

## Abstract

In the digital era, social media platforms like Instagram, Twitter, and YouTube are pivotal for communication, business, politics, and education. However, the proliferation of duplicate accounts used for manipulative or harmful purposes presents significant challenges to online integrity and security. Current detection methods, which often rely on manual analysis or simple heuristics, are inadequate for the growing complexity and volume of data. This paper proposes an adaptive method for detecting duplicate accounts on these platforms, leveraging machine learning and big data analytics. By utilizing Deep Learning Recurrent Neural Networks (RNN) for textual data, the proposed approach aims to improve the accuracy and efficiency of duplicate account detection. The results of this study outline step to detect duplicate accounts using criteria gathered from previous research and also simplify the process of identifying which accounts are likely to be duplicates.

**Keywords:** *social media, duplicate accounts, deep learning, instagram, twitter, youtube, web scraping*