



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

SCHOOL OF COMPUTING
Faculty of Engineering

Project Proposal Form MCST1043

Sem: 2 Session: 2024/25

SECTION A: Project Information.

Program Name: **Masters of Science (Data Science)**

Subject Name: **Project 1 (MCST1043)**

Student Name: Wangzhenggiu

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Project Title: Sentiment Analysis of Global Reception Differences of the Film Ne Zha 2

Supervisor 1:

Supervisor 2 /

Industry Advisor(if

any):

SECTION B: Project Proposal

Introduction:

With the rapid development of China's film industry, more and more domestic films are going abroad and entering the international market. As one of the most popular domestic mythological films in recent years, the animated film "Nezha: The Devil Boy Conquers the Dragon King 2" has not only achieved great success in China, but also attracted widespread attention around the world. However, the evaluation of the film by audiences in different countries is significantly different. This phenomenon of strong polarization has triggered in-depth discussions on cultural acceptance and the effect of cross-border communication.

Problem Background:

Although Chinese films are becoming more mature in the domestic market and are popular in Asia, they still face "understanding barriers" and "emotional gaps" in Europe, America and some countries with different cultural backgrounds. Taking "Nezha 2" as an example, audiences in some countries gave positive comments and praised its animation technology and visual effects; while audiences in other countries expressed views such as "difficult to resonate", "complex plot" and "large cultural gap". At present, most of the research on the overseas response of Chinese films is still based on qualitative analysis, lacking systematic and quantitative emotional data analysis. In addition, there are significant differences in the expression of emotions, the use of language, and the focus of attention of audiences in different countries, and there has been no systematic research to conduct a structured discussion on such differences.

Problem Statement:

At present, there is still a lack of systematic quantitative research results on the emotional evaluation differences of Chinese cultural films among global audiences, using sentiment analysis as the core method. In particular, how to extract the emotional tendencies, topics of concern and cultural cognition points of audiences in different countries from multilingual reviews through text mining technology is still a research gap.

Without in-depth analysis of these evaluation differences, it will be difficult for Chinese films to accurately adjust their strategies in international communication, affecting their international acceptance and long-term development. Therefore, it is necessary to construct a research framework based on sentiment analysis to understand the differences in the response of "Nezha 2" among audiences in different countries around the world, and explore the cultural and emotional factors behind it.

Aim of the Project:

This study aims to analyze the audience evaluation data of "Nezha 2" in different countries through multilingual sentiment analysis technology, so as to reveal the differences in emotional responses of audiences in different cultural backgrounds around the world, explore the impact of cultural acceptance on film evaluation, and put forward empirical suggestions to help Chinese films optimize their international communication strategies.

Objectives of the Project:

Collect and organize the review data of "Nezha 2" from audiences in multiple countries on platforms such as IMDb, Douban, and Rotten Tomatoes;

Apply sentiment analysis models (such as VADER, TextBlob, BERT, etc.) to classify the emotions of multilingual review data;

Extract keywords and high-frequency topics from reviews in different countries, and analyze their emotional tendencies and cultural characteristics;

Compare the emotional distribution and attention content of audiences in various countries, and identify the cultural factors behind the evaluation differences;

Summarize the key factors that affect the audience's emotional acceptance, and provide data support for the international communication strategy of Chinese films.

Scopes of the Project:

- ✧ Data range: The research data comes from public audience comments on mainstream movie websites and social platforms around the world, and the languages mainly include Chinese, English and other related languages.
 - ✧ Time range: The data collection time is mainly based on the comments within six months after the global release of "Nezha 2" to ensure the freshness and authenticity of the emotional response.
 - ✧ Method range: This study mainly uses text sentiment analysis, keyword extraction and topic modeling methods for data processing and analysis, and does not involve video or visual information content.
 - ✧ Country selection: Mainly analyze countries and regions with representative cultural backgrounds such as China, the United States, Malaysia, and France.
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Expected Contribution of the Project:

- ✧ Theoretical contribution: This study will enrich the application of sentiment analysis in cross-cultural communication and film research, and fill the gap in data analysis in the field of international response to Chinese films;
 - ✧ Technical contribution: Demonstrate how to combine multilingual sentiment analysis with cultural theory to deeply explore the emotions of global audiences, and provide a technical path for subsequent research;
 - ✧ Practical contribution: Provide reference for film creators, marketers and policymakers, helping them to more effectively understand and adapt to the cultural preferences and emotional needs of audiences in different countries, and improve the global competitiveness of Chinese films.
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Project Requirements:

Software: Python, Hugging Face Transformers, LIME, Power Bi

Hardware: _____

Technology/Technique/ NLP, Deep Learning,
Methodology/Algorithm: _____

Type of Project (Focusing on Data Science):

- [☐] Data Preparation and Modeling
- [☐] Data Analysis and Visualization
- [☐] Business Intelligence and Analytics

- [O] Machine Learning and Prediction
- [] Data Science Application in Business Domain

Status of Project:

☐ New

☐ Continued

If continued, what

is the previous

title?

SECTION C: Declaration

I declare that this project is proposed by:

☐ Myself

☐ Supervisor/Industry Advisor (.....)
.....

Student

Name: Wangzhengjiu

.....
Signature

.....
Date

SECTION D: Supervisor Acknowledgement

The Supervisor(s) shall complete this section.

I/We agree to become the supervisor(s) for this student under aforesaid proposed title.

Name of Supervisor 1:

.....
Signature

.....
Date

Name of Supervisor 2 (if
any):

.....
Signature

.....
Date

SECTION E: Evaluation Panel Approval

The Evaluator(s) shall complete this section.

Result:

☐ FULL APPROVAL

☐ CONDITIONAL APPROVAL (Major)*

☐ CONDITIONAL APPROVAL (Minor)

☐ FAIL*

* Student has to submit new proposal form considering the evaluators' comments.

Name of Evaluator 1: -----

Signature

Date

Name of Evaluator 2: -----

Signature

Date