

cases	doc_1		doc_2		decision	id
	authors	<ul style="list-style-type: none"><li>Manish Bansal</li><li>Rohan Kumar</li><li>Kalyani Roy</li><li>Subhadeep Maji</li><li>Pawan Goyal</li></ul>	authors	<ul style="list-style-type: none"><li>Subhadeep Maji</li><li>Rohan Kumar</li><li>Mani Bansal</li><li>Kalyani Roy</li><li>Pawan Goyal</li></ul>	DUPLICATES	304
	title	Logic Constrained Pointer Networks for Interpretable Textual Similarity	title	Logic Constrained Pointer Networks for Interpretable Textual Similarity		
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	urls	<ul style="list-style-type: none"><li>https://arxiv.org/pdf/2007.07670v1.pdf</li><li>https://github.com/manishb89/interpretable_sentence_similarity</li></ul>	urls	<ul style="list-style-type: none"><li>https://www.semanticscholar.org/paper/2a26150842c9c229a891cb7b2416fcbc3283e118</li></ul>		
	id	id7804988134219127398	id	id3254285363058882843		
	abstract	Systematically discovering semantic relationships in text is an important and extensively studied area in Natural Language Processing, with various tasks such as entailment, semantic similarity, etc. Decomposability of sentence-level scores via subsequence alignments has been proposed as a way to make models more interpretable. We study the problem of aligning components of sentences leading to an interpretable model for semantic textual similarity. In this paper, we introduce a novel pointer network based model with a sentinel gating function to align constituent chunks, which are represented using BERT. We improve this base model with a loss function to equally penalize misalignments in both sentences, ensuring the alignments are bidirectional. Finally, to guide the network with structured external knowledge, we introduce first-order logic constraints based on ConceptNet and syntactic knowledge. The model achieves an F1 score of 97.73 and 96.32 on the benchmark SemEval datasets for the chunk alignment task, showing large improvements over the existing solutions. Source code is available at https://github.com/manishb89/interpretable_sentence_similarity	abstract	Systematically discovering semantic relationships in text is an important and extensively studied area in Natural Language Processing, with various tasks such as entailment, semantic similarity, etc. Decomposability of sentence-level scores via subsequence alignments has been proposed as a way to make models more interpretable. We study the problem of aligning components of sentences leading to an interpretable model for semantic textual similarity. In this paper, we introduce a novel pointer network based model with a sentinel gating function to align constituent chunks, which are represented using BERT. We improve this base model with a loss function to equally penalize misalignments in both sentences, ensuring the alignments are bidirectional. Finally, to guide the network with structured external knowledge, we introduce first-order logic constraints based on ConceptNet and syntactic knowledge. The model achieves an F1 score of 97.73 and 96.32 on the benchmark SemEval datasets for the chunk alignment task, showing large improvements over the existing solutions. Source code is available at this https URL		
	versions		versions			