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**Hui Yang\*** (huiyang@sfsu.edu), Dept of Computer Science, San Francisco State University, San Francisco, CA 94022, and **Swati Patel** and **Hui-ming Deanna Wang**. *Using topical interests and social interactions to measure user similarity on Twitter*. Preliminary report.

Social networks such as Twitter have become an important medium for the diffusion of information. In this study, we designed two user similarity measures, where the first is based on users' topical interests and the other utilizes users' social connections. Specifically, for the first measure, we use a user's historical tweets to infer her topic interests. Various topic modeling approaches are evaluated towards understanding their ability to distinguish the different types of Twitter user pairs. For the second measure, we use interactions between Twitter users, such as retweeting, quoting, replying, and mentioning to measure users' similarity. Our analysis indicates that the above two types of similarity measures have no inter-correlations and exhibit significantly different averages across three groups of user pairs under evaluation. (Received August 28, 2018)