

Bidirectional Encoder Representations from Transformers Sentiment Analysis Applied to Three Presidential Pre-Candidates in Costa Rica

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Abstract : A sentiment analysis service to detect polarity (positive, neutral, and negative), based on transfer learning, was built using a Spanish version of BERT and applied to tweets written in Spanish. The dataset that was used consisted of 11975 reviews, which were extracted from Google Play using the google-play-scraper package. The BERTO trained model used: the AdamW optimizer, a batch size of 16, a learning rate of 2×10^{-5} and 10 epochs. The system was tested using tweets of three presidential pre-candidates from Costa Rica. The system was finally validated using human labeled examples, achieving an accuracy of 83.3%.

Keywords : NLP, transfer learning, BERT, sentiment analysis, social media, opinion mining

Conference Title : ICSCAIA 2022 : International Conference on Soft Computing, Artificial Intelligence and Applications

Conference Location : Barcelona, Spain

Conference Dates : February 15-16, 2022