

# A Review Paper on Analytic System Based on Prediction Analysis of Social Emotions from User Perspective

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## ABSTRACT

Early development of Web, large numbers of documents assigned by readers' emotions have been generated through new portals. By analyzing to the previous studies which focused on author's perspective, our research focuses on readers' emotions invoked by news articles. Our research paper provides meaningful assistance in social media application such as sentiment retrieval, opinion summarization and election prediction. In this paper, we predict the readers' emotion of news, social media based on the social opinion network. Most specifically, we construct the opinion network based on the semantic distance. The communities in the news network, opinion network indicate specific events which are related to the emotions. Therefore, the news network, opinion network serves as the lexicon between events and corresponding emotions. We discussed neighbor relationship in network to predict readers' emotions. At the last our result, our methods obtain better result than the state-of-the-art methods. Moreover, our research developed a growing strategy to prune the network for practical application. The experiment shows the rationality of the reduction for application.

**KEYWORDS:** *sensing and analysis, opinion network, text mining, complex network*

## INTRODUCTION

Existing technology proposed that the system can do the prediction of emotions of the users they are taken the reference of the news article which help us to know the emotions of user regarding to such a article. This experiment get proposed on datasets. Social opinion prediction is a difficult task for research endeavor. First research work on social opinion prediction, "affective text" in SemEval-2007 Tasks. Intend to annotate news, headlines for evoked the emotion of readers Perspective. Second research of focus on readers' emotion evoked by news sentences. Existing technology of social opinion prediction can be divided into three categories such as knowledge-based techniques, statistical methods and hybrid approaches. Due to the deficiency of information of news text. It is unmanageable to consistently annotate the emotions. Knowledge-based techniques that is second technique utilize existing emotional lexicon to supplement the prior knowledge for annotating the

emotions. More famous emotional lexicon includes Affective Lexicon, linguistic annotation scheme, Word Net-Affect, Senti Word Net, and Sentic Net. The Limitation of knowledge-based techniques is the reliance on the coverage of the emotional lexicon. Knowledge-based techniques cannot process terms that do not appear in the emotional lexicon. Statistical methods predict social opinion by training a statistical model based on a large number of well-labeled corporuses.

Our research, define the following notations for describing the social opinion prediction: An online news collection consists of news, and the emotion ratings labels. The list of emotion labels is denoted by, and indicates emotion titled like as "joy", "anger", "fear", "surprise", "touching", "empathy", "boredom", "sadness", "warmness" etc. In regular, a news is a set of word tokens, and a set of ratings over E emotion labels denoted by. The value of the number

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of online users someone have voted the k th emotion label for news. According to Kim and Hovy [13], the opinion network can be split into four parts such as topic, opinion holder, claim, and sentiment. For the specific, a holder trust a claim about a topic with a sentiment. For social opinion, the opinion holder stands for users and someone have voted for the news. The research title can be replaced by the content of the news. The sentiment can be count by the vote around the set of predefined labels of emotional. The claim is unobservable and in mandatory in this task. This types of social opinion can be model with a quadruple, where stands for the social event such as the text feature set of social event; is the result of voting towards social event and it is represented as distribution over the predefined emotional labels. T is the time when the social events occurred. The social opinion prediction task is focused on the paper.

The opinions are developed by the subjective evaluation of the “raw” stimuli. The “raw” stimuli may have no intrinsic emotional meaning, but will be appraised by personal relevance and implications for social opinion, the “raw” stimuli are only text and its advantages which are difficult to expound the corresponding sentiment related phenomena. In reality, there are less than 5% of directly emotional words of a text in daily speech, emotional writing, and affect-laden poetry[11]. In research journalism domain, a lower percentage is undisputed. It is rarely discussed by the personal relevance under the social community. To explain the problem, our research focus on implications without personal relevance. By the rule of cognitive approaches, the result of voting is “the person’s experience, goals and opportunities for action”. It is process that examine an event by dimensions such as urgency, consistency with goals, etc. All the social opinions share the similar emotional experience, goals and opportunities for the action with each other. From the NLP perspective, the models are good explicable but feasible. From psychology and linguistics perspective, the models are good explicable but very lack in use for the service. Depend on the general characteristic, similarity is one of the principles from the six principles that guide human perception of the world in Gestalt theory. Our research can predict social opinions by measuring the semantic similarity between events. The social cognitive process can be modeled depends on a stereotypical knowledge, set consisting of social opinion. By using appraisal criteria, the cognitive process can be regarded as the neighbor analysis in set P.

## Objectives

- Development of analytic algorithmic work for the business analytics module.
- Implementation of network based semantic distance.
- Implementation of Predictive decision making based on iconic patter matching
- Development of business intelligence tools for predictive analysis module.

## BACKGROUND AND RELATED WORK

### A. Machine Learning

Train up the machining is the primary requirement for analysis of sentiment. Machine learning is famous technology besides this lexicon is also use for sentiment analysis. Not using any of that sentiment analysis is not possible. There are many algorithm and approaches for machine learning. Some of these are supervised where some of these are unsupervised. Machine learning methods and term-counting methods both method are generally used for document-level opinion classification and also sentence level opinion classification [2].

### B. Opinion mining and Polarity Shift

The opinion orientation is calculated by summation of orientation scores, based on manually collected or lexical resources. In the machine learning methods, opinion classification is considered to be a statistical problem. A structure in which sentence are broken into its words and stored it into resembles a bag of words issued to store opinioned text. The excitingly trained machine learning algorithms are applied as classifiers. However, these traditional models are resembling bag of words proved in efficient in dealing with polarity shifting of the text [3].

### C. Building Predictive Model with Naive Bayes

The Naive Bayes algorithm is a classification technique and it is based on the Bayes Theorem with an assumption of independence on among predictors. This stage aims to classify the reviews into categories that help or do not help properly. The data used to build the model is labeled data with two categories: 280 reviews with help categories and 50 reviews with categories not helpful. Prediction is fixed by using probabilistic methods with Naïve Bayes algorithm to classify each of the reviews into one category [6].

### D. Lexicon-based approach

This approach depends on finding the opinion lexicon which is used to analyses the text. There are two methods in this approach. The dictionary-based approach is depends on finding opinion seed words, and then searches the dictionary of their synonyms and antonyms. The corpus-based approach start with a seed list of opinion words, and then finds other opinion words in a large corpus to help in finding

opinion words with context orientations. This could be done by using statistical methods or semantic methods [8].

## METHODOLOGY

Recent technique given in existing we are proposed a business intelligence analytic module based on emotion detection regarding to the product reviews based on mining with reviews, feedback, complaints given by users this will help us the user for giving the instant and very fast response and which also become proper for development of business. In proposed work we can implement the opinion network and emotion opinion model on the basis of datasets, retrieved from business data. Prediction system will helps us to predict and decision making in business intelligence.

### Methods Used

1. LDA
2. Social Opinion Model

### Algorithm Used

1. Pattern Matching Algorithm
2. Force Atlas algorithm to arrange the layout of nodes.
3. Data mining Algorithm

### ADVANTAGES

- The proposed system will help to predict the uploaded article in various ways of factor
- By using the sentimental analysis the prediction model get applied to manipulate the posts
- Proposed system will also help to analyze the post link data using the web content extraction.

### LIMITATION

- Social media can easily run someone's reputation just by creating a false story and spreading across the social media.
- On the social media connecting with young people used to discussing violence posts, links and related concerns.
- In system user have to allow blocking violence posts, violence links via application. So it is a user dependent.

### CONCLUSION

Recent technique given in existing we are proposed a business intelligence analytic module based on emotion detection regarding to the product reviews based on mining with reviews, feedback, complaints given by users this will help us the user for giving the instant and very fast response and which also become proper for development of business. In proposed work we can implement the opinion network and emotion opinion model on the basis of datasets, retrieved from business data. Prediction system will helps us to predict and decision making in business intelligence. In this review paper, we analyze the online social

opinions and propose social opinion model for measuring similarity among news. The performance of the prediction based on opinion network is more stable and accurate than existing models.

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