Editor-in-chief ACM Transactions on Information Systems University of Amsterdam September 16, 2016

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,

/Users/aturpin/doc/my signature.pdf

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 ${\bf Australia}.$ 

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