

An Approach for Medical Concept Extraction Using Multi-View Based Transfer Learning

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The goal of medical concept extraction is to identify words and phrases that stand for medical concepts (problems, treatments and tests) from medical documents. The problem is that often large amounts of labeled data are not available in the target domain. The lack of labeled data makes many supervised learning algorithms fail to build an accurate model. In order to address the limited supervision problem, an approach for medical concept extraction based on multi-view based transfer learning setting is proposed. This setting has two phases, extracting proper features from each medical report for constructing attribute sets for the multi-view concept and using a transfer learning based method to label and leverage unlabeled data automatically. The goal is to construct an accurate concept extraction model for the target domain by making use of the labeled examples from the source domains as well as redundancy incurred by multiple views.