Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2018-200-RC1, 2018 © Author(s) 2018. This work is distributed under the Creative Commons Attribution 4.0 License.



## Interactive comment on "Climate risks, digital media, and big data: following communication trails to investigate urban communities' resilience" by Rosa Vicari et al.

## **Anonymous Referee #1**

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The work presents an interesting comparison of text analysis from news and Twitter, to identify urban resilience networks during flood events. The presented work and results are very interesting, but the paper needs to be organised differently and more technical details are necessary. Finally, a deeper analysis on why this work is useful needs to be presented. Comments: 1. Section 2.2 (Data) should, in my opinion, come before the Methods section (2.1), as the applied methods are specific to the collected data. 2. The Data section can be divided in 3 subsections to present the three datasets. 3. The Methods section should be considerably expanded. Most of the methodology is actually presented later on in the paper, and should be in this section instead. 4. It would be very helpful to explain how Gargantext algorithm works, what it is based on.

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A lot is said about what Gargantext can do, but what did you do with it? Use active voices and present the logical order of passages. 5. Pg 3 Line 24: can you compare these statistics with the general population statistics? 6. How do you actually access the data from news and Twitter? Do you use an API? A scraper method? Which search criteria did you use? How many tweets did you download? You need all these details for reproducibility of results. A reader should be able to replicate all your steps. 7. Pg 4 Lines 28-30: these details should be in the data section. 8. Pg 4 Line 29: are these logical and/or? Is the and only between "inond\*" and "Seine"? If so write is as an equation with correct parentesys. 9. Figure 1b: I would remove this panel. The case study is not presented in the analysis and generates confusion. 10. Pg 6 Lines 1-2: details about the zooming capabilities are not relevant. 11. Pg. 8 line 2: the colours are not relevant. Too much attention is given to the cluster colours, although this has been assigned without meaning. Please remove the sentence here and the colour references in the list below. It is also a limitation for colour-blinded readers. 12. Pg 8 Line 11: I would personally specify Social Impact. Similarly at line 18, I would call it Economic Impact. 13. No comment is done on the keyword "resilience", root concept in this paper. Is it find by the Gargantext networks? Is it common? 14. Figures S2.1 and S3.1: can you put all the keywords by the histogram? Just one out of two appears. 15. Pg 10 Lines 3-6: remove references to colours as they are not meaningful. 16. Figure 3: There is plenty of terms outside the defined clusters. Why the Impact Record cluster does not involve the keywords "passengers", "interrompu" and "victims" which seem relevant and close in the network? What about all the terms in the central/low part? 17. Pg 12 note 4: this should be included as a reference. 18. Pg 12 Lines 28-31: please explain why the "most liked users" and the "most retwitted users" are relevant in this analysis. What do they tell us about resilience? 19. Pg 13 Lines 4-5: Probably people prefer to retweet from official users/news rather than individuals for a reliability reason. You prefer to share info from an official source, rather than a person. 20. The Sections 3, 4, and 5 are already Results. I suggest you create a Section "Results" after "Methodology", with subsections for each of the case studies. Sections 3,4, and

5 also contain a lot of dscussions as well, which I would move to the "Results and Discussion" section, which should be renamed "Discussion" only. This would greatly improve the clarity of the manuscript. 21. Pg. 16 Line 27: the word "metric" would imply numerical values, but here you present mostly qualitative analysis. Do you have any plan to present additional quantitative analysis? 22. A big question is not answered: what is this study useful for? What can we learn from all this analysis? Why is it helpful? Is there anything that we can do differently in the future because of what we have learned?

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