

## Chapter 1

# Introduction

Social media for news consumption can be compared with a double-edged sword. It is comparatively low cost, easy to use and access, and rapid dissemination of information leads people to consume news from social media. But this however comes at the cost of questionable trustworthiness and significant risk of exposure to ‘fake news’, i.e., low quality news with intentionally false information.

### 1.1. Project Overview

We spent a significant amount of time in our lives interacting with people through social media platforms. We tend to seek out and consume news from social media rather than traditional news organizations. The reason behind this change in consumption behaviors can be derived as:

- (i) it is less expensive to consume news on social media compared with traditional news media, such as newspapers or television.
- (ii) it is easier to further share, comment on, and discuss the news with friends or other readers on social media.

Despite having these advantages, the authenticity of news on social media is significantly lower than traditional news organizations. Because of its easiness and cheapness, large volumes of fake news, i.e., those news articles with intentionally false information, are produced online for a variety of purposes, such as financial and political gain. One individual or society can be badly impacted by this immense spread of fake news. Nowadays it is very difficult to identify a news whether it is fake or real.

So we will build a machine learning model that will automatically detect if a news is true or not.

1.2. Motivation

1.3. Objectives

1.4. Methodology

1.5. Project Outcome

- Speech :

## **Background**

We are social human beings. We spent a significant amount of time in our lives interacting with people, whether through social media platforms or in real life. We always like to get updated about trending topics and issues. That is why we read newspapers or watch television news to consume information. But we are living in a digital era. As a whole, society has evolved. Our technological advancements have gotten us to where we are today- with the world at our fingertips. The internet certainly has given us all kinds of opportunities and access to an abundant amount of information.

As an impact, most people tend to seek out and consume news from social media rather than a traditional news organization.

The reason behind this change in consumption behaviors can be derived as:

(i) it saves a lot of time and it is less expensive to consume news on social media compared with traditional news media, such as newspapers or television.

(ii) it is easier to further share, comment on, and discuss the news with other readers on social media.

## **problem arise**

But that's where the problem arises. There is a saying, no good ever comes without a price. what it means that the authenticity of news on social media is significantly lower than traditional news organizations, Despite having these advantages. it is like a double-edged sword. On one side, this is easier and faster, but this comes at the cost of questionable trustworthiness

## **problem affect or what will happen if the problem is not solved**

As a result, our society can have a negative impact because of this. people can be too frustrated by fake news. Mainly this type of news is like a social crime because it creates a great catastrophe among the mass people. Nowadays it has become very difficult to identify news whether it is fake or real.

SO, this problem can be identified as a critical problem and this needs to be solved.

## **Solution and related works**

So, we aim to solve this problem by using machine learning techniques and tools. Of course it can be done manually, but the main objective of science and technology is to make our daily life easier and helps us to work faster.

Our machine learning model will automatically detect whether a news is fake or not.

Although there are plenty of machine learning works out there regarding this issue who tried to solve this problem and had a good or moderate result, we believe if we work hard and apply our research we can do good. We expect this work will play a vital role in the development of fake news detection systems

Methodology:

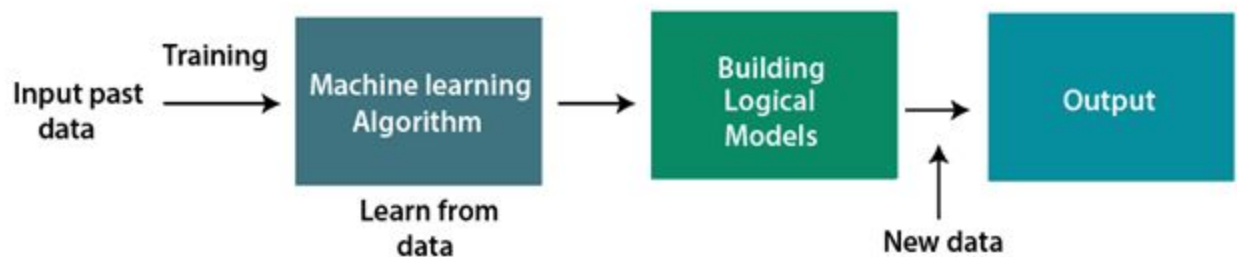
In this section, we describe the systems we develop to classify fake news written using ML.

### What is ML?

In the real world, we are surrounded by humans who can learn everything from their experiences with their learning capability, and we have computers or machines which work on our instructions. But can a machine also learn from experiences or past data like a human does? So here comes the role of **Machine Learning**.

A machine learning model has the ability to learn without being explicitly programmed. it can improve its performance by gaining more data.

Then we can use our trained machine learning model to classify fake or true news.



### Why ML?

The need for machine learning is increasing day by day. The reason behind the need for machine learning is that it is capable of doing tasks that are too complex for a person to implement directly. As a human, we have some limitations as we cannot access the huge amount of data manually, so for this, we need some computer systems and here comes the machine learning to make things easy for us.

We can train machine learning algorithms by providing them the huge amount of data and let them explore the data, construct the models, and predict the required output automatically. The performance of the machine learning algorithm depends on the amount of data. So our main challenge for this project will be to collect data from various authentic resources. With the help of machine learning, we can save both time and money.

There are plenty of machine learning tools and algorithms available. We don't know everything yet. we will do some research to study to make our decisions more discrete.

