Abstract

The goal of current study is to create a memory model for educational purposes. In the model, interaction activation competition type neurons (IAC) are used to create neural network. Current models use a categorical table of information in order to create a model's weights. In this study, weights are derived from a word to vector model trained with movie reviews (Maas et al., 2011) using word2vec (Mikolov, Chen, Corrado, & Dean, 2000) instead of using categorical datasets as source data. Only training data was used and valence of reviews are ignored in order to create a pan-semantic space. Similarities of the model has been extracted and through judge based and computational based techniques categorized and used for creating a final model using Simbrain (Tosi & Yoshimi, 2016). Resulting model had shown validity in prediction of general schema of movies based on their various characteristics. Such model offers a suitable tool for students to create their own models in educational environments to grasp a relational understanding of both NLP and IAC together. Advanced models with similar architecture may also be useful in research activities and industry.

Keywords: word2vec, neural network, IAC, memory

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