

# Chapter 18

## Analyzing Social Emotions in Social Network Using Graph Based Co-Ranking Algorithm

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### ABSTRACT

*Twitter has become exceedingly popular, with hundreds of millions of tweets being posted every day on a wide variety of topics. This has helped make real-time search applications possible with leading search engines routinely displaying relevant tweets in response to user queries. Recent research has shown that a considerable fraction of these tweets are about “events,” and the detection of novel events in the tweet-stream has attracted a lot of research interest. However, very little research has focused on properly displaying this real-time information about events. For instance, the leading search engines simply display all tweets matching the queries in reverse chronological order. Online content exhibits rich temporal dynamics, and diverse real-time user generated content further intensifies this process. However, temporal patterns by which online content grows and fades over time, and by which different pieces of content compete for attention remain largely unexplored. This article describes tracking and analyzing public sentiment on social networks and finding the possible reasons causing these variations. It is important to find the decision from public views and opinion in different domain. They can be used to discover special topics or aspects in one text collection in comparison with another background text collection. The implemented method attains the 95% accuracy while predict the sentiments from the social websites and the 96.3% of the opinion rate with minimum time.*

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## **1. INTRODUCTION**

Micro blogging is an increasingly popular form of communication on the web. It allows users to broadcast brief text updates to the public or to a selected group of contacts. Micro blog posts, commonly known as tweets, are extremely short in comparison to regular blog posts, being at most 140 characters in length. The micro blog works by using the actual and aggregated data files which is differ from the traditional blogs. In addition to this, the micro blog helps to transmit the information's in terms of short sentences, videos, images, links and so on which are called as the micro posts. Along with the information transmission, the micro blog provides the information security mechanisms for user details and other web-based interfaces such as instant messaging, text messaging, e-mail, digital video and audio. Recently Twitter launches the popularized communication web in October 2006 for making the effective communication or interaction systems. Users of these online communities use micro blogging to broadcast different types of information. During the communication process, social emotions are placed in a vital role because its depends on the individual feelings, actions, thoughts of the particular situation or activities. The sample social emotions are happiness, sadness, envy, pride, shame, embarrassment, jealousy and so on. These described emotions are combined with the social cognition which helps to detect the people mental situations. Along with the social emotions which help to create the morality that used to take the moral decision of the particular problem.

So, the sentiment analysis plays a vital role in citation context extraction using supervised learning Precision. Citation classification is the important part for identifying the quality reference article. A recent analysis of the Twitter network revealed a variegated mosaic of uses including a) daily chatter, e.g., posting what one is currently doing, b) conversations, i.e., directing tweets to specific users in their community of followers, c) information sharing, e.g., posting links to web pages, and d) news reporting, e.g., commentary on news and current affairs Sentiment analysis (also known as opinion mining) refers to the use of natural language processing, text analysis, and computational linguistics to identify and extract subjective information in source materials. During the analyze process different techniques such as support vector machine, artificial neural networks, linear discriminate analysis, decision tree, etc., are used to derive the decision about the moralities in the Twitter based social sites. Along with the supervised techniques, several optimized method, such as genetic algorithms, particle swarm optimization methods, ant bee colony, and fireflies algorithm, are used to improve the efficiency while detecting the social emotions from the social sites. Based on these algorithms, several research use the different machine learning algorithm for detecting the social emotions which are explained as follows. Then the rest of the section is organized as follows, section 2 analyze the various surveys about the sentiment analysis, section 3 describes the relevant materials and methods about the Latent Dirichlet Allocation (LDA) based sentiment emotion detection process, section 4 analyze the excellence of the Latent Dirichlet Allocation (LDA) method and concludes in section 5.

## **2. RELATED WORKS**

In this section analyze the various authors opinion involved in the sentiment examination process in social sites. Shulong Tan et al. (2014) proposes a Latent Dirichlet Allocation (LDA) based model. To distill foreground topics and filter out longstanding background topics, Foreground and Background LDA (FB-LDA) was used. To rank them with respect to their "popularity" within the variation period,

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