

Rocchio Report GROUP 14

α	β	γ	RF		PsRF	
			mAP@20	NDCG@20	mAP@20	NDCG@20
1	1	0.5	0.764	0.825	0.668	0.700
0.5	0.5	0.5	0.747	0.819	0.668	0.700
1	0.5	0	0.765	0.826	0.650	0.690
Original Observations(mAP@20, NDCG@20)					0.661	0.701

Relevance feedback (RF):

- Both mAP and NDCG results obtained by Rocchio's algorithm are better than the results of part A task 2.
- This is because we add the TFIDF vectors of relevant documents (having relevance score 2) from the gold standard file to the query vectors, making each new query vector favor the documents from the gold standard file.
- Moreover, we subtract the TFIDF vectors of non-relevant docs retrieved by the IR system, which decreases the final contribution of the non-relevant documents retrieved, which increases the chances that a relevant doc in the gold standard file which was not retrieved originally to be retrieved with the modified queries,

Pseudo relevance feedback (PsRF):

- PsRF scores are quite similar to the original Observations.
- This is because we do not take relevance feedback from the gold standard file, rather relevance feedback is only taken from the ranked file, so there is not much improvement observed.

RF vs PsRF:

- The results obtained in the RF case are significantly better than those obtained in the PsRF case.
- This is because while updating the query vector in RF we use the gold standard file to find the relevant docs.
- Whereas In PsRF, no information (feedback) from the gold standard file is ever taken. we take the relevant docs only as the top 10 documents from the ranked file.