

ABSTRACT

Social media has become an essential part of society worldwide due to the various conveniences it offers. However, it also brings new challenges, such as cyberbullying. This phenomenon can have both emotional and physical impacts on its victims without exception. Even in the world of sports, particularly football—the most popular sport globally—cyberbullying remains a prevalent issue, with players frequently receiving hate messages on social media. This study aims to develop a model capable of detecting cyberbullying on the social media platform “X” using the Long Short-Term Memory (LSTM) method.

The LSTM model, configured with three layers (128, 128, and 64 units), a batch size of 32, a learning rate of 0.0001, and a dropout rate of 0.2, produced the best results with an accuracy of 78%, precision of 78%, recall of 78%, and an F1-score of 78%, along with a loss value of 0.5107. The model successfully classified 3,619 instances as non-cyberbullying (55.48%) and 2,903 instances as cyberbullying (44.52%) out of the total dataset. These results indicate that the developed model has the potential to detect cyberbullying on social media, particularly in the context of football.

Keyword: cyberbullying, Football Player, Long Short-Term Memory (LSTM)