

An Examination of the Existing Literature Concerning Fraudulent Online Reviews: Obstacles and Potential Remedies

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Abstract:- In the contemporary digital era, online consumer evaluations exert significant sway over purchase choices, shaping consumer viewpoints and affecting business profitability. Nonetheless, the rise of counterfeit reviews has emerged as a notable apprehension, prompting scholars to investigate various methodologies for identification. This extensive review paper acts as a reservoir of information, consolidating an extensive array of literature dedicated to detecting fake reviews. It meticulously scrutinizes diverse datasets, illuminating the numerous hurdles posed by these misleading entries. Despite progress made in curtailing the impact of counterfeit reviews, this review exposes persisting gaps in our comprehension. Consequently, it calls for steadfast exploration and ingenuity in the realm of fake review detection. As the digital landscape continues to evolve, so too must our approaches to safeguard the authenticity of online consumer input.

Keywords:- Fake Review Detection, Sentiment Analysis, Machine Learning Algorithms, Deep Learning Methods.

I INTRODUCTION

In today's digital landscape, online consumer reviews have emerged as vital sources of information for decision-making, offering valuable insights into product quality and service satisfaction. However, the integrity of these platforms faces a significant threat: the proliferation of fake reviews. Crafted to deceive and sway consumer perceptions, these deceptive evaluations undermine the credibility of online review systems, eroding consumer trust. This review paper undertakes a thorough examination of the realm of fake review generation and detection, drawing on a diverse range of scholarly contributions. Through these insights, the complex issue of fake reviews is illuminated, and evolving strategies and methodologies for combating them are revealed. Businesses operating in the e-commerce sphere have come to understand the pivotal role of user reviews in shaping consumer perceptions and influencing purchasing decisions. Nevertheless, these platforms have increasingly become targets for dishonest actors who employ fake reviews to artificially boost the appeal of inferior products or tarnish the reputations of competitors. Such fraudulent practices cast doubt on the authenticity of consumer feedback platforms, necessitating robust interventions. Research papers highlighted in this review delve into various aspects of the fake review challenge. Some explore

the creation and identification of fake reviews, utilizing advanced natural language processing techniques like ULMFiT and GPT-2 to generate synthetic product reviews based on extensive e-commerce datasets. These studies indicate that machine classifiers exhibit considerable potential in identifying fake reviews, often surpassing human raters in terms of accuracy, consensus, and efficiency. Another cluster of research papers delves into the techniques utilized for detecting fraudulent feedback. This exhaustive survey of scholarly works provides valuable insights into the evolution of detection methodologies within the domain of fake review identification. The papers pinpoint deficiencies in current research and underscore the promise of advanced models like RoBERTa in bolstering detection accuracy. In summary, the collective body of research papers underscores the seriousness of the fake review challenge in the digital age and the varied and evolving approaches employed in its detection and mitigation. This review paper aims to synthesize these discoveries, offering a comprehensive overview of the field, identifying research lacunae, and outlining a trajectory for future research and practical implementations. By comprehending the diverse aspects of fake review generation and detection, this paper endeavors to equip businesses, consumers, and online platforms with the tools to navigate the intricate realm of online reviews and make well-informed decisions.

II LITERATURE REVIEW

Mohawesh et al.[1] propose considering several factors such as review count, review length, review duration, positive ratio, and negative ratio to detect fake reviews. They suggest using AI techniques, particularly gathering similar articles, predicting their content, topic similarity, and keyword extraction from news stories. By analyzing the time spent reading an article, the system learns user interests, determining whether the user likes the article and their indicated levels of interest in other subjects. Given the proliferation of news reports, it is crucial to develop a solution that guides consumers to relevant articles based on their preferences. The proposed framework combines various approaches to news recommendations to further improve the likelihood of suggesting a relevant article to users.