Abstract

Every day the mass of information available, merely finding the relevant information is not the only task of automatic text classification systems. The main problem is to classify which documents are relevant and which are irrelevant. The Automated text classification consists of automatically organizing clustered data. We propose a method of automatic text classification using Convolutional Neural Network based on the disambiguation of the meaning of the word we use the WordNet ontology and word embedding algorithm to eliminate the ambiguity of words so that each word is replaced by its meaning in suitable context. The closest ancestors of the senses of all the words in a given document are selected as folders for the specified document.

References

1. WangP,XuB,XuJ,etal. Semantic expansionusingword embedding clustering and
search results clustering,” in IEEE/WIC/ACM Int. Joint Conf. Web Intell. Intelligent Agent
Method of News Scientific Intelligence Based on TF-IDF” 2015 IEEE DOI
10.1109/DCABES.2015.131
5. Ning Li, Hui Zhang, Yong Chen, “Convolutional Neural Network with SDP-based Attention
for Relation Classification” 2018 IEEE DOI 10.1109/BigComp.2018.00108
6. S. Dumais, J. Platt, D. Heckerman, and M. Sahami, “Inductive learning algorithms and
148–155
7. Ying Liu1, Peter Scheuermann2, Xingsen Li1, and Xingquan Zhu1Using WordNet to
Disambiguate Word Senses for TextClassification.
8. T. Kohonen, S. Kaski, K. Lagus, J. Salojarvi, J. Honkela, V. Paatero,and A. Saarela,
maps,” in Int. Conf. Artificial Neural Networks (ICANN), 1999, pp. 371–376
11. Nihar M. Ranjan a,b,* Rajesh S. Prasad b “LFNN: Lion fuzzy neural network-based
evolutionary model for text classification using context and sense based features
"https://doi.org/10.1016/j.asoc.2018.07.016 1568-4946/©2018 Published by Elsevier B.V
12. Nihar M. Ranjan a and Rajesh S. Prasad b “Automatic text classification using
BPLion-neural network and semantic word processing” THE IMAGING SCIENCE JOURNAL,
2017https://doi.org/10.1080/13682199.2017.1376781
13. *

Index Terms

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Keywords

neural network, classification, wordsense, feature selection, model selection, WordNet.