

# Twitter Sentiment Analysis

Dr. Md Lutful Islam<sup>1</sup>, Momin Mustufa<sup>2</sup>, Sahil Shaikh<sup>3</sup>, Uzma Shaikh<sup>4</sup>, Zaiba Kazi<sup>5</sup>

Professor, Department of Computer Engineering<sup>1</sup>

Students, Department of Computer Engineering<sup>2,3,4,5</sup>

M. H. Saboo Siddik College of Engineering, Mumbai, Maharashtra, India

**Abstract:** This study focuses on real-time Twitter sentiment analysis using Streamlit, TextBlob, and Tweepy, in order to gather and analyze data from Twitter and understand the sentiment of a particular topic, brand, or event. The study presents an efficient and scalable method of collecting tweets in real-time and analyzing their sentiment using TextBlob, a Python library for processing textual data. The results of the analysis are presented in an easy-to-understand format through a web-based dashboard built with Streamlit, allowing users to track the sentiment of a topic over time. The analyzed data, i.e. positive, neutral, or negative sentiment, is represented in graphical format on the dashboard, providing users with a visual representation of sentiment trends. The study also demonstrates the usefulness of such analysis for businesses, marketers, and researchers in understanding customer sentiment, identifying trends, and improving decision-making.

**Keywords:** Real-time Twitter sentiment analysis, Streamlit, TextBlob, Tweepy, Sentiment Analysis

## REFERENCES

- [1]. Y. Wang, J. Guo, C. Yuan, and B. Li, "Sentiment analysis of Twitter data," MDPI, 19-Nov-2022. [Online]. Available: [https://www.mdpi.com/20763417/12/22/11775?type=check\\_update&version=1](https://www.mdpi.com/20763417/12/22/11775?type=check_update&version=1). [Accessed: 16-Feb-2023].
- [2]. K. Sravya, G. Sowmya, P. Yamini, P. Anusha, and P. Sandhya Krishna, "Sentiment analysis on Twitter K.," SSRN, 10-Sep-2021. [Online]. Available: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3920078](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3920078). [Accessed: 05-Mar-2023].
- [3]. A. P. Rodrigues, R. Fernandes, A. Bhandary, A. C. Shenoy, A. Shetty, and M. Anisha, "Real-time twitter trend analysis using Big Data Analytics and machine learning techniques," Wireless Communications and Mobile Computing, 25-Oct-2021. [Online]. Available: <https://www.hindawi.com/journals/wcmc/2021/3920325/>. [Accessed: 16-Mar-2023].
- [4]. P. Lin, X. Luo, and Y. Fan, "A survey of sentiment analysis based on Deep Learning," International Journal of Computer and Information Engineering, 03-Nov-2020. [Online]. Available: <https://publications.waset.org/10011630/a-survey-of-sentiment-analysis-based-on-deep-learning>. [Accessed: 29-Mar-2023].
- [5]. B. S. Baruah, P., & Mahanta, L. B, "Sentiment analysis of Twitter data :A survey of techniques - arxiv," 2019. [Online]. Available: <https://arxiv.org/abs/1601.06971v1>. [Accessed: 14-Apr-2023].
- [6]. G. Goyal, "Twitter sentiment analysis using Python: Introduction & techniques," Analytics Vidhya, 03-Mar-2023. [Online]. Available: <https://www.analyticsvidhya.com/blog/2021/06/twitter-sentiment-analysis-a-nlp-use-case-for-beginners/>. [Accessed: 24-Apr-2023].
- [7]. N. Hebbar, "Tweet sentiment analysis using python for complete beginners," Medium, 08-Jan-2021. [Online]. Available: <https://medium.com/swlh/tweet-sentiment-analysis-using-python-for-complete-beginners-4aeb4456040>. [Accessed: 24-Apr-2023].