "Ne Zha", "character" and "emotion" appeared in negative reviews, indicating that some viewers felt that the characterization of the protagonist and the emotional expression of the character were insufficient.
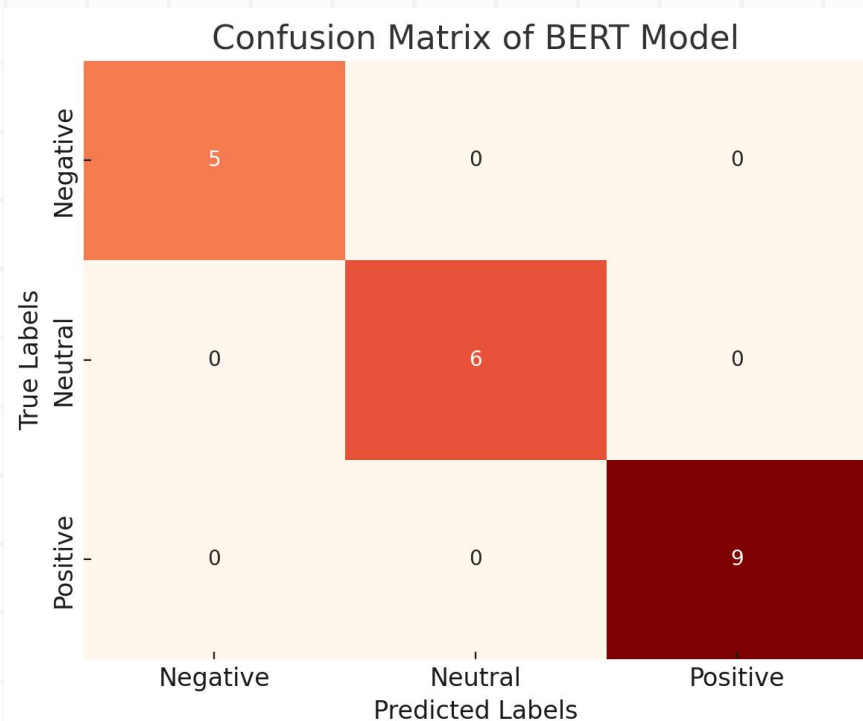
Model comparison


Model Performance Radar Chart
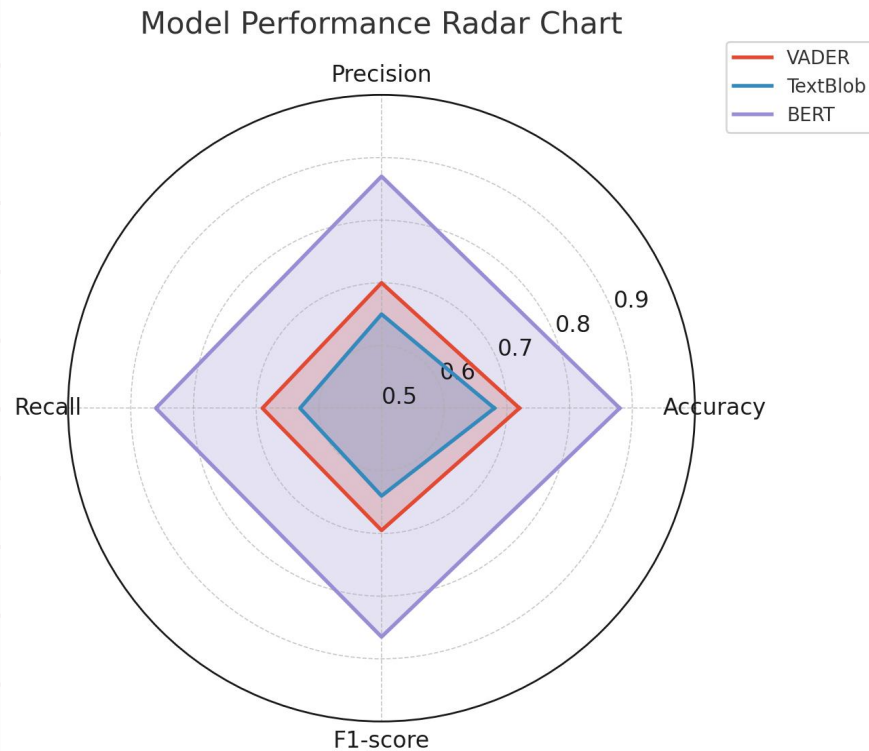
VADER, TextBlob, and BERT were introduced to assist in classification, with accuracy rates of 72%, 68%, and 88% respectively. BERT performed best and was used to explain differences in audience responses between countries, rather than emphasizing model performance.

Model Matrix

Confusion Matrix of BERT Model

This confusion matrix shows how well BERT performs at sentiment classification. It shows how well BERT distinguishes between positive, neutral, and negative reviews. Diagonal values indicate correct predictions, while off-diagonal values indicate misclassifications.

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Model Log Loss
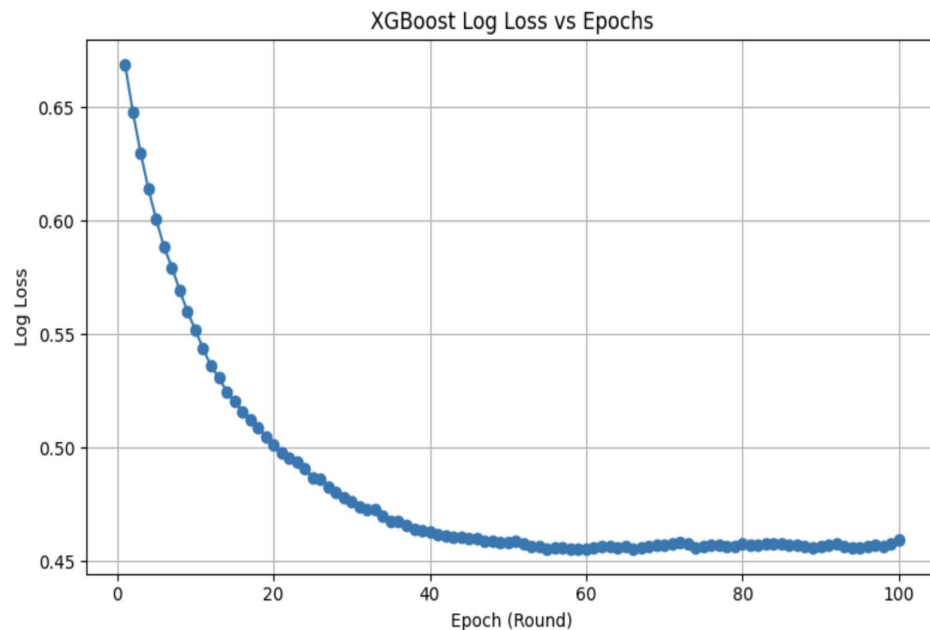
This confusion matrix shows how well BERT performs at sentiment classification. It shows how well BERT distinguishes between positive, neutral, and negative reviews. Diagonal values indicate correct predictions, while off-diagonal values indicate misclassifications.

Chapter Summary

This chapter presents the differences in emotional reactions of audiences in different countries to Nezha 2, and explains them by combining keyword analysis and comment samples. The sentiment analysis model is used as an auxiliary tool in this study to help us reveal cross-national differences in cultural acceptance, narrative style preferences, etc., and provides data support for the subsequent overseas strategies of Chinese films.