	doc_1		doc_2		decision	id
	authors title	Iryna Gurevych Nils Reimers Sentence-BERT: Sentence Embeddings using Siamese BERT-Networks	authors	Nils Reimers Iryna Gurevych		
	publication_date 2019-08-27 00:00:00		title	Sentence-BERT: Sentence Embeddings using Siamese BERT-Networks	1	
	source	SupportedSources.PAPERS_WITH_CODE	publication_date	e 2019-01-01 00:00:00		
	journal		source	SupportedSources.INTERNET_ARCHIVE	DUPLICATES 349 e ie se o	
	volume		journal	Association for Computational Linguistics		
	doi	1 // 16/1000 10004 1 10	volume			
	urls	 https://arxiv.org/pdf/1908.10084v1.pdf https://github.com/UKPLab/sentence-transformers https://aclanthology.org/D19-1410.pdf 	doi	10.18653/v1/d19-1410		
cases			urls	• https://web.archive.org/web/20200124175134/https://www.aclweb.org/anthology/D19-1410.pdf		240
	id		id	id-4265482035643469414		349
	abstract	BERT (Devlin et al., 2018) and RoBERTa (Liu et al., 2019) has set a new state-of-the-art performance on sentence-pair regression tasks like semantic textual similarity (STS). However, it requires that both sentences are fed into the network, which causes a massive computational overhead: Finding the most similar pair in a collection of 10,000 sentences requires about 50 million inference computations (~65 hours) with BERT. The construction of BERT makes it unsuitable for semantic similarity search as well as for unsupervised tasks like clustering. In this publication, we present Sentence-BERT (SBERT), a modification of the pretrained BERT network that use siamese and triplet network structures to derive semantically meaningful sentence embeddings that can be compared using cosine-similarity. This reduces the effort for finding the most similar pair from 65 hours with BERT / RoBERTa to about 5 seconds with SBERT, while maintaining the accuracy from BERT. We evaluate SBERT and SRoBERTa on common STS tasks and transfer learning tasks, where it outperforms other state-of-the-	abstract	BERT (Devlin et al., 2018) and RoBERTa (Liu et al., 2019) has set a new state-of-the-art performance on sentence-pair regression tasks like semantic textual similarity (STS). However, it requires that both sentences are fed into the network, which causes a massive computational overhead: Finding the most similar pair in a collection of 10,000 sentences requires about 50 million inference computations (~65 hours) with BERT. The construction of BERT makes it unsuitable for semantic similarity search as well as for unsupervised tasks like clustering. In this publication, we present Sentence-BERT (SBERT), a modification of the pretrained BERT network that use siamese and triplet network structures to derive semantically meaningful sentence embeddings that can be compared using cosine-similarity. This reduces the effort for finding the most similar pair from 65 hours with BERT / RoBERTa to about 5 seconds with SBERT, while maintaining the accuracy from BERT. We evaluate SBERT and SRoBERTa on common STS tasks and transfer learning tasks, where it outperforms other state-of-the-art sentence embeddings methods. 1		
	versions	art sentence embeddings methods.	7 01 510115			