

Identification of online reviews helpfulness using Neural Networks

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Abstract

During the last decade, research has shown that identifying helpful reviews from a big amount of user-generated review data has been a trending topic. This study proposes a classification system using an adaptive implementation of 1D Convolutional Neural Networks (CNNs) that can early identify whether an online review is helpful, fair or not helpful with 80% of accuracy. After using the neuronal encoding, a cluster analysis of the helpful and not helpful was made. The results reveal that the most significant words and documents for helpful reviews clusters describe cars and their characteristics. Whereas not helpful reviews clusters express details on car-related shops/companies in general.

Keywords: *helpfulness; online reviews; Convolutional Neural Networks; prediction; classification.*
