

# Spotting and Removing Fake Product Review in Consumer Rating Reviews

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**Abstract** 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 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. This creates difficulty for the potential customer to read them and to make a decision whether to buy or not the product. Problems also arise for the manufacturer of the product to keep track and to manage customer opinions. And also additional difficulties are faced by the manufacturer because many other merchant's sites may sell the same product at good ratings and the manufacturer normally produces many kinds of products. In this research, identifying opinion sentences in each review and deciding whether each comment positive or negative and while giving opinions if its fake then e-mail id is blocked.

**Key Words:** Data mining, Fake Reviews, IP address, Opinion mining.

## 1.INTRODUCTION

Today, the world has been taken over by the internet. The technological progress that takes place every day in this world is tremendous. In this fast-moving technological world, the internet is accessed by almost everyone who owns a smartphone or a desktop computer or a laptop. The internet has made our lives easier by helping us immensely in many ways. Most of the people can complete their work by sitting in one place and accessing the internet. For example, students carry out their projects by referring to online resources and study through online courses, and one of the most common things happening on the internet is the online shopping. People prefer to buy products online rather than going out and buying at the actual shops. Online shopping has grown tremendously. We see millions of orders being delivered to customer's door steps by companies providing online shopping facility. Before buying any product, people look at the ratings/reviews of that product to know whether the product is good or not. 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 popular day-by-day, the number of reviews received from customers about the product grows rapidly. So, people come across various reviews in the website, but whether those reviews are genuine is not identified by the user buying the product online. For a popular product, the reviews can go up to thousands. This creates difficulty for the potential customer to read them and to decide whether to buy or not buy the product. In some review websites, some good reviews are added by the product company people itself to make product famous. These people give good reviews for many products manufactured by their own firm. So, customers buying products online look at those reviews, think that the product is good and buy them. To find out and remove those fake reviews, this Fake Product Review Monitoring system is introduced. The basic idea is to track the IP address of the user submitting the review and if the same kind of review is coming from identical IP address, then those reviews are removed. The system also rates a product based on the reviews submitted by the customers. The system incorporates machine learning and opinion mining technology to rate a product.

## 2.EXSISTING SYSTEM

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 online. 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.

### Disadvantages of existing system

If the social media optimization team uses different IP address to send the review, system will fail to track the fake review.

### 3.PROPOSED SYSTEM

Many people require review about a product before spending their money on the product. People may come across various reviews in the website but these reviews are genuine or fake is not identified by the user. In some review websites some good reviews are added by the product company people itself in order to make product famous this people belong to Social Media Optimization team. Every one give good reviews for many different products manufactured by their own firm. User will don't know to find out whether the review is genuine or fake. To find out fake review this system is introduced. This system will find out fake reviews made by the social media optimization team by identifying the IP address. User will login to the system using 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. And while reviewing user needs to enter the email id from which he is reviewing and it would be verified. If user writes a fake review, then user id will be blocked and not allowing him to share his opinions again.

### Advantages of proposed system

- Users always gets genuine reviews about any of the products.
- Users can post their own reviews about their products.
- User can spend money on valuable products.

### 4. MODULES

**1. Admin:** Admin login to the system using admin ID and password and adds the product, views and delete the review which is informed by the system.

**2. User:** User will login to the system using user ID and password and views different products and post reviews for the products.

**3.Server:** If the system finds a review is fake it will inform the admin to remove the fake review.

### 5.RESULTS



Fig.1: Add Product

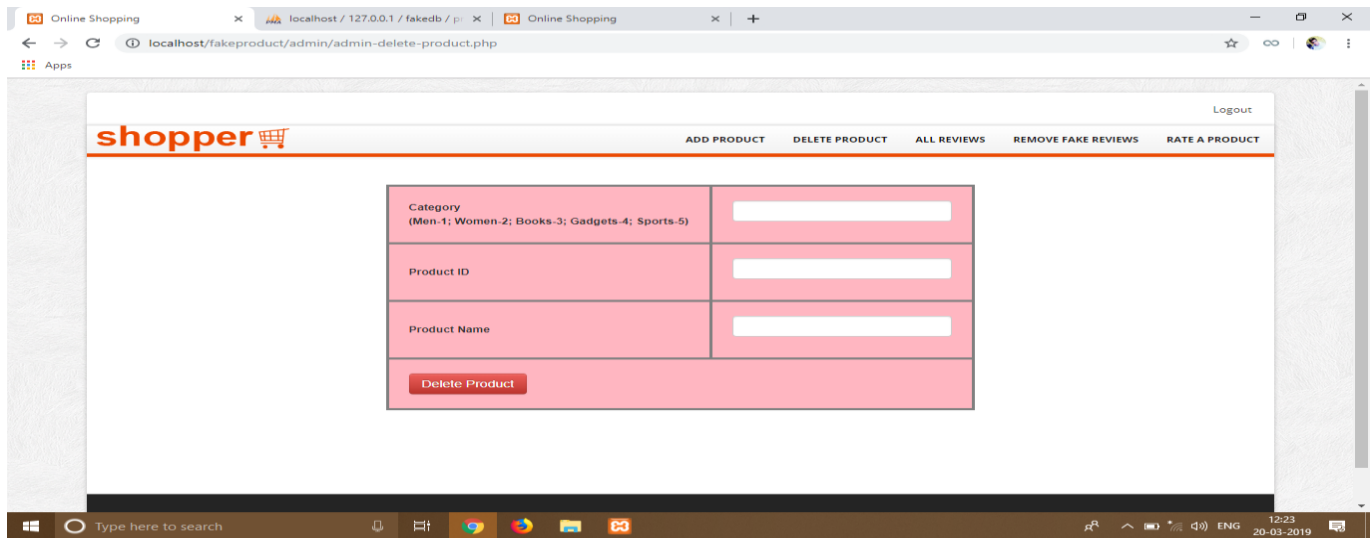


Fig.2: Delete products

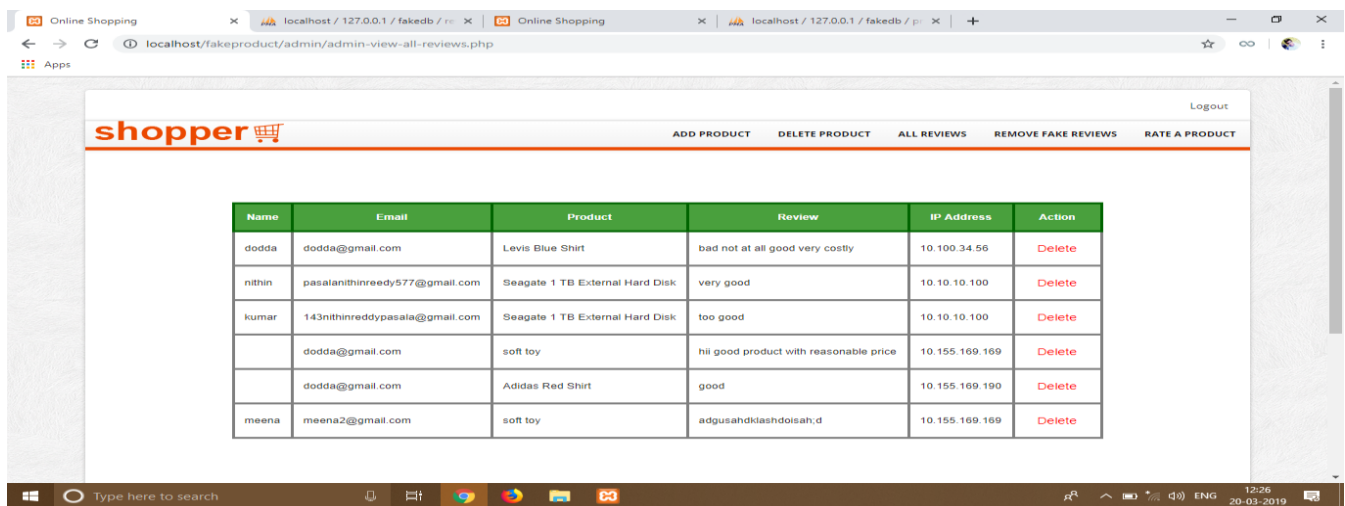


Fig.3: View all reviews

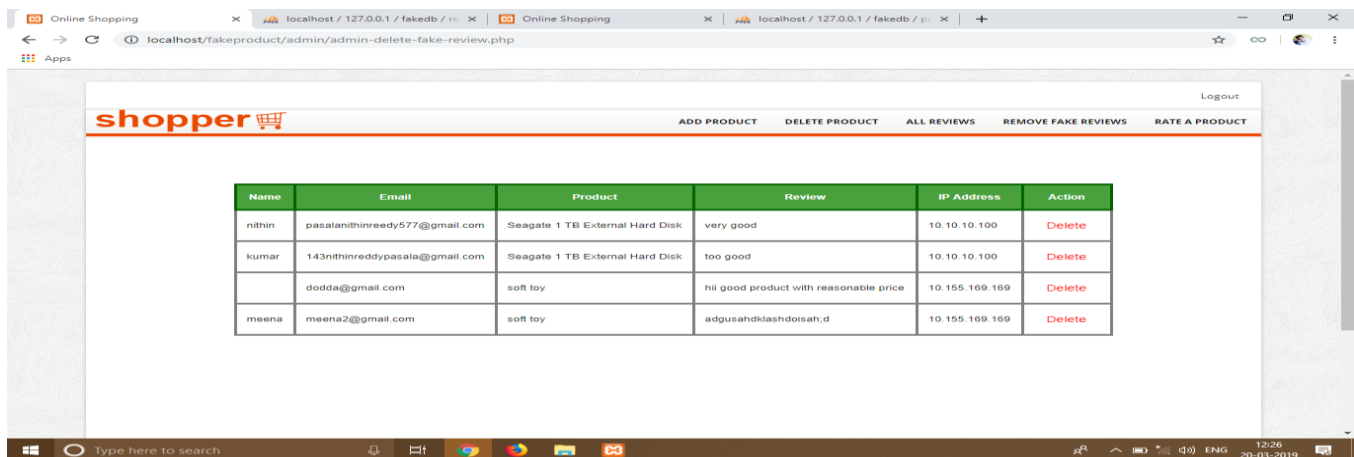
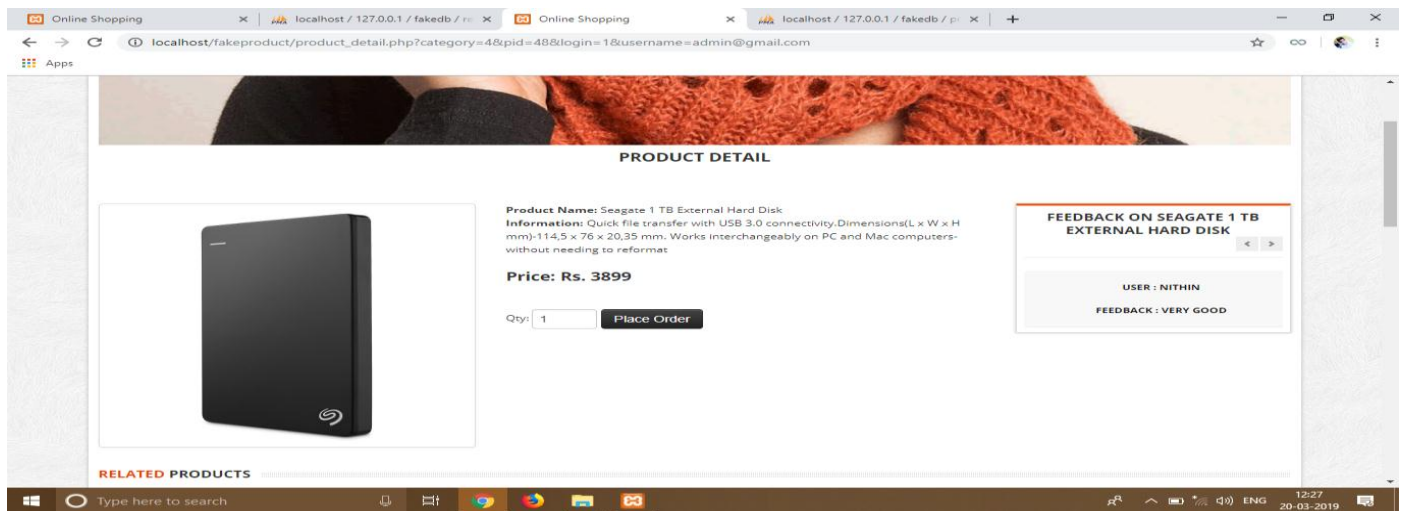


Fig.4: View fake reviews



**Fig.5:** product view page

## 5. CONCLUSIONS

Finding the opinion spam from huge amount of unstructured data has become an important research problem. Now business organizations, specialists and academics are putting forward their efforts and ideas to find the best system for opinion spam analysis. Although, some of the algorithms have been used in opinion spam analysis gives good results, but still no algorithm can resolve all the challenges and difficulties faced by today's generation. More future work and knowledge is needed on further improving the performance of the opinion spam analysis. There is a huge need in the industry, in day-to-day life for such applications because every company wants to know how consumers really feel about their products and services and those of their competitors by analysing true reviews not spam reviews. This research proposes an opinion spam analyser which automatically classifies input text data into either spam or non-spam category. The proposed system will use machine learning supervised technique. The chosen algorithm based on simulation work is Support Vector Machine (SVM).

## 6. FUTURE ENHANCEMENT

A direction for future research is to implement the system and check performance by applying proposed approach to various benchmark data sets. Comparing performance of different classification methods to find the best one for our proposed opinion spam classification method could be another future research direction. However, there exist other kinds of review or reviewer related features that are likely to make a contribution to the prediction task. In the future we will do further investigate different kinds of features to make more accurate predictions.

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