	doc_1	doc_2	decision	id
cases	**authors**: • Can Zheng • Yanshan Wang • Xiaowei Jia **title**: Graph-Augmented Cyclic Learning Framework for Similarity Estimation of Medical Clinical Notes **publication_date**: 2022-08-19 00:00:00 **source**: SupportedSources.OPENALEX **journal**: arXiv (Cornell University) **volume**: **doi**: 10.48550/arxiv.2208.09437 **urls**: • https://openalex.org/W4292753324 • https://doi.org/10.48550/arxiv.2208.09437 • http://arxiv.org/pdf/2208.09437 **id**: id-8560049263070217367 **abstract**: **versions**:	**authors**: • Can Zheng • Yanshan Wang • Xiaowei Jia **title**: Graph-Augmented Cyclic Learning Framework for Similarity Estimation of Medical Clinical Notes **publication_date**: 2022-08-19 16:34:41+00:00 **source**: SupportedSources.ARXIV **journal**: None **volume**: **doi**: **urls**: • http://arxiv.org/pdf/2208.09437v1 • http://arxiv.org/abs/2208.09437v1 • http://arxiv.org/pdf/2208.09437v1 **id**: id-934685699166879986 **abstract**: Semantic textual similarity (STS) in the clinical domain helps improve diagnostic efficiency and produce concise texts for downstream data mining tasks. However, given the high degree of domain knowledge involved in clinic text, it remains challenging for general language models to infer implicit medical relationships behind clinical sentences and output similarities correctly. In this paper, we present a graph-augmented cyclic learning framework for similarity estimation in the clinical domain. The framework can be conveniently implemented on a state-of-art backbone language model, and improve its performance by leveraging domain knowledge through co-training with an auxiliary graph convolution network (GCN) based network. We report the success of introducing domain knowledge in GCN and the co-training framework by improving the Bio-clinical BERT baseline by 16.3% and 27.9%, respectively. **versions**:	NOT DUPLICATES	387