FAKE PRODUCT REVIEW MONITORING AND REMOVAL FOR GENUINE ONLINE REVIEWS USING IP FINDING AND GEO SPECIFICATION

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Abstract - *As the Internet continues to grow in both size and importance, the quantity and impact of online reviews gradually increases. Seller selling products on the web often ask or take reviews from customers about the products that they have purchased. As e-commerce is growing and becoming more and more popular, the number of reviews received from customers about the product increases exponentially. For a popular product, reviews can go up to thousands. This makes it difficult for the potential customer to read them and decide whether or not to buy the product. Problems also arise for tracking the manufacturer of the product and managing customer opinions. And additional difficulties are also faced by the manufacturer as many other merchant sites may sell the same product at good ratings and manufacturers normally produce many types of products. In this research, we want to summarize all the customer reviews of a product and compare the products based on reviews can be done on one place. This summary work may differs from traditional text summarization, as we only provide information on the product to which customers have expressed their opinion and whether the opinion is positive or negative.*

Key Words: **E-commerce, Spammer group, Non spammer group, Partially spammer group detection model, IP Finding.**

1. INTRODUCTION

One of the very rapid growth area is e-commerce. Generally e-commerce allows customers to write their reviews related to their service. During the decision-making process "what other people's thoughts are and their thinking" has always been an important source of information for most of us. Long before the awareness of the World Wide Web (www) became widespread, many of us requested our friends to recommend the mixer or to explain who they were thinking to vote for in the election, from friends to jobs requested reference letters regarding job applicants from friends, or consulted Consumer Reports to decide what mixer to buy. With the rapid expansion of e-commerce, many products are sold on the web, and many are also buying products online. In order to increase customer satisfaction, requirements and online shopping experience, it has become a common practice for online merchants to enable their customers to suggest opinions on the products that they have purchased. More and more common users are becoming comfortable with the web, with increasing numbers of people writing and posting reviews that are becoming beneficial to others. As a result, the number of reviews a product receives increases exponentially. Some popular products can get hundreds of reviews at some large merchant sites. And our application will give you promising reviews by filtering from other sites. And then you can decide what you want to buy or not.

2. EXSISTING SYSTEM

When performing any type of internet shopping, many users will spend their quality time into reading other user reviews when they become available. A survey conducted by Yelp.com showed that:

- More than 80% of users and shoppers do check and rely on reviews of the people.
- 50% rely on ratings of the online product they want to buy.
- 30% of the users compare the product's reviews with others product's reviews to get a reliable and trustworthy thing.

Clearly consumers value feedback given by other users as companies selling such products. Blogs, websites, discussion boards etc. are repositories of customer suggestions which are valuable and important sources of textual data. Therefore, today's individuals and older ones largely rely on available reviews. This means that people make their own decisions on whether to buy products or not by analyzing and reflecting existing opinions on those products. The fact is that if a potential customer or users get a genuine overall impression of a product by considering the current impact for that product, it is highly probable that they will actually buy the product. In general, if the percentage of positive and effective opinion is high, there is a possibility that the overall effect will be highly positive. Similarly, if the overall impression is not appropriate, it is doubtful that they do not buy the product. Now the customers can write any opinion text, this can motivates the individuals, and organizations to give undeserving spam opinions to promote or not to credit some target products, services, organizations, individuals, and even ideas without disclosing their true intentions. These spammed opinion information is called opinion spam.
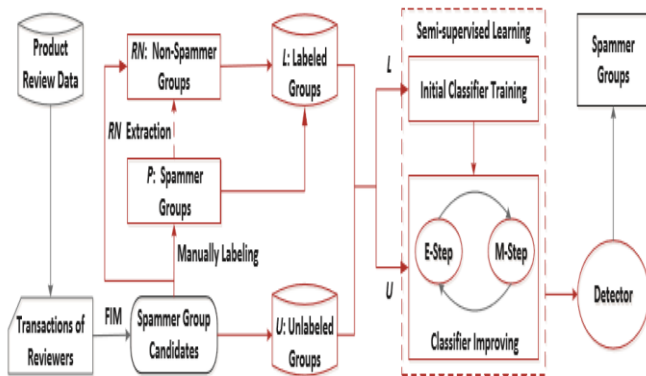
3. DETAILS OF TOPIC

Fig -1: Overview of the PSGD model

3.1 OVERVIEW OF PSGD MODEL

A spammer group consists of a set of reviewers who core views a set of common products. Thus, the data mining technique Frequent Itemset Mining(FIM) could be utilized to extract the groups. Although, many users may coincidentally group due to similar interest, the groups removed by FIM are only candidates for the spammer group and should be further investigated to identify the actual spammer groups. Therefore, there are usually two phases in detecting spammer groups: (i) Discover spammer group candidates, (ii) Identify actual spammer groups from candidates. Our proposed PSGD (Partially spammer group detection) model is also along this line. In the context of detecting a spammer group, reviewers are viewed as items and reviewers have co-reviewed a particular product, which is considered a transaction. By mining frequent item sets, we find groups of reviewers who have co-reviewed multiple products together as spammer group candidates. In extracted candidates, some spammer groups are manually labeled to set positive instances, denoted as P. Then, by automatically extracting some groups whose features are significantly different with instances in P, the reliable negative set (denoted as RN) consisting of only non-spammer groups will be constructed. Combining P and RN, we will obtain a labeled data set (marked as L) that contains both positive and negative instances, and the rest spammer group candidates with unknown classes will construct an unlabeled data set (denoted as U). Based on L and U, a semi-supervised learning classifier is trained to identify real spammer groups, which initials a Naive Bayes classifier on L and improves it on U.

4. PROPOSED SYSTEM

In this, the system is proposed with the improvement of the PSGD model identifying fake reviews. In this, the concept of finding IP is being applied along with semantic analysis. In this the fake review determination is done by using user id which may be indefinable sometimes so that it is necessary to go through the process in which exactly authenticate the

product review in this product id is get compared with the user IP as well as location of product purchasing in proposed before releasing the reviews we identify the all user details like IP of product purchasing and IP of review is get compared and verification technique will get implemented on this. The spammer group cannot use tangible IP machines, so that if the system checks the meaning of the given statement, it is possible to determine whether the review is of the spammer group or not. In this proposed IP finding and sentimental analysis are integrated with the PSGD model. So that the fake review determination in e-commerce website will be more powerful.

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4.1 OBJECTIVES

1. To evaluate the IP of the incoming reviews using IP finding technique.
2. To perform sentimental analysis over the incoming reviews.
3. Identifying the similarities in bad reviews with intercorrelated data.
4. User blocking implementation with improved PSGD model.
5. To implement Advance & fully Executable PSGD Model.

5. ADVANTAGES

1. Any fake review will be detected which will help managing e-commerce platform.
2. Any unlabeled review which has no tag will be detected and examine.
3. Sentimental based approach helps to get the output very effectively.
4. IP finding technique helps us to identify spammers group members effectively.

6. CONCLUSIONS

Now a day's technology is growing day by day and there are so many website and application available in the online market by which they sell their product. Every product contains millions of reviews and on basis of these reviews user buy the product most of the time. There are some organizations which post fake reviews on genuine product and user gets stuck.

Our model will help the user to pay for the right product. PSGD model supports the fake review detection with effective implementation in which the partially learning model has been implemented which is getting to be improved by the proposed methodology. So that it is get conclude the proposed method will helpful for detection of fake review effectively.

REFERENCES

[1]   Manleen Kaur Kohli; Shaheen Jamil Khan; Tanvi Mirashi; Suraj Gupta (2017). "Fake Product Review Monitoring and Removal for Genuine Online Product Reviews Using Opinion Mining". Volume 7, Issue 1, January 2017.

[2]   Cambria, E; Schuller, B; Xia, Y; Havasi, C (2013). "New avenues in opinion mining and sentiment analysis". IEEE Intelligent Systems. 28 (2): 15–21. doi:10.1109/MIS.2013.30.

[3]   Michael Beaney (Summer 2012). "Analysis". The Stanford Encyclopedia of Philosophy. Michael Beaney. Retrieved 23 May 2012.

[4]   Jeneen Interlandi. "The fake-food detectives". Newsweek. Archived from the original on October 21, 2010.