


An Intelligent Approach to Detect Fake News Using Artificial Intelligence Technique

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ABSTRACT

There is a lot of fake news roaming around various mediums, which misleads people. It is a big issue in this advanced intelligent era, and there is a need to find some solution to this kind of situation. This article proposes an approach that analyzes fake and real news. This analysis is focused on sentiment, significance, and novelty, which are a few characteristics of this news. The ability to manipulate daily information mathematically and statistically is allowed by expressing news reports as numbers and metadata. The objective of this article is to analyze and filter out the fake news that makes trouble. The proposed model is amalgamated with the web application; users can get real data and fake data by using this application. The authors have used the AI (artificial intelligence) algorithms, specifically logistic regression and LSTM (long short-term memory), so that the application works well. The results of the proposed model are compared with existing models.

KEYWORDS

Artificial Intelligence (AI), Deep Learning (DL), Logistic Regression, Long Short-Term Memory (LSTM), Machine Learning (ML)

INTRODUCTION

The Artificial Intelligence (AI) and Machine Learning (ML) are the recent trend in this digital advancement. It is used in the every corner of the industries to perform the repetitive tasks but they are trying to apply AI to perform the task as human. The healthcare industries are widely applying AI techniques to perform the medical diagnosis, prognosis and treatment with high accuracy (Das, Biswas, et al., 2018; Das et al., 2019; Das, Sanyal, & Datta, 2018; Das, Sanyal, Datta, et al., 2018; Das & Sanyal, 2020). Now, the issues in that areas is that how to acquire accurate data as well as information. If any clinic provide fake information then there will be a trouble in diagnosis by using AI. In this regard, the fake data, information, or news detection is most significant in the literature.

The term “News” corresponds to facts about news events, this will be wiped out a range of the way, including word of mouth, writing, postal services, broadcasting, transmission, and therefore the testimony of incident observers and witnesses. War, government, politics, education, health, the

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environment, economy, industry, fashion, and entertainment, furthermore as sporting events and quirky or unusual events, are all common topics for news coverage. Since precedent days, government proclamations about royal rituals, rules, taxation, public health, and criminals are dubbed news. Our world is rapidly transforming. Without the necessity for hesitation, the technological society contains a lot of advantages, but it also has some drawbacks. In today's digital world, there is a range of topics to think about. Misinformation is one in every of them. Fake news is de facto easy to spread. Fake news is disseminated additionally to damaging somebody's or organization's credibility. It is getting used to spread propaganda against a organization or an association. This may be accustomed manipulate belief against a organization or a corporation. There is a spread of treatment outlets where fake news may be circulated. The strength of the web publishing news of online content will rely on the predictability and rigidity of a content management system. Humans are naturally not good at differentiating between real and fake news because it will affect the mind. Therefore, this model is differentiating the real and fake news so that humans will be alert. The model is to analyze and filter out the fake news, which makes trouble panic. This model makes users likely to choose "socially safe" options when consuming and disseminating news information, following the norms established in the community even if the news being shared is fake news. A social bot refers to a social media account that is controlled by a computer algorithm to automatically produce content and interact with humans (or other bot users) on social media. Nowadays the increasing popularity of social media, more and more people consume news from social media instead of traditional news media and here they can differentiate between fake and real news.

LITERATURE REVIEW

Detecting fake news spreaders is an important step to control the spread of fake news through social media. The authors used a classifier based on the pre-trained large cased Bidirectional Encoder Representations from Transformers (BERT) model to detect fake news spreaders. It was found that concatenating all the tweets of an author yielded better performance than processing each tweet separately. The authors' model obtained an accuracy score of 0.6900 in the test data. It performed better than the character n-gram based Support Vector Machine (SVM), Long Short Term Memory (LSTM), emotionally infused LSTM, and the random baseline systems(Baruah et al., 2015). A research paper includes a discussion on Linguistic Cue and Network Analysis approaches and proposes a three-part method using Naïve Bayes Classifier, Support Vector Machines, and Semantic Analysis as an accurate thanks to detecting fake news on social media(Stahl, 2018). Fake news is deliberately written to mislead readers to believe false information, which makes it difficult and nontrivial to detect based on news content; the authors need to include auxiliary information, such as using social engagements on social media, to help make a determination. The authors construct hybrid text and image models and perform extensive experiments for multiple variations of classification(Monti et al., 2019). This exposition analyzes the prevalence of pretend news in lightweight of the advances in communication created potential by the emergence of social networking sites. The aim of the work is to return copy with a solution which can be utilized by users to search out and filtrate sites containing false and dishonest info. The authors use easy and punctiliously designated options of the title and post to accurately establish pretend posts(Aldwairi & Alwahedi, 2018).

Most smart-phone users are reading the news via social media over the internet. The question is how to authenticate the news and articles that are circulated among social media like WhatsApp groups, Facebook Pages, Twitter, and other microblogs and social networking sites. It is harmful to society to believe in rumors and pretend to be news. The necessity of an hour is to stop the rumors especially in developing countries like India and specialize in the proper, authenticated news articles. This paper demonstrates a model and the methodology for fake news detection. With the assistance of Machine learning and natural language processing, it is tried to aggregate the news and later determine whether the news is real or fake using a Support Vector Machine. The results of the proposed model

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