

# **Project Proposal: Social Media Sentiment Analysis for Brand Reputation Risk Management**

Project Name: Social Media Sentiment Analysis for Brand Reputation Risk Management  
([https://github.com/yq284/5741\\_Project](https://github.com/yq284/5741_Project))

Project type: Data analysis

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Course code: 5741

## **Introduction:**

We are writing to propose a project focused on social media sentiment analysis for brand reputation risk management. As social media continues to play an increasingly significant role in shaping public perception and brand reputation, it is essential for our company to effectively monitor and manage sentiment expressed on these platforms. This project aims to apply advanced natural language processing (NLP) techniques, specifically Support Vector Machines (SVM), to analyze social media data, observe hidden trends of social media sentiment, and identify potential reputation risks associated with our brand.

## **Problem Statement:**

In today's digital age, brand reputation can be greatly influenced by sentiments expressed on social media platforms such as Twitter, TikTok, and Instagram. Negative sentiment, if left unaddressed, can lead to reputational damage, loss of customer trust, and ultimately impact our bottom line. Therefore, it is imperative that we develop a proactive approach to monitor, analyze, and respond to social media sentiment effectively.

## **Question:**

"How can we leverage social media sentiment analysis to proactively manage brand reputation risks and enhance our enterprise's online presence?"

**Data Set:**

For this project, we plan to utilize the Sentiment140 dataset, which contains 1.6 million tweets annotated with sentiment labels (0 for negative, 4 for positive). This dataset is well-suited for training an SVM classifier to classify social media sentiment accurately. The large volume of labeled data will enable us to develop a robust sentiment analysis model, which can identify sentiment trends and potential reputation risks associated with our brand.

**Justification:**

We think this project is important to our company for the following reasons:

1. Risk Mitigation: This model will empower us the ability to identifying and addressing real-time negative sentiment, which can mitigate potential reputational risks and prevent escalation of issues.
2. Customer Engagement: Monitoring social media sentiment allows us to find our customers' need in real-time. We can quickly address their concerns and build a positive brand image.
3. Competitive Advantage: By monitoring social media sentiment, we can early detect reputational risks of other brands. It will make us stay ahead of competitors and prevent us from making the same mistakes.

**Conclusion:**

In conclusion, we believe that investing resources into this project will yield significant benefits for our enterprise by mitigating reputational risks, improving customer engagement, and enhancing competitive advantage. We are excited about the opportunity to lead this initiative and are confident in our ability to succeed.