Dear Maarten,

Thank you for your invitation to submit our SIGIR 2015 paper The Benefits of Magnitude Estimation for Relevance Assessment as a fast-tracked TOIS paper.

My co-authors and I have thoroughly revised the paper (in fact, probably a bit too thoroughly which is why it has taken us so long!), and attach it here for consideration as a TOIS paper.

In comparison to the SIGIR paper, we have:

- Added Research Question 2, addressing the number of crowd workers required to make magnitude estimation successful in this context.
- Added Section 2.3 discussing crowd sourcing
- Added the complete instructions given to workers as an appendix
- Added Figures 1 and 2 and accompanying text in Section 4
- Reformatted and added explanation to the normalisation method for ME
- Added references mentioned by SIGIR reviewers of which we were unaware
- Added gsd panel to Figure 5
- Completely reworked Section 6.1, including adding Fig 6, recomputing Fig 7 differently from SIGIR, Adding Figure 8
- Section 6.3 is new, including Figure 9 and Table II
- Parts of 7.2 have been reworked, Table III expanded, Figures 10 and 11 recomputed using a slightly different (hopefully more robust) method, and Table IV recomputed.
- The second half of Section 8 has been reworked, including recomputation of Figure 15.
- Section 9 (Conclusions and Future Work) is almost entirely new text.

The second page of this letter contains an infographic showing the current TOIS submission compared with the SIGIR paper computed using *latexdiff*. Black text is from the SIGIR paper, blue text is added, and red shows deleted text. Considering both the text and the figures that we have revised, I think we exceed the required 25% new material.

I can confirm that all authors are aware of the submission, and agree to its review by TOIS.

I would suggest Ryen White, Charlie Clarke and Tetsuya Sakai as possible Associate Editors to handle this submission. No authors have conflict with these AEs.

I hope you find it acceptable for consideration by your reviewers.

Yours Sincerely,

Andrew Turpin

Department of Computing and Information Systems

University of Melbourne

Australia.





















































