

Fake Product Review Monitoring and Removal System

Mr. Rajesh A. Sanadi¹, Ms. Mrunal U. Mane², Ms. Siddhi P. Budhale³, Ms. Nikita K. Suryawanshi⁴,
Ms. Rutuja T. Shivane⁴, Ms. Niharika M. Jakanur⁵

¹Department of computer Science, Dr. J. J. Magdum College of Engineering, Jaysingpur.

²Department of computer Science, Dr. J. J. Magdum College of Engineering, Jaysingpur.

³Department of computer Science, Dr. J. J. Magdum College of Engineering, Jaysingpur.

⁴Department of computer Science, Dr. J. J. Magdum College of Engineering, Jaysingpur.

⁵Department of computer Science, Dr. J. J. Magdum College of Engineering, Jaysingpur.

⁶Department of computer Science, Dr. J. J. Magdum College of Engineering, Jaysingpur.

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Abstract - As e-commerce is growing and becoming popular day-by-day, the number of reviews received from customer about the product grows rapidly. For a popular product, the reviews can go up to thousands. As the vast majority of the general population requires survey about an item before spending their cash on the item so, individuals go over different surveys in the site. In some review websites some good reviews are added by the product company people itself in order to make product famous. Customer won't most likely find out whether the review is genuine or fake. To find out fake review in the site this 'Fake Product Review Monitoring & Removal System' is presented. This framework will find out fake reviews by distinguishing the IP address. When the many reviews come from same IP address for same product then it will be considered as intentionally added fake review. Once admin get fake reviews he can delete it from the site.

Key Words: Fake, review, genuine, IP address

1. INTRODUCTION

Product reviews play an important role in deciding the sale of particular product on e-commerce websites or application like Amazon, Flipkart, Snapdeal etc. These reviews for the product may turn out to be positive or negative. The positive product review will grab much more attention of the customer than the negative reviews. Therefore, this product reviews can affect any business and they also have the potential to bring along financial losses or profits. Along with these true reviews, there many fake reviews which can affect the purchase of a good product. The intention of this system is to distinguish the fake opinions posted about products and the genuine one to intentionally change the overall sentiment of the products. The proposed system will save their efforts and time by helping the users and business organizations to identify spam reviews and also help in purchasing their valuable product from trustworthy site. "What other people

thoughts are and their thinking" has always been an important source of information for most of us during the decision-making process. Long before awareness of the World Wide Web (www) became widespread, many of us requested our friends to recommend a mixer or to explain who they were thinking to vote for in elections, 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 people are also buying products online. In order to enhance 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. With more and more common users becoming comfortable with the Web, a growing number of people are writing reviews and posting them which are becoming beneficial for others. As a result, the number of reviews that a product receives grows rapidly. Some popular products can get hundreds of reviews at some large merchant sites. And our application will give you the promising reviews by filtering them from other sites. And then you can decide what you want to buy or not.

2. LITERATURE SURVEY

When performing any type of internet shopping, many of the users will spend their quality time into reading other user reviews if they are available. A survey performed by Yelp.com has shown that: i) More than 80% of users and shoppers do check and rely on reviews of the people. ii) 50% rely on ratings of the online product they want to buy. iii) 30% of the users compare the product's reviews with others product's reviews to get a reliable and trustworthy thing. Clearly consumers value the feedback given by other users as do the companies that sell such products. Blogs, websites, discussion boards etc. are a repository of customer suggestions which are valuable and important sources of textual data. Therefore, today's individuals and older ones extensively rely on reviews available on line. It means that people make their decisions of whether to purchase the products or not by analyzing and reflecting the existing opinions on those products. The fact that is if the potential customer or users gets a genuine overall impression of a product by considering the present affect for that product, it is highly

probable that he will actually purchase the product. Normally if the percentage of positive and effective opinions is considerable, it is likely that the overall impression will be highly positive. Likewise, if the overall impression is not proper, it is doubtful that they don't buy the product. Now the customers can write any opinion text, this can motivate 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. METHODOLOGY

Nowadays technology is growing day by day and there are so many website and application are available in the online market by which they sell their products. There are millions of reviews available on base of reviews user buy the product most of the time. There are some organizations which posting fake reviews on fake product or on genuine product and user gets stuck. Our application will help the user to pay for the right product without getting into any scams. Our application will do analysis and then post the genuine reviews on genuine product. And user can be sure about the products availability on that application and reviews too. In some review websites, some good reviews are added by the product company itself in order to make product famous. User will not be able to find out whether the review is genuine or fake. This system will find out fake reviews by identifying the IP address. User will login to the system using his user id and password and will view various products and will give review about the product and the user will get genuine reviews about product. Also, while reviewing he needs to enter the email id from which he is reviewing and it would be verified. If he writes a fake review then his id will be blocked & not allowing him to post his reviews again.

3.1 Modules of system

The system comprises of 2 major modules with their sub-modules as follows:

- **Admin Login:**
Admin login to the system using his admin ID and password.
- **Add product:**
Admin will add product to the system.
- **Delete Review:**
Admin will remove the review which tracked by the system as fake.
- **User Login:**
User will login to the system using his user ID and password.
- **View product:**

User will be allowed to review only if he is logged into our online portal.

- **Post Review:**
After logging in user will be allowed to review for the product.
- **Tracks Fake Review:**
Once the user enters the review, the reviews will be processed and analyzed for spam on following conditions:-
 1. Analyzing whether multiple review have come from the same user.
 2. Analyze whether same email account or same IP address are used for multiple reviews on same product.
 3. Analyze the reviews or ratings to detect whether reviews are spam or not.

If the review posted by the user satisfies any of the above specified conditions then it will be considered as spam/fake review.

4. DESIGN APPROACH

4.1 System Architecture

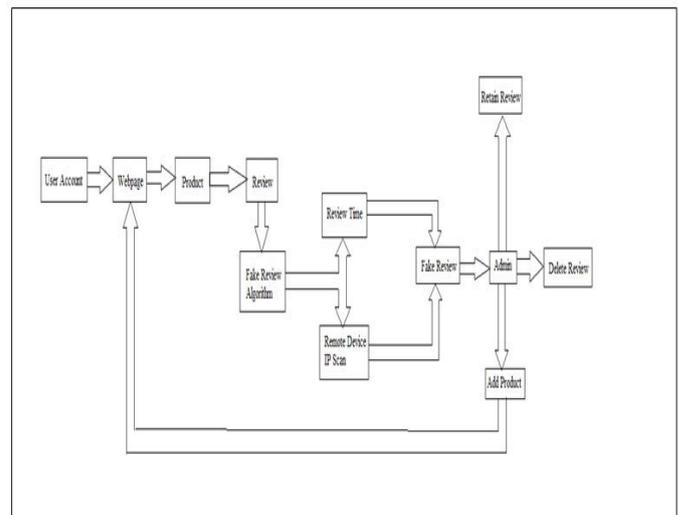


Fig -1

4.2 Data Flow Diagram

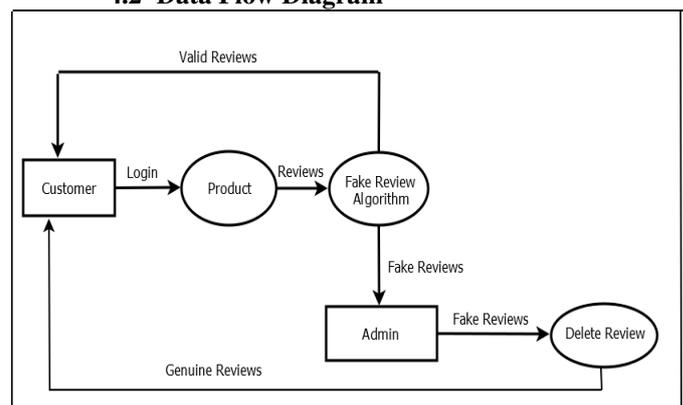


Fig-2

5. CONCLUSIONS

On e-commerce website every product contains millions of reviews and on the basis of these reviews user buy the product most of the time. There are some organizations which post fake reviews on genuine products and user gets stuck. Our software will help the user to pay for the right product. The system will do analysis and if any repeated reviews found from same IP address consistently then admin can block that IP address. In this way it monitors the fake review made on any product and can also delete it.

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