
Twitter as an Across-Border Social Media Platform: Who is Participating?

Naveena Karusala

Georgia Institute of Technology
Atlanta, Georgia, USA
nkarusala3@gatech.edu

Trevor Perrier

University of Washington
Seattle, Washington, USA
tperrier@cs.washington.edu

Neha Kumar

Georgia Institute of Technology
Atlanta, Georgia, USA
neha.kumar@gatech.edu

Paste the appropriate copyright statement here. ACM now supports three different copyright statements:

- ACM copyright: ACM holds the copyright on the work. This is the historical approach.
- License: The author(s) retain copyright, but ACM receives an exclusive publication license.
- Open Access: The author(s) wish to pay for the work to be open access. The additional fee must be paid to ACM.

This text field is large enough to hold the appropriate release statement assuming it is single spaced in a sans-serif 7 point font.

Every submission will be assigned their own unique DOI string to be included here.

Abstract

We propose a cross-cultural study of participation in across-border Twitter conversations, inspired by writer and speaker Siyanda Mohutsiwa's views on Twitter as a tool for fostering social pan-Africanism among African youth. We study prior work on Twitter use and non-use, the role of Twitter in organizing groups of people, and social media use related to the interaction of different identities. We use this work to ground a cross-cultural study that would compare the tweets from Mohutsiwa's #ifaficawasabar hashtag with tweets from a similar hashtag in India and the United States. We propose our overall research and methodological questions with the goal of formulating best practices for comparative analyses of Twitter data.

Author Keywords

Twitter; Participation; Cross-Cultural; HCI4D

ACM Classification Keywords

H.5.m [Information interfaces and presentation (e.g., HCI)]: Miscellaneous

Introduction

In February 2016, Siyanda Mohutsiwa, a writer, speaker, and self-described pan-Africanist, gave a TED Talk about the promise of Twitter as a site for fostering social pan-Africanism—the idea that people of each African country

can relate to, share, and collaborate with each other despite cultural and geographic differences [10]. She recounts how, in the summer of 2015, she was inspired by the question of what each country would be doing or drinking if Africa was a bar [10]. She tweeted “#ifawasabar South Africa would be drinking all kinds of alcohol and begging them to get along in its stomach”, referencing the attempt to rebuild South Africa after apartheid [10]. Eventually, the hashtag garnered participation, amassing over 60,000 tweets within a week [10].

Encouraged by the wide participation the hashtag received, Mohutsiwa said that the Internet could be a tool to actualize the idea of social pan-Africanism [10]. However, she also explains that using Twitter and hashtags like this requires access to mobile data, English-speaking skills, and willingness to connect to people, oftentimes strangers, from different countries, pointing to the realities of participating on Twitter [10]. Motivated by the fact that the hashtag is meant to bring people together based on individual identities, we propose an exploration of the realities of Twitter conversations that cross borders. By analyzing the tweets containing the hashtag #ifawasabar and tweets from a similar national conversation in India and the United States, we plan to conduct a cross-cultural study that analyzes participation in Twitter conversations that span geographic boundaries and the ideological differences that follow. The following sections describe previous work on Twitter use and non-use, the use of Twitter for organization, and social media conversations that cross borders, physical and cultural. We then describe our research questions and potential methodologies for analyzing data.

Related Work

Twitter’s design has made it a unique social medium. Its brevity and constant updates are quite different from social

platforms that contain longer, more infrequent posts [11]. Additionally, one does not need to be friends with another user to see their posts (unless the posts have been made private) or to direct a tweet towards them [11], making a proliferation of “weak, low-cost ties” possible [14]. Such a setup creates the potential for more interactions among strangers. For example, a user could tweet at a celebrity, and the celebrity could choose to reply, forming an interaction that did not originally exist offline [12]. Tweets can also be sent via text message, making Twitter accessible with a range of mobile phones [11]. Additionally, compared to other online social platforms that have content originating largely from the Global North [5], analysis of geotagged tweets indicates a great amount of content originating from the Global South [6]. Considering the way users take advantage of Twitter’s design, Mohutsiwa’s point that it is a fitting social platform for Africa’s youth is promising.

This is not to say participation on Twitter is representative of overall populations. Twitter use is still largely dependent on Internet access, which is not as accessible in socioeconomically marginalized communities [11]. Of those who do use Twitter, a minuscule percentage of “elite users” produce a majority of new information or content, and categories of users (bloggers, celebrities, etc.) tend to have exchanges among themselves [18]. However, a user’s impact measured in number of followers, retweets, or growth rate can provide a different story [9]. A study of geotagged tweets shows that Indonesia and Malaysia have an extremely high concentration of influential users [9]. In Africa, influential users are largely in Nigeria and South Africa [9]. This varying topography of participation on Twitter begs the question of who is talking about what when using a hashtag, particularly when the purpose is to share ideas among a diverse set of users.

The use of hashtags is another aspect of Twitter that brings up questions of participation. Hashtag games such as #ifricawasabar garner participation that relies on an understanding of the game and linguistic wordplay [17]. In a study of hashtags related to two environmental movements, one hashtag was used by a central actor to mobilize and publicize, while the other hashtag was used to self-mobilize [13]. Hashtags are also unique in that they allow for the formation of "ad hoc publics" that form rapidly and in real time, as opposed to planned groups that might need permission to form or include members [1]. More generally, categories of topics can also have meaningful subgroups. A study of communities on Twitter sharing New York Times articles showed that users split into groups interested in international, national, and local news, with national news groups divided into liberal, conservative, and other [7]. In our study, characterizing *how* hashtags are fostering participation may be revealing.

Twitter use also becomes complicated when considering geography. As location data is attached to information, the idea of a "borderless" Internet is diminishing [16]. Tweets can be geotagged, though a very small proportion are, and georeferenced tweets are only processed if referenced in English [9]. A study of tweets regarding the 2008 and 2012 US presidential elections found that Twitter samples tend to over-represent areas with high population density, indicating Twitter use is growing along existing patterns of population distribution in the United States [4]. Twitter users reportedly retweet or reference users and news both far away and nearby equally often. Another study has shown that more than a third of all links and tweets are shared across national borders [8], particularly to countries that are close physically and linguistically [14, 8]. Prior work on trending topics in the US has also found that nationally trending topics are first popularized by individual metropolitan cities

within the country that tend to be hubs of air traffic [2].

Finally, there have been multiple studies that situate online interactions in larger sociocultural contexts. A case study of Guangzhou users of Sina Weibo, a Chinese social media platform, showed that despite the Chinese national government's attempts to create a homogeneous national identity, Weibo was used to maintain a sense of local identity in the midst of national politics [16]. Users would sometimes write in Cantonese as a politically meaningful act and assertion of their identity, and Weibo in general could be used to talk about local perspectives [16]. Outside of social media use, an analysis of voting in the Eurovision Contest showed that votes cast by Europeans from multiple countries can be indicative of cultural affinity among residents of member countries and reflect economic and political climates [3].

Proposed Work

Currently, we have collected more than 30,000 tweets containing the hashtag #ifricawasabar via Twitter's Search API, which searches within a set of tweets sampled from the last 7 days of all tweets from Twitter [15]. Because the hashtag is unique to a particular place and social context, we were inspired to analyze this hashtag in comparison to others, prompting a literature review of prior work that studies the intersection of participation, Twitter use, and geography. Because the authors have experience researching in India, Kenya, and the United States, we chose India and the United States as possible candidates for comparison. Hashtagged tweets from both countries will be collected using the Twitter Search API as well. In order to conduct such a cross-cultural study, we lay out the following methodological and research questions:

- What comparisons in participation might be made between datasets, considering the differences among

the countries such as income, geographical structure, and sociopolitical context of potential hashtags?

- What kind of trending hashtags within India and the US would be appropriate to compare to #ifafriawasabar, considering the hashtag attempts to involve multiple identities in one scenario?
- What methodologies would be appropriate to determine participation, spread of information, and attitudes of different identities towards each other?

Some proposed methods that could begin to answer the questions above are:

- Looking at re-tweet trends in the hashtag graph to see who has the most influence.
- Looking at geotags and profile locations to see where influence is coming from geographically.
- Looking at the use of images and memes across cultures.
- Looking at how fast the hashtag spread and then declined in use.

Our goal for this symposium is to evaluate these methods, as well as discuss what other questions we could ask and what we could study with respect to the other countries' hashtags.

Conclusion

In this proposal, we lay out the basis of a study of participation in Twitter conversations that cross borders, both physical and cultural. We want to explore what differences

might arise in representation in hashtags among multiple countries. In order to do so, we hope to further discuss and answer the questions above when comparing multiple contexts and analyzing Twitter data.

References

- [1] Axel Bruns and Jean E Burgess. 2011. The use of Twitter hashtags in the formation of ad hoc publics. In *Proceedings of the 6th European Consortium for Political Research (ECPR) General Conference 2011*.
- [2] Emilio Ferrara, Onur Varol, Filippo Menczer, and Alessandro Flammini. 2013. Traveling trends: social butterflies or frequent fliers?. In *Proceedings of the first ACM conference on Online social networks*. ACM, 213–222.
- [3] David García and Dorian Tanase. 2013. Measuring cultural dynamics through the eurovision song contest. *Advances in Complex Systems* 16, 08 (2013), 1350037.
- [4] Josef Gordon. 2013. Comparative geospatial analysis of Twitter sentiment data during the 2008 and 2012 US Presidential elections. (2013).
- [5] Mark Graham, Scott A Hale, and Monica Stephens. 2011. Geographies of the World's Knowledge. *London: Convoco* (2011).
- [6] Mark Graham, Monica Stephens, and Scott Hale. 2013. Featured graphic. Mapping the geoweb: a geography of Twitter. *Environment and Planning A* 45, 1 (2013), 100–102.
- [7] Amaç Herdağdelen, Wenyun Zuo, Alexander Gard-Murray, and Yaneer Bar-Yam. 2013. An exploration of social identity: The geography and politics of news-sharing communities in twitter. *Complexity* 19, 2 (2013), 10–20.
- [8] Juhi Kulshrestha, Farshad Kooti, Ashkan Nikravesh,

- and P Krishna Gummadi. 2012. Geographic Dissection of the Twitter Network.. In *ICWSM*.
- [9] Kalev Leetaru, Shaowen Wang, Guofeng Cao, Anand Padmanabhan, and Eric Shook. 2013. Mapping the global Twitter heartbeat: The geography of Twitter. *First Monday* 18, 5 (2013).
 - [10] Siyanda Mohutsiwa. 2016. How young Africans found a voice on Twitter. https://www.ted.com/talks/siyanda_mohutsiwa_how_young_africans_found_a_voice_on_twitter?language=en. (2016).
 - [11] Dhiraj Murthy. 2011. Twitter: Microphone for the masses? *Media, culture & society* 33, 5 (2011), 779–789.
 - [12] Dhiraj Murthy. 2012. Towards a sociological understanding of social media: Theorizing Twitter. *Sociology* 46, 6 (2012), 1059–1073.
 - [13] Alexandra Segerberg and W Lance Bennett. 2011. Social media and the organization of collective action: Using Twitter to explore the ecologies of two climate change protests. *The Communication Review* 14, 3 (2011), 197–215.
 - [14] Yuri Takhteyev, Anatoliy Gruzdtov, and Barry Wellman. 2012. Geography of Twitter networks. *Social networks* 34, 1 (2012), 73–81.
 - [15] Inc. Twitter. The Search API. (????).
 - [16] Wilfred Yang Wang. 2015. *Reconfiguring Guangzhou identity—a study of place and locality on Sina Weibo*. Ph.D. Dissertation. Queensland University of Technology.
 - [17] Peter Wikström. 2014. #srynotfunny: Communicative functions of hashtags on Twitter. *SKY Journal of Linguistics* 27 (2014), 127–152.
 - [18] Shaomei Wu, Jake M Hofman, Winter A Mason, and Duncan J Watts. 2011. Who says what to whom on twitter. In *Proceedings of the 20th international conference on World wide web*. ACM, 705–714.