

A Computational Grounded Approach: A Case Study about Tweets regarding the #Movember Men's Health Prevention Challenge

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Abstract

• Objectives

The aim of this study is to explain the application of the computational grounded methodological approach, which is based on the researcher's interpretive process of topics detected by artificial intelligence (AI) algorithms, for the #Movember case.

• Methodology

Unsupervised LDA classification and sentiment analysis were carried out on 144,906 tweets from various participating countries (France, Italy, Belgium, Australia, USA, UK, Saudi Arabia, etc.).

• Results

The results show that the process of individual commitment to the #Movember social movement is made up of three main elements: (1) 4 segments of individual commitment (sympathizers, aware, committed and maintainers), (2) collective emotions (positive and negative) and (3) cognitive and motivational factors (benefit-cost calculation, collective efficacy and identity).

• Managerial implications

The results suggest marketing actions tailored to each segment to help both the organizers of the #Movember movement and healthcare professionals (HPs) achieve two main objectives: (1) screening and (2) awareness, recruitment and collection of donations, thanks to big data, by targeting people with a family history.

• Originality

Research on #Movember usually uses supervised algorithms which present several limitations such as confirmation bias, lack of repeatability and a time requirement. This work uses the unsupervised LDA model to identify latent concepts by the machine based on a Computational Grounded Theory (CGT) perspective.

• **Keywords:** Big Data, Social Networks, Computational Grounded Approach, Unsupervised Machine Learning (by LDA), Sentiment Analysis, #Movember.

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