

# Social Sentiment Analysis

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**Abstract:** *Sentiment analysis is an essential technique for extracting subjective information from text data, providing valuable insights into users' opinions and emotions. This project focuses on implementing sentiment analysis for WhatsApp group, a messaging platform, to automatically assess the sentiment of user-generated content. By Utilising natural language processing (NLP) techniques and machine learning algorithms, the system can categorize text messages as positive, negative, or neutral. The primary goal is to develop a tool that enhances user experience, facilitates content moderation, and aids in understanding community sentiment trends on the whatsapp platform. The analysis begins by preprocessing the WhatsApp data, including tokenization, removing stop words, and stemming, to convert text into a format suitable for analysis. Various machine learning models, such as Naive Bayes, Support Vector Machines (SVM), and deep learning models, are applied to classify sentiments. This project not only aims to provide real-time sentiment tracking but also highlights the potential for enhancing customer service, targeted marketing, and user engagement strategies based on emotional tone. Future work could focus on refining sentiment classification for slang and context-specific language used on WhatsApp, improving the accuracy and applicability of the sentiment analysis tool across diverse user groups.*

**Keywords:** Sentiment analysis