Automatic Cyber Bullying Detection in Arabic Social Media

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# First Submission

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# Research Questions

- what extend does PMI, Chi-square, or Entropy detect cyberbullying?
- Which approach is better to generate cyberbullying lexicon, PMI, Chi-square, or Entropy

# 1 Summary

The paper adresses a big cybercrime problem which is believed to be cyberbullying. Where teenagers are especially vulnerable to the effects of negative remarks. This paper it's trying to tackle the problem by finding the best method to detect cyberbullying using sentiment analysis to analyse the text of tweets gathered using Datasets from Twitter API, Microsoft-Flow, and YouTube comments. Automated sentiment analysis can be carried out using either Rule-based, commonly referred to as a lexicon or sentiment lexicon, or Machine Learning-based methodologies.

And as Automatic text classification is the goal, the methods can be loosely categorised into machine learning, lexicon-based, and hybrid approaches. Algorithms are used in machine learning to analyse data, learn from that data, and make decisions based on what it has learned. After performing the data cleaning and pre-processing step, the data were classified to bullying and non-bullying. It was classified by three people and use an odd number of people to be the last classification after the majority opinion. And after processing the data, They contrasted the PMI approach with the Chi-square and Entropy approaches, the results demonstrate that the PMI approach performs the best in identifying cyberbullying.

## 2 Evaluation

The paper specified the background behind the social media and how it reaches people are cyberbullied through it. Then proceeded to address why that was important and how it affects people. There was no specific indication of how the research about the matter was done other than observations done through experience and reviewing some data and technologies. The paper showcased interest in this topic and the specific area. The paper clearly stated its ideas and hypotheses through suggesting multiple methods. The only question that was found was which method from the proposed ones were the most effective

# 3 List of other papers

| Reference | Assigned Student |
|---|---|
| [1] | Nouran Khaled |
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# References


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