

TREC 2012 Crowdsourcing Track, Text Relevance Assessing Task (TRAT) results**Group: (HAC) ECS, University of Southampton****Run ID: Orc2Stage**

Run type: Secondary

Description of run:

Using topic analysis to select files to crowdsource, we obtained 2600 labels from Amazon Mechanical Turk workers. A simplified version of Independent Bayesian Classifier Combination was applied, learning from Topic features extracted from the text.

Results

Topic	#Docs	#Rel	TP	TN	FP	FN	TPR	TNR	FPR	FNR	LAM	AUC
411	2056	27	0	2029	0	27	0.018	1.000	0.000	0.982	0.104	0.806
416	1235	45	2	1155	35	43	0.054	0.970	0.030	0.946	0.422	0.835
417	2992	75	0	2917	0	75	0.007	1.000	0.000	0.993	0.139	0.885
420	1136	37	0	1093	6	37	0.013	0.994	0.006	0.987	0.400	0.647
427	1528	37	37	2	1489	0	0.987	0.002	0.998	0.013	0.738	0.613
432	2503	22	0	2481	0	22	0.022	1.000	0.000	0.978	0.087	0.694
438	1798	162	0	1636	0	162	0.003	1.000	0.000	0.997	0.240	0.809
445	1404	60	0	1344	0	60	0.008	1.000	0.000	0.992	0.175	0.889
446	2020	156	6	1857	7	150	0.041	0.996	0.004	0.959	0.234	0.834
447	1588	16	0	1563	9	16	0.029	0.994	0.006	0.971	0.309	0.725
Average	1826.000	63.700	4.500	1607.700	154.600	59.200	0.118	0.895	0.105	0.882	0.285	0.774

Table 1: This table shows per-topic statistics and overall averages for the run Orc2Stage. The topics are 10 randomly selected topics from the TREC 8 ad-hoc task. A relevant document is positive and a non-relevant document is negative. The true positive (TP), true negative (TN), false positive (FP), and false negative (FN) counts are based on an adjudicated set of relevance judgments that differs from the original TREC-8 ad-hoc qrels. The true positive rate (TPR), false positive rate (FPR), true negative rate (TNR), and the false negative rate (FNR) are all smoothed values. Details of the computation of the logistic average misclassification (LAM) rate and the area under the curve (AUC) are given in the track overview paper. Some runs did not report a probability of relevance and thus will have NA for their AUC score.

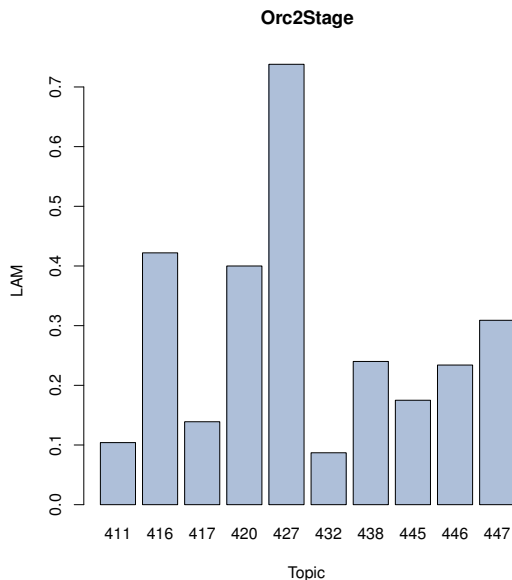


Figure 1: Orc2Stage LAM

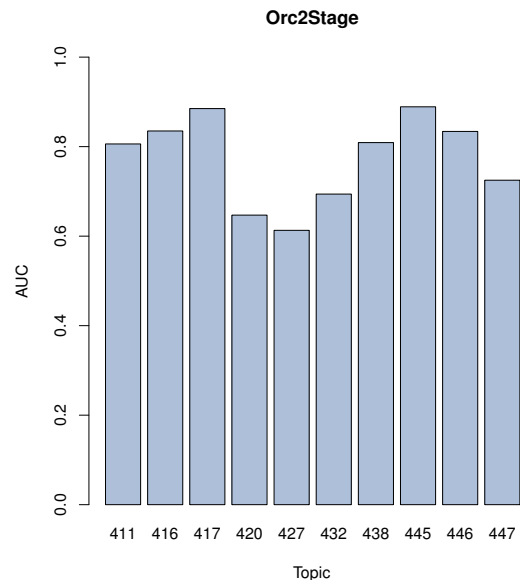


Figure 2: Orc2Stage AUC