

# Decoding YouTube Comments: A Sentiment Analysis Approach

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**Abstract:** *This study introduces an advanced sentiment analysis system for YouTube comments, focusing on sentiment classification, sentiment distribution visualization, temporal sentiment analysis, and automated email summaries. The system uses Random Forest and Naïve Bayes classifiers to classify comments as neutral, negative, or favorable. It also provides a visualization function for trend analysis and temporal analysis. The automated email feature simplifies sending sentiment analysis reports, ensuring stakeholders receive quick, actionable insights. This comprehensive approach improves stakeholder reactions to viewer feedback.*

**Keywords:** Sentiment analysis, analysis automated, analysis visualization, automated, email, comments, distribution