



e-ISSN: 2319-8753 | p-ISSN: 2347-6710

IJRSET

International Journal of Innovative Research in
SCIENCE | ENGINEERING | TECHNOLOGY

INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

Volume 10, Issue 8, August 2021

ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

Impact Factor: 7.569

9940 572 462

6381 907 438

ijrset@gmail.com

www.ijrset.com



Detection of Fake News using Machine Learning

Deepak Pal¹, Sudeshkumar Sahoo²

U. G. Student, Department of Information Technology, B. K. Birla College of Arts, Science and Commerce
(Autonomous), Kalyan, Maharashtra, India¹

U. G. Student, Department of Information Technology, B. K. Birla College of Arts, Science and Commerce
(Autonomous), Kalyan, Maharashtra, India²

ABSTRACT: Fake news has become major concern issue on social media because of many people spend more time on social media. Many people use social media for different purpose or any user has allow to post any news whether it's fake or true. And it is also major problem for our society. It's spreading more and faster than the true information. All these fake news can be propaganda against any individual person, religion, society, organization and politics art. These fake news are not possible to detect by any individual person. And also many experts gives advice how to stop spreading of fake news. And government also taken major steps to stop fake news but it is not possible to detect and stop spreading of fake news that's why there is a need for machine learning classifier that can detect fake news which is post and share on social media platforms.

KEYWORDS: Social media fake news, machine learning, fake news, online fake news.

I. INTRODUCTION

Now the world change rapidly. There are a number of advantage of this digital world. But we cannot denied the advantage of this digital world. In digital world there are many problems which cannot be avoided one of them is fake news. Someone can easily spread a fake news. These fake news harms the peoples who are leaving there life in society very peacefully. Even create uncertainty among them. Some peoples try to show their grief against any organization political party or existing government by spreading fake news about them to through this digital media such as twitter, Facebook a, integral etc. anyone can be register on these platforms and start spreading news. Online platform for the user because they can easily access a news but problems hear that peoples read the news and start believing it without scrutinize or negotiating on that. Detection fake news very challenging task any organization or authorities. All over the world many companies has been striving hard to find any solution through the they can detect the fake news as soon as possible. The use of machine learning each providing helpful in this regard. Machine learning is the part of artificial intelligence that help in a making system That can learn and perform different action. There are many algorithms available in a machine learning. That include the supervised unsupervised reinforcement machine learning algorithm. Through use of machine learning these fake news can be detected easily and automatically. If anyone post news on social media machine learning algorithm will check the content of the post then decide whether is false or true. Many researcher are trying to find the best machine learning classifier to detect the fake news. The accuracy of the classifier depend upon the recognized data. Many scientist believe that counter fire news issue may be addressed by means of machine learning or artificial intelligence. These s because recently artificial intelligence algorithm have begun to improve work and lots of classification. Problems (image recognition, voice detection and so on.) because hardware is cheaper and bigger database are available.

Fake news and propaganda are challenges to the society and individual person. Fake news is a false information which leads people to wrong direction. And nowadays fake news spreading very fast and anyone share false information without verifying it whether it's true of false. In this modern time where the internet is very omnipresent. Most of the people using many internet platforms for news. Along with the increase of use of social media such as Facebook, twitter etc. for news spread quickly among millions of user in very short time. Many experts and scientist find that detection of fake news is also done by machine learning and with the help of AI. Machine learning work better with the help of AI to classification the data and reorganization the image and voice clips. And in this research we use two method to detect the fake news which is support vector machine and naïve bayes respectively. They collect the all information about all topics. The correctness of detection of fake news is exactly right. These

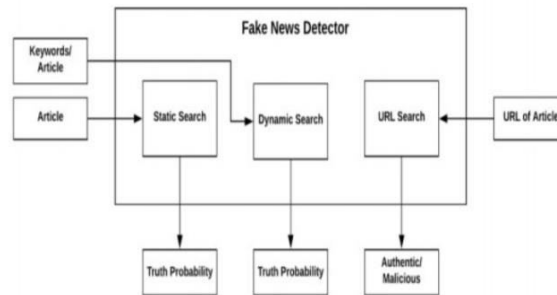


software compiled with datasets once after compilation of datasets machine automatically detect the fake news. These algorithm first recognize the data (images, news article, voice clips, and videos) posted on social media platforms and then detect the fake news and classified in different types. And there is a number of algorithms that can used to detect and classify the fake news on the basis of their content. And result is most of the fake news spreading is about religion, money fraud and politics. These algorithm detect the fake news then detect who is spreading these fake news.

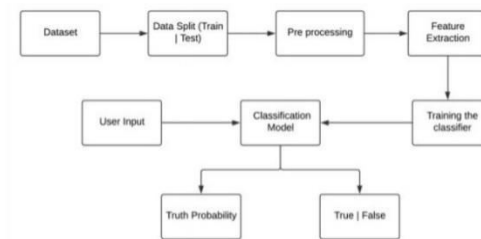
II. METHODOLOGY

Nowadays internet became one of the great source of information from its user. There are many different social media platforms. That include Facebook, twitter, integral etc. that helps the people to connect the other peoples. Different kinds of news are also shared on this platforms. People nowadays preferred to access the news from these platforms. These are easy to use and easy to access platforms. For detecting fake news develop the system. And the system is divided into three parts which is 1) static search 2) dynamic search 3) URL search

System design:



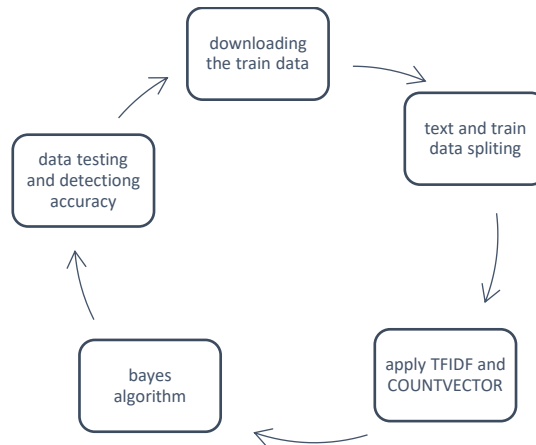
Static search: static search for detection of fake news using machine learning is simple. And it is the basic the machine learning process for detecting fake news. The system architecture of static search is shown below.



Dynamic search: in this type of search the site asks for specific topic to be searched on the internet then it gives a result which is probably similar with the searched topic. And other topic which is search with that keywords.

URL searched: in this type of searched site allows a specific link and domain which is directly open the site. It not suggest any similar topic about anything. If the link is not exist or wrong then it discard the page and show error.

Naïve Bayes classifier: naïve Bayes classifier is a straightforward machine learning. Naïve Bayes is government approve famous method for detecting news is real or fake using its algorithm. There is a number of algorithm which detect the accuracy of data but naïve bays is the best and popular algorithm for detect the news real or fake. This algorithm is used for text classification. The use of token is correlated with the news that may be real or fake in naïve Bayes classifier. Then the accuracy of news is calculated by Bayes theorem.

Naïve Bayes classifier system architecture:

The first step is detection of fake news is importing the training data by downloading data from online post or file. There are two types of methods to count the words the first method is fit method in which it gives specific serial number to all and individual words. And the second method is transform method in which it count the number of words how many times occurred in data set. Instead of using both method separately we can use it as a single method name is fit transform method which help us in saving both time and space. TFIDF(term frequency and inverse document frequency) in this term frequency is used to count the number of word how many times occurred in the data set and other side inverse document frequency is used to gives weight to the words of data sets. It gives more weight to important words and less weight to least words. Now the dataset divide into two parts that is train and test. The naïve Bayes algorithm is used to classify the trained data in similar entities. If the test data not match with the entities of trained data then naïve Bayes algorithm check the probability of accuracy percentage of data and this way the algorithm detect the data whether real of fake.

III. CONCLUSION

In twenty-first century the use of internet increasing day by day. Many peoples is spending more time on internet. That's why it is very important for every person to find accuracy of news. Which is available on internet. Because there is no restriction while posting any news on social platforms. Peoples can easily spread a fake news on these social media. In the paper the component are using in machine learning algorithm is only for use to detect the fake news on social media. Now we are proposed method of static search, dynamic search, URL search, supervised learning and unsupervised learning to detect the fake news on these platforms.in future ensuring algorithm may provide better result with the hybrid method. These models is trained using an appropriate dataset and performance evaluation is also done using various performance measure. The model which are used highest accuracy to classified the news and headlines or articles. Machine learning classifier for using for different purpose. And this can also be used for detecting fake news. The classifier are first trained with the dataset called training dataset. After this classifier can automatically detect the fake news.

REFERENCES

- 1) M. granik and V. mesyura, "fake news detection using naïve Bayes classifier," 2017 IEEE first Ukraine conference on computer engineering (UKRCON), Kiev, 2017, pp. 900-903.
- 2) Fake news websites. (n.d.) Wikipedia.[online]
- 3) A. Martinez-Garcia. S. Morris, m. tscholl, F.Tracy and p. Carmichael, "case-based learning, pedagogical innovation, and semantic web technologies,"IEEE Trans. Learn, Technol. Vol. 5, no. 2, PP. 104-116,2012.
- 4) Parikh, S. b., & atrey, P. K. (2018, april). Media-Rich Fake News Detection. A survey. In 2018 IEEE Conference on Multimedia Information Processing and Retrieval (MIPR) (pp. 436-441). IEEE.
- 5) Conroy, N. J., & Chen, Y. (2015, November). Automatic deception detection. methods for finding fake news. in proceeding of the 78th ASIS&T Annual Meeting: Information Science with Impact: Research in and for the Community (p.82) American Society for Information Science



- 6) Rubin. L. Victoria et al., “Fake news or truth? Using satirical cues to detect potentially misleading news”, In: Proceedings of NAACLHLT, 2016.
- 7) W. Y. Wang, “Liar Pants on fire: a new Benchmark dataset for fake news
- 8) Detection”, arXiv preprint (2017). arXiv:1705.00648.
- 9) Tandoc, E. C., & Lim, Z. W., & Ling, R.(2018). Defining”Fake news”, digital Journalism, 6, 137-153.



**Impact Factor:
7.569**



INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

 9940 572 462  6381 907 438  ijirset@gmail.com



www.ijirset.com

Scan to save the contact details