Comparitive studies of cyberbullying and sarcasm detection on social media

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Abstract

In this comparative paper, we are going to discuss the different approaches and methods implemented by other papers to detect text cyberbullying and sarcastic comments over social media. The reason we are did so, because we wanted to find the best technique to combat harassment on social media. Moreover, we focused on comparing between different classifiers that has been used in these papers like: (SVM)Support Vector Machine,(KNN)K-nearest neighbor and Logistic Regression on advantages and drawbacks of each one of them related to the cyberbullying and sarcasm detection. We also mentioned the different preprocessing and the data-sets that has been used in these papers. Finally, we discussed and compared between the results of the papers in terms of accuracy and precision.

1 Introduction

As the increasing of social media nowadays there is an increasing in the cybercrimes and we all know that everybody now is using social media in his daily life. Cyberbullying now is one of the bad effects of the social media according to bullyingstatistics.org over half of the youth have been cyberbullied so the main objective of this study is to carry out comparative studies on the various Cyberbullying and sarcasm methods and we want to address the problems and the drawbacks that was in this methods hence we want to make our cyberbullying and sarcasm detection system the agenda of this paper consists of 5 sections. Section 2 describes related work regarding cyberbullying and sarcasm detection system. Section 3 discusses the comparison of the methods deployed in cyberbullying and sarcasm detection addressing its problems, Section 4 contains results and discussions of the methods and Section 5 contains the conclusion.

2 Relater Work

3 Information Retrieval Approaches

This paper makes a comparative study on various methods to detect cyberbullying and sarcasm on social media. The problem in the previous work in cyberbullying detection is the low of accuracy and the number of false positive also they cannot detect sarcasm along with cyberbullying.

3.1 Datasets

The previous work in cyberbullying detection used different datasets. Walisa Romsaiyud ,etal [9] used from two different datasets the first one is the posted messages by members in Perverted-justice used as training datasets, and the second one is Twitter datasets from Stanford University as testing datasets. Sani Muhamad Isa, etal [7] and Vikas S Chavan etal [3] used a textual conversation taken from the Kaggle (www.kaggle.com) which provides 1,600 conversations in Formspring.me. Harsh Dani,etal [5] used dataset from twitter and Myspace labeled as normal or bullying. Maral Dadvar,etal [4] collect his dataset from haresment comments other misbehavioursof YouTube videos Paras Dharwaletal [6] ,Edwin Lunando etal [8], MONDHER BOUAZIZI etal [2] and S.K.Bharti etal [1] in their papers of sarcasm detection they collected the dataset manually from Twitter.

3.1.1 Differences Among the datasets

The main difference in the datasets is the datasets from social m.edia from social media donnot have ground truth but the date sets from websites like kaggle .com have ground truth .

4 Results and Discussions

5 Conclusion

6 References

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