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cases	**authors**	• Chengwei Wei • Bin Wang • C.-C. Jay Kuo	**authors**	• Chen Wei • Bin Wang • C.-C. Jay Kuo	DUPLICATES	172
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	abstract	Word Mover's Distance (WMD) computes the distance between words and models text similarity with the moving cost between words in two text sequences. Yet, it does not offer good performance in sentence similarity evaluation since it does not incorporate word importance and fails to take inherent contextual and structural information in a sentence into account. An improved WMD method using the syntactic parse tree, called Syntax-aware Word Mover's Distance (SynWMD), is proposed to address these two shortcomings in this work. First, a weighted graph is built upon the word co-occurrence statistics extracted from the syntactic parse trees of sentences. The importance of each word is inferred from graph connectivities. Second, the local syntactic parsing structure of words is considered in computing the distance between words. To demonstrate the effectiveness of the proposed SynWMD, we conduct experiments on 6 textual semantic similarity (STS) datasets and 4 sentence classification datasets. Experimental results show that SynWMD achieves state-of-the-art performance on STS tasks. It also outperforms other WMD-based methods on sentence classification tasks.	**abstract**	Word Moverâ€™s Distance (WMD) computes the distance between words and models text similarity with the moving cost between words in two text sequences. Yet, it does not offer good performance in sentence similarity evaluation since it does not incorporate word importance and fails to take in-herent contextual and structural information in a sentence into account. An improved WMD method using the syntactic parse tree, called Syntax-aware Word Moverâ€™s Distance (SynWMD), is proposed to address these two shortcomings in this work. First, a weighted graph is built upon the word co-occurrence statistics extracted from the syntactic parse trees of sentences. The importance of each word is inferred from graph connec-tivities. Second, the local syntactic parsing structure of words is considered in computing the distance between words. To demonstrate the effectiveness of the proposed SynWMD, we conduct experiments on 6 textual semantic similarity (STS) datasets and 4 sentence classiï¬cation datasets. Experimental results show that SynWMD achieves state-of-the-art performance on STS tasks. It also outperforms other WMD-based methods on sentence classiï¬cation tasks.		
	versions		**versions**			