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A balanced sentiment analysis approach with stemming porter for neutralized emotion weightage

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Abstract: The application of sentiment analysis, also known as opinion mining, is more difficult in Chinese than in Indo-European languages, due to the compounding nature of Chinese words and phrases, and relatively lack of reliable resources in Chinese. This study used seed words, Chinese morphemes, which are mono-syllabic characters that function as individual words or be combined to create Chinese word and phrases, to classify movie reviews found on Yahoo. We use a lexicon based approach for discovering sentiments.Our lexicon is built from the Serendio taxonomy.The Serendio taxonomy consists of positive, negative, negation, stop words and phrases. A typical tweet contains word variations,emoticons, hashtags etc. We use preprocessing steps such as stemming, emoticon detection and normalization, exaggerated word shortening and hashtag detection. After the preprocessing, the lexicon-based system classifiesthe tweets as positive or negative based on the contextual sentiment orientation of the words.

Keywords: NLP, Artificial Intelligence (AI), Sentiment Analysis, Serendio taxonomy.

I. INTRODUCTION

NLP is natural language processing and natural languages which are spoken by people.NLP encompasses anything a computer needs to understand natural language (typed or spoken) and also generate the natural language.Natural Language Processing (NLP) is a ssubfield of Artificial Intelligence(AI) and linguistic devoted to make computers to "understand" statements written in human language.

1)Stemming will be used for emotion mining.
2)Stemming is used to reduce the elapsed time by the reduction of dictionary size.
3)Stemming will be used to neutralize the grammatical effect of words in order to get the real and bias emotion.

Sentiment Analysis is the study of opinions, attitude, and emotions gathered from the people to extract an entity identification .sentiment analysis is also known as opinion mining. The entity can be the form of individual, event or sentence or phrase along with their grammatical meaning in a normalized form. The Sentiment Analysis identifies the sentiment expressed in a text then analysis it and through these emotions also being calculated in the form of negative and positive. "The voice nature of this telephone is bad, however the battery life is excellent' 'sentiment investigation is the undertaking of recognizing positive and negative.

An alternate strategy for deciding conclusion is the utilization of a scaling framework whereby words generally connected with having a negative or positive opinion with a related number on a -5 to +5 scale (most negative up to beSemantria's cloud-based software that analyzes the emotion based with natural language processing between two human being and result is 80 % consistent. Through this we can analysis consistent algorithm to extract the sentiments of human very fast with durability it help in comparing the dictionary meaning from every angle to achieve accuracy in a result different aspect.

e.g I love India .(positive)
I like India(neutral)
I hate India(negative)
I am lovingggg India(love is a real and bias emotionst)

II. REVIEW LITERATURE

1)Amir. H Razavi et.al, (**2014**) purposed that natural language processes and machine learning both can form sleep physiology. In this sentiments can be used in short textual description to form a text document. In this dreams are also considered in four categories in doing scaling to calculate emotions in form of positive dreams negative dreams. This approach is also taken from novel in form of sequentially occurring unfolding sentiments during dreams the first part consists of co-occurrence [6] vector representation of dreams to detect sentiment levels and analysis them form of dream texts. It is like Bag of words model to capture the relationship between the meanings through corpus. It also carry out in the form of emotions which are carried out by a day interval timing. Through this we can predict the creation of thought going on his day interval through the sentiment in the form of emotions by a human by calculating negative and positive impact.

2)Peter Korenek and Marian Simko, (2014) through this approach that we analysis people and companies sentiments which sell their product and services through

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product reviews which they collect through social networking sites. Their Opinions generated through web are emergence of micro blogs and their generation existence. In this paper the novel method is considered to [7] recognize the opinions to analyze the sentiments and micro blog by considering one entity as standalone. The different approaches being used in this are appraisal theory, to analyze the micro blogs which occur in the form of posts. This method used to check feasibility and flexibility in the social networking sites to check presence of blogs. In social media it acts as a communication media to analyses the sentiments and their opinions and reflects at time to state with given time period.

3)Biago Ciuffo and Carlo Lima Azevedo, (2014) purposed a multi-step sensitivity analysis techniques and model calibration to maintain complex traffic simulation model which carry 100 parameters. Through this approach crucial comprehensive traffic simulation and problem in form of deadlocks can be handled which help in managing the performs of motor ways in urban areas to prevent accident and performance ratio according to the parameters regarding speed to prevent prudential group in this study of simulated MITSIM Lab is being used, kind of a complex microscopic traffic simulator. The standard variance based approaches to increase the efficiency regarding parameters to prevent it from traffic and handle to prevent more traffic calculated and statistics based technique which help in calculating emotional values with linear clues solution method .

4)Sasha Blair GoldenSohn et.al, (2008) purposed an approach through which we can review text that include main opinion about a given product and also includes various reasons like recommendation or non-recommendation and also values to identify the opinions according the users reviews. Therefore, it focuses on detecting those reasons in online product review that are closely related to pros and cons expressed in the review which help the customer to take right decisions. The share volume of reviews makes it difficult for a human to process and extract all meaningful information in order to make an educated purchase and toward systems view that can automatically contain summarize opinions from a set of reviews and display them in an graphical manner. Through this approach a system can calculated the sentiments review for a local service such as malls or food corners in the form of supervised and unsupervised leaning both the techniques are being considered to take intelligent decisions.

5)Andrea Esuli and Fabrizio Sebastiani, 2006, purposed a technique named as**5)Andrea Esuli et.al, (2013)** introduced brand positioning scenario to mark star track automatically in online ecommerce market by getting reviews for the product in form of feedback. The numbers of stars are being rated according to its positive or negative impact on the text viewed by user in forms of reviews as Track attempts to guess the star-rating that the reviewer would have attached to the review. It help in analyzing the data Start rack is thus useful for unstructured word-of-mouth on products, such as the comments and reviews about products that [10] are to be found in spontaneous discussion forums, such as newsgroups, blogs, and the like. Star Track is based on machine learning technology, and as such does not require any re-programming for porting it from one product domain to another. Through this we can control the large sets of products in a consistent way and find out accuracy by (I) star-rating reviews, (II) ranking the reviewed products based on the automatically providing star-ratings.

III. PROBLEM FORMULATION

The stemming porter is the process of converting the non-root words to root words. The roots words are the words which carries no emoticon emphasis. The emoticon emphasis is added to the word as emoticon weightage in the sentence according the grammar rules. The grammar rules sometimes increase or decrease the emphasis of the words being used in the sentences. In the existing work, the stemming porter has been used for the emotion mining, particularly sentiment analysis, on the data collected from social networks. The existing work is not very accurate in the terms of recall. The Recall value has gone lower while the authors were focusing on to improve the precision. The system effectiveness becomes higher for the sentiment analysis models, when the stemming porter is used and produces the results with higher accuracy measured in terms of precision and recall.

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