A Comprehensive Survey on Sentimental Analysis using Classification Techniques

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Abstract*: For businesses and manufacturers, opinion information is extremely essential. They frequently want to know intimately what their goods and services think of customers and the public. It is nonetheless unrealistic to read every article manually on the site and extract valuable views from it. If you do it manually, too much info is available. Sentiment analysis provides for efficient and cost-effective large-scale processing of data. To learn more about sentiment analysis, this author examines how sentiment analysis is used by businesses to identify their strengths & limitations. This paper summarizes the sentiment analysis on amazon reviews with its application and classification levels. This work reviews sentiment classification techniques and also studies feature selection in sentiment analysis. In addition, it provides the introduction of natural language processing and its techniques, and limitations. At last, we described text mining in this paper.*

Keywords: Data Mining, Opinion Mining, Sentiment Analysis. Natural Language Processing, Classification Techniques, Machine Learning, Text Mining

REFERENCES

[1]. B. N. Supriya, V. Kallimani, S. Prakash, C. B. Akki, Twitter sentiment analysis using binary classification technique, Int. Conference on Nature of Computation and Communication, 2016, pp. 391–396.

[2]. Keith Norambuena, Brian &Lettura, Exequiel& Villegas, Claudio. (2019). Sentiment analysis and opinion mining applied to scientific paper reviews. Intelligent Data Analysis. 23. 191-214. 10.3233/IDA-173807.

[3]. K. T. Devendra, S. K. Yadav, Fast retrieval approach of sentimental analysis with implementation of bloom filter on Hadoop, International Conference on Computational Techniques in Information and Communication Technologies, 2016, pp. 529–551.

[4]. J. Steinberger, T. Brychcin, M. Konkol, Sentiment and social media analysis,Proc. 5th Workshop on Computational Approaches to Subjectivity, 2014.

[5]. Yi, S., Liu, X. Machine learning based customer sentiment analysis for recommending shoppers, shops based on customers' review. Complex Intell. Syst. 6, 621–634 (2020). https://doi.org/10.1007/s40747-020-00155-2

[6]. M. Bautin, L. Vijayarenu and S. Skiena "International Sentiment Analysis for News and Blogs". In ICWSM.

[7]. R. Prabowo and M. Thelwall." Sentiment analysis: A combined approach". Journal of Informetrics , 3(2): 143-157,b2009.

[8]. J. Brooke, M. Tofiloski and M. Taboada "Cross-Linguistic Sentiment Analysis: From English to Spanish". In RANLP, pp. 50-54.

[9]. Raktim Kumar Dey, DebabrataSarddar, IndranilSarkar, Rajesh Bose, Sandip Roy, "A Literature Survey On Sentiment Analysis Techniques Involving Social Media And Online Platforms", International Journal Of Scientific & Technology Research Volume 9, Issue 05, May 2020.

[10]. J. Kamps, M. Marx, R.J. Mokken, and M. De Rijke, ―Using WordNet to measure semantic orientations of adjectives‖, In LREC , Lisbon, Portugal , Vol. 4, pp. 1115-1118, May 2004.

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[11]. . B. Liu, M. Hu, and J. Cheng, ―Opinion observer: analyzing and comparing opinions on the web‖, In Proceedings of the 14th international conference on World Wide Web, pp. 342-351, May 2005, doi:10.1145/1060745.1060797.

[12]. L. Qu, G. Ifrim, and G. Weikum, , ― The bag-ofopinions method for review rating prediction from sparse text patterns‖, In Proceedings of the 23rd international conference on computational linguistics, Coling 2010, Beijing ,Association for Computational Linguistics, pp. 913-921, August 2010.

[13]. Y. Chen, and J. Xie, ―Online consumer review: Word-of-mouth as a new element of marketing communication mix‖, Management science, Vol. 54, No. 3, pp. 477-491, March 2008, doi: 10.1287/mnsc.1070.0810.

[14]. X. Fang, and J. Zhan, ―Sentiment analysis using product review data‖, Journal of Big Data, Vol. 2, No. 1, p.5, June 2015, doi: 10.1186/s40537-015-0015-2.

[15]. V. A. Kharde, and S. Sonawane, "Sentiment Analysis of Twitter Data: A Survey of Techniques", International Journal of Computer Applications, Vol. 139, No. 11, pp. 5-15, April 2016, doi:10.5120/ijca2016908625.

[16]. WalaaMedhat, Ahmed Hassan, HodaKorashy, Sentiment analysis algorithms and applications: A survey, Ain Shams Engineering Journal, Volume 5, Issue 4, 2014, Pages 1093-1113, ISSN 2090-4479, https://doi.org/10.1016/j.asej.2014.04.011.

[17]. Khurana, Diksha&Koli, Aditya&Khatter, Kiran& Singh, Sukhdev. (2017). Natural Language Processing: State of The Art, Current Trends and Challenges.

[18]. Ponnusamy, Ramalingam. (2018). A Systematic Survey of Natural Language Processing (NLP) Approaches in Different Systems. 4.

[19]. AiyeshaSadiya, Archana R Hegde, Anusha V Illur, Ashwini R, International Journal of Engineering Research & Technology (IJERT), Vol. 7 Issue 01, January-2018.

[20]. Maheswari, M. (2017). Text Mining: Survey on Techniques and Applications. International Journal of Science and Research (IJSR).

[21]. Tandel, Sayali&Jamadar, Abhishek&Dudugu, Siddharth. (2019). A Survey on Text Mining Techniques. 10.1109/ICACCS.2019 Vishal Gupta, Gurpreet S. Lehal, A Survey of Text Mining Techniques and Applications, Journal of Emerging Technologies In Web Intelligence, Vol. 1, No. 1, August 2009.

[22]. Tandel, Sayali&Jamadar, Abhishek&Dudugu, Siddharth. (2019). A Survey on Text Mining Techniques. 10.1109/ICACCS.2019.8728547.

[23]. Y. A. Solangi, Z. A. Solangi, S. Aarain, A. Abro, G. A. Mallah and A. Shah, "Review on Natural Language Processing (NLP) and Its Toolkits for Opinion Mining and Sentiment Analysis," 2018 IEEE 5th International Conference on Engineering Technologies and Applied Sciences (ICETAS), 2018, pp. 1-4, doi: 10.1109/ICETAS.2018.8629198.

[24]. S. Naz, A. Sharan and N. Malik, "Sentiment Classification on Twitter Data Using Support Vector Machine," 2018 IEEE/WIC/ACM International Conference on Web Intelligence (WI), 2018, pp. 676-679, doi: 10.1109/WI.2018.00-13.

[25]. M. Wongkar and A. Angdresey, "Sentiment Analysis Using Naive Bayes Algorithm Of The Data Crawler: Twitter," 2019 Fourth International Conference on Informatics and Computing (ICIC), 2019, pp. 1-5, doi: 10.1109/ICIC47613.2019.8985884.

[26]. Y. Jing, H. Gou, C. Fu and W. Sun, "Sentiment Classification of Online Reviews Based on LDA and Semantic Analysis of Sentimental Words," 2019 12th International Symposium on Computational Intelligence and Design (ISCID), 2019, pp. 249-252, doi: 10.1109/ISCID.2019.00064.

[27]. J. Ramakrishnan, D. Mavaluru, K. Srinivasan, A. Mubarakali, C. Narmatha and G. Malathi, "Opinion Mining using Machine Learning Approaches: A Critical Study," 2020 International Conference on Computing and Information Technology (ICCIT-1441), 2020, pp. 1-4, doi: 10.1109/ICCIT-144147971.2020.9213747.

[28]. G. Li, Q. Zheng, L. Zhang, S. Guo and L. Niu, "Sentiment Infomation based Model For Chinese text Sentiment Analysis," 2020 IEEE 3rd International Conference on Automation, Electronics and Electrical Engineering (AUTEEE), 2020, pp. 366-371, doi: 10.1109/AUTEEE50969.2020.9315668.

[29]. K. Jia and Z. Li, "Chinese Micro-Blog Sentiment Classification Based on Emotion Dictionary and Semantic Rules," 2020 International Conference on Computer Information and Big Data Applications (CIBDA), 2020, pp. 309-312, doi: 10.1109/CIBDA50819.2020.00076.

[30]. Guezzaz, Y. Asimi, M. Azrour and A. Asimi, "Mathematical validation of proposed machine learning classifier for heterogeneous traffic and anomaly detection," in Big Data Mining and Analytics, vol. 4, no. 1, pp. 18-24, March 2021, doi: 10.26599/BDMA.2020.9020019.