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Detection of Cyber bullying On Social Media Using Machine Learning

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ABSTRACT

Nowadays, a lot of people indulge themselves in the world of social media. With the current pandemic scenario, this engagement has only increased as people often rely on social media platform to express their emotions, find comfort, find like-minded individuals, and form communities. With this extensive use of social media comes many downsides and of the downside is cyberbully.

Cyberbullying is a form of online harassment that is both unsettling and troubling. It can take many forms, but the most common is a textual format. Cyberbullying is common on social media, and people often end up in a mental breakdown state instead of taking action against the bully. On the majority of social networks, automated detection of these situations necessitates the use of intelligent systems. We have proposed a cyberbullying detection system to address this issue. In this work, we proposed a deep learning framework that will evaluate real-time twitter tweets or social media posts as well as correctly identify any cyberbullying content in them. Recent studies has shown that deep neural network-based approaches are more effective than conventional techniques at detecting cyberbullying texts. Additionally, our application can recognise cyberbullying posts which were written in English, Hindi, and Hinglish (Multilingual data).

Keywords: Cyber-bullying, social media, detection, machine learning.

INTRODUCTION

Many pieces of research work that are done in this area using various machine learning and deep learning techniques have yielded significant results in detecting and preventing cyberbully. However, most works have included mostly English data for training and testing purposes, while a few included native languages like Bangla, Arabic, and Urdu. As there is little to no work done in aiding the situation of increased cyberbullying in a country like India where most Hindi speaking people use English text, comprising of Hindi words written in Latin script, and many people using Hindi text written in Devanagari script, we plan to proceed to combat this problem by incorporating such data into our suggested learning algorithm so that cyberbullying can be detected in real-time tweets.

EXISTING SYSTEM

For several years, the researchers have worked intensively on cyber-bullying detection to find a way to control or reduce cyber-bullying in social media platforms.

In a research by some institute of technology, a system to detect cyber-bullying through textual context in YouTube video comments was developed, but the system showed less precise classification outcome and increased false positive.

Generally most existing system are focused on affects after cyber-bullying incident and there is no accurate system for online cyber-bullying detection.
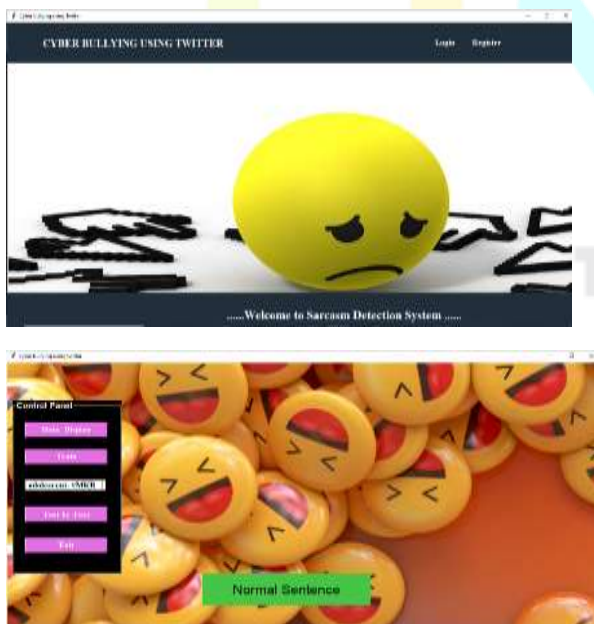
ALGORITHM

Cyber- bullying detection implements our coded, machine learning algorithm, in finding a negative comments from the message it receives by user. The algorithm first gives the message a value and then based on our pre trained data, it decides if the comment is harsh enough to be transformed or not.

Decision tree, naive bayes, random forest, support vector machine this are the algorithms or methods we used in our project. Popular algorithm used to perform detection include convolutional neural network(R-CNN, Region-based convolutional neural network), Fast R-CNN.

AIM AND MOTIVATION

Because of many active users on social media networks, cyberbullying has become a global problem. The pattern suggests that cyberbullying on social media is on the rise and according to recent studies, it is becoming more prevalent among teenagers. The ability to recognize potentially dangerous communications is critical to successful prevention, and the information overload on the Internet needs intelligent systems that can automatically identify potential threats. This research work aims to develop a model that can accurately detect cyberbully in real-time tweets.

OUTPUT

TEST CASES

CONCLUSION

The model for automatically detection cyberbullying text on multilingual data is addressed and proposed in this work. Solving this issue is critical for controlling social media material in multiple language and protecting users from the negative impact of toxic comments like verbal assaults and offensive language.

REFERENCES

1. Al-Ajlan, M.A., Ykhlef, M.: Optimized twitter cyberbullying detection based on deep learning. In: 2018 21st Saudi Computer Society National Computer Conference (NCC), pp. 1–5 (2018).IEEE

2. Mahlangu, T., Tu, C.: Deep learning cyberbullying detection using stacked embbedings approach. In: 2019 6th International Conference on Soft Computing & Machine Intelligence (ISCMI), pp. 45–49 (2019). IEEE

3. Alam , K.S., Bhowmik, S., Prosun, P.R.K.: Cyberbullying detection: an ensemble based machine learning approach. In: 2021 Third International Conference on Intelligent Communication Technologies and Virtual Mobile Networks (ICICV), pp. 710–715 (2021). IEEE

4. Dewani A, Memon MA, Bhatti S. Cyberbullying detection: advanced preprocessing techniques & deep learning architecture for roman Urdu data. J Big Data. 2021; 8(1):1–20.Doi: 10.1186/s40537-021-00550-7. [PMC free article] [PubMed] [CrossRef] [Google Scholar]

5. Luo, Y., Zhang, X., Hua, J., Shen, W.: Multi-featured cyberbullying detection based on deep learning. In: 2021 16th International Conference on Computer Science & Education (ICCSE), pp. 746–751 (2021). IEEE

6. Yadav, J., Kumar, D., Chauhan, D.: Cyberbullying detection using pre-trained Bert model. In: 2020 International Conference on Electronics and Sustainable Communication Systems (ICESC), pp. 1096–1100 (2020). IEEE