

Round 1 results — Run CSIROmedNIR submitted from CSIROmed

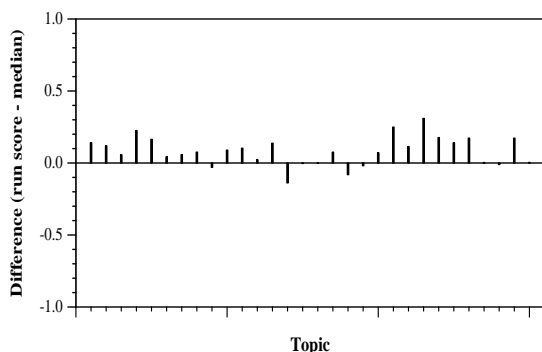
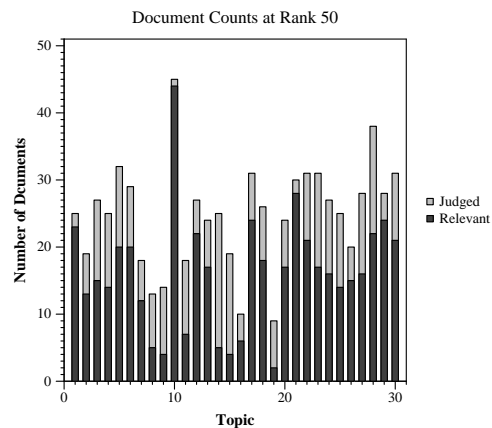
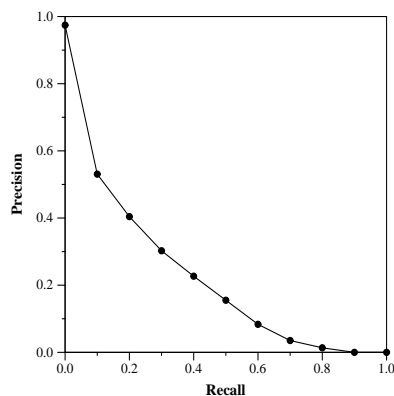
Run Description

A neural index was built on the title, abstract fields of the COVID corpus alongside a traditional inverted index built on title, abstract and body text of the document. The neural index was built from the pooled classification token (1st token of the final BERT layer) using the covidbert-nli model (<https://huggingface.co/gsarti/covidbert-nli>) from the title, based off the sentence transformer (Reimers et al. Sentence-BERT, 2019). For the abstract, we took the Bag-of-Sentence approach where we averaged the individual sentence embeddings (sentence were segmented using segtok). All embeddings had a final dimension size of [1, 768]. We searched on the neural index using the query, narrative and question fields of the topics using the same embedding approach as with the document title embedding over the title and abstract neural index fields giving a total of 6 cosine similarity computations. We combine BM25 scores from traditional search over a combination of query, narrative and question fields over all document facets (body, title, abstract), giving a total of 9 different query-facet combinations. We take the natural logarithm of the total BM25 score (to match the range of the cosine scores) which is then added the cosine scores: $\text{final_score} = \log(\text{sum of BM25 query-facet combs}) + \text{cosineScores}$ Additionally, we filter the document by date. Documents created before December 31st 2019 (before the first reported case) had their scores automatically set to zero.

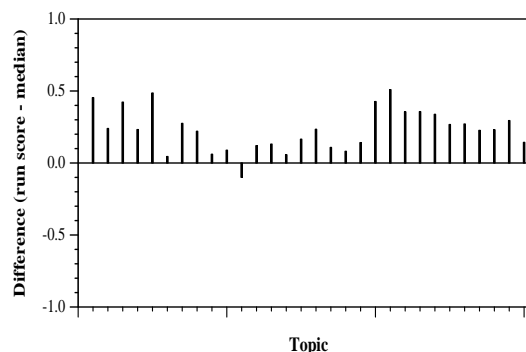
Summary Statistics	
Run ID	CSIROmedNIR
Topic type	automatic
Contributed to judgment sets?	no

Overall measures	
Number of topics	30
Total number retrieved	30000
Total relevant	2352
Total relevant retrieved	1305
MAP	0.2169
Mean Bpref	0.4066
Mean NDCG@10	0.5875

Document Level Averages	
	Precision
At 5 docs	0.6600
At 10 docs	0.5600
At 15 docs	0.5089
At 20 docs	0.4533
At 30 docs	0.4056
R-Precision	
Exact	0.2775

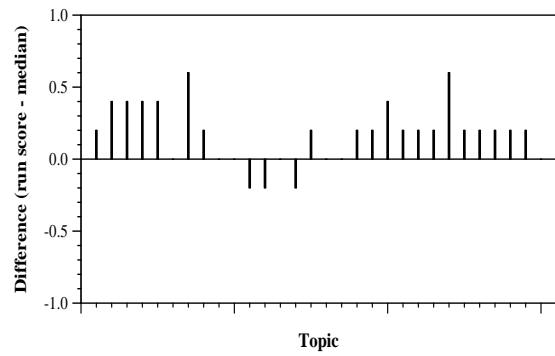


Per-topic difference from median bpref for all Round 1 runs



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