Vector Space Models

David Burian

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Implementation

- Python
- use multiprocessing.pool.Pool.imap
 - ▶ 120s for Czech
 - ▶ 320s for English

run-0

	Czech				English			
run ID	MAP	#relevant	#rel. & ret.	MRR	MAP	#relevant	#rel. & ret.	MRR
run-0	0.1114	382	153	0.3571	0.1228	782	296	0.3217

Table: Results of run-0.

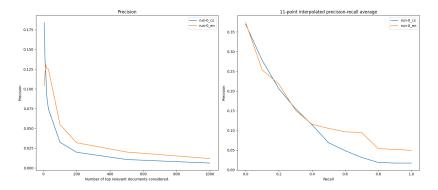


Figure: Precision and 11-point interpolated precision-recall curves for run-0.

run-0-tfidf

		C	zech		English			
run ID	MAP	#relevant	#rel. & ret.	MRR	MAP	#relevant	#rel. & ret.	MRR
run-0	0.1114	382	153	0.3571	0.1228	782	296	0.3217
run-0-tfidf	0.1169	382	161	0.3989	0.1309	782	312	0.3856

Table: Results of run-0-tfidf and run-0.

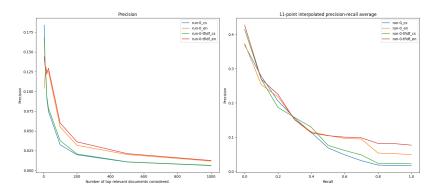
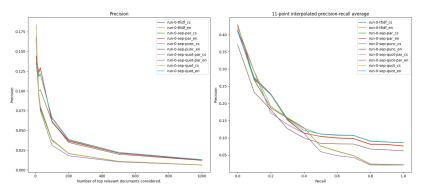


Figure: Precision and 11-point interpolated precision-recall curves for run-0-tfidf and run-0.

run-0-sep

	Czech				English			
run ID	MAP	#relevant	#rel. & ret.	MRR	MAP	#relevant	#rel. & ret.	MRR
run-0-tfidf	0.1169	382	161	0.3989	0.1309	782	312	0.3856
run-0-sep-par	0.1166	382	159	0.3971	0.1316	782	315	0.3856
run-0-sep-punc	0.1108	382	156	0.3890	0.1063	782	303	0.3222
run-0-sep-quot-par	0.1202	382	162	0.3965	0.1345	782	327	0.3583
run-0-sep-quot	0.1202	382	159	0.3983	0.1336	782	325	0.3583

Table: Results of run-0-sep-punc, run-0-sep-quot, run-0-seps-par, run-0-seps-quot-par and run-0-tfidf.



run-0-stopwords

run id	#Czech stop words	#English stop words
run-0-stopwords-kaggle	256	1298
run-0-stopwords-200	34	71
run-0-stopwords-600	8	21

Table: Stop word sets considered for given runs.

run-0-stopwords

	Czech				English			
run ID	MAP	#relevant	#rel. & ret.	MRR	MAP	#relevant	#rel. & ret.	MRR
run-0-sep-quot-par	0.1202	382	162	0.3965	0.1345	782	327	0.3583
run-0-stopwords-200	0.1225	382	168	0.4229	0.1340	782	320	0.3470
run-0-stopwords-600	0.1227	382	168	0.4232	0.1340	782	320	0.3470
run-0-stopwords-kaggle	0.1132	382	162	0.3758	0.1370	782	327	0.3505

Table: Results of run-0-stopwords-kaggle, run-0-stopwords-200 and run-0-stopwords-600.

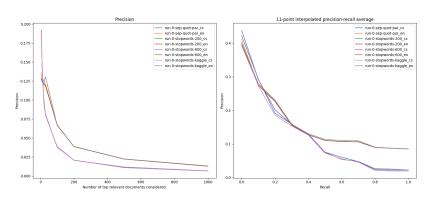


Figure: Precision and 11-point interpolated precision-recall curves for run-0-stopwords-kaggle, run-0-stopwords-200 and run-0-stopwords-600.

run-0-tagblacklist

Left out tags:

- ▶ for Czech documents: DOCNO, DOCID,
- ► for English documents: DOCNO, DOCID, SN, PD, PN, PG, PP, WD, SM, SL, CB, IN, FN.

run-0-tagblacklist

	Czech				English			
run ID	MAP	#relevant	#rel. & ret.	MRR	MAP	#relevant	#rel. & ret.	MRR
run-0-stopwords-600	0.1227	382	168	0.4232	-	-	-	-
run-0-stopwords-kaggle	-	-	-	-	0.1370	782	327	0.3505
run-0-tagblacklist	0.1227	382	168	0.4232	0.1370	782	325	0.3505

Table: Results of run-0-stopwords-600 on Czech, run-0-stopwords-kaggle on English and run-0-tagblacklist on both datasets.

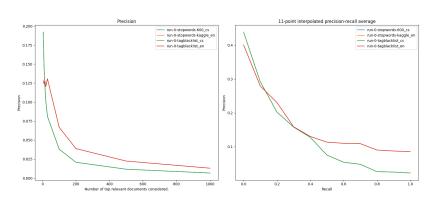


Figure: Precision and 11-point interpolated precision-recall curves for run-0-stopwords-600 on Czech, run-0-stopwords-kaggle on Englis and run-0-tagblacklist on both datasets.

The end

Thank you for your attention