

Proposal for Reproducibility Report

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1. **A (bibtex) citation of the paper whose experiments you plan to reproduce, with a URL**

[1] URL: <https://aclanthology.org/2021.emnlp-main.616.pdf>

2. **The hypotheses in the paper you plan to verify by reproducing experiments**

We plan to verify the hypothesis that a user's interests in a hashtag is related to what they've said before (user history) and the existing posts the hashtag has been applied to (hashtag contexts), and can be predicted with a *personalized topic attention model*.

3. **A short description of whether and how you can access the data used in the paper**

The paper contains a link to a GitHub repository. That repository has instructions on how to access the data and run each experiment

4. **Whether you will use the existing code (in that case, a link to the code) or implement yourself**

We will be using the existing code (linked here). We also plan to make changes to the dataset and model run to additional experiments.

5. **A discussion of the feasibility of the computation you will need to do (essentially, an argument that the project will be feasible)**

While the dataset contains 900M tweets, the actual number of tweets used to build the model after preprocessing is 33,881. Furthermore, with access to CUDA enabled GPU through google colab, we are able to run the intensive training process on a virtual machine rather than the limited hardware that we may own. Additionally, We are confident in being able to run the code fully after downloading it from the github repo provided.

References

- [1] Yuji Zhang et al. “#HowYouTagTweets: Learning User Hashtagging Preferences via Personalized Topic Attention”. In: *Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing*. Online and Punta Cana, Dominican Republic: Association for Computational Linguistics, Nov. 2021, pp. 7811–7820. DOI: 10.18653/v1/2021.emnlp-main.616. URL: <https://aclanthology.org/2021.emnlp-main.616>.