TREC 2013 Crowdsourcing Track Results
Group: (Hrbust) Harbin University of Science and Technology
Run ID: Hrbust123

Task: Basic
Run type: Primary
Description of run:
For the TREC2013 Crowdsourcing Track, we put forward a solution strategy based on multi-communication platform and multi-type crowds. To bring together a wide rang of participants to support and participate in crowdsourcing evaluation taskwe adopt the various popular social networking platforms to spread widely, including website promotion, SNS social networking, microblog, WeChat and instant communication tools. We divide the crowd into three groups, Expert Group, Trustee Group and Volunteer Group by the degree of confidence, to judge probability of relevance of different topics and different web content on a six-point scale. Expert group judged all 3470 topic-doc pairs from 10 topics, and asked their friends for help receiving a number of judgments, that is treated as Trustee Groups results. After that, we posted messages on the above-mentioned social networking platforms. In order to ensure the topic-doc distribution on average, our system randomly selected topic-doc pairs and recommend some pairs that had the less number of judgments for volunteers, who were from these platforms. Finally, we selected 15 judgments for each topic-doc pair. In the judgments, we confirmed the final label, which had the higher frequency of occurrence, for each pair. Calculating the ratio of the sum of the deviations of the topic-docs final label value and its 15 label values, and the product of the maximum deviation of 6 relevance labels and the number of the judgment. And 1 minus the ratio is the probability of relevance of final label and judgments. Through the website, we achieve the online evaluation of the Hrbust-Crowdsourcing.

Results
Evaluation of crowd qrel **Hrbust123** for the Basic task of the TREC 2013 Crowdsourcing Track. The 10 topics for the basic task were randomly selected from the TREC 2013 web track ad-hoc task.

Topic	#Docs	GAP	τ_{AP} (APCorr)	RMSE
202	231	0.006	-0.031	0.366
214	305	0.538	0.348	0.248
216	387	0.570	0.493	0.175
221	368	0.553	0.080	0.159
227	246	0.217	0.418	0.210
230	172	0.419	0.472	0.428
234	298	0.699	-0.077	0.390
243	342	0.487	0.193	0.163
246	202	0.337	0.421	0.128
250	207	0.094	0.188	0.141
all	2758	0.392	0.480	0.135

Table 1: This table shows per-topic statistics and overall averages for the run Hrbust123. The metrics GAP, ERR@20, AP-correlation and RMSE are listed for each topic. Note that for row *all*, (i) GAP is the mean gap over all 10 topics, (ii) APCorr and RMSE depend on the ranking of runs induced by the mean ERR@20 for *all* the 10 topics.

TREC 2013 Crowdsourcing Track Results
Group: (Hrbust) Harbin University of Science and Technology
Run ID: Hrbust123

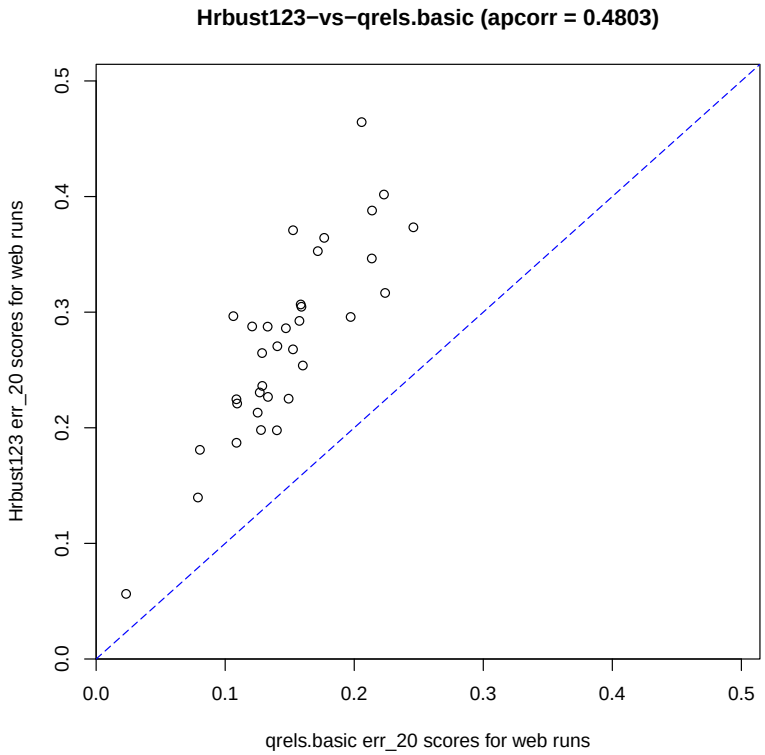

Figure 1: Hrbust123-basic-ERR@20 vs qrels.basic-ERR@20. *qrels.basic* is the TREC 2013 web track qrels reduced to topics 202, 214, 216, 221, 227, 230, 234, 243, 246, and 250.