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Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "TAGGS: Grouping Tweets to Improve Global Geotagging for Disaster Response" *by* Jens de Bruijn et al.

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This paper presents TAGGS, an innovative method to group natural hazards related Twitter tweets, which is very useful for the response and rescue after the natural hazards happen, mitigating the loss. Overall, this paper fits the interest of NHESS Journal; given the high-quality of its scientific innovation and writing, the paper deserves an acceptance, though some minor revisions are needed.

The paper puts emphasis on its innovative geotagging algorithm, namely TAGGS, which basically is a method dealing with toponym recognition and resolution, especially for tweets. Although it does a great job reviewing related works, it overlooks some toponym recognition and resolution work on short texts, which could be useful for the case of tweets as well. Moreover, only those fields in the meta-data are considered as spatial indicators. What about the context in the tweet itself? For example,

if a tweet mentions "Washington" and "president", it is very likely the "Washington" is referring to Washington D.C.. This could be the next step if the authors are going to further their approach. Here are two related literature that the authors may refer:

Ju, Y., Adams, B., Janowicz, K., Hu, Y., Yan, B., & McKenzie, G. (2016). Things and Strings: Improving Place Name Disambiguation from Short Texts by Combining Entity Co-Occurrence with Topic Modeling. In Knowledge Engineering and Knowledge Management: 20th International Conference, EKAW 2016, Bologna, Italy, November 19-23, 2016, Proceedings 20 (pp. 353-367). Springer International Publishing.

Y Hu, K Janowicz, S Prasad (2014): Improving Wikipedia-based place name disambiguation in short texts using structured data from DBpedia, In Proceedings of 8th ACM SIGSPATIAL Workshop on Geographic Information Retrieval, Nov. 4, 2014, Dallas, TX, USA.

Some parts of the writing could be clarified or improved:

In line 24 of Section 2.2, the expression "tweets older than 24 hours" is confusing. Also, what is the reason to choose "24 hours" as the scanning window? What's the difference if I choose "6 hours" or "72 hours"?

It is nice to see "thresholds" are used to balance between precision and recall, but it seems like the authors only use "0" and "0.2". It would be better to see a precision-recall curve, which is typical for the task of information retrieval.

In figure 3, for Toponym recognition, it should be 2.2.1, instead of 2.2.1.

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