

Post-pandemic Shift to Embrace Remote Work: Mining Social Media Data

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Abstract

Remote work is gaining more popularity among businesses particularly after the spread of COVID-19 when social distancing rules were imposed by governments. The mandatory and rapid transition to Work from Home (WFH) made organizations to go through massive changes to adjust very quickly to the new working conditions. Employees forced to WFH during pandemic also went through different emotional journeys; while some people suffered from post-pandemic stress, others found remote work as an opportunity to realize their competencies and strengths. In this situation, it is imperative for organizations and employees to reflect on their experience and learning from the remote work and rethink their old ways of doing the job. During this unprecedented time, social media played a critical role in terms of making people connected to each other, helping them to collect information, and share their opinions online. The purpose of this study is to explore and assess peoples' opinion about WFH during pandemic through mining the publicly available data posted on Twitter. The current research aims to conduct sentiment analysis to process polarity, subjectivity, and emotions of the tweets about WFH during pandemic, implement text mining to identify the most common words emerged in the tweets, and forecast the trend of the sentiment scores. We intend to follow a netnography method to extract data from Twitter. We will use Tweepy library in Python 3.7.6 to access the Twitter API and fetch the tweets. To conduct sentiment analysis and process the polarity and subjectivity of the tweets, TextBlob library in Python will be used and emotions associated to each word will be assessed through the NRC Emotion Lexicon. To identify the most common words in text corpus, the Natural Language Toolkit (NLTK) package in Python will be operated. Finally, this study will forecasts the trend of the sentiment scores through the IBM SPSS Expert Modeler. The output of this study is expected to find the number of positive, negative, and neutral tweets about WFH during pandemic and understand to what extent the tweets are objective or subjective. Moreover, the trend of polarity and subjectivity scores will be computed and the future of the polarity scores will be predicted. We also expect to compute the correlation between various variables (i.e. polarity, subjectivity, number of times a tweet is retweeted, number of followers and number of friends) to understand their relationships. The output will also categories the tweets based on eight emotions including anger, fear, anticipation, trust, surprise, sadness, joy, and disgust. We will also report the most common words repeated in the tweets. This study will contribute to the extant literature by analyzing the concept of remote in time of crisis when the transition is unplanned and mandatory while providing insights for businesses that consider remote work as a good policy to continue after the crisis.

Keywords

Work from home, COVID_19, sentiment analysis, data mining and Twitter

Biographies

Zahra Daneshfar is a PhD student in the School of Marketing, Curtin University, Perth, Australia. She earned her Master's in Business Management from ATU, Tehran, Iran and she has several years of work experience in the insurance industry as a researcher. Her research interests include data mining, big data, services marketing, intercultural service encounters, and organizational behavior.