Promoting Genuine Products Through Textual Review Rating in Collaboration With Social Networking

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Available online at: www.ijcseonline.org

Abstract— In this technology driven world, we get an opportunity to share our views regarding different products by providing our valuable reviews. Through these reviews we a get a chance to extend our help in developing a better society by promoting genuine products into the market there by eliminating many false predictions. Through different review websites we get a chance to implore our ideas on different products. But we get information overloading problem. How to mine valuable information and provide the users with accurate data is a hectic task. Traditional Recommender system uses several factors such as user's purchase record, product reputation and so on. But the main problem in this system is the rating is generated on whole. There is a chance of considering wrong reviews also. In order to avoid these problems and provide the users with desired information, a new system was developed which is user friendly to the users where the rating is generated from the textual reviews provided by the users individually. When the rating is generated the user can share that whole data to his/her Facebook timeline so that the genuine products can be brought into limelight. By this project an attempt is made to build a better society by promoting genuine products into the market.

Keywords— Recommender System, rating, Facebook, Genuine Products.

I. INTRODUCTION

With the development of Web, more and more people are connecting to the Internet and becoming information producers instead of only information consumers in the past, resulting to the serious problem, information overloading. There is much personal information in online textual reviews, which plays a very important role in decision processes. For example, the customer will decide what to buy if he or she sees valuable reviews posted by others, especially user's trusted friend. People believe reviews and reviewers will do help to the rating prediction based on the idea that high-star ratings may greatly be attached with good reviews. Hence, how to mine reviews and the relation between reviewers in social networks has become an important issue in web mining, machine learning and natural language processing. It focuses on the rating prediction task. However, user's rating star-level information is not always available on many review websites. Conversely, reviews contain enough detailed food information and user opinion information, which have great reference value for a user's decision. Most important of all, a given user on website is not possible to rate every product or item. Hence, there are many unrated products or items in a user-item-rating matrix. In such case, it's convenient and necessary to leverage user reviews to help predicting the unrated items.

A. Sentimental Analysis

Sentiment analysis is the most fundamental and important work in extracting user's interest Preferences. In Sentiment is used to describe user's own attitude on product or items. It is observed that in many practical cases, it is more important to provide numerical scores rather than binary decisions. Generally, reviews are divided into two groups, positive and negative. review reflects a high star-level and a bad review reflects a low-level. When we know the Advantages and disadvantages from the two kinds of reviews, we can easily make a decision. Normally, if item's reviews reflect positive sentiment, then the item may be with good reputation. Oppositely, if item's reviews are full of negative sentiment, then the item is most likely with bad reputation. So based on users'' reviews sentiment, we can infer users'' Comprehensive ratings on items. However, it is difficult for customers to make a choice when all candidate products reflect positive sentiment or negative sentiment. To make a purchase decision, customers not only need to know whether the product or item is good, but also need to know how good the item is.

It's also agreed that different people may have different sentimental expression preferences. To address this problem we developed a new system for calculating the sentimental analysis. This project considers different sentiments of the users expressed through textual reviews and the rating is generated in regard to these sentiments

expressed as textual reviews. So that the actual opinion of the product in the view of user is expressed and the sentimental analysis is calculated. Rating along with the

B. Purpose of the project

The main agenda regarding the development of this project is to bring the genuine projects into the market thereby by enabling for the development of better society. In this approach we take the textual reviews of the user and calculate the rating individually by using sentimental analysis. Sentimental Analysis mainly projects the actual opinion of the user in the form of interpersonal sentiments. The sentimental analysis uses various values for positive and negative words. It is not possible to identify and place each and every word into the sentiment dictionary as we have vast no. of users whose accent and way of thinking may be different in such case we are using a sentiment dictionary called AFINN-111.The users can automatically see the sentiment analysis calculated even as they type their textual reviews and a rating would be given on the basis of sentimental analysis. Now comes the actual scenario where the user can post his entire information including the title of the product, name image and description of the project including rating generated from the sentimental analysis. As the social media has no bounds in today's world making such genuine reviews available to our friends or public helps them to choose the right product and there by encouraging best products into the market. There may be very few chance of a user providing wrong reviews to his/her friends. This may be further useful for data mining

II.   TECHNOLOGY DESCRIPTION

A. AFINN-111

AFINN-111 is a sentiment dictionary which consists a list of words named as positive and negative words and a differentiation is made between positive and negative words. These words are used to calculate the sentimental Analysis for the textual reviews generated by the users.

- p5.js is a JavaScript library that starts with the original goal of Processing to make coding accessible for artists, designers, educators, and

, beginners, and reinterprets this for today's web. Using the original metaphor of a software sketchbook, p5.js has a full set of drawing functionality. However, you're not limited to your drawing canvas, you can think of your whole browser page as your sketch! For this, p5.js has add-on libraries that make it easy to interact with other HTML5 objects, including text, input, video, webcam, and sound.p5.js is a new interpretation, not an emulation or port.

B .*HTML*

First developed by Tim Beemer Lee in 1990.HTML is a short form for hypertext mark-up language. HTML is used to create electronic documents (called pages) that are displayed on the World Wide Web. Each page contains a series of connections to other pages called hyperlinks. Every web page you see on the internet is written using one version of HTML code or another HTML code ensures the proper formatting of text and image so that your internet browser Internet browser may display them as they are intended to look. Without HTML a browser would not know how to display text as elements or load images or other elements.HTML also provides a basic structure of page upon which are overlaid to change its appearance. One could think HTML as bones (structure) of a web page and CSS as its skin (appearance).

C. *XAMPP*

A local server called XAMPP is used. XAMPP is a free and open source cross platform web server solution stack package developed by Apache Friends. It is simple, light-weight apache distribution that makes it extremely useful for developers to create a local web server for testing and development purpose.

III.   SYSTEM MODEL

A.Existing System

The existing system consists of 4 traditional methods which are used for calculating sentimental analysis generated by rating from textual reviews. The following are the Approaches

1.   Collaborative Filtering
2. Matrix factorization based approaches
3. Reviews based application

The above mentioned approaches mainly concentrate on how the rate is calculated depending upon the textual reviews. The rating here is generated on the whole. In this case the user may not get the desired outcome. This system may not give the actual output. The main disadvantages of this system is

1.   Zhang *et al.* propose a self-supervised and lexicon-based sentiment classification approach to determine sentiment polarity of a review that contains both textual words and emoticons. And they use sentiment for recommendation.
2. Lee *et al.* propose a recommender system using the concept of Experts to find both novel and relevant recommendations. By analyzing the user ratings, they can recommend special experts to a target user based on the user population
3. The rating generated through these systems is calculated on the whole. There may be a chance of wrong reviews.
4. Through these reviews we cannot determine the accuracy of the manufactured product.
5. This system will not be able to promote the genuine products into the market because there is a mixture of both real and fake reviews.

6. This system is not so user-friendly because the user wishes something and the outcome will be some other thing not satisfactory to user.

B.Proposed System

By overcoming the drawbacks of the existing system, a new system was developed. The main agenda regarding developing this system is to promote the genuine products into the market. This would be greatly useful as today we are living in the era of technology where human communication was becoming a thin air scenario. In this situation we may not always be able to depend on the suggestions of our friends, relatives etc. to purchase a product from online. In such a case the first and foremost thing that comes into our mind is to just look at the reviews. Though the user do not particularly focus on the reviews as the reviews are also fake. There is very less possibility that the reviews would be genuine. It is not mandatory that the persons whoever gives the reviews gives the genuine reviews. There are many users who just post the time pass reviews and the so called rating websites generate the revision a whole which would be totally false.

In such situation the situation of the user would be very pathetic. So an attempt is made to bring a change in the traditional system of generating the rating through the textual reviews. This attempt may be a small drop in the ocean but those small drops will form a big ocean. This system enables the user to make right choice and choose the best product .It is very common to generate individual rating from the textual reviews but we are adding a new feature to this project by involving social networking cites into the picture.

The idea of collaborating with social networking cites is to promote genuine products into the market. When the application generates the rating through the given textual reviews, the website provides the user to post the generated rating to the Facebook timeline of the user. So that the user gets a chance to make his/her friends know about the product he/she purchased and the features of the product and the rating generated. There are very less chances that a user provides wrong reviews to his/her friends. Whenever the user post's the rating the other get to know the detailed information of the product and they would then choose to buy the product or not depending upon his/her friends reviews. This would be of great use even for data mining.

IV.   IMPLEMENTATION

A.Modules Description

The following are the steps of the proposed approach

i.   A website is created as a front-end which enables the users to post their textual reviews. The user can post the following information about the product
- Post Author
- Post Date
- Post Image
- Post description.
- Post Title

ii.   A data base is created as a back end to store the information of the user's post.

iii.   Sentimental analysis is carried out for the textual reviews which further generate the rating.

iv.   Then by using the post button user can post the entire data to his timeline.

The application is developed as follows
A. For developing the front end HTML and CSS technology is used.
B. A local server called XAMPP is used for back end
C. AFINN sentiment dictionary is used to calculate the sentimental analysis.

Advantages:-

The following are the advantages of the proposedsystem
- In our paper, we not only mine social users the genuine ratings from those reviews.
- The main advantage of the proposed system is that we are proving the accurate rating sentiment, but also explore interpersonal sentimental influence and item's reputation. Finally, we take all of them into the recommender system.
- The purpose of our approach is to find effective clues from reviews and predict about the product to all our friends so that we can take in the genuine products into the limelight.
- This approach provides the genuine rating generated through accurate textual reviews.
- This enable to bring genuine products into the limelight

B. *Social Networking*

Social networks, which have almost become part of our daily lives, have established new communication structures and behaviours in society. While citizens and businesses have already extensively used social networks for years, governments continuously increase their interest in the new communication technologies. Sites such as Facebook, Twitter, and LinkedIn provide a mechanism for individuals to come together based on a variety of factors such as existing friendships, common interests, or work. People have discovered how the use of social networks can facilitate communication and the exchange/sharing of thoughts and degree to which two or more groups vary or differ in an experiment. Finally the selection of model for Prediction. Ideas. Governments have also discovered the potential for these sites to aid in government information sharing and outreach. At the same time, there are various issues surrounding such networks, including privacy, information leakage, blurred boundaries, and online addiction that must be addressed when discussing social networks. The Social Media and Social Networking Minitrack tackles social media and networks as it relates to e-government which may include the use of social media and networks by any level of government, the implementation challenges, trust and privacy issues, different patterns and trends of social networks, information sharing, information overload, and mobile social networking.
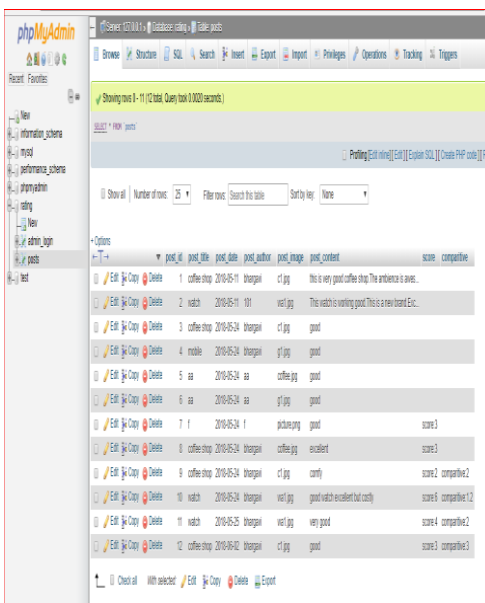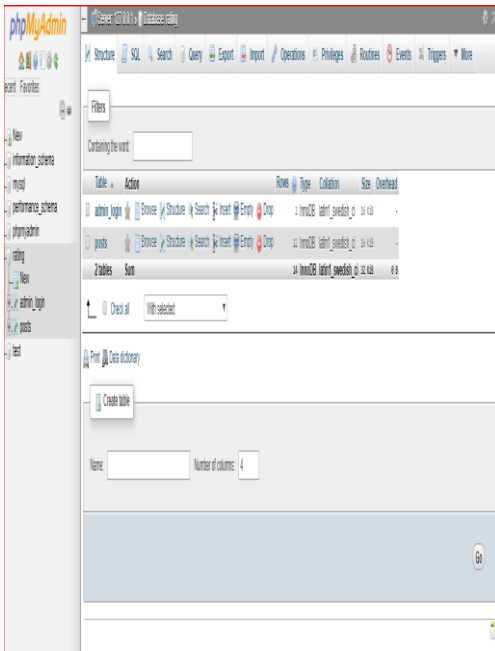
A. screens:-

a) Website :
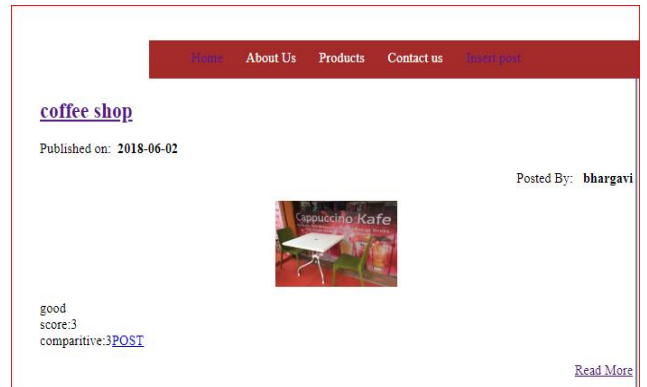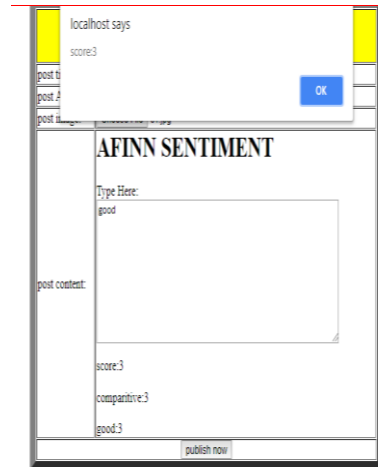
bDatabases:
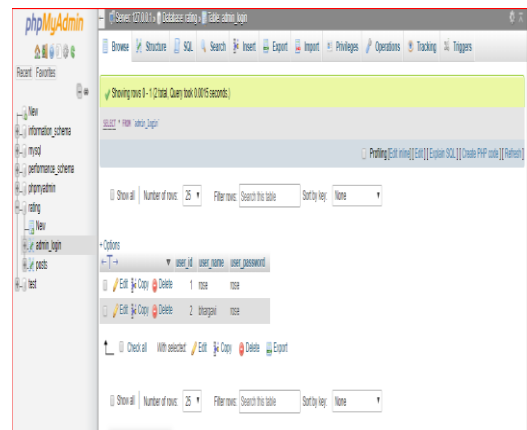
V.   CONCLUSION

The main agenda of this project is to enhance the Traditional method of generating reviews and providing the user's with desired information where the users can freely access the data. Originally the regular rating websites generate the rating considering the whole reviews of the products given by different users. Here there is a chance that those set of reviews may contain fake reviews. When the website generates the rating depending upon those reviews, there is a chance that user may not get the desired outcome. So, in order to overcome these shortcomings, A new system was developed where the user can express his/her views about the desired product by providing their genuine textual

reviews and when rating is generated depending on those genuine reviews, the user gets the genuine product. Here this system uses sentimental analysis to calculate the sentiment for the words generated by the user. With the help of the sentimental analysis we are modifying the old system of generating ratings by including sentiment dictionary called AFINN-111.Through this sentiment dictionary we can calculate the user's sentiment on the product. This sentiment dictionary separates the words of the textual review provided by the user into positive and negative words. Finally the user has the option to post his/her obtained sentimental rating to his Facebook timeline the by promoting it to the public and by bringing the genuine products into the limelight. The main idea of including the social Media application into the project is to build a better society by bringing genuine products into the limelight by avoiding the fake reviews and making the website user-friendly.

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