

A Survey on Automated Sentimental Analysis of Twitter Data using Supervised Algorithm

Mr. V. Chandra Sekhar Reddy¹, K. Manvith Reddy², CH .Vachan Sai³, K. Suraj⁴, A. Abhinash⁵

Associate Professor, Department of Computer Science and Engineering¹

IV B.Tech Students, Department of Computer Science and Engineering^{2,3,4,5}

ACE Engineering College, Hyderabad, Telangana, India

Abstract: *Now a days as most of the people express their opinions and views on a particular topic, product or any other subject via social media, identifying the sentiment behind the statement has gained much significance. It is important to identify the statements that matter the most while someone is trying to know about a specific issue or product. In case of purchase of a product the buyer has the requirement of reading reviews that are sorted according to his requirements. While looking for cons of a product he wants to see all the negative reviews first and while looking for the pros of the product he wants start with positive reviews. Similar is the case with some national topic or a political scheme. As the data is enormous in size it cannot be analysed manually. We need a model that could perform sentimental analysis without human involvement. The Sentimental analysis involves few algorithms. In this model we are going to perform analysis using multiple algorithms such as Naive Bayes, SVM, K-MEANS, KNN, Decision Tree and displaying performance comparisons between them (both accuracy and time taken). The GUI in this model is made much user friendly, the model is made flexible to be trained using any dataset as we can upload any dataset using the GUI developed and there is also a module where we can test the sentiment of custom input statement. The model can be used to analyse sentiment behind the statements and hence can be used in many real-time scenarios. One of application of this model is product reviews on shopping platforms so that the amount of negative and positive feedbacks can be seen by the new buyers. Another application may analyse sentiments that include political topics. As more and more people express their views through social media platforms, we can determine how the public's opinion is towards a particular scheme or a particular political Leader..*

Keywords: Algorithms, gui, analysis, product, dataset, model, platforms, topic, review, SVM Naïve Bayes, K-Means, K Nearest Neighbour, Decision Tree

REFERENCES

- [1]. P. Jain and P. Dandannavar, "Application of machine learning techniques to sentiment analysis of data" 2016 2nd global meeting for Applied and Theoretical Computing and Communication Technology (iCATccT), 2016, pp. 628-632, doi: 10.1109/ICATCCT.2016.7912076.
- [2]. Singh, J., Singh, G. & Singh, R. Optimizing sentiment analysis using machine learning Techniques. Hum. Cent. Comput. Inf. Sci. 7, 32 (2017). <https://doi.org/10.1186/s13673-017-01163>
- [3]. Jagdale, Rajkumar & Shirsath, Vishal & Deshmukh, Sachin. (2019). Sentiment Analysis on Product Reviews Using Machine Learning Techniques: Proceeding of CISC 2017. 10.1007/978-981-13-0617-4_61.
- [4]. Rahman and M. S. Hossen, "Sentiment Analysis on Movie Review Data Using Machine Learning Approach," 2019 International Conference on Bangla Speech and Language Processing (ICBSLP), 2019, pp. 1-4, doi: 10.1109/ICBSLP47725.2019.201470.
- [5]. Exploring Impact of Age and Gender on Sentiment Analysis Using Machine Learning. EISSN 2079-9292, Published by MDP Under the Electronics Organization.
- [6]. Das, K. S. Gunturi, A. Chandrasekhar, A. Padhi and Q. Liu, "Automated Pipeline for Sentiment Analysis of Political twitter data," 2021 Global Meeting on Data Mining Workshops (ICDMW), 2021, pp. 128-135, doi: 10.1109/ICDMW53433.2021.00022.
- [7]. Modi, A., Shah, K., Shah, S. et al. Sentiment Analysis of Twitter Tweets Using Flask Environment: A

