



Future Prediction using Twitter Mood Analysis

A. Thilagavathy¹, P. Kavitha¹, Veeram Reddy Deepak Reddy², Yadla Jaswanth² and Rishi Tadavarth²

¹Associate Professor, Department of Computer Science and Engineering,
R.M.K. Engineering College, Kavaraipettai (Tamil Nadu), India.

²Student, Department of Computer Science and Engineering,
R.M.K. Engineering College, Kavaraipettai (Tamil Nadu), India.

(Corresponding author: A. Thilagavathy)

(Received 05 June 2019, Revised 10 September 2019, Accepted 22 September 2019)

(Published by Research Trend, Website: www.researchtrend.net)

ABSTRACT: In today's generation social media has developed on the whole into a significant means for content sharing. It gathers and presents to the world probably all the events that are happening on the spot. Sentiment analysis is widely used, specifically as a portion of social media investigation for some field, be it a business, a recent movie, or a product launch, to understand its reception by the people and what they think of it based on their opinions. In this paper one such social media "TWITTER" is taken - the single major micro blogging site and the events which is going to be the most trending in future is predicted. List of topics that are mostly discussed in Twitter are news events, people, movies, TV shows, sports, elections. In particular we take movies as a topic and generate reviews about the upcoming movies prior to its release date.

Keywords: Social media, Twitter, micro blogging, reviews.

I. INTRODUCTION

Twitter could be a micro-blogging platform that allows posting temporary messages. Most post measures are publically obtainable and by browsing these messages one will access to some variety of content. Sentimental analysis together referred to as Opinion Mining seems a region that uses linguistic communication process and text analysis that helps in building a system that identifies and extracts formation in supply material. The first task in sentimental analysis is to work out the polarity of nominative text at the document level, sentence level or facet level. In core, it is a method that helps indecisive emotional level behind a sequence of words and provides insight of speaker's perspective, views and sentiment expressed during a sentence. Sentimental analysis is extremely helpful within social media watching because it provides insight of public opinions for sure topics. The uses of sentimental analysis measure to terribly intensive and powerful decisions. A widely known activity social science hypothesis states that public mood in addition to market performance are related to sentiment analysis.

The thought that once individuals measure happy, optimistic, and during a sensible mood, there are additional possibility to extend investment, that successively improves securities in market performance. However, quantification of public mood is not a trivial task, so as to create a brute force prognostic model that quantifies public mood and predicts future market performance, we want to own access to each single individual's mood and mixture all moods to estimate the universal community or collective mood score. Since observant each person's mood isn't potential, a really tiny sample of the population could also be used. Social media (especially Twitter) will give a large population sample and conjointly access to user

generated and shared publically obtainable content. This content could also be mined in the direction of discovering out sentiment related to public mood. The real time nature of twitter and is a microblogging stream defined which is a rich source of dynamic information. Conventional techniques, which has been developed involves the utilization of keyword search. They have used short cycle property to locate clusters devoid of omitted events. In addition, the authors use ranking function in which more important events are ranked higher. Further prediction methods are employed to determine real and important events and recall methods are employed to determine missed events [1].

A vigorous characterization of occasions, broadening the work portrayed can enhance prioritization, positioning, and separating of extricated messages in Twitter and comparative frameworks, and in addition give additional focal point and specific substance perception [2]. Twitter trending topic classification is the era of information explosion. As of now about five hundred millions of tweets are generating per day. In addition, the author states that for better information retrieval it is important to classify the tweet subject interested in common group with high accuracy. For such they arranged twitter trending points into 18 classes, for example, sports, politics, technologies etc. and used two techniques for topic classification. One is Bag-of-words approach, where they constructed word vectors with trending topic definition and classified the topics using a Naive Baye's multinomial classifier. The other is network-based approach, in this top 5 similar topics are identified for a given topic based on the number of common influential users. The results from the two approaches are given to machine learning stage as input [3].

A machine learning based Sentiment classes are used in [4]. The authors in used 18 different groups for classifying the topics that are currently trending in twitter

[5]. A cautious note to reporters on dealing with twitter data, since it leads to a drastic change among users in public. The meme dissemination is investigated in mining public blogs [7]. Trending topics are classified without any peripheral data. Random forest and K-nearest neighbour algorithms used in to analyze movie reviews. Social network rules designed in [8-10].

II. METHODOLOGY

We put forward a sentiment-based approach to predict about movies HIT/FLOP strategy prior to the actual release date of that particular movie. First, we extract information from the comments given by the various users, who post comments about movies after viewing the prerelease activities such as audio release or trailer or a teaser video. At that point, we discover the assumption words, which are utilized to portray the films. Plus, we use assessment lexicons to ascertain sentiment of a particular client about a particular movie it can be positive opinions as well as negative opinions. The primary commitments of our method are as per the following: We put forward a client nostalgic estimation approach, which depends on the mined feeling words and assumption degree words from client surveys. Client notion impact reflects how the sentiment spreads among the stock in clients. We finally calculate the count of the totality amount of opinions that is the comments given in support of movie being hit or it can be the negotiations given about the movie to be flop in future. The experiment results reveal that client's public societal view that we mined is an important feature in anticipating about a motion pictures Hit/Flop methodology. In our proposed framework we mine social client's estimation, as well as investigate relational wistful impact and general reputation.

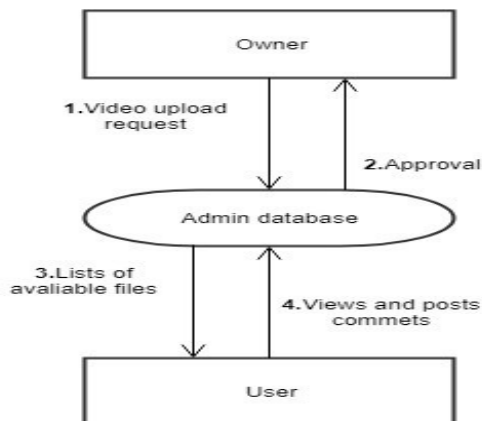


Fig. 1. Architecture diagram of the proposed system.

At long last, we consider every one of them for foreseeing a motion pictures hit/flop methodology. The reason for our approach is to discover compelling signs from user comments and predict about the ratings of movies. The System Architecture is given in Fig. 1. The general workflow of our proposed method is given in Fig. 2. The proposed systems consist of the subsequent modules: Owner Registration, Owner Login, User Registration, User Login, Admin Login. Owner registration service enables proprietors to self-enlist, free of cost.

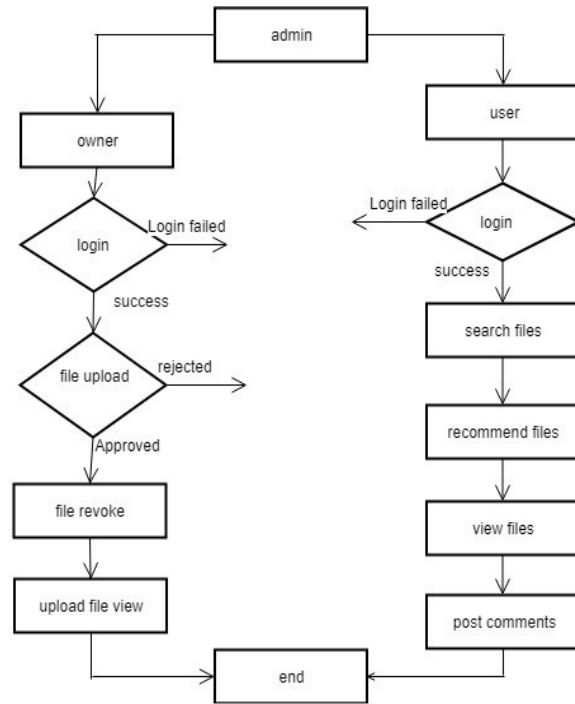


Fig. 2. Overall Workflow of the proposed system.

The proprietor needs to put a profile that incorporates a proprietor ID, secret word, and give a little measure of extra data, including a legitimate email address, gender, mobile number. This information is never provided to any application without an owner's explicit permission.

(i) Owner Login: A login, signing in or signing on is the entering of identifier data into a framework by a client to get to that framework (e.g., a PC or a site). A login normally need the customer to enter two information, first an owner name and after that a password. This information is entered into a login window on a GUI (graphical user interface). An owner name is a string (i.e., sequence of characters) that uniquely identifies an owner. The sub modules of Owner Login are File Upload, File Revoke, and Upload File Views.

File upload: File upload module allows the owners to upload videos. Here a particular file can be chosen to upload. After file is chosen next is the upload option where the video will be uploaded.

File Revoke: Using this module a file is deleted if not required. Clicking on revoke tab it will display directory of the entire available videos in which a particular file can be deleted by clicking on revoke option.

Upload File Views: This module displays a list of all the videos that have been uploaded.

(ii) User Registration: User Registration (URS) gives a client enrolment benefit enabling clients to self-enlist, free of cost. The client needs to set up a profile that incorporates a client ID, watchword, and give a little measure of extra data, including a legitimate email, gender, mobile number. Sub modules of user login are List Movies, Search Request, View Request, and Recommend Movie, View all comments.

List Movies: It display directory of the entire available videos.

Search Request: This module facilitates the exploration for users present in the website.

View Request: This module displays list of peoples who have sent you friend request.

Recommend Movie: This module recommends about a movie to your friends.

View All Comments: This module views all the comments including positive as well as negative comments all together.

(iii) Admin Login: A login for the most part requires the client to enter an administrator name and afterward a watch word. Sub modules of admin login are Approve/Reject, Available films, List users, Positive Review and Negative Review

Approve/Reject: Owner can upload Movies or any other videos that they want to share. They made a request to approve their Videos to be shared. Admin has the rights to Approve/Reject those videos. Once if the Admin approves the video then that video has been posted on the wall and be able to be examined by all the other users.

Available films: It exhibits a directory of every available movies.

List users: It displays entire list of users present in the website.

Positive Review: All the comments given in favour of a movie being hit criteria is given.

Negative Review: All the comments given in negotiation of a movie are given.

(iv) Prediction: The prediction about a movie be able to be viewed in this module by selecting on count. It shows a short description for each movies with the intention of uploading. The prediction is made using the rating criteria and comments. The test cases are made known in Table 1.

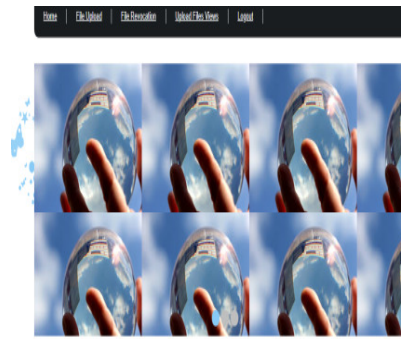


Fig. 3. User section home page.



Fig. 4. Page for new user registration.

III. RESULTS AND DISCUSSION

User module home page where you can register yourself and then login in as a user is made known in figure 3. The new user registration is given in Fig. 4.

The Login Page is given in Fig. 5. By clicking on file upload tab the page in Fig. 6 will be displayed. Fig. 7 depicts the file revoke.

Table 1: Test cases.

Test cases	Area to be tested	Test Constraint	Result	Pass/Fail
1.	User Login – User Name	User Name must not hold any numbers.	Valid user name	pass
2.	User Login - Password	Password should Contain at least one alphabet, one number, one special character. Length ought to be greater than eight characters.	Valid password	pass
3.	Owner Login – Owner Name	Owner Name ought not to include any numbers.	Valid name	pass
4.	Owner Login - Password	Password should Ought to contain at least one alphabet, one number, one special character. Length should be greater than 8 characters.	Valid password	pass
5.	Admin Login - Name	Admin Name should not contain any numbers.	Valid name	pass
6.	Admin Login - Password	Password should Contain at least one alphabet, one number, one special character. Length should be greater than 8 characters.	Valid password	pass
7.	Owner Page – For uploading the videos	Correct video extension file uploaded.	Movies has been uploaded successfully	pass
8.	Logout button	User confirms for logout.	Logout successfully	pass



Fig. 5. Login Page after user registration.

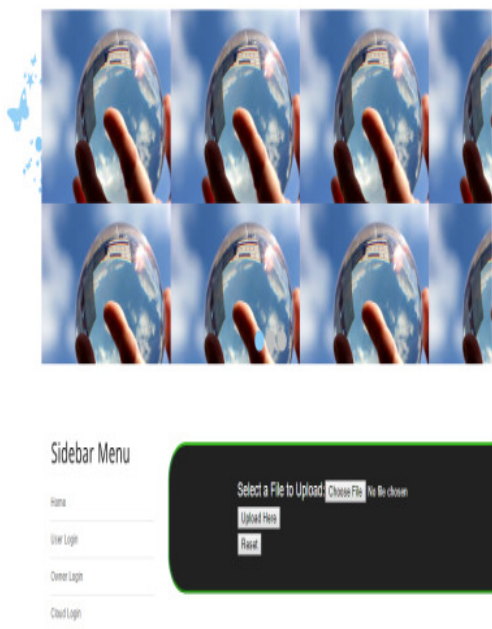


Fig. 6. After file upload.

Fig. 7 depicts how the Admin will view file and decide whether to approve or reject. By clicking on available list, directory of every accessible video files are shown in Fig. 8 and any files can be viewed. Fig. 9 shows the Comments given positively in favor of a movie. Fig. 10 shows the Comments given in negotiation about a movie. Fig. 11 gives the ratings and comments given by various users and Fig. 12 shows the final predictions as ratings.

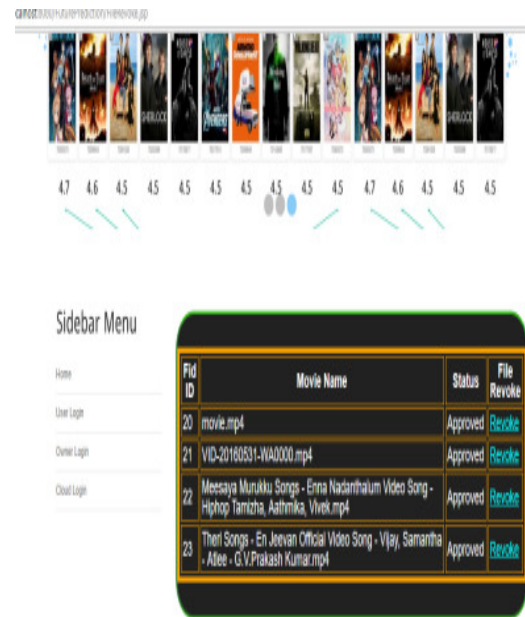


Fig. 7. File revoke.

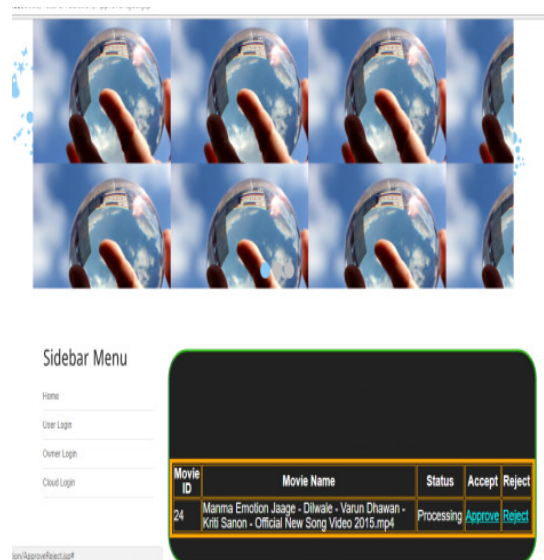


Fig. 8. Admin View.

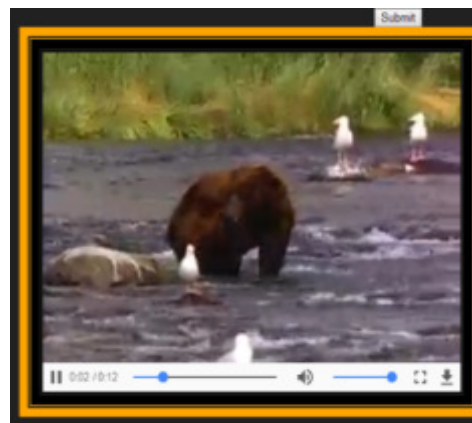


Fig. 9. Available File View.

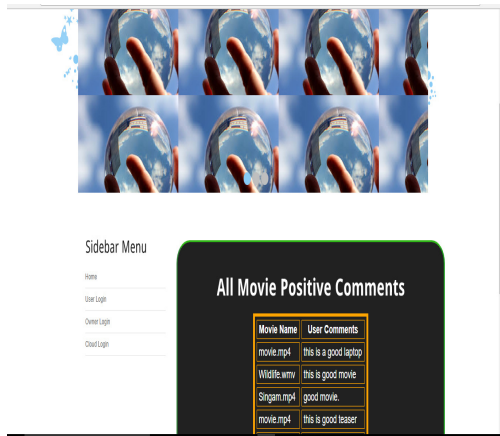


Fig. 10. Positive Comments.

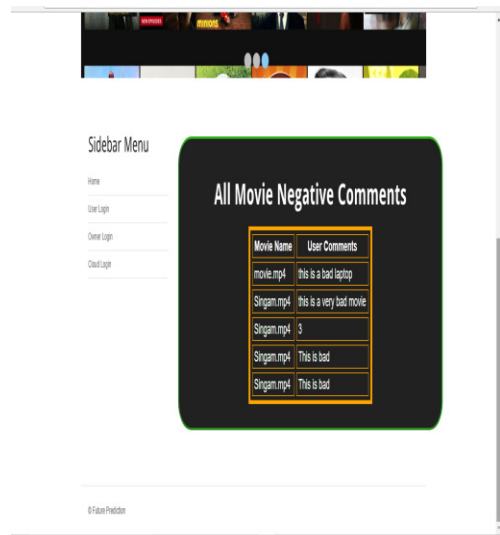


Fig. 11. Negative Comments.

IV. CONCLUSION

In this paper, twitter is used as a medium and reviews are generated about the upcoming movies prior to its release date. Future prediction is planned by taking out emotion information from social users' reviews. A client sentimental evaluation method is proposed, that is based on the on the mined view of words and assumption measure words from client surveys. Sentiment for rating prediction is created. Finally we calculate the count of the sum of opinions that is the comments given in support of movie being hit or it can be the negotiations given about the movie to be flop in future. The exploratory outcomes and exchanges demonstrate that client's public societal view that we mined is an important feature in foreseeing about a motion pictures Hit/Flop procedure.

REFERENCES

[1]. Agarwal, M. K., Ramamritham, K., & Bhide, M. (2012). Real time discovery of dense clusters in highly dynamic graphs: identifying real world events in highly dynamic environments. *Proceedings of the VLDB Endowment*, 5(10), 980-991.

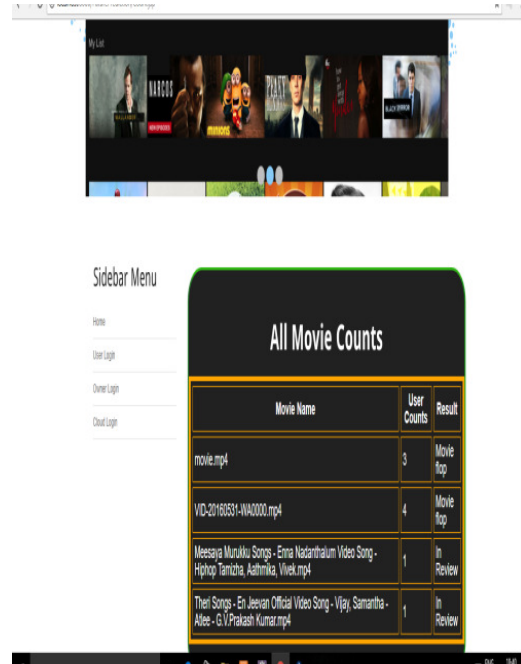


Fig. 12. Ratings and Comments.



Fig. 13. Final Prediction.

- [2]. Becker, H., Naaman, M., & Gravano, L. (2011). Beyond trending topics: Real-world event identification on twitter. In *Fifth international AAAI conference on weblogs and social media*.
- [3]. Kouloumpis, E., Wilson, T., & Moore, J. (2011). Twitter sentiment analysis: The good the bad and the omg!. In *Fifth International AAAI conference on weblogs and social media*.
- [4]. Kouloumpis, E., Wilson, T., & Moore, J. (2011). Twitter sentiment analysis: The good the bad and the omg!. In *Fifth International AAAI conference on weblogs and social media*.
- [5]. Lee, K., Palsetia, D., Narayanan, R., Patwary, M. M. A., Agrawal, A., & Choudhary, A. (2011). Twitter trending topic classification. In *2011 IEEE 11th International Conference on Data Mining Workshops* (pp. 251-258). IEEE.
- [6]. Just, M. R., Crigler, A. N., Metaxas, P., & Mustafaraj, E. (2012). 'It's Trending on Twitter'-An Analysis of the Twitter Manipulations in the

Massachusetts 2010 Special Senate Election. In *APSA 2012 Annual Meeting Paper*.

[7]. Ratkiewicz, J., Conover, M., Meiss, M., Gonçalves, B., Patil, S., Flammini, A., & Menczer, F. (2010). Detecting and tracking the spread of astroturf memes in microblog streams. *arXiv preprint arXiv:1011.3768*.

[8]. Zubiaga, A., Spina, D., Fresno, V., & Martínez, R. (2011, October). Classifying trending topics: a typology of conversation triggers on twitter. In *Proceedings of the 20th ACM international conference on Information and knowledge management* (pp. 2461-2464). ACM.

[9]. Sai Teja G., Kiran Sai, M. Druva Kumar, R. Manikandan, (2018). Sentiment Analysis of Movie Reviews Using Machine Learning Algorithms- A Survey. *International Journal of Pure and Applied Mathematics*, Vol. 118, issue 21 pp. 3277-3284.

[10]. Bouihi, B., & Bahaj, M. (2019). Ontology and Rule-Based Recommender System for E-learning Applications. *International Journal of Emerging Technologies in Learning*, 14(15).

How to cite this article: Thilagavathy, A., Kavitha, P., Reddy, V.R.D., Jaswanth, Y. and Tadavarthi, R. (2019). Future Prediction using Twitter Mood Analysis. *International Journal on Emerging Technologies*, **10**(3): 160–165.