Paper Title:
An Ensemble Model for Hope Speech Detection from YouTube Comments

Paper Link:
https://aclanthology.org/2022.ltedi-1.31/

1 Summary

1.1 Motivation

The paper has an aim that focuses on the increment of the positive comments or words by detecting from Youtube. It concentrates on reducing hate comments while simultaneously promoting hope comments. By doing this, one can easily free from the negative comments and promote optimism in YouTube.

1.2 Contribution

The paper basically identifies non hope and hope comments. Also, this non hope and hope speech is trained on languages such as English, Spanish etc. through different classifiers.

1.3 Methodology

Algorithms of machine learning where many classifiers are used to train and test five different languages. Precision, recall, F1 score are found by applying 3 classifiers. N-gram char level TF-IDF features work best rather than the word-level in different classifiers. Among this, 1-6 gram level is best with support vector machine and logistic regression whereas 1-3 gram is best with random forest. This gives the best precision, recall and F1 score.

1.4 Conclusion

An ensemble model that includes a Support Vector machine, logistic regression and random forest to classify hope speech. Char-level features are good so it can be expanded further in many ways. Also, CNN, BERT models can be used in preprocessing to find best performance of detecting positive comments.

2 Limitations

2.1 First Limitation

First limitation that this paper has is that this paper is not able to find signs or emojis or symbols in comments. Because the models that this paper used are only focused on the words rather than signs of positive and negative.

2.2 Second Limitation

Second limitation is that this paper does not identify sarcasm whether it is for good or bad and make decisions which can be wrong maximum times. It fails to understand the meaning of the context that indicates the limitation of this paper.

3 Synthesis

In future, this paper and model can be broadly used in other social media like facebook, instagram so that people will not be affected by other websites as well. Further, it can be worked on in various languages, not only limited to five languages. Symbols and signs can be also included in future work to identify the hope and non-hope symbols and signs.