

Survey On Various Sentiment Analysis Approaches

Milanjit Kaur

Assistant Professor, Computer Science and Engineering, Lovely Professional University, Punjab, India.

ABSTRACT

The amount of online data is increasing day by day. Users give their views online on product, movies, and books. So text analysis is needed by every organization to increase their sale. Users give their views and organization do sentimental analysis to determine the emotions behind the user's views. Organization generate policies and make changes in the product according to the views given. In sentimental analysis, polarity of the words is checked by using semantic orientation techniques. Even after doing much research in data mining, few areas are still left to be covered.

1.INTRODUCTION

Sentimental analysis is a process of finding the sentimental state of the author. Natural processing is done to find out the emotions behind the particular text. Today, Web is populated with large amount of data and it is increasing day by day. It has become difficult for users to choose one product. Sentimental analysis shows an important part in choosing the product by analyzing the reviews given by the users, Sentimental analysis determine whether the user has appreciate the product or criticize the product. In Hospital Management System, clients fill their feedback and then system analyze the system to improve their service [1]. Existing research conveys that adjectives of the sentence are joined and their polarity is measured [2]. Sentimental Analysis can be found out with the help of Machine Learning Techniques [3]. The volume of the data gets increased by large amount everyday so in this scenario we need an algorithm that consumes less time and space. The algorithm that satisfies these properties is k-means clustering [4]. There is also other algorithm that possess the same properties as Maximum Entropy Method [5]. The users give their reviews about particular movie online. These reviews are categorized as positive and negative by using sentimental analysis. It has become easy for the users to decide whether they should go for the movie or not with the help of sentimental analysis. Sentiment analysis can be used with common sense with the help of septic computing [6]. Generally news are neutral, they do not possess any emotion but still they have polarity [7]. Concept is one of the algorithm that make use of common sense to predict the sentiment of the text [8]. Research has

been done to figure out the emotions of the text using common sense knowledge[[9].Sentimental analysis mainly concentrate on the opinions that signify the emotions of the text ,either positive or negative[10].Consumers of the product give their reviews and then the organization try to improve the product in terms of which it needed to get improved[11].

1.1.ROLE OF DATA MINING

Data mining plays an important role in sentimental analysis. Data mining involves examination of the data to classify it into various dimensions. Data mining involves the usage of previously known information to predict the pattern and correlating .Data mining have various applications. [12].Sentiment analysis deals with the sentiments of data. Suppose a customer went to market to buy snacks. That person will buy the snacks that are in demand and are people's favorite.

2.LITERATURE SURVEY

Mandala et al.[13] performed a work “Lexicon-Based Text Classification Model to analyses and Predict Sentiments from Online Reviews “in which an algorithm is formulated which shows the significant role in predicting the emotion of the text. It categorize the text as positive, negative and neutral. This model also determines the method to improve the accuracy of the system. In this model we first ensemble the information from various sources and then we make a list the words on the basis of polarity. We have database which consist of text which reflects the emotion and then we do processing in which words are compared to words placed in Database. The list of the words depicting emotions are splatted further into various lists. Various value are assigned to different words based on the emotions the emotions they are carrying. We can also list the words with their respective merits and de-merits with the help of supervised learning. Irony, Pun and sarcasm are the topics which can also use to make our system more realistic.

Christian et al. [14] performed a work “Evaluating Feature Sets and Classifiers for Sentiment Analysis of Financial News “in which five algorithms are used to determine the emotion of news. Fewer effort is done on the opinion mining of the news so this research work has been carried to put focus on this term. Various subsets are classified to determine their accuracy. When we use two classifiers in conjunction, then the accuracy gets improved .In this research we

conclude that Support vector machine provides the best results. We extract the data from various articles on the basis of the features. We further split the list into various categories. We studied the exact definition of the text which identify the feature related to the category it belongs. Accuracy of 71% is received by using this model. Range of the dataset can be increased to improve the performance of the data. We can also increase the accuracy of the model by adding grammatical properties.

Kashia et al. [15] performed a work “Mood Based Classification of Music by Analyzing Lyrical Data Using Text Mining” in which mainly focus is on Audio and lyrical content. Data mining process is performed on the lyrical content. Firstly Ground set of database is formed out of which we extract the lyrics. Same process is done with Audio dataset. We further compare various types of lyrics. Classification of the lyrics is done with the help of Naïve Bayes. We compare the content of Lyrics with the content of audio. We ensemble the results from various algorithms and then do comparison. Further we compare the results of Audio based system with the result of Lyrics based systems. We configure the total 18 mood classifications and then assigned a value to each rank. Process of Bagging is performed on the list which ensemble the results of various classifiers. We conclude when the words gets repeated and then audio is played in combination then the results are more accurate. This proposed model has achieved the accuracy of 85%.

Sun et al. [16] performed a work “Mining the Impact of Social News on the Emotions of Users Based on Deep Model” in which use of Deep Belief Nets (DBN) has been made to extract the hidden emotions of the news. In this process, use of three feature selection has been made to build the input vector. The knowledge of text classifier has been used to make three models. We make use of DBN to reduce the dimension of feature selection and to increase the accuracy of the process. We determine the list of Dimension of Original properties with the list of abstracted features. The framework of DBN tends to effect the working of classification process. After all the processing, properties are set to the value of 500. In future we can also focus on the performance of classifiers.

Gayathri et al. [17] performed a work “A Survey on Sentiment Analysis Methods and Approach” in which detailed study of the various works done on the sentimental analysis is done. Different

methodologies and approaches are determined and are listed with the help of lists. Detailed study is done on the terms, namely polarity shift, accuracy. Various classification techniques are observed and then comparison is made between all the mechanisms. This paper determines that various features such as Machine Learning and Dictionary based provides the good results. This survey also determines the merits and demerits of various algorithms.

Ali et al. [18] performed a work “Sentiment Analysis as a Service: A social media based sentiment analysis framework” in which it proposed a model that extract the emotions from various services and then convert them into useful information. We focused on the properties of the users which make use of social services. Work has been done in the real world scenario experiments. This research work analyses the performance of various algorithms. Classification of the data is done on the basis of various properties. It eliminates the inconsistent data and work on the data independent of the error. The range of the data can be increased and we can use multiple services for the canalization process. The classification of the social services can be improved.

3.COMPARISON OF VARIOUS TECHNIQUES

AUTHOR	YEAR	TECHNIQUES	ADVANTAGES	DISADVANTAGES
Kashish Ali	2017	Classification	Removed noise from social information with the help of new service quality. services.	Integration and compilation of large scale analysis is not much effective.
		Sentiment Analysis		
		Text Mining		
Pal Christian	2014	Opinion Mining	Highest classification performance is achieved using	Data set is not wider to perform wider testing
		Sentiment Analysis		

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Santanu Mandala	2017	Text Classification	Efficient method to calculate the sentiments by making three degree of comparison	Irony ,sarcasm ,ambiguity are not covered.
		Sentiment analysis		
		Lexicon Based Approach		
Ms.V. Gayathri	2016	Data Analytics	Various sentimental issues such as Polarity shift problem, are covered	Less data is taken to avoid complexity
		Decision making		
Nirbhay Kashyap	2016	Data Mining	To obtain trained mood mapper,data mining is used	Data set is not wide
		Sentiment Analysis		
Xiao Su Sun	2014	Deep Belief Network	Good performance is shown to determine how social news can effect people's	No experiments are done about the influence of the number of iterations on classification
		Impacts on Emotion		

			emotions.	performance
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4.CONCLUSION

We have concluded that considerable measure of work done on Sentiment investigation of motion picture surveys,item audits, twitter, Face book and so forth however there has been less work done on daily paper articles. This survey gives us the knowledge about various sentimental analysis approaches and their respective issues.

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