IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.67
Volume 5, Issue 4, March 2025

Sentiment Analysis on X (Formerly Twitter) using Machine Learning

Sarang Rajput, Yash Sonawane, Dipak Bhosale, Gaurav Kadam
Guru Gobind Singh Polytechnic, Nashik, India

Abstract: *Sentiment Analysis plays a crucial role in understanding public opinions on social media platforms. This paper presents a machine learning-based sentiment analysis model trained on 10,000 tweets obtained from Kaggle. Basic preprocessing steps were applied, including removal of HTML tags, conversion to lowercase, stopword removal, and abbreviation replacement. Logistic Regression achieved an accuracy of 69%, while Random Forest obtained 68%. A key observation was that Google AI's Gemini better understood sarcasm and provided insights, whereas our models predicted sentiment based on surface- level analysis. The study highlights the need for context-aware NLP models for better sentiment classification.*

Keywords: Sentiment Analysis

DOI: 10.48175/IJARSCT-24096