1   Project Goal and Motivation

1.1   Problem statement:

The project aims to develop a machine learning model to classify news articles and social media posts as real or fake. This capability is crucial for combating the rapid dissemination of misinformation online, which can influence public opinion and affect democratic processes. The increasing volume of information shared on social media platforms necessitates automated tools to efficiently and accurately distinguish between credible sources and misleading content.

1.2   Motivation behind the project:

The spread of fake news poses significant challenges by misleading the public and distorting the truth. Fake news can lead to misinformation, causing unnecessary panic, influencing elections, and affecting individual and public health decisions. Developing a model to detect such falsehoods supports journalistic integrity and helps maintain informed public discourse. The goal is to create a tool that people can use to help them classify if the source is legitimate or not, thereby promoting a more informed and discerning society.

1.3   Relevance of the project:

This project is highly relevant as it leverages advanced NLP techniques to address a critical issue in digital media. It combines educational value with practical application, presenting a robust response to a contemporary challenge affecting public safety and information accuracy.

- Public Safety: Helps prevent the spread of false information.
- Information Accuracy: Enhances the quality of information available to the public, thereby fostering a more informed community.

The relevance of this project is underscored by its potential to contribute significantly to the integrity of digital information and the broader goal of maintaining a well-informed public. By addressing the issue of fake news, the project aligns with broader societal goals of promoting truth, transparency, and trust in digital communications.