STAT 517 – Literature Review Critique (Abhinav Prabhu Adarapuram)

Topic: A Novel Text Clustering Approach Using Deep-Learning Vocabulary Network

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General Background

The topic was a research Article from Hindawi Publishing Corporation by Junkai Yi, Yacong Zhang, Xianghui Zhao, and Jing Wan. They gave some introduction and focused on the related work, theoretical foundation, deep-learning vocabulary network, experimental analysis, and a conclusion was made. It was a 14-page paper work which was quite straight forward and interesting.

Approach Used

Abhinav begun with an abstract, which I think it was a great start to give an overview of the project. He explains deep-learning vocabulary as a novel network approach which is constructed for eliminating the feature extraction issues and data dimension reductions using related word-set and sparse group deep belief networks. He classified text clustering method into two main categories which were the preprocessing phase and the clustering phase.

Input

Based on the related work in the article, they used three subsections to review related literatures which were feature extraction, feature selection and clustering algorithm. He did an extra work clustering these subsections into two main categories which I think it was a plus. Much explains were made based on these two categories. Exiting methods such as term frequency-based method and semantic web-based method were also explained well.

Analysis

Though he did well to have many diagrams in his report, but I think there should have been more and simpler explanation for easy understanding of the concepts but that was just a minor mistake.

General Assessment

In general, his conclusion for DLVN approach being used to proposed for text clustering that involves construction of vocabulary network to mine the importance of words using related word set that contains “cooccurrence” relations of words and with his class presentation was very good performance.