

Fake Product Review Monitoring

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Abstract: Online reviews and comments after product sales have become very important for making buying and selling decisions. Fake reviews will affect such decisions due to deceptive information, leading to financial losses for the consumers. Identification of fake reviews has thus received a great deal of attention in recent years. However, most websites have only focused on dealing with problematic reviews and comments. Amazon and Yelp would only remove possible fake reviews without questioning the sellers who could continue posting deceptive reviews for business purposes. In this paper, we propose a method for the detection of fake reviews based on review records associated with products. We first analyze the characteristics of review data using a crawled Amazon China dataset, which shows that the patterns of review records for products are similar in normal situations. In the proposed method, we first extract the review records of products to a temporal feature vector and then develop an isolation forest algorithm to detect outlier reviews by focusing on the differences between the patterns of product reviews to identify outlier reviews. We will verify the effectiveness of our method and compare it to some existing temporal outlier detection methods using the crawled Amazon China dataset. We will also study the impact caused by the parameter selection of the review records. Our work provides a new perspective of outlier review detection and our experiment demonstrates the effectiveness of our proposed method.

INTRODUCTION

Social media is an effective informational channel for sharing details about the goods and services offered by online retailers. Customers who have purchased the goods themselves offer this information. Analysis of customer-cited features and specifications based on their sentiment. These descriptions and reviews may be found on the Flipkart and Twitter websites. Reviews of features/specifications from the Twitter and Flipkart websites were taken into account for this study project. As a result, the work's analysis of customers' issues with purchasing high-quality goods was its main focus. For the purpose of evaluating comments, this work automates the process of extracting semantic-based elements or features and their opinions

LITURATURE SURVEY

1. Paper Name: Aspect based Sentiment Summarization using Fuzzy Logic Author: Jenifer Jothi Mary, Dr. L. Arockiam Abstract :- Online business is one of the rapidly growing business sectors of current world. Now-a-days people purchase a lot of things from online shopping sites. Sales of online products are most often review driven. Thus, detecting deceptive reviews is getting more importance day by day. Sentiment analysis has great importance in fake review detection system. This paper introduces a sentiment analysis model that can separate positive and negative sentimental reviews efficiently. It shows an analysis of sentiment distribution for fake and truthful reviews.

2. Paper Name: :- A Framework to enhance the Accuracy of Aspect level Sentiment Analysis in Big Data Author: Jenifer Jothi Mary Arockiam L Abstract : — In this era of WhatsApp, Facebook, Twitter, Instagram, and various other social media platforms, we all are connected to each other's thought in one way or another. The Internet has brought us closer to everybody's work, place, plans, ethics, feelings, and emotions. Reviews also help in identifying the market conditions and strategies, and it could be done via Sentimental analysis as it helps us in identifying the things that are in trend and helps the organizations, businesses to utilize and expand accordingly It can also be used in general by people themselves to look for which movie to watch to which laptop to buy, but when we encounter spam reviews we sometimes do not know whether they are fake or not in reality, but they do change our point of view. In this article, we go through this in a step-by-step format of different papers and summarize for other readers how we can identify the correct emotions and differentiate between the real and fake reviews. Using some researches, we get to know in-depth about how to choose the correct dataset, and the challenges faced.

MOTIVATION

In the recent years, It became difficult for users/customers to buy authentic, genuine and trustworthy products without like reading and seeing reviews of that products, but due to a lot of fake reviews generated on these e-commerce websites by spammers and many more people, customers gets confused about whether to buy or not and even if they purchase the product, still they somewhat fear and feel bad if the product is not worthy of the money they paid or we can say that people are not that much satisfied by that product. The main aim of our project is to detect these fake reviews and classify those reviews into genuine and fake, so that customers can feel free after knowing the authenticity of the product and they can buy those products based on the information they get. This can even help businesses in addressing the fake reviews on their websites.

AIM& OBJECTIVE

- To solve the major problem faced by online websites due to opinion, this project proposes to identify any such fake reviews by classifying them into fake and genuine.

- The implementation of this project uses supervised learning technique on the datasets and the fake and genuine labels help us to cross validate the classification results of the data.

SYSTEM ARCHITECTURE

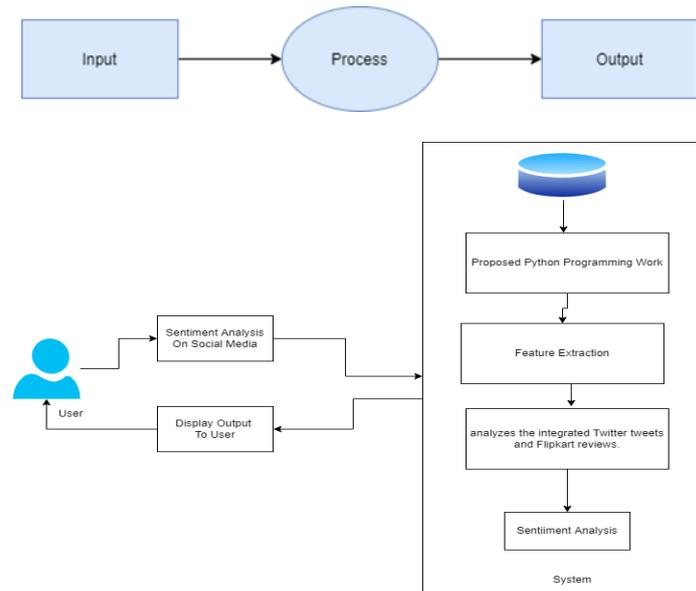


Fig -1: System Architecture Diagram

APPLICATION

- The applications of opinion mining is in the online and e-commerce reviews of consumer products, feedback and services.
- This will help customers and businesses to classify the reviews and know the authenticity of a product or service which businesses are providing or customers are getting.
- Customers will be freely doing the selection and purchase of the product after knowing the authentic reviews of the product

FUNCTIONAL AND NON-FUNCTIONAL REQUIREMENTS

- Database Interfaces DBSQLITE.
- Performance Requirements: The performance of the functions and every module must be well. The overall performance of the software will enable the users to work eciently. Performance of encryption of data should be fast. Performance of the providing virtual environment should be fast Safety Requirement. The application is designed in modules where errors can be detected and xedeasily. This makes it easier to install and update new functionality if required.
- Safety Requirement: The application is designed in modules where errors can be detected and fixed easily. This makes it easier to install and update new functionality if required.

SYSTEM REQUIREMENTS

Software Used:

- Python 3.8.
- Anaconda Navigator
- IDE : Spyder
- Pip 20.2.2
- SQLite DB

Hardware Used:

- System : Intel I5 Processor.
- Hard Disk : 40 GB.
- Monitor : 15 • Ram : 16

CONCLUSION

In this system we have proposed a fundamentally different approach to address the issue of multi-output for classification tasks. Previous approaches worked with the assumption that different classes need to be mutually exclusive in multi-class or multi-label classification tasks, due to discriminative learning of classifiers. In this system we have proposed to transform a discriminative single-task classification problem into a generative multi-task classification problem.

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