

# Title: Detect Extreme Sentiments on Social Networks using BERT

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**Abstract** Online social networking platforms allow people to freely express their ideas, opinions, and emotions negatively or positively. Previous studies have examined user's sentiments on these platforms to study their behavior in different contexts and purposes. The mechanism of collecting public opinion information has attracted researchers to automatically classify the polarity of public opinions based on the use of concise language in messages, such as tweets, by analyzing social media data. In this paper, we extend the preceding work , by proposing an unsupervised approach to automatically detect extreme opinions/posts in social networks. We have evaluated our performance on five different social network and media datasets. In this work, we use the semi-supervised approach BERT to check the accuracy of our classified dataset. The latter task shows that, in these datasets, posts that were previously classified as negative or positive are, in fact, extremely negative or positive in many cases.

**Keywords** BERT, Sentiment Analysis · Extreme Sentiment Analysis · Violent Extremism · Social Media · Social Networks

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**Declarations**

Not applicable.

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**Conflicts of interest/Competing interests**

The authors declare that they have no known competing financial interests or personal relationships or conflicts of interest that could have appeared to influence the work reported in this paper.

**Availability of data and material**

Not applicable.

**Code availability**

Not applicable.

**Ethics approval**

The authors declare that they have no known ethics issue that could have appeared to influence the work reported in this paper.

**Consent to participate**

The author's consent participates.

**Consent for publication**

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