Emotion Recognition via Sentiment and Critical Discourse Analysis in Catastrophic Contexts

- Niklander S.

Abstract

The study of emotions in a human computing interaction context has gained special attention during the last years. Different AI-based tools have emerged in order to smartly analyze content -and particularly emotions- in social networks with marketing, financial, and/or political purposes. However, effective emotion recognition is still a hard task due to the presence of ironies, sarcasm, hybrid languages, and argot in most people comments. Additionally, the presence of such components may be larger when the comment is related to a controversial concern such as the current coronavirus vaccine or political corruption scandals. In this paper, we explore the combination of AI-based and linguistic techniques, namely sentiment analysis and critical discourse analysis, in order to effectively study the emotions on social networks. We take as case study a set of important corruption episodes occurred in Chile, which has internationally been observed as its corruption index has systematically been increased from 2012. During this period, different respected institutions and companies have been involved in important corruptions cases. This concern in conjunction to other social aspects triggered the Chilean social outbreak at the end of 2019, which added to the COVID-19 pandemic have generated a very complex scenario for the whole country. This complicated situation has of course turned people more sensible and overreactive, making the social networks a proper test bed worth to carefully analyze. We illustrate interesting where the proposed technique combination allows us to properly identify people having negative, positive or neutral connotations related to a given topic. © 2021, Springer Nature Switzerland AG.