ABSTRACT

The dissemination of false information in the digital era poses serious threats to democratic values, media credibility, and public confidence in institutions. Misinformation can spread swiftly on social media, distorting people's perceptions of reality and undermining the foundation for reasoned decision-making. This project presents a comprehensive strategy for battling false news using cutting-edge machine learning methods, such as Convolution Neural Networks (CNNs) for visual content analysis and Natural Language Processing (NLPs) for text analysis. By using sophisticated Natural Language Processing (NLP) models, it is possible to find hidden biases or misleading narratives in fake news by identifying minute linguistic patterns. Our methodology looks for patterns in language usage, ideas, and textual indicators that support the presence of photo alteration in order to detect trends in false news. Additionally, we suggest adopting the AdaBoost algorithm, a statistical technique for pattern recognition, to enhance the capacity to identify patterns. Our strategy blends passive attack algorithms with machine learning techniques like deep learning models to offer a potent countermeasure against the dissemination of false information in digital spaces. The experimental results show how well our method works to identify bogus news with a high degree of accuracy and shed light on the potential and problems associated with battling online misinformation.