عنوان مقاله:

Convolutional Neural Network Equipped with Attention Mechanism and Transfer Learning for Enhancing Performance of Sentiment Analysis

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خلاصه مقاله:

With the rapid development of textual information on the web, sentiment analysis is changing to an essential analytic tool rather than an academic endeavor and numerous studies have been carried out in recent years to address this issue. By the emergence of deep learning, deep neural networks have attracted a lot of attention and become mainstream in this field. Despite the remarkable success of deep learning models for sentiment analysis of text, they are in the early steps of development and their potential is yet to be fully explored. Convolutional neural network is one of the deep learning methods that has been surpassed for sentiment analysis but is confronted with some limitations. Firstly, convolutional neural network requires a large number of training data. Secondly, it assumes that all words in a sentence have an equal contribution to the polarity of a sentence. To fill these lacunas, a convolutional neural network equipped with the attention mechanism is proposed in this paper which not only takes advantage of the attention mechanism but also utilizes transfer learning to boost the performance of sentiment analysis. According to the empirical results, our proposed model achieved comparable or even better classification accuracy than the .state-of-the-art methods

کلمات کلیدی:

Sentiment Analysis, deep learning, Convolutional neural network, Attention mechanism, Transfer learning