IDENTIFYING FAKE NEWS AND TWEETS USING ANOMALY DETECTION

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Abstract: The wide use of social media has tremendous impact on culture, business, and politics on the world at large with potentially positive and negative effects. For example, social media coverage of crisis events may be used by authorities for effective disaster management or by malicious entities to spread rumors and fake news for financial or political benefit. Considering the harmful consequences of fake news in social media, there is a profound need to detect false information, control and/or prevent it from spreading. In this paper, we propose an advanced framework to identify tweets with fake news contents using techniques including statistical analysis of Twitter user account, cross verification of fake news sources, and data mining. Experimental results on a large miscellaneous events dataset demonstrate the effectiveness of our proposed approach in identifying fake tweets.

Keywords: Social media, Fake News, Twitter.

Introduction:
With people spending more time on the social media platforms, they are more prone to consume information from social media. Social media is free of cost, easy to access and help one to express opinions and hence it acts an excellent source for an individual to consume information from social media. But the quality of news on social media is generally lower than the traditional news organizations. It is because anyone can spread information they want in the social media and there is no regulating authority to control the information. Fake news, as a specific type of disinformation, means the false information that is spread deliberately to deceive people. Some individuals and organization use social media as a tool to spread disinformation for financial and political gains. It was approximated that over million tweets are related to fake news “Pizza gate” by the end of US presidential election. This consequence has adverse effects and the opinions of people are biased because of fake news. Thus, it is important to address this issue. So solve this kind of problem we are introducing fake news detection system on twitter.

Related work:
Fake news has gotten a massive amount of exposure since 2016, and it is still important in the public eye. Because of this, the research into how it is impacting the society and how it can be battled has increased. This chapter presents some of the most prominent research done concerning fake news, misinformation, and propaganda.
An addition to detection and classification of fake news into the categories "Fake" or "Non-Fake", systems created to understand the context of the textual cues have shown good results. Fake News Challenge [1] was a competition aimed at Stance Detection. Stance detection is determining the relative perspective a news source takes towards a specific claim. A detailed summary about FNC can be found in section The competitors used widely different methods, but the best results were achieved using mixtures of modern and well-tested methods. The winning team used a mixture of deep learning and decision trees [2] where the tree model included well-known methods like TF-IDF, Word2Vec and sentiment features.

Motivation:
Any fake news can make bad impact on the community and society. Fake news can harmful for student and social worker it will dangerous for new generation people. Some people make money from fake news and most of people are use on social site so it very good concept to detect fake news on social site.

System Architecture:
We are introducing this System, that managing Real-Time Fake news monitoring System. This application can be used to detect an anomalous event whenever some user posts any tweets Fake News related to trending topic. In this project we are going to form graph that are related to all tweets distributed with an efficient and linear scalable properties. The proposed this system is more useful to find out real time incoming tweets (text stream) to detect fake tweet.
Conclusion:
The concept of fake news detection in social media is particularly new and there is ongoing research in hopes that scholars can find more accurate ways to detect false information in this booming, fake-news-infested domain.

Fake news can be accurately identified using machine learning methods. In the experiment, selected data collected from Twitter are profiled with attributes. From this information, all the machine learning methods: Naive Bayes, coreNLP, are very good at Detecting Fake news with high confidence. Of course, it may not present the whole spectrum of News in the real world. However, there is enough evidence that Fake news is not too difficult to detect, at least in some selected domain. It is also difficult to say with confidence how much the result of this Experiment can be applied to real-world news. We hope to broaden the scope of our data collection and try to apply our method in a more general way in the future. Our system detects fake news on twitter.

References: