

Sr. No	Title of Paper	Name of Authors	Published Year	Remarks / Findings
1	Distantly Supervised Lifelong Learning for Large-Scale Social Media Sentiment Analysis	Rui Xia , Jie Jiang, and Huihui He	2017	The paper introduces a distantly supervised lifelong learning framework for large-scale social media sentiment analysis, treating content as a time-series data stream and employing single-task machine learning on past tasks. Proposing Lifelong Bagging and Lifelong Stacking models, it emphasizes continuous sentiment learning and compatibility with diverse algorithms. Utilizing distant supervision, it considers emoticons as natural sentiment labels. Advantages include continuous learning, dependency on distantly supervised data for new domains, and empirical proof against the notion that more training data guarantees better performance. The lifelong ensemble framework excels in both classification and efficiency. Demonstrated on English Twitter and Chinese Weibo datasets, the approach is versatile for sentiment analysis in evolving social media domains.
2	Anomaly Detection through Enhanced Sentiment Analysis on Social Media Data	Zhaoxia WANG, Victor Joo Chuan TONG, Xin XIN, Hoong Chor CHIN	2014	The research focuses on detecting unusual sentiment patterns in social media, primarily Twitter. The proposed methodology introduces an adaptable sentiment classification method, employing lexicon-based approaches for rapid anomaly detection. A comparative analysis includes complex machine-learning algorithms and simpler lexicon-based methods, highlighting challenges like the need for extensive training data and potential costs in the former, and semantic ambiguity in the latter. The research showcases practical applications for businesses and organizations interested in understanding customer sentiments and monitoring changing attitudes on social media platforms. Ongoing work explores detailed sentiment emotions in social media data.
3	Sentiment Analysis of Twitter Data	Apoorv Agarwal , Boyi Xie, Ilia Vovsha, Owen Rambow , Rebecca Passonneau	NIL	This paper presents a sentiment analysis framework for Twitter data, employing three models: a baseline unigram model, a feature-based model incorporating proposed and novel features, and a tree kernel-based model designed to eliminate the need for extensive feature engineering. The models are evaluated on binary and 3-way sentiment classification tasks, with the feature-based and tree kernel models outperforming the unigram baseline. Feature analysis underscores the importance of combining prior word polarity and parts-of-speech tags. While the paper doesn't explicitly mention disadvantages, the challenges in sentiment analysis, such as handling sarcasm and context-dependent sentiments, are inherent. The proposed models showcase competitive advantages, especially the tree kernel model, which achieves robust results without intricate feature engineering. Applications include sentiment analysis on Twitter data, aiding companies in gauging product sentiment through microblog user reactions. The suggested future work involves exploring richer linguistic analysis and applying the developed models to diverse genres beyond Twitter.

4	Twitter Sentiment Classification using Distant Supervision	Alec Go, Richa Bhayani, Lei Huang		Methodology: The paper uses emoticons as labels for training a sentiment analysis system on Twitter, collected through the Twitter API. Algorithms: The study applies machine learning methods like Naive Bayes, maximum entropy classification, and support vector machines for sentiment analysis on Twitter messages. Advantages: Efficient training data collection and high accuracy in sentiment classification, exceeding 80%. Disadvantages: Sparse feature space with bigrams reduces accuracy, and parts of speech tags do not improve results. Applications: Practical uses include consumer product research, brand sentiment monitoring, and public opinion analysis on Twitter. General Remarks: Twitter messages' unique nature is adaptable to machine learning algorithms for sentiment analysis. Future Directions: Future research could explore additional features or refine algorithms for improved accuracy.
5	Study on Machine learning based Social Media and Sentiment analysis for medical data applications	R. Meena, Dr. V. Thulasi Bai	2019	This study extracts health-related data from social media platforms using various methods and algorithms, aiming to understand public sentiment about cancer. The advantages include valuable insights and awareness creation, but challenges such as data integrity and literacy pose disadvantages. Applications include predicting health risks and developing intervention strategies.
6	Combining Lexicon-based and Learning-based Methods for Twitter Sentiment Analysis	Lei Zhang, Riddhiman Ghosh, Mohamed Dekhil, Meichun Hsu, Bing Liu	2011	The proposed approach for sentiment analysis on Twitter involves using a lexicon-based method initially, utilizing opinion words to determine sentiment. The Chi-square test is employed to automatically identify additional opinionated tweets from the lexicon-based results. Subsequently, a sentiment classifier is trained using the lexicon-based outcomes. Advantages are The method significantly improves recall and F-score, outperforming existing approaches. It adapts to evolving language trends without manual intervention and is applicable across various domains on Twitter. Challenges include the low recall of the lexicon-based method due to Twitter's specific characteristics, such as the use of emoticons and colloquial expressions. Applications: The approach is valuable for sentiment analysis on Twitter, offering a rapid and effective way to gauge public opinion on entities for business marketing or social studies, allowing for timely feedback on products or topics.
7	Aspect-level Sentiment Analysis for Social Media Data in the Political Domain using Hierarchical Attention and Position Embeddings	Renny Pradina Kusumawardani, Muhammad Wildan Maulidani	2020	The methodology employed in this study involves hierarchical attention with position embeddings for aspect-based sentiment analysis on social media data in the political domain, utilizing LSTM as the preferred sequential mechanism, with advantages observed in its higher complexity leading to improved accuracy; however, further exploration into alternative embeddings such as FastText and newer architectures like BERT is recommended, acknowledging the need for enhanced computational resources, and recognizing the potential utility of character embeddings in social media text analysis.

8	Multilingual Sentiment Analysis on Social Media Disaster Data	Muhammad Jauharul Fuady, Roliana Ibrahim	2019	The study proposes a multilingual sentiment classifier using deep learning algorithms to analyze social media data during disasters in Malaysia, considering the use of code-switching sentences. Deep learning algorithms, specifically a multilingual sentiment classifier, are employed to process and classify social media data, achieving a high accuracy of 0.862 and an F1-score of 0.864. Advantages: The proposed approach effectively captures the multilingual aspects of Malaysian social media, allowing for accurate sentiment analysis during disaster periods. It addresses the challenge of sentiment analysis in languages other than English. Challenges may arise from vocabulary gaps and mistranslations between languages, affecting sentiment analysis results.
9	Deep Learning for Automated Sentiment Analysis of Social Media	Li-Chen Cheng, Song-Lin Tsai	2019	The study collects information from various social media platforms to create a dataset. The research proposes deep learning models like LSTM, BiLSTM, and GRUs for sentiment analysis. The deep learning models aim to handle the unique language of social media, including slang and emoticons. Disadvantages: Traditional Natural Language Processing struggles with the short and informal nature of social media language. Applications include The extracted information is expected to contribute to marketing strategies and decision-making processes in various applications.
10	TagNet: Toward Tag-based Sentiment Analysis of Large Social Media Data	Yang Chen	2018	TagNet is a new way of visualizing sentiments in large social media data, using methods like tag clouds and node-link diagrams, with benefits including improved layout aesthetics and visual comparisons, but challenges in handling multiple dynamic attributes and potential visual clutter. It can be applied in scenarios like election campaigns to analyze evolving sentiments, but further studies are needed to evaluate its effectiveness.
11	Robust Sentiment Detection on Twitter from Biased and Noisy Data	Luciano Barbosa, Junlan Feng	2005	Extracting information from Twitter messages using a two-step sentiment analysis approach that leverages tweet characteristics and meta-information. Utilizing innovative algorithms to process noisy labels from sentiment detection websites, optimizing sentiment classification with a focus on abstract tweet representations. The proposed approach proves effective and robust, outperforming traditional methods by handling short tweets, addressing biased and noisy data, and offering a more efficient training data creation process. A limitation is identified in cases involving sentences with conflicting sentiments, prompting future work to refine sentiment classification for such instances. Essential for various domains, including opinion analysis on personalities, politicians, products, companies, and events.