

# Sentiment Analysis using Machine Learning Techniques

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**Abstract:** Analytics research includes the field of sentiment analysis. To make sense of this, computational methods can be used to read raw data. Analysis is what this is. Written expression that is either positive, negative, or neutral can be assessed using sentiment analysis. People use a variety of social media platforms, including Facebook, Twitter, etc. Machine learning algorithms can be effectively used to ascertain people's sentiments. Sentiment analysis is a field that has developed to automate the study of such data. Sentiment analysis aims to identify and extract human emotions from text. It seeks to find opinionated information on the Web and categorise it based on its polarity, or whether it has a positive or bad meaning. In contrast to conventional text-based analysis, it is a text-based analysis that helps to swiftly determine the customer's reaction.

**Keywords:** Naive bayes, Sentiment analysis, support vector machine, Natural language processing, machine Learning, Natural language toolkit, Data pre-processing, Artificial Intelligence, comma separated values, deep learning. Analysis, python, Vectorization

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