**INTRODUCTION**

In this digital world, the biggest concern is fake news, which can spread at lightning speed and can impact many millions of lives [1]. False information, often misleading or inaccurate, masquerades as genuine news when it is, in fact, fabricated or deceptive [2]. Today internet gives us many opportunities, so the young generation doesn’t hesitate to get their news from the Internet and leave the newspapers and genuine sources behind [3]. Perhaps it is very common to receive news from the Internet, and the number of people receiving news through the Internet has increased, to 62% of America in 2016, however in 2012 it was 49% [4]. Nowadays, the Dominance of social media is very heavy in every individual's life [5]. So for information sharing and communication social media has become a crucial tool [6]. Because of this fake news escalates through social media [5]. Fake News (FN) is the forged news spread on social media and other platforms. It seeks to deliver incorrect information to the user.

It can take the shape of photographs, movies, or sounds. Researchers from all over the world are interested in how to determine whether a news story, blog post, or other piece of content is real or fraudulent Over the past few years, the automated detection of misleading, misinformation termed as fake news on social media has emerged as a highly anticipated area of study [8]. Keep in mind that the spread of fake news often occurs when publishers are focused on maximizing their profits and consumers are inclined to confirm their existing beliefs [9]. False information may originate from an individual or a collective effort.

The misinformation is mainly created for personal, political, and economic profit. Nowadays fake news has become an important issue. As we get every type of information via social media, misinformation is also spreading at a very fast rate. There are many different types of tweets, such as those about a government, globally popular themes, mental abuse, urban legends, and tragic events [10]. To control misinformation, Fake news detection has become a very important research topic. Take the example of Facebook, there are 2.91 billion users active on Facebook, so spreading a piece of fake news is very easy and fast.

Presently, primary sources of news include social media platforms and online news portals, and other online media, with breaking and exciting news being shared quickly [11]. In Bengaluru, on 30 March 2018, the cofounder of ‘Postcard News’ Mahesh Vikram Hegde was arrested for spreading fake news. The person Hegde has 7, 78, 000 followers on the micro-blogging social media platform. They aim to create a communist clash and spread hate for the government.

The person who was arrested uploaded a post that Muslims attacked a Jain monk. However, the case is related to the monk “Munisriupa dyaya Mayank” and his associates being hit by a two-wheeler. After the investigation, the Police said that this was a piece of fake news aimed at creating a communist clash between two regions and giving a bad impression to the Government that nobody is safe in the state. This news is seen by thousands of people and shared on other social media platforms. After that cyber-crime police registered a case against the case owner and arrested him. Distributing such fabricated content often serves as a tactic for shaping political strategies, diverging from conventional discourse aimed at reaching consensus based on factual information [12]. Everyone who is posting misinformation and has a motive behind it is responsible for fake news.

These days fake news is spread by celebrities, Politicians, and Social media influencers who are paid for it [13]. But only they are not responsible for spreading fake news, all who share these posts can be responsible for the spread of illegitimate news. To stop the word on the street the fake news detection system is created [14]. WhatsApp: - According to previous research WhatsApp is the main source of misinformation. If you find plain text without any source that is related to any kind of news, then the chances are it can be fake. Especially when someone is targeted in it. For confirmation go to Google and search the news and see the source of the news.

The influence of fake news extends to people's interpretation and reaction to genuine news. For instance, certain instances of false information are crafted specifically to sow seeds of doubt and confusion, complicating the distinction between truth and falsehood for individuals [15]. Photoshop: - Photoshop is also an important tool for spreading fake news on social media. Those who know about Photoshop take the original picture and after that make the changes according to them. The image contains bogus logos and signatures; to determine whether it is real or fake, do a reverse Google image search. You just must download the image and upload it on Reverse Google Image Search and then you can see the original content if the image is Photoshop. Following the 2016 US Presidential elections, Instances of fake news and the spread of misinformation dominated headlines.

Allegedly, Russia orchestrated the creation of millions of counterfeit accounts and social bots to amplify misleading information during the elections [16]. In [17], Mykhailo Granik et al. Illustrating the application of Bayes' Theorem exemplifies a strategic approach. Machine Learning encompasses a range of algorithms tailored for fake news detection, discerning patterns within data and making predictions accordingly. The field of machine learning incorporates three primary learning paradigms: semisupervised learning, unsupervised learning, and supervised learning. Notable algorithms include Decision Trees (DT), Linear Regression (LR), and Logistic Regression (LR)[18], Random Forest (RF), etc. are examples of supervised learning. Hierarchical clustering is an example of unsupervised learning.

A hybrid convolution NN model developed by Wang [19] surpasses other conventional ML techniques. A thorough analysis of linguistic aspects was carried out by Hannah Rashkin et al [20] network featuring three hierarchical levels of attention: one for words, another for phrases, and a third for the headline of a news story by Singhania et al [21]. The characteristics stability index model was created by Ruchansky et al [22] And is based on user behavior. It captures content, an article's response, and source attributes.