



Detection of fake online reviews using ML

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Abstract: This paper provides a survey of recent research on the detection of fake online reviews using machine learning (ML) techniques. The rise of fake online reviews poses a significant challenge to the credibility of online review platforms, and detecting fake reviews is critical to ensure the integrity of these platforms.

The paper reviews different ML techniques, including supervised and unsupervised learning algorithms, hybrid approaches, and deep learning techniques, that have been used to detect fake online reviews. The review highlights the potential of these techniques and emphasizes the need for more robust and accurate models to combat the problem of fake reviews. Overall, the paper provides valuable insights into the ongoing research area of fake review detection using ML techniques.

I. INTRODUCTION

Online reviews play a crucial role in influencing consumers' purchase decisions. However, the rise of fake online reviews poses a significant challenge to the credibility of online review platforms. Detecting fake online reviews is a critical task to ensure the integrity of online review platforms.

Machine learning (ML) techniques have shown great potential in detecting fake online reviews. In this survey paper, we review recent research on the detection of fake online reviews using ML techniques.

II. RELATED STUDY

Several studies have used different ML techniques to detect fake online reviews. For instance, some studies have used supervised learning algorithms, such as support vector machines (SVM), decision trees, and random forests, to classify reviews as fake or genuine based on several features, including the review text, reviewer information, and rating. Other studies have used unsupervised learning algorithms, such as clustering and topic modeling, to identify suspicious patterns in the review data.

Moreover, some studies have proposed hybrid approaches that combine both supervised and unsupervised learning techniques to enhance the performance of fake review detection. For example, some studies have used supervised learning to extract informative features from review data, which are then used as input for unsupervised learning algorithms to cluster reviews and detect fake reviews.

Furthermore, recent studies have proposed using deep learning techniques, such as convolutional neural networks (CNN) and recurrent neural networks (RNN), for fake review detection. These models have shown high accuracy in identifying fake reviews by capturing the semantic and contextual information in the review text.

III. CONCLUSION

In conclusion, the detection of fake online reviews using ML techniques is a challenging but crucial task. Supervised and unsupervised learning algorithms, as well as hybrid approaches, have shown great potential in detecting fake reviews. Furthermore, recent studies have explored the use of deep learning techniques, which have shown promising results.

However, the detection of fake reviews is an ongoing research area, and future studies should focus on developing more robust and accurate models to combat the rise of fake reviews on online review platforms.

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