DESIGN AND ANALYZE THE FRAMEWORK FOR PREVENTING CYBERBULLYING IN SOCIAL NETWORKING SITES USING DEEP LEARNING MODEL

A PROJECT REPORT

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ABSTRACT

Cyberbullying is bullying that takes place over digital devices like cell phones, computers, and tablets. Cyberbullying can occur through SMS, Text, and apps, or online in social media, forums, or gaming where people can view, participate in, or share content. Cyberbullying includes sending, posting, or sharing negative, harmful, false, or mean content about someone else. It can include sharing personal or private information about someone else causing embarrassment or humiliation. The content an individual share online – both their personal content as well as any negative, mean, or hurtful content – creates a kind of permanent public record of their views, activities, and behavior. To avoider detecting cyberbullying attacks, many existing approaches in the literature incorporate Machine Learning and Natural Language Processing text classification models without considering the sentence semantics. The main goal of this project is to overcome that issue. This project proposed a model LSTM - CNN architecture for detecting cyberbullying attacks and it used word2vec to train the custom of word embedding. This model is used to classify tweets or comments as bullying or non-bullying based on the toxicity score. LSTM networks are well-suited to classifying, processing and making predictions based on time series data, since there can be lags of unknown duration between important events in a time series. A convolutional neural network (CNN) is a type of artificial neural network and it has a convolutional layer to extract information by a larger piece of text and by using this model LSTM- CNN achieve a higher accuracy in analysis, classification and detecting the cyberbullying attacks on posts and comments.

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LIST OF ABBREVIATIONS

ABBREVATION	EXPANSION
NLP	Natural Language Processing
ANN	Artificial Neural Networks.
ML	Machine Learning
BOW	Bag-of - Words
TFIDF	Term Frequency- Inverse Text Frequency
DL	Deep Learning
LSTM	Long Short - Term Memory
CNN	Convolutional Neural Networks
DFD	Data Flow Diagram
UML	Unified Modelling Language
NLTK	Natural Language Toolkit