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Product Evaluation and Ranking Using Machine Learning

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ABSTRACT: In the technical field, e-commerce is growing nowadays. As it has a lot of advantages but there are also disadvantages and risks in e-commerce websites. There are risks like posting fake reviews of a product, not giving proper ratings to products, fake websites, defective products, etc. Because there are many e-commerce websites, customers get confused about which website to use for buying products. To overcome these problems we have designed a system that can help users.

Our system gives ranking and ratings to websites using customer's reviews with the help of artificial intelligence. Online shopping has taken new roll with advancement in the technology, Customer can buy any product from anywhere using internet. According to product quality the customer can review , rate or comment the product. The main aim of this project is to provide users with a rating generated according to the product quality and many more. There are many Shopping websites on internet .Fraud can occur on a regular basis from illegitimate websites.

In this paper we proposed a system which evaluates the product based on the reviews or opinions of the experienced customers.

KEYWORDS: Product, Machine Learning, Mining.

I. INTRODUCTION

The large number and the variety of existing products and their increasing role in social and economic contexts demand for flexible methods and tools to support product quality evaluation in an efficient way.[1]

Every passing day the number of product on the internet are growing. Due to this it is difficult for the customer to choose a good product.[2]

Due to the increase in fake review of product on website it is important to evaluate this review so that the customer can get valuable product.

II. LITERATURE REVIEW

In this paper [3], spam campaigns that have been discovered on well-known product review websites (like amazon.com) have drawn increasing interest from both industry and academics. In these campaigns, a team of online posters is employed to work together to create false evaluations for some target products.

In this paper [4], online product review have become into a significant source of customer opinions. Some people have been creating false or misleading reviews to promote an denigrate some specific businesses or services due to money or fame. Several strategies have been put out to address the issue. Use a different strategy that takes advantage of reviews' to spot review spammers.

Online reviews of goods and services can be highly helpful to clients, but they must be safeguarded from manipulation, according to paper [5] The majority of studies mainly examined online reviews from a single hosting site. Here the Strategy to Create a methodical approach to combine, contrast, and assess evaluations from various hosting sites in response.

In this paper [6] it is found that users increasingly rely on user-generated content, such as comments on Yelp and Amazon reviews and liked post and ad content on Facebook. This has created a market for underhanded marketing strategies like collusion networks, bogus accounts (like Sybil), and compromised accounts. The majority of current methods for detecting this behaviour rely on supervised (or semi-supervised) learning over actual or potential attacks

According to paper [7] Due to their growing significance, there is a greater chance for spammers to fabricate evaluations in an effort to promote their products and services or disparage those of their rivals. There have been numerous research on the best approaches to identify review spam using different machine learning algorithms in response to this rising issue. The conversion of reviews to word vectors, which has the ability to produce hundreds of thousands of features, is a recurring theme in the majority of these investigations.

Basic Definations

1. Product Evaluation :

Product Evaluation is the process of evaluating the suitability and safety of the product for you by consumers.[7]

2. Opinion Mining:

Opinion mining is also known as sentiment analysis, is a text analysis technique that automatically mines text for opinion and emotion.[8]

3. Sentiment Analysis :

Sentiment analysis is an approach to natural language processing(NLP) that identifies the emotional tone behind a body of text.[9]

4. Machine Learning:

Machine Learning is a branch of artificial intelligence and computer science which focuses on the use of data and algorithms to imitate the way that humans learn, gradually improving it's accuracy.[10]

III. EXISTING SYSTEM

Nowadays, a lot of individuals frequently use e-commerce websites to do online shopping for a variety of things. But they constantly struggle to find the ideal product that meets their needs. They are unsure about the product's quality as it is advertised on websites. Additionally, a huge number of people are falling prey to various e-commerce frauds.

People experience disappointment after purchasing a product that is either of poor quality or has some sort of flaw. This system is suggested as a solution to these problems.

Understanding all of the issues that customers confront served as the driving force for the creation of this concept and project.

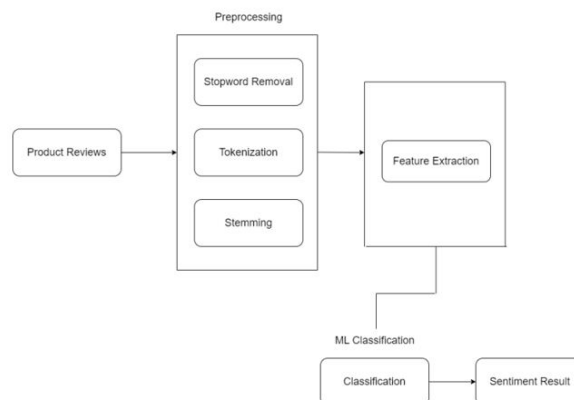


Figure 1. Existing System Architecture

The data is collected and pre – processed and feature extraction and classification is done to obtain sentiment results.

IV. PROPOSED SYSTEM

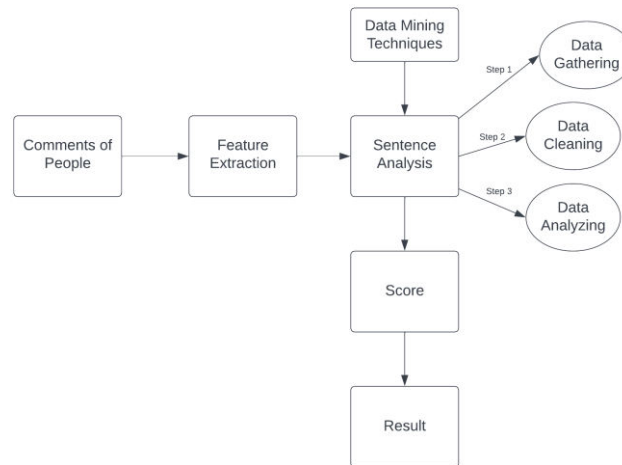


Figure 1. Proposed System Architecture

In this System the comments of people and reviews are collected and feature extraction is done. The data is cleaned and analysed ,By using data mining techniques and sentiment analysis. The score is generated om basis of sentiment analysis and product is rated.

The Final list of products is generated according to score and products are ranked.

V. CONCLUSION

The customer gains a better grasp of e-commerce websites thanks to our method. It shields the client from falling victim to fraud. They will receive a thorough survey about the quality of the service or customer comments regarding those online stores.

Our system might serve as a critic for the shopping sites, pushing them to fix their flaws. Depending on the data's accessibility, our solution can be extended to many industries. Additionally, it is available to customer opinions based on their regular online buying experiences. It will recommend the top product among the many product.

To overcome the cyber frauds. To make the customers aware of fraudulent websites using customers reviews.

REFERENCES

- [1].Aditya Bhatnagar(1), Maaz Nomani(2), Ketan Pujare(3), Dr. Sunil Wankhade(4), “Website Evaluation Using Opinion Mining”, International Journal on Recent and Innovation Trends in Computing and Communication vol :6
- [2]P KEERTHANA#1, B MEGHANA#2, P AKSHAYA#3, “WEBSITE EVALUATION USING OPINION INING”, International Research Journal of Engineering and Technology (IRJET) vol:8, august 2020
- [3] Ch. Xu and J. Zhang,” Combating product review spam campaigns via multiple heterogeneous pairwise features”, In SIAM International Conference on Data Mining, 2014.
- [4]. G. Fei, A. Mukherjee, B. Liu, M. Hsu, M. Castellanos, and R. Ghosh, “Exploiting bustiness in reviews for review spammer detection”, In ICWSM, 2013.
- [5]. A. j. Minnich, N. Chavoshi, A. Mueen, S. Luan, and M. Faloutsos, “True view: Harnessing the power of multiple review sites”,In ACM WWW, 2015..



- [6]. H. Li, Z. Chen, B. Liu, X. Wei, and J. Shao, "Spotting fakereviews via collective PU learning", In ICDM, 2014.
- [7]. M. Crawford, T. M. Khoshgoftaar, and J. D. Prusa, "Reducing Feature Set Explosion to Faciliate Real-World Review Sapm Detection", In Proceeding of 29th International Florida Artificial Intelligence Research Society Conference, 2016.
- [8]. <https://researchamericainc.com/services/Product-PackagingEvaluation.php#:~:text=Product%20Evaluation%20is%20the%20process,to%20evaluate%20the%20products%20fully>.
- [9]. <https://monkeylearn.com/blog/opinion-mining/>
- [10]. <https://www.techtarget.com/searchbusinessanalytics/definition/opinion-mining-sentiment-mining>



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