Round 1 results — Run dmis-rnd1-run2 submitted from KoreaUniversity_DMIS

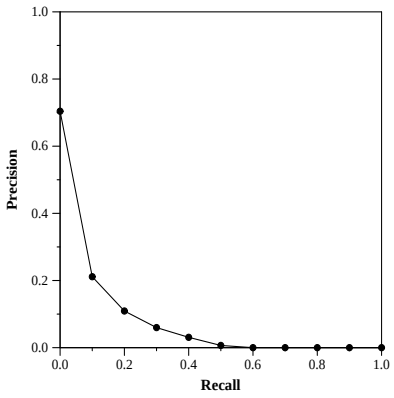
Run Description

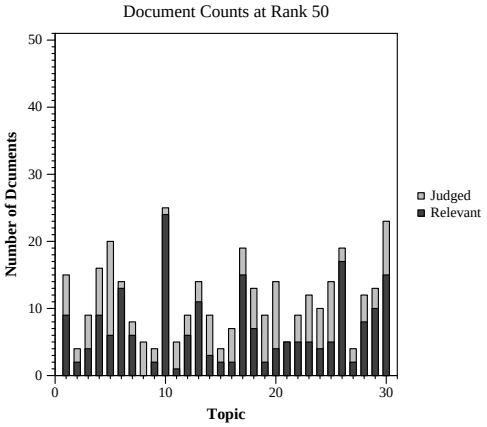
We mainly used covidAsk (https://covidask.korea.ac.kr), a real-time QA system based on DenSPI [1] for the submission. While the initial purpose of the system was to give answers to natural questions in fine-grained phrases, covidAsk implicitly performs IR as documents that contain correct answer phrases can be regarded as relevant. For this submission, we used only subsets of CORD-19 documents that contain synonyms of 'COVID-19' in their titles or abstracts. This gave us about 3K documents from which we indexed about 800K phrase vectors. As our document representation of each phrase was too simple (BM25), we also combined document scores from Covidex [2]. We found the hyperparameters with our small validation set (100 QA pairs) and used 'query' in each topic with DenSPI trained on SQuAD+NaturalQuestions (Hybrid Search). [1] Real-Time Open-Domain Question Answering with Dense-Sparse Phrase Index, Seo et al., 2019 [2] Rapidly Deploying a Neural Search Engine for the COVID-19 Open Research Dataset: Preliminary Thoughts and Lessons Learned, Zhang et al., 2020

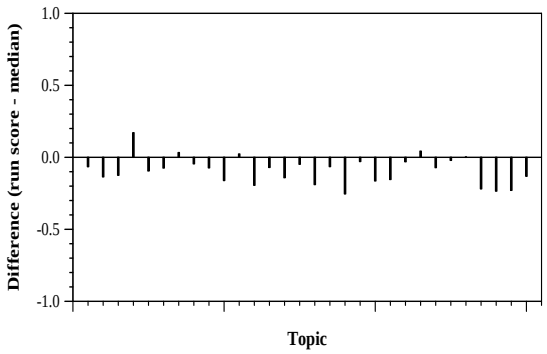
Summary Statistics	
Run ID	dmis-rnd1-run2
Topic type	automatic
Contributed to judgment sets?	no

Overall measures	
Number of topics	30
Total number retrieved	12584
Total relevant	2352
Total relevant retrieved	626
MAP	0.0676
Mean Bpref	0.2339
Mean NDCG@10	0.3225

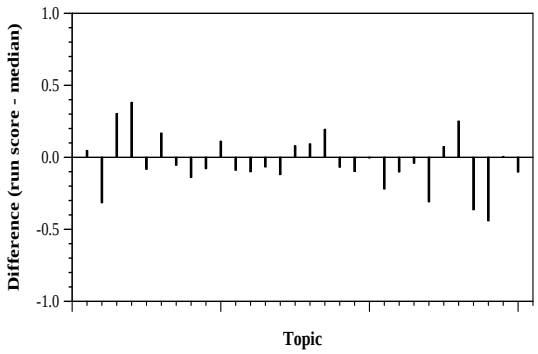
Document Level Averages	
	Precision
At 5 docs	0.3867
At 10 docs	0.3100
At 15 docs	0.2644
At 20 docs	0.2200
At 30 docs	0.1811
R-Precision	
Exact	0.1162







Per-topic difference from median bpref for all Round 1 runs



Per-topic difference from median NDCG@10 for all Round 1 runs

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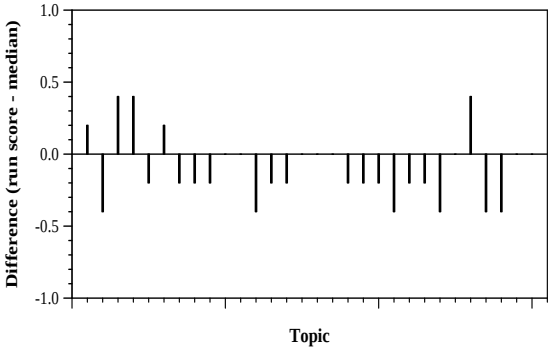

Per-topic difference from median P@5 for all Round 1 runs