Dear authors:

Manuscript ID IJGIS-2016-0294 entitled "Depicting urban boundaries from a mobility network of spatial interactions: A case study of Great Britain with geo-located Twitter data" which you submitted to the International Journal of Geographical Information Science, has been reviewed. The comments of the reviewers are included at the bottom of this letter.

The reviewers have recommended publication, but also suggest some minor revisions to your manuscript. Therefore, I invite you to respond to the reviewers' comments and revise your manuscript. Some of the suggestions can be easily addressed by acknowledging the data limitations and adding short explanations to justify adopted methods. Some suggestions need a bit more work to contextualize your work. Please try to avoid making the paper longer (keep in mind that the average length of papers in this journal is 18-20 published pages).

It is important that you ensure that the spelling and grammar is of a high standard.

To revise your manuscript, please select the link below, which will take you your decision letter, and where you need to resubmit your manuscript.

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You will be unable to make your revisions on the originally submitted version of the manuscript. Instead, revise your manuscript using a word processing program and save it on your computer. Please also highlight the changes to your manuscript within the document by using the track changes mode in MS Word or by using bold or colored text.

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When submitting your revised manuscript, you will be able to respond to the comments made by the reviewers in the space provided. You can use this space to document any changes you make to the original manuscript. In order to expedite the processing of the revised manuscript, please be as specific as possible in your response to the reviewers.

IMPORTANT: Your original files are available to you when you upload your revised manuscript. Please delete any redundant files before completing the submission.

Because we are trying to facilitate timely publication of manuscripts submitted to the International Journal of Geographical Information Science, your revised manuscript should be uploaded as soon as possible. If it is not possible for you to submit your revision in a reasonable amount of time, we may have to consider your paper as a new submission.

Once again, thank you for submitting your manuscript to the International Journal of Geographical Information Science and I look forward to receiving your revision.

Sincerely,

Prof. May Yuan

Associate Editor, International Journal of Geographical Information Science [myuan@utdallas.edu](mailto:myuan@utdallas.edu)

Reviewers' Comments to Author:

Reviewer: 1

<b>Comments to the Author</b>

This is second round that I read this manuscript. The authors have almost extensively reworked their manuscript and have addressed reviewers’ comments.

It is interesting to see the innovative use of social media in this line of research. The authors carefully and methodologically prepared their social media. However, we still need to answer if the data collected is representative and reliable for the proposed research in absence of ground truth. The authors obviously were aware of this issue and give responses to the reviewers.

1. This study is the integration of previous work by Ratti et al. (2010) and Jurdas et al. (2015). The main different is that authors using new LBSM as a measure to analyze the pattern of human mobility. But what are major lessons learned from this work and the differs from previous works.

2. Why authors used Infomap algorithm to perform the community detection? What was the basis for selecting these algorithm? How about other algorithm, like Walktrap and Multilevel algorithms?

Specific comments

1. In section 4.1, “We then used these natural breaks within the mobility patterns to …”. For heavy-tailed distribution, head/tail breaks should be adopted for classification.

Jiang B. (2013), Head/tail breaks: A new classification scheme for data with a heavy-tailed distribution, The Professional Geographer, 65 (3), 482 – 494.

Reviewer: 2

<b>Comments to the Author</b>

The revision of this paper has improved and thanks for addressing most of my comments in the revision. My only remain concern is that findings of the paper are largely dependent on the data, and parameterization (e.g., selection of distance decay factor, fishnet cell size), and may not be generalizable to other regions.

Since the human mobility is usually explained by local social-economic factors (e.g., working commuting; p. 13, line 34), it would be useful to provide additional maps or layers of business districts, and major landmarks (e.g., airport, green spaces) in Figures 4, 5,6 to help interpret the boundaries derived. It would also be useful for audiences that are not familiar with the geographic context in Great Britain to better understand the results.