Assessment of the Validity of Sentiment Analysis as a Tool to Analyze the Emotional Content of Text

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Abstract : Sentiment analysis is a recent field of study that computationally assesses the emotional nature of a body of text. To assess its test-validity, sentiment analysis was carried out on the emotional corpus of text from a personal 15-day mood diary. Self-reported mood scores varied more or less accurately with daily mood evaluation score given by the software. On further assessment, it was found that while sentiment analysis was good at assessing ‘global’ mood, it was not able to ‘locally’ identify and differentially score synonyms of various emotional words. It is further critiqued for treating the intensity of an emotion as universal across cultures. Finally, the software is shown not to account for emotional complexity in sentences by treating emotions as strictly positive or negative. Hence, it is posited that a better output could be two (positive and negative) affect scores for the same body of text.

Keywords : analysis, data, diary, emotions, mood, sentiment