ANALYSIS OF COMMENT TEXTS IN SOCIAL MEDIA BY USING BILSTM ALGORITHM

Chandana Kalavalapudi

B.Tech, Department of Computer Science Engineering, Narayana Engineering College Gudur

Mr V. Naga Bhaskar Rao

Asso.Prof, Department of Computer Science Engineering, Narayana Engineering College Gudur

Uma Sai Alekya Arigela

B.Tech, Department of Computer Science Engineering, Narayana Engineering College Gudur

Udaya Priya Chennareddy

B.Tech, Department of Computer Science Engineering, Narayana Engineering College Gudur

Sowndarya Chevuru

B.Tech, Department of Computer Science Engineering, Narayana Engineering College Gudur

ABSTRACT

With the speedy development of web technology and social networks, an outsized variety of comment texts are generated on the online. Within the era of massive knowledge, mining the emotional tendency of comments through computer science technology is useful for timely understanding of network belief. The technology of sentiment analysis could be a a part of computer science, and its analysis is incredibly meaty for getting the sentiment trend of the comments. Within the current sentiment analysis researches, distributed word illustration is generally used. However, distributed word illustration solely considers the linguistics data of word, however ignore the sentiment data of word.

Keywords: Sentiment analysis, artificial intelligence, social network, weighted word vectors, BiLSTM.

1. INTRODUCTION

In recent years, with the speedy development of the web and social networks, a lot of and more users begin to freely categorical their opinions on websites[1]. Therefore, the large knowledge of user comments is generated on the web. For instance, the merchandise comments are generated on E-commerce websites like Jingdong and Taobao, and edifice comments are generated on travel websites like Ctrip and elong. With the explosive increasing of comments, it's troublesome to research them manually. Within the era of massive knowledge, mining the emotional tendencies of comment texts through computer science technology is useful for timely understanding of network belief. The analysis of sentiment analysis is incredibly meaty for getting the sentiment trend of the comments. Sentiment analysis could be a reasonably text classification, involving tongue process, machine learning, data processing, data retrieval and alternative analysis fields. Sentiment analysis of comments chiefly focuses on the sentiment orientation analysis of comment corpus, that indicates that users categorical positive, negative or neutral sentiments towards merchandise or events[3]. Additionally, sentiment analysis will be divided into news comment analysis[4], product comment analysis[5] , film comment analysis[6] and alternative sorts. These comments convey the views of web users concerning merchandise, hot events, etc. Merchants will master the user satisfaction with the relevant product comments. Potential users will assess merchandise by viewing these product comments

2. LITERATURE SURVEY

This paper gives information about the provoking posts and how to deal with it.. This divides the words into some categories such as emotions, privacy.[1] In this work the author discusses about the feelings and emotions on discussion forums. Here EmoTxt is used to find the feelings and categorize and outputs in comma separated value (CSV) format. This follows a structured hierarchal format.[2] This paper uses a data mining algorithm Naive-Bayes theorem. This theorem analyze the words into positive and negative.[3] Our routine life always influenced by what people think. Opinions and ideas of others have always affected our own thinking. As a result there has been an eruption of interest in people to mine these vast resources of data for opinions. Sentiment Analysis or Opinion Mining is one of the Computational treatment of people's thinking. In this paper we will discuss various methods to perform a computational treatment of sentiments and opinions of people. Various supervised techniques to SA like Naïve Byes, and Voted Perceptrons will be discussed. We will also study some specific topics in Sentiment Analysis and the contemporary works in those areas.

3. IMPLEMENTATION

System Framework:

During this framework we tend to propose a completely unique hybrid model - an element graph model combined with Convolution Neural Network to leverage tweet content and social interaction data for stress detection. Experimental results show that the projected model will improve the detection performance by 6-9% in F1-score. By any analyzing the social interaction knowledge, we tend to conjointly discover many intriguing phenomena, i.e. The amount of social structures of thin connections (i.e. With no delta connections) of stressed users is around 14% beyond that of non-stressed users, indicating that the social organisation of stressed users' friends tend to be less connected

Social Interactions:

We tend to analyze the correlation of users' stress states and their social interactions on the networks, and address the matter from the standpoints of: (1) social interaction content, and (2) social interaction structure. Our investigation unveils some intriguing social phenomena. For instance, we discover that the amount of social structures of thin association (i.e. With no delta connections4) of stressed users is around 14% beyond that of non-stressed users, indicating that the social organisation of stressed users' friends tend to be less connected and sophisticated, compared to it of non-stressed users. Attributes categorization we tend to initial outline 2 sets of attributes to live the variations of the stressed and non-stressed users on social media platforms: 1) tweet-level attributes 2) user level attributes .

Tweet-level Attributes

Tweet-level attributes describe the linguistic and visual content, in addition as social attention factors (being likable, commented, and retweeted) of one tweet. We are able to classify words into totally different classes, e.g. Positive/negative feeling words, degree adverbs. What is more,we extract linguistic attributes of emoticons, therefore we are able to map the keyword in sq. Brackets to search out the emoticons. Twitter adopts Unicode because the illustration for all emojis, which might be extracted directly.

User-Level Attributes Compared to tweet-level attributes extracted from one tweet

User-level attributes are extracted from an inventory of user's tweets in an exceedingly specific sampling amount. We tend to use one week because the sampling amount during this paper. On one hand, psychological stress

typically results from additive events or mental states. On the opposite hand, users could categorical their chronic stress in an exceedingly series of tweets instead of one. Besides, the said social interaction patterns of users in an exceedingly amount of your time conjointly contain helpful data for stress detection. Moreover, as said, the data in tweets is proscribed and thin. We want to integrate a lot of complementary data around tweets, e.g., users' social interactions with friends.

4.   RESULTS & DISCUSSIONS

Home page of the sentiment Analysis some of the related posts are shown in Fig. 1

Fig. 1 Home page

End user registration page, Here the user needs to give necessary information to get registered as shown in Fig.2

Fig. 2 End user Registration

Admin login page is shown below, here the admin needs to give correct user id and password to login.

Fig. 3 Admin login

All Tweet Score details are viewed in Fig 4.

Fig. 4 Tweet score

All Spam Detection results are viewed in Fig 5. And spam detection in twitter stream is shown in Fig 6.

Fig 5. Spam details

Fig 6. Spam detection in Twitter stream

5. CONCLUSION

Within the era of speedy development of web technology and social networks, it's terribly meaty to explore the emotional tendency of comments through computer science technology. During this paper, a sentiment analysis methodology of comments supported bilstm is projected and applied to the comment sentiment analysis task. In line with the deficiency of the word illustration methodology within the current researches, the sentiment data contribution degree is integrated into the TF-IDF algorithmic rule of the term weight computation, and a brand new illustration methodology of word vector supported the improved term weight computation is projected. Additionally, bilstm model absolutely considers the context data and might higher acquire the text illustration of the comments. Finally, through the feed forward neural network and softmax mapping, the sentiment tendency of the text is obtained. The experiments of various word illustration ways prove the validity of the projected word representation methodology during this paper. Through the comparison experiments with alternative ancient sentiment analysis ways, the accuracy of the projected comment sentiment analysis methodology is improved. However, the sentiment analysis methodology of comments supported bilstm consumes an extended time within the coaching model. In future work, tactic to effectively accelerate the coaching method of the model are studied.

6. REFERENCES

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