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A Study in Platform Manipulation:
A Case Study of Tehreek-e-Labaik Pakistan on Twitter

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Overview

In the light of recently leaked "[Facebook Papers](#)" and Twitter's study showing their platform being used as "[megaphone for the right](#)" have once again reaffirmed that unregulated social media in its current form and shape has made it too easy for miscreants to manipulate the platforms to influence public opinion. Previous research on the topic of platform manipulation informs us that this issue is more prevalent in non-Western countries where it is exacerbated because of lack of attention and compliance from social media companies. In this background, we, at G5iO, undertook an extensive study to examine how certain right-wing actors (specifically, Tehreek-e-Labbaik Pakistan) openly manipulate the social media platform, particularly Twitter, and that too with impunity.

Methodology

In the pursuit of our aim, which is to investigate platform manipulation, we looked at four recent hashtags that were trending between 19th to 24th Oct on separate days. Three of them were #کل_تک_معاہدہ_پوراکرو , #جنگوں_والے_نبی_کی_آمد , #لبیک_ناموس_رسالت_مارچ , which were run by Tehreek-e-Labbaik Pakistan (TLP). The fourth hashtag was #FATF which was selected just to show how an organic trending topic varies from those that are used to push with certain malice. Researchers used Twitter's REST API to download the data against all four hashtags. The data scrapping yielded 322,999 tweets (including retweets) for the three hashtags run by TLP, whereas, 26,491 tweets were downloaded for #FATF, which amounts to the total tweets posted with the said hashtag. Hence, in total the following analysis is based on 349,490 tweets across four hashtags.

Insights

First, we aimed to highlight the tweeting frequency across each hashtag because in doing so we intended to highlight the similar or varied pattern between different hashtags. The following figures, illustrates the three hashtags that were run by TLP and though each one was trending on different day but they follow similar pattern where we see a surge at the early phase and as the day progresses

it dies down. The similarity in pattern reveals a concerted and coordinated effort to push certain narrative because at the peak of a trending hashtag more than 400 tweets were posted in each minute which equals to approximately 7 tweets a second.
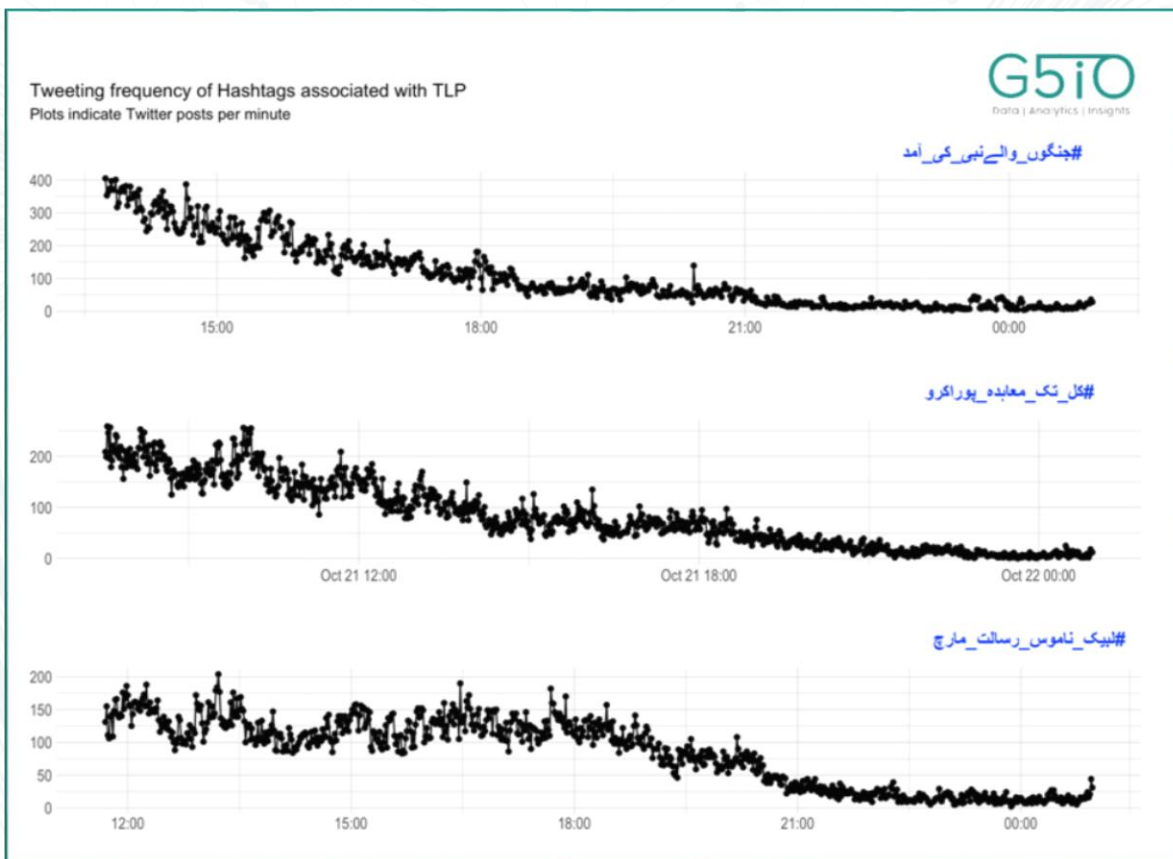
In contrast to that, the conversation over the decision of Financial Action Task Force (FATF) to keep Pakistan in "grey list" spurred an organic debate which despite being 25% less in number against any of the above hashtags managed to evolve at its natural pace with recurring crests and troughs.

Tweeting frequency of an organic political hashtag #FATF
Patterns varies as conversation evolves
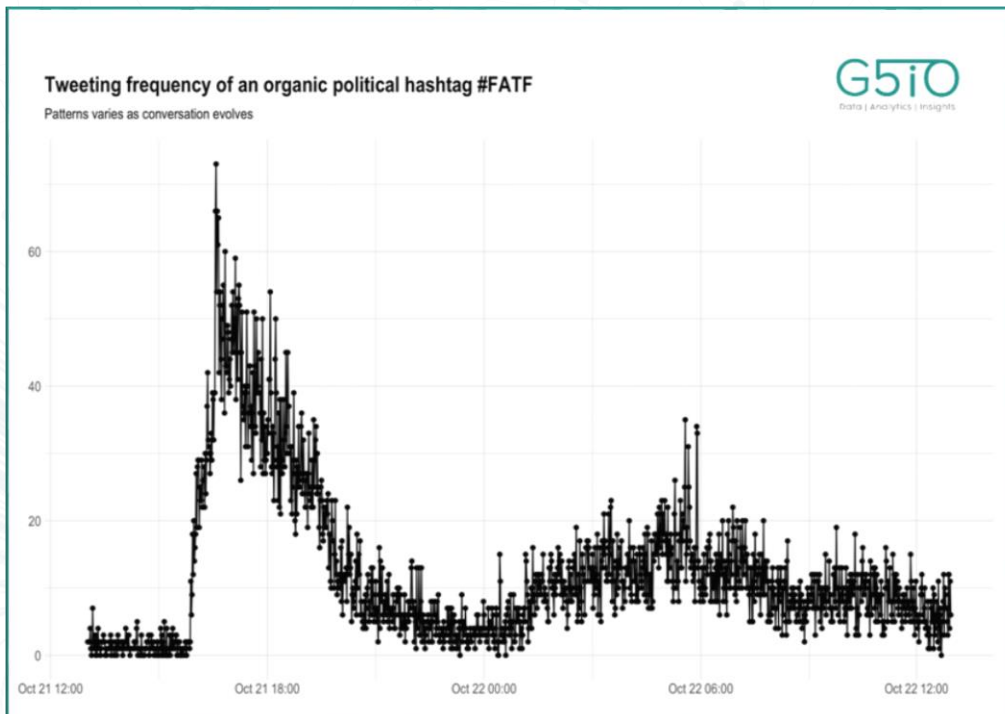
Feature Analysis

Next, we wanted to understand how different features of Twitter were being used to amplify certain content and also how many people are actually involved in the conversation. Following graph clearly points out the (in) organic nature of the different hashtags under observation.

Hashtags	Total Tweets	Unique Users	Percentage of Unique Users	Number of Retweets	Percentage of Retweets
جنگوں_والے_نبی_کی_آمد#	107,392	12,022	11%	94,832	88%
کل_تک_معاہدہ_پوراکرو#	107,762	14,127	13%	97,989	90%
لبیک_ناموس_رسالت_مارچ#	107,839	10,193	9%	99,448	92%
#FATF	26,491	17,049	64%	20,746	78%

The analysis at first points the sheer volume of unique users participating in the trends. On the other hand, the trend #FATF has more than 64% unique users engaged in the conversation. This indicates few people excessively push and amplify their narrative by manipulating the platform which is

enabled by different affordances and features of Twitter. In addition to the users, looking at the percentage of retweets further strengthen the argument of inorganically amplifying the conversation by utilizing one of the features available by the platform.

User Analysis

In addition to features, we looked at the users, specifically their date of joining Twitter. We aimed to understand, if TLP is creating new accounts and using them to amplify their hashtags or are there long-term users also take part in such polarizing and often inciting conversations. The following visualization compares four graphs each corresponding to the hashtag under investigation.
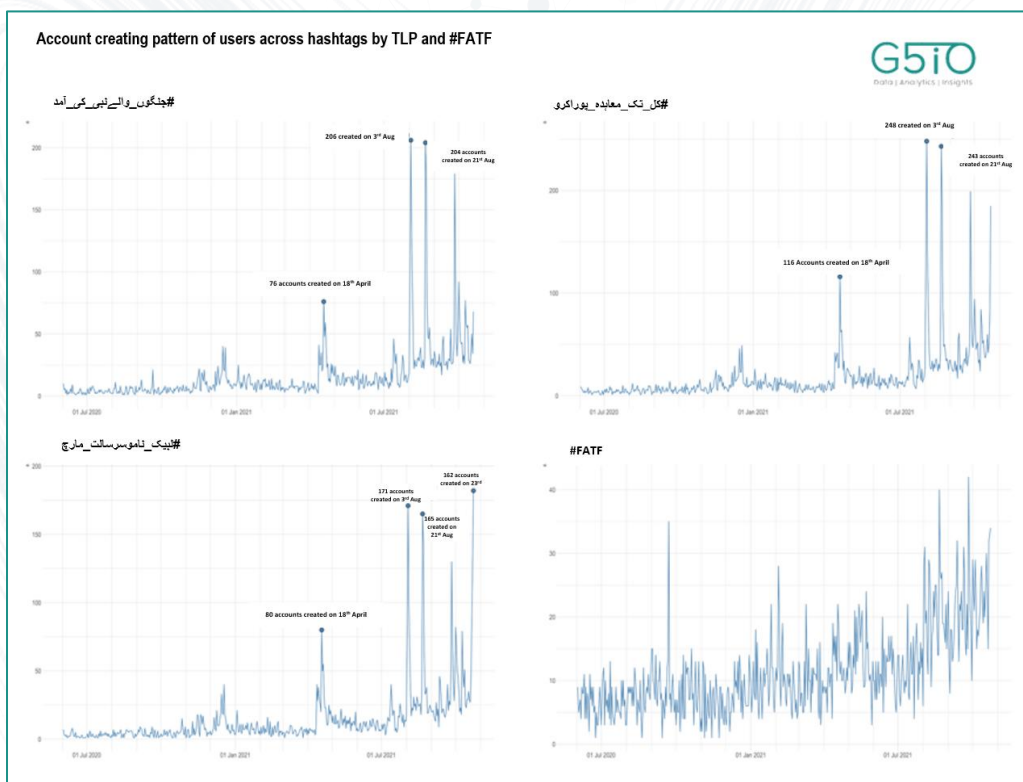

The results stemming from these graphs are quite insightful. First, the three trends run by TLP confirms the hypothesis that before every campaign that they launch, they make accounts in bulk which of course are used for amplification purposes but some of the accounts that are left unchecked by Twitter or don't get banned continue taking part in other similar campaigns run by the TLP.

Furthermore, this points to an important aspect that concerns the governance of Twitter, i.e., taking down such accounts that actively use their platform in artificial narrative amplification which according to its policies is prohibited. Nonetheless, a lot of such accounts continue to work without facing any consequences. In contrast, the FATF graph shows a completely different picture where we see a relatively stable growth of accounts that were created over the span of one year.

Bot vs Human

In the end, we wanted to apply supervised machine learning techniques to understand if the people involved in those hashtags were either human or bots. Therefore, we opted for a network analysis approach to measure the prevalence of humans and bots across four trends.

In all network graphs, we took a random sample of users in order to understand the prevalence of humans and bots. The red, orange, and yellow dots classify a user as more likely to be a bot. Accordingly, the structure further gives us clues to examine if the activity on a certain hashtag was either coordinated or not. The close connections between multiple nodes (circles) indicate coordination.

Prevalence of Humans and Bots across different hashtags
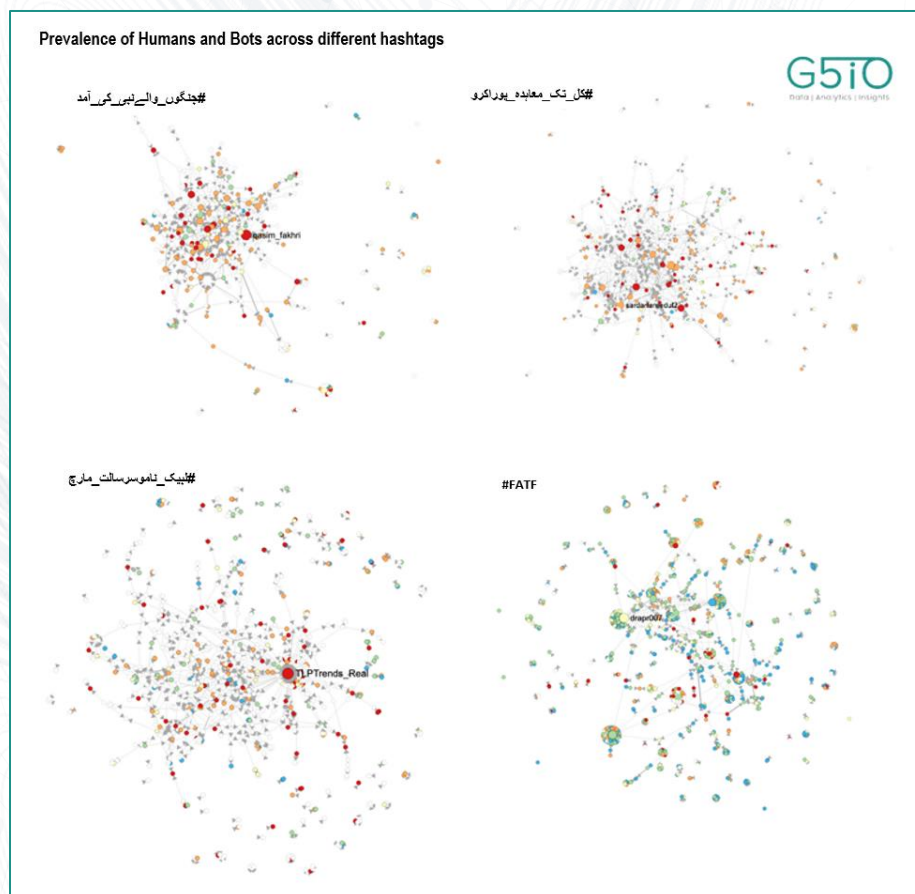
Another feature that makes TLP trends more of a coordinated platform manipulation is the lack of sparsity of the network which in other words mean everyone or most of the nodes (users) are linked to each other either through retweeting the same content, having other people in their follower's network or by liking tweets by users belong to the same network. On the other hand, the FATF network looks very sparse with fewer connections and more green and blue dots that indicate the prevalence of human-like accounts (users).

Conclusion

- Social media companies need to deploy more resources in preventing the manipulation of their platforms
- Platforms need to pay attention to non-English and international right-wing actors
- It would serve them well if social media companies incorporate local laws and governance structures in the countries they operate.

Author

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At G5IO, he works as digital insights consultant. His area of research consists of computation communication science, traditional and social media use effects, and journalism.