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| URL | Author/Year | Title | Stress Analysis | Sentiment Analysis | Twitter | Machine Learning |
| 2015 IEEE 28th International Symposium on Computer-Based Medical Systems | Yiping Li, Jing Huang, Hao Wang, Ling Feng/2015 | Predicting Teenager’s Future Stress Level from  Micro-blog | In this paper, they proposed to predict/analyze teen’s future stress level from micro-blog, considering the correlated features and the  possible influence of forthcoming events. |  | In the paper, the researchers define teenager’s future stress prediction problem, and propose a framework to predict teenager’s future stress level based on  the detected stress distribution from his/her tweeting history.  Two challenges are particularly addressed in the study. | They proposed to understand Twitter user behaviors and predict their  mood transition by SVM regression, this study is teenagers oriented,  aiming to predict teenagers’ future adolescent stress  level. |
|  | ZUNAIRA JAMIL/2017 | MONITORING TWEETS FOR DEPRESSION TO DETECT AT-RISK  USERS |  | The goal of this project is to exploit the massive data issued from social media and apply social media  mining and sentiment analysis methods to detect at-risk people. | A popular task is to predict user opinions, e.g., predicting the outcome  of political campaigns from social media, or building user pro\_les to predict  their likes and dislikes. The task we have undertaken also makes use of  Twitter (social media) data. | Feature engineering using Twitter user activity  positively contributed towards a classi\_cation accuracy of 69%, with 0.64  precision, and 0.43 recall using support vector machine (SVM) classi\_ers. |
|  | Huijie Lin, Jia Jia, Quan Guo, Yuanyuan Xue, Qi Li, Jie Huang, Lianhong Cai, Ling Feng/2014 | User-Level Psychological Stress Detection from Social Media Using Deep Neural Network | Employing real online micro-blog data, the researchers investigated the correlations between users’ stress and their tweeting content, social engagement and behavior patterns. |  | They test the trained model on four different datasets from major micro-blog platforms including Sina Weibo, Tencent Weibo and Twitter. Experimental results show that the proposed model is effective and efficient on detecting psychological stress from micro-blog data. | A convolutional neural network with cross auto encoders was designed to aggregate weekly low-level content attributes and generate user-scope attributes. |
|  | Huijie Lin, Jia Jia, Jiezhon Qiu, Yongfeng Zhang, Lexing Xie, Jie Tang, Ling Feng, and Tat-Seng Chua/2017 | Detecting Stress Based on Social Interactions in  Social Networks | In this paper, they found that users stress state is closely  related to that of his/her friends in social media, and we employ a large-scale dataset from real-world social platforms to systematically  study the correlation of users’ stress states and social interactions | For linguistic attributes, they take the most commonly  used linguistic features in sentiment analysis research.  Specifically, they first adopted LTP — A Chinese Language  Technology Platform — to perform lexical analysis, e.g.,  tokenize and lemmatize, and then explore the use of a  Chinese LIWC dictionary | For this test,  they used the attribute extractor trained with large scale Sina Weibo dataset and only finetune the network with Twitter dataset in 5-fold. The accuracy is 86.18% and F1-score is 0.8832 which demonstrate the capability of the model. | To maximally leverage the user-level information as well as tweet-level content information, they proposed a novel hybrid model of factor graph model combined with a convolutional neural network (CNN). |
|  | Sharath Chandra Guntuku, David B Yaden, Margaret L Kern, Lyle H Ungar and Johannes C Eichstaedt/2017 | Detecting depression and mental illness on social media: an integrative review |  |  | In this paper, recent studies that aimed to predict mental illness using social media are reviewed. Mentally ill users have been identified using screening surveys, their public sharing of a diagnosis on Twitter, or by their membership in an online forum, and they were distinguishable from control users by patterns in their language and online activity. | Features are then treated as independent variables in an algorithm (e. g. Linear Regression with built in variable selection or Support Vector Machines (SVM)] to predict the dependent variable of an outcome of interest (e.g. users’ mental health. |
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