TREND ALERT: How the World's Largest Party Launches Participatory Political Trends With a Cross-Platform Toolkit

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Fig. 1. Supporters wearing Narenda Modi masks in a video for the #MaiKamalKhilaneAyaHun campaign[0]

Political organizations and campaigns are increasingly making use of online tools and platforms to spread their messages. We describe the distributed communication infrastructure that India's right-wing Bharatiya Janata Party (B.J.P.) used to produce political Twitter trends for the 2019 general elections. Based on an analysis of content from more than 1,000 of the party's public WhatsApp groups, we provide a detailed description of how the affordances of multiple platforms (including WhatsApp, Google Docs, and Twitter) allow the party to combine its resources as an established political organization with the power of online activism. We analyze whether the campaigns achieve high visibility on Twitter, and develop heuristics to detect such efforts from Twitter data. Centrally controlled but voluntary in participation, this novel configuration of a political information campaigns expands our understanding of collective action. It raises questions about the legitimate use of digital tools for political participation.

CCS Concepts: • Human-centered computing → Collaborative and social computing; Empirical studies in collaborative and social computing.

Additional Key Words and Phrases: Collective action, media manipulation, Twitter, India

[0]https://bit.ly/teamgujarat, transl. "I have come to feed the lotus", a party symbol and India's national flower

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1 INTRODUCTION

Political organizations continuously innovate their use of communication tools [22]. It is important to keep an eye on how they deploy new affordances of platforms [22, p. 100] in social media context in particular. The use of digital technologies by parties and activists has been growing since the early 2000s and has received increasing attention from researchers [6, 22, 30, 31]. While initially seen as empowering citizen participation [3, 4, 41] and catalyzing collective action [7, 9, 29], recent elections globally have been marked by concerns over illegitimate political uses of digital platforms [5, 15, 36, 38, 53].

This study examines how the Bharatiya Janata Party (B.J.P.) coordinated participatory social media campaigns in India's 2019 general elections. In "India's first WhatsApp election" [32], parties raced to reach a young [47] and increasingly connected [42] voter base on social media. The B.J.P. and the contending Congress party claimed to have set up more than 50,000 WhatsApp groups in Karnataka and Bengal alone [17]. These WhatsApp groups did not only serve the function of directly broadcast messages and images to the populace, bypassing traditional media. According to investigative journalists [13], the parties also used them to coordinate large-scale online rallies.

Prompted by the journalistic reports [13], we set out to analyze how the B.J.P. used technological platforms to organize collective action. Our effort is motivated by calls for researchers to examine how political organizations are using new technological affordances [22]. The CSCW lens provides complex conceptualizations of how information operations "integrate into existing online communities and leverage those communities in dynamic ways to achieve their goals" [43]. Specifically, we analyze campaigns as "digitally networked action (D.N.A.)" [4]–as a set of tools, practices, and objectives used by political actors to achieve their goals. We trace back the "organizationally brokered network" [4] that supports the B.J.P.'s collective actions and analyze what kind of participatory patterns emerge as a result of the party's efforts.

To this end, we joined more than 1,000 public WhatsApp groups associated with the B.J.P. An initial analysis of their messages in the months leading up to the election showed that party organizers were sending "trend alert" messages to WhatsApp groups to coordinate mass postings on Twitter and other social media. We found evidence of over 75 such cross-platform mobilization campaigns.

In this work, we use a mixed-methods approach to analyze the data from WhatsApp, Google Docs, and Twitter related to these campaign activities, to understand the socio-technical structure of the B.J.P.'s information operations (see Figure 2). Our analysis describes the life cycle of a "trend alert" as well as the Google Docs "tweet banks" that organizers used to launch the campaigns. Further, we assess who contributes to the collective actions on Twitter and whether campaigns successfully reach trending status. We develop heuristics to detect the campaigns from Twitter data and use them to estimate the overall use and prevalence of the "trend alert" technique.

Finally, we discuss how the B.J.P.'s approach expands our understanding of coordinated political action on social media. The campaigns raise difficult questions for the social media platforms that host and amplify them and are already struggling with defining and enforcing policies around authentic behaviors [19, 43].

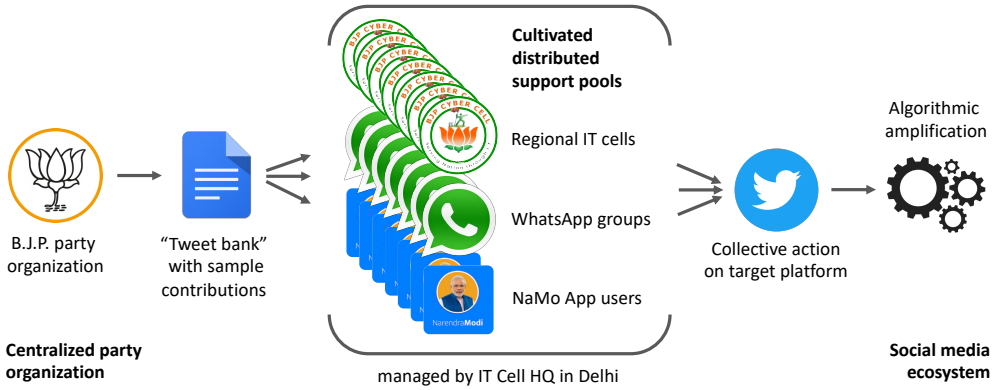


Fig. 2. The functional layout of the B.J.P's distributed system for permanent campaigning

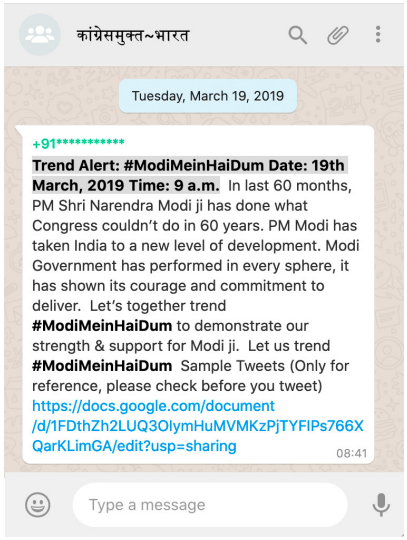


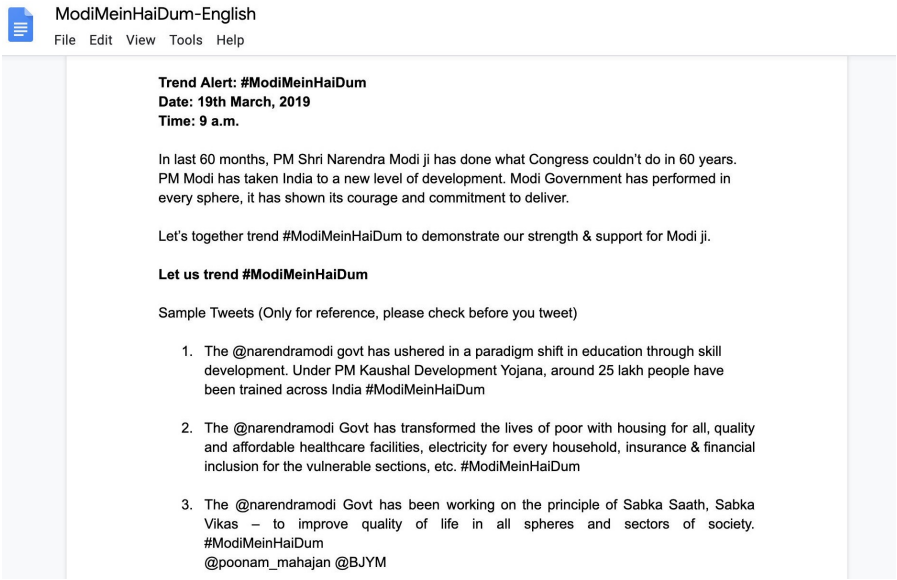
Fig. 3. A "trend alert" message in a WhatsApp group mobilizing members of a WhatsApp group for the #ModiMeinHaiDum campaign.

2 THE "MODI MEIN HAI DUM" CAMPAIGN: A CASE STUDY

To illustrate the type of activities we analyze in this work, we provide an in-depth description of one campaign launched as part of this effort.

Three weeks before the Indian elections, on March 19th, 2019, at 8:41 a.m., a member posted a message to a B.J.P. WhatsApp group: "Trend Alert: #ModiMeinHaiDum Date: 19th March, 2019 Time: 9 a.m.". #ModiMeinHaiDum means that Narendra Modi, the party's leader, has strength and commitment. Figure 3 shows a screenshot of the initial message posted in the WhatsApp group.

The message was posted to a WhatsApp group called "Congress-free India", a prevalent B.J.P. leitmotif ostracizing its rival Congress party. While we cannot know the posting user's


ModiMeinHaiDum-English

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Trend Alert: #ModiMeinHaiDum
Date: 19th March, 2019
Time: 9 a.m.

In last 60 months, PM Shri Narendra Modi ji has done what Congress couldn't do in 60 years. PM Modi has taken India to a new level of development. Modi Government has performed in every sphere, it has shown its courage and commitment to deliver.

Let's together trend #ModiMeinHaiDum to demonstrate our strength & support for Modi ji.

Let us trend #ModiMeinHaiDum

Sample Tweets (Only for reference, please check before you tweet)

1. The @narendramodi govt has ushered in a paradigm shift in education through skill development. Under PM Kaushal Development Yojana, around 25 lakh people have been trained across India #ModiMeinHaiDum

2. The @narendramodi Govt has transformed the lives of poor with housing for all, quality and affordable healthcare facilities, electricity for every household, insurance & financial inclusion for the vulnerable sections, etc. #ModiMeinHaiDum

3. The @narendramodi Govt has been working on the principle of Sabka Saath, Sabka Vikas – to improve quality of life in all spheres and sectors of society. #ModiMeinHaiDum
@poonam_mahajan @BJYM

Fig. 4. A list of 100 sample tweets in a "tweet bank" hosted on Google Docs frames the campaign narrative.

identity, we suspect him to be a member of the B.J.P. IT Cell Jaipur, a regional chapter of the party's social media wing, based on other messages he sent.

The message was not simply an expression of support. After the introduction, the poster provided a call to action to the 250 members of the group: "Lets together trend #ModiMeinHaiDum to demonstrate our strength & support for Modi ji. Let us trend #ModiMeinHaiDum!". To "trend" here means to generate a lot of interest in a topic on social media. It refers to posting a large volume of tweets with a specific hashtag to reach trending status on Twitter.

The message was not just a call to action either. The user attached a tool that made it effortless to take part for everyone who chose to. A "trend alert" comes with a so-called "tweet bank": "Sample Tweets (Only for reference, please check before you tweet)". Hosted on Google Docs, it provides a list of 100 sample tweets with the #ModiMeinHaiDum hashtag that frame a campaign narrative (see Figure 4). Later that day, we found a Hindi language version of the same message along with a Hindi language tweet bank in a different group.

The sample tweets in the Google Doc praise Modi and his government. They applaud paradigm shifts in education and development, "transform[ing] the lives of poor with housing for all", and the fight against corruption. Some refer to specific government programs and make their points with numbers and ratings. Others are more emotive, calling to people to stand up for the country and to vote for Modi. We did not fact-check their veracity.

On Twitter, the first #ModiMeinHaiDum tweet was posted at 7:47 a.m. Indian Standard Time. It claims that Modi ushered a "paradigm shift in education through skill development". It is the first sample tweet in the English tweet bank (see Figure 4). The user posting the sample identifies himself as a member of the Himachal Pradesh IT cell on his Twitter profile. He posted a second sample two minutes later, skipping all spaces

Fig. 5. Tweets from the #ModiMeinHaiDum campaign. All have identical content, but none are retweets.

("the@narendramodigovthasbeenworkingon[...]") due to a copy-paste error. He kept posting two sample tweets per minute until he left at 8:09 a.m. after copying 40 templates from the tweet bank. An IT cell convener from his district retweeted some of his posts.

Around 8:50 a.m., a few minutes before the agreed time, the campaign started to take off. By 9:05 a.m., 68 users have posted almost 500 sample tweets. Most of them are official party accounts or regional IT cell members. We also start seeing image tweets with portraits of Modi, like the one shown in Figure 5. For this campaign, we did not find an "image bank" document with custom collages for the campaign, but for many others, we did. By 9:30 a.m., the campaign has reached a volume of 4,800 tweets, and #ModiMeinHaiDum started to trend across India. By 10:30am, it reached 18,500 tweets, by 11:30am, 23,000.

Figure 6 shows the tweet volume during the #ModiMeinHaiDum campaign. The distribution suggests that sample tweets and their retweets sustain the campaign. The hashtag kept its trending status until around 5 p.m. By then, the campaign had been trending across the country for eight hours. By the end of the day, the campaign had accumulated 46,000 tweets. 56% of the tweets were variants of the 100 sample tweets provided in the tweet bank.

Figure 7 shows the volume of users posting tweets from the tweet bank. Four hundred sixty users posted identifiable sample tweets. One in three sample tweets were posted by IT cell members, another 10% by official B.J.P. accounts. The remaining samples come from Modi fans, Hindu nationalists, and unidentified accounts. Most participants posted less than five templates, but some posted more than 100 sample tweets.

3 BACKGROUND AND RELATED LITERATURE

3.1 B.J.P. and the Indian political context

On April 11, 2019, India embarked on a six-week-long vote for a new parliament. The Bharatiya Janata Party (B.J.P.) claimed a landslide victory [39] and reappointed Narendra Modi as prime minister.

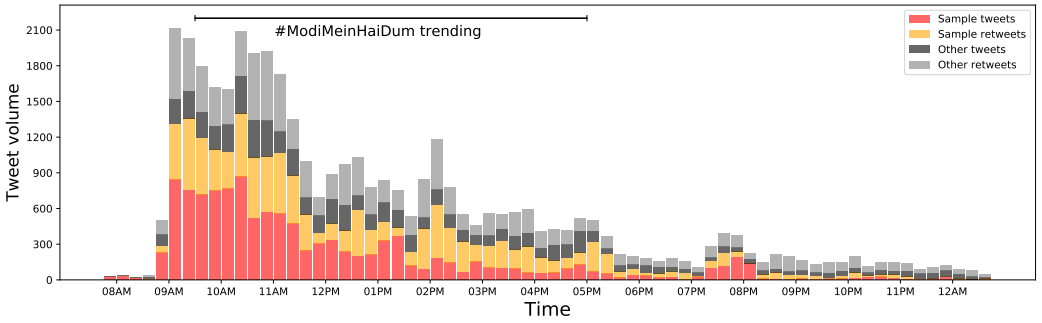

Fig. 6. The campaign starts with 2,100 tweets per 15-minute interval at 9:30AM. 56% of tweets are sample tweets from the tweet bank in the Google Doc and their retweets.

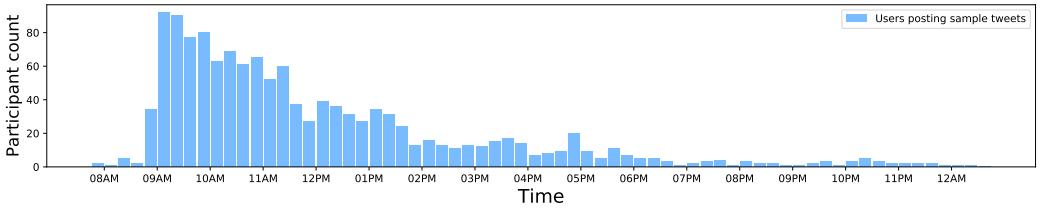

Fig. 7. At the peak of the campaign at 9AM, almost 100 users are posting sample tweets

B.J.P. is a right-wing political party that rose to prominence based on a fight for the Hindu cause. It is the world's largest political party in terms of the number of active volunteers (over 70 million). Its leader Narendra Modi, who is the superstar of its personality-centric campaign [35], has a history of violence against the country's Muslim minority groups [10, 35].

The B.J.P.'s social media operations are run by the B.J.P. I.T. cell [12], a sub-organization within the party with a team of paid workers stationed in New Delhi. It draws on a large number of volunteer workers in regional I.T. cells across the country [51]. The I.T. cell has its own apps and social media strategies, which the party at times directs against opposition groups for large scale trolling [12]. The main opposition party, the Indian National Congress party, had also built up their social media presence for the 2019 elections. Yet, media reports suggest they were no match to the infrastructure set up by the B.J.P. [40].

Around 34 million Indians are on Twitter, mostly over represented by the elite, urban, educated and English speaking demographics. But, this is changing, with India being Twitter's fastest-growing user base [11]. Since 2014, all major political parties have invested heavily in growing their Twitter presence and building a full-fledged social media election campaigns [49].

India is also WhatsApp's largest market [42], with over 400 million users on the platform. The creation and use of political WhatsApp groups has been a central part of the parties' social media strategies [17].

3.2 Collective action on social media

Social media significantly reduced the cost of online organizing [29] and provided a platform for large scale social movements, such as the 2011 political uprising in Egypt [44, 56], the occupy wall street protests [48] or even global movements such as #BringBackOurGirls [9].

CSCW has been at the forefront of understanding how communication technologies shape collective action. Traditionally, organizations have occupied a central place in organizing collective action and political participation. It was the organization that accumulated and spent the resources, framed narratives, and create collective identities and pursued action programs [2, 21, 45]. The emergence of the web supposedly changed this. Social media dramatically decreased the cost of mobilization [14], and platforms took over the role of organizing agents [4]. It seemed like movements could rise from the grassroots with little or no formal organization [41] and engage millions of participants. Yet, even if those that succeed can reach millions, most online collective actions fail [29]. Critics have long doubted that loose digital networks can produce a long-term political shift [31, 46]. David Karpf's 'The MoveOn Effect' [22] argues that rather than 'organizing without organizations,' the new media environment has given rise to 'organizing through different organizations.'

This paper provides a new lens on a type of large scale collective action, which makes use of a unique mix of a centrally coordinated organization along with a massive social media user base in conjunction with specific technological tools.

3.3 Social media manipulation and astroturfing

The simplification of collective action due to the tools and scale of social media provides also opened new doors to media manipulation. So-called "astroturfing" campaigns mask the sponsors of a message or organization to make it appear as if ordinary citizens were acting independently as part of a genuine grassroots movement [54]. Ratkiewicz et al. [38] study the concept of astroturfing at scale and provide automated solutions to detect such campaigns. Their analysis primarily relies on the idea that such campaigns involve the use of automated bot accounts. Coordinated efforts like the '50 Cent army' [24, 57], a group of paid social media actors who support narratives the Chinese government deems favorable, provide a further example of astroturfing. King et al. [24] used leaked emails of a Chinese official to characterize the activities of the 50 cent army and estimate the size and complexity of the operation [24]. In recent years, bot accounts have become much more sophisticated, usually taking the shape of a cyborg, where humans and automated machines intersect to create such sophisticated campaigns [15]. Keller et al. [23] make a case that the astroturfing literature has focused on bots too much and neglected human involvement.

Our study presents a novel configuration of astroturfing at scale. It differs from typical astroturfing in participation is voluntary and largely unpaid, and the supporters are regular citizens (not bots) with little to no formal relationship with the orchestrating organization.

3.4 Cross platform manipulation

Finally, our study is related to the manipulation of content across platforms, making use of one platform (WhatsApp) to manipulate others (Twitter).

Zannettou et al. [58] studied such cross-platform manipulation at scale during the 2016 U.S. elections to show how fringe websites like 4chan and Gab are used to influence and set agenda on mainstream media and other social media platforms. Similarly, Wilson and Starbird [55] study disinformation campaigns targeting the White Helmets between Twitter and YouTube. Phadke and Mitra [37] looked at a cross-platform study of hate groups and

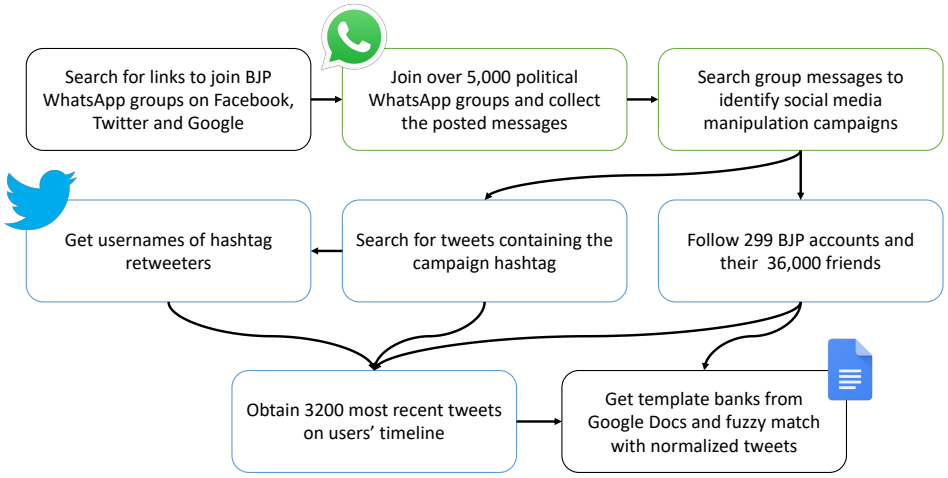

Fig. 8. Our data collection process spanning WhatsApp, Google Docs and Twitter

their activities, showing how hate groups use different platforms for spreading hate and use Facebook for group radicalization and recruitment, while Twitter is used for reaching a diverse follower base.

Yet, there is relatively little literature on cases of large-scale cross- and off-platform manipulation. Investigating such information is difficult as coordination often takes place offline or inf private channels such as WhatsApp. Making use of public-access WhatsApp groups that were used for coordination, we provide an analysis of large-scale cross-platform coordinated action.

4 METHODS AND DATA

Figure 8 shows a summary of our data collection. Our data collection starts with looking for public WhatsApp groups which discuss politics.[1]. Lists of such public groups are advertised and can be found through social media and dedicated websites, for example, https://whatsgrouplink.com/. Surveys in India [26] and Brazil [33] have shown that such public groups are widely used to reach a new demographic of users, with around 1 in 6 WhatsApp users in these countries being a part of at least one such political group. To find relevant political groups, we searched for an exhaustive list of keywords related to major national and regional political parties and their prominent political leaders on Facebook, Twitter, and Google. We manually screened the chat.whatsapp.com links obtained through the search process and removed any group that was not politically relevant. We then joined and collected data from over 5,000 political groups, of which over 1,000 were supporting the B.J.P.[2] using the tools provided by [16]. Note that this is a convenience sample of all WhatsApp groups and not representative of the party's WhatsApp group population.

Prompted by emerging journalistic coverage [13] indicating that political parties were using their WhatsApp groups to manipulate Twitter trends, we examined the groups for indications of such campaigns. We searched their messages for occurrences of 'trend alert' or

[1]Groups, which one can join using a publicly available link are considered public.
[2]It is important to note that we can not attribute with final certainty whether a group is managed by the party itself or by supporters not affiliated with the party.

'docs.google.com' or 'goo.gl' and manually selected messages that contained the manipulation attempts with links to google docs, as described by journalists. We created backups of the Google Doc-based "tweet banks" attached to the trend alerts. Out of the more than 100 such campaigns we identified in our dataset, 75 were posted in groups with B.J.P. affiliated names and explicitly supported the party and Narendra Modi. This gave us a list of 75 manipulated hashtags.

Next, we obtained Twitter data for these hashtags through different sources selected to achieve high coverage of campaign-related activities. First, using Twitter's REST API, we started streaming data from 299 accounts that we manually verified to be of B.J.P. politicians (elected representatives, and national leaders) or official party accounts beginning January 2019. We also obtained data from all their friends (36,446 accounts followed by the politicians). Second, we queried the Twitter search API to find tweets that contained relevant campaign hashtags. We collected the 3,200 most recent tweets for all users who had posted at least one tweet with the campaign hashtag based on the search above. We also obtained historical timeline data for the official B.J.P. accounts and their friends. Finally, for all identified campaign tweets, we got a list of the 100 most recent retweets[3] and collected the 3,200 most recent posts by the users who had retweeted the campaign hashtags. Overall, our dataset contains 2,368,000 tweets for the 75 campaigns. The tweets were posted by 244,000 users.

We purchased comprehensive historical trend data from the Twitter Trending Topics Archive.[4] A comparison between the tweet count of a trending hashtag (provided by Twitter) to the posts in our dataset suggests that we obtained 60% to 80% of all available tweets and retweets for a hashtag.[5]

To identify tweets that originate from a Google Doc based tweet bank, we performed a matching process for each campaign. Although organizers sometimes caution participants to modify sample tweets, a manual inspection showed that participants typically post samples as they appear in the Google Doc. If participants change them, the modifications are minor such as adding hashtags or user mentions, changing or adding punctuation, or inserting or replacing a single word. We normalized tweets and samples by removing hashtags, URLs, and user mentions. We also removed non-word characters before the matching. In addition to exact matching, we performed space-less matching, as spaces between word got lost regularly when samples tweets were copied from the Google Doc. Finally, we calculate a fuzzy match to identify tweets where up to five characters have been modified. We only match tweets that are longer than 20 or 50 characters for exact and fuzzy matching.

A note on ethics: All data we collected is publicly available. The WhatsApp groups we analyzed were created to be joined by a possibly wide audience of users and are not private spaces. The Google Docs contain contain no personal information and organizers shared them with a wider public to coordinate the campaigns. For the Twitter data, we do not publicize usernames for non-public accounts with less than 100,000 followers to protect users' privacy. The WhatsApp data collection and analysis has been approved by the *** Institutional Review Board. The Twitter data collection and analysis has been approved by the Institutional Review Board at *** University.

[3]The hard limits are imposed by the Twitter API.

[4]https://rapidapi.com/onurmatik/api/twitter-trending-topics-archive

[5]Some of the missing tweets might be deleted or from private or deleted accounts, which are inaccessible.

5 A CROSS-PLATFORM TOOLKIT: WHATSAPP, GOOGLE DOCS AND TWITTER

In this section, we describe the mobilization messages and the sample documents that framed the campaigns. We also analyze the Twitter user base that participated in posting the sample tweets.

5.1 "Trend alerts" on WhatsApp

"Trend alerts" are the messages campaign organizers use to call members of WhatsApp groups to collective action. In the groups we joined, we identified 75 such calls to action to B.J.P. campaigns.

The calls to action follow a similar pattern. They start with a "TREND ALERT" title followed by the campaign hashtag, the date, and time of the action, e.g., "#ForTheFirst-Time Time: 9.00 AM Date: 8th February 2019" or "From: NOW Onwards". Some early announcements do not provide the campaign hashtag.

The messages next explain the background of the campaign. Examples would be a politician's visit, the merits of a B.J.P. government program, or failings of the rival Congress party. This background motivates and justifies the campaign:

» "Let us ensure that the nation continues to progress under Modi ji. Lets make sure that Modi Ji comes back to power again in 2019. One nation. One voice. One aim. Modi ji again! Lets trend to mobilize youth from all across the nation!"

» "Rahul, Kejriwal [rival party politicians] and other opposition parties lied on Rafale [a controversial deal with a French airplane manufacturer] and insulted the country on a global platform. Lets expose their lies. Everyone is requested to please support the trend #RaFailGandhi."

» "This [B.J.P. government program] is not spoken about much in the media. Hence today we are trying to bring about awareness regarding the immense work done in MODIfying cities throughout India using the hashtag #MODIfiedCities!"

The messages call upon feelings of empathy or solidarity. According to civic engagement and marketing literature [25, 27], this technique increases the chance of participation. At times, a trend alert comes with a note that thanks participants or creates social pressure "We highly appreciate your kind support and co-operation. Thank You!!" or "Your cooperation is expected". However, we found no indication of rewards or payments for participants.

Finally, the trend alert provides the link to a document with sample contributions, the so-called "tweet bank". Some also trend alerts come with an image bank document or a reference to the official Narendra Modi fan app:

» "For sample tweets reference : *https://docs.google.com/document/**** Note - Please don't just copy paste the sample tweets, please alter it a bit."

» "There are 27 graphics, 4 illustrations, 2 collages, 1 NIJ video and tweets which can be spread. This material is also available in readily spreadable format in Your Voice section in the Volunteer Module of the Narendra Modi App."

Organizers post trend alerts with a one day lead time, right before and during the campaign. Their calls to action amass in certain groups, including "Namo Broadcast, "The NaMo Army, "B.J.P. Dialogue, "B.J.P. Twitter trends" or "Supporters Delhi". We found dozens of trend alerts in these groups, while most groups contain none. Note that as our WhatsApp group sample is partial, we can not ascertain the scale at which such trends are distributed. The users who posted them are hard to characterize as WhatsApp only shows a mobile number. Most users who sent a trend alert only posted a single call to action. We interpret their posts as organic forwarding from other groups or channels. Yet, we identified an individual

user who posted 42 trend alerts. Further investigation shows that this user has posted 3800 messages across 54 groups. His posts do not feature personal content and do not take part in conversations. They primarily contain materials that support party actions. The user sends messages in rapid succession (less than a second) in different groups, suggesting he uses automation tools.

5.2 "Tweet banks" on Google Docs

We now characterize the lists of sample tweets ("tweet banks") hosted on Google Docs that frame the campaign narrative.

The average tweet bank contains 60 items, summing up to 4,750 sample tweets for the 75 campaigns under investigation. 54% of the samples are in English, 36% are Hindi, 4% Gujarati, 2% Telugu and the rest in other Indian languages. Many sample tweets celebrate the supposed achievements of Modi and the B.J.P. or criticize the rival Congress party. Some foster an Indian nationalist sentiment linked to the army or Hinduism. On average, sample tweets are 172 characters long. One in five samples mentions a user, most often @NarendraModi, @AmitShah, or @Poonam_Mahajan (national leaders of the party). 10% of samples contain a URL that links to YouTube, Facebook, or India Today (news website). 40% of samples use numbers to make a point by referring to a statistic that illustrates government achievements.

Below we provide a selection of sample tweets to give the reader a general sense of their general style and content. These examples cover topics across India, include attacks on opposition and praise of the Modi government.

- Modi Govt. declared Polavaram project as project of National Importance -Modi Govt. Funding 100% cost of Polavaram Project -About 7000 Cr already given by Modi Govt. for Polavaram Project #BJP4BetterAndhra
- The Bofors scam has showed how Congress corruption culture spread from top to bottom even involving Prime Minister of India and his family. #CongressDefenceScams
- #MizoramWithModi Congress brought Vote for Money culture in Mizoram, infiltrating the minds of the poor tribals in Mizoram.
- PM @narendramodi will initiate distribution of looms and frames to carpet weavers. 10,000 weavers will receive them in next 2 months. #MODIfiedTextiles
- The verdict of the Supreme Court is a slap on all such attempts to mislead the country. #RaFailGandhi
- We all grew up in awe of the army and their bravery. It makes sense for us to celebrate our soldiers on #ArmedForcesFlagDay. Let us honour their bravery by contributing to the Armed Forces Flag Day Fund and wearing the armed forces flag.

Many tweet banks are also available through the volunteer section of the official Narendra Modi app (see Figure 9). For 42 of the investigated campaigns, we found evidence of pre-written tweets posted from through the app. The integration into the official party app shows that the orchestrating entity behind most investigated campaigns is the B.J.P. I.T. Cell Delhi.

5.3 Participation on Twitter

We here describe the pool of participants who posted sample-based tweets on Twitter. We analyze their contributions and affiliations.

Across the 75 campaigns, 4,750 unique users posted sample tweets. The average user participated in only one campaign by posting two sample tweets. Yet, some participated in

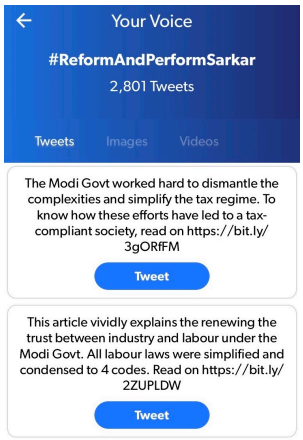

Fig. 9. Sample tweets are also available through the official Narendra Modi app

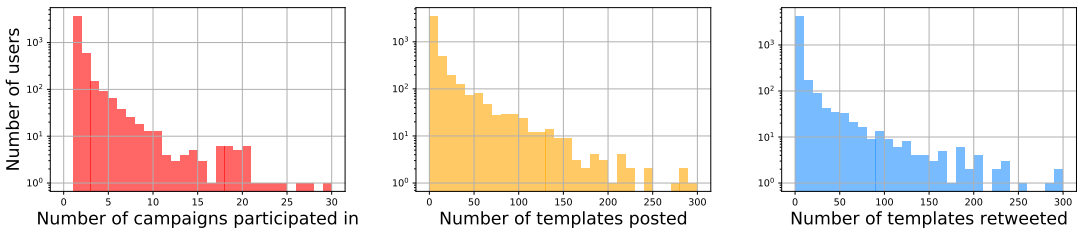

Fig. 10. (a) Number of campaigns a user participated in, (b) Number of sample tweets they posted and, (c) Number of template tweets they retweeted

more than 20 campaigns posting hundreds of samples. Figure 10 shows the distribution of contributions.

We first take a detailed qualitative look at the 50 users who participated in more than ten campaigns: 16 are members of the B.J.P. I.T. cell, the party's social media wing. Of these, five are from the central I.T. cell in Delhi (e.g. "Co-Convenor Social Media & I.T. @BJP4Delhi. Honoured to be followed by PM @NarendraModi & other Cabinet Ministers. | Long live Mother India"), the remaining I.T. cell members come from regional I.T. cells ("Nationalist | District Co-Convenor IT Department BJP-Jalore | Social Activist | RSS | Boxer | R.T.'s are not Endorsements"). Next, we find six B.J.P. officials, such as Loksabha members of parliament or State ministers, among the 50 most active participants. Eighteen more are Modi Fans, B.J.P. supporters, or members of the R.S.S., a right-wing Hindu nationalist volunteer organization. They describe themselves as "staunch NaMo supporter[s]", fan clubs and far-right patriots, e.g. "We are devotees of those whose blood is the blood of patriotism. Long live Mother India. I salute you, Mother." Figure 11 shows the profile of a popular Modi fan account. Out of the remaining nine top contributors, two did not provide meaningful profile information. Seven had their accounts suspended by Twitter. Taken together, these 50 users produced 9% of the sample tweets posted.

The majority of sample tweets, however, comes from users who only participated in one or two campaigns. Figure 12 extends the user profile analysis to all participants. The mosaic

Fig. 11. The account @TigerNaMo (134k followers) participated in 23 campaigns, posting 6 sample tweets on average.

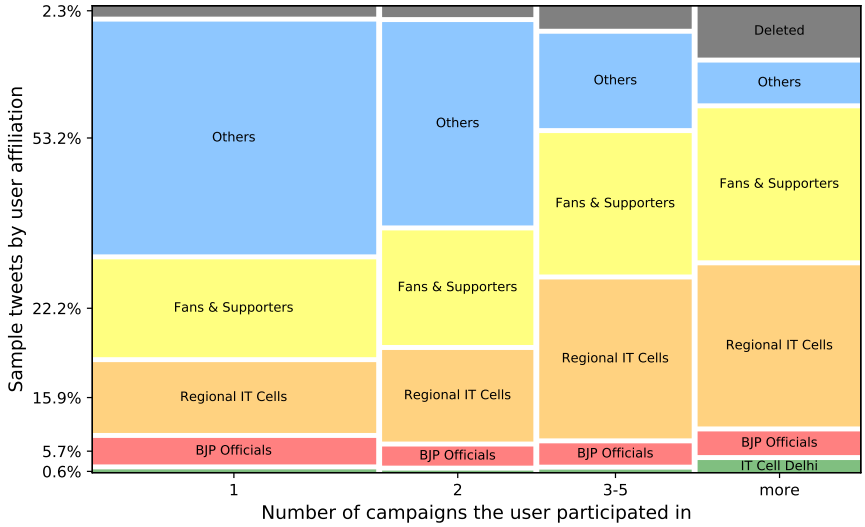

Fig. 12. Most sample tweets come from Twitter users who joined only one or two campaigns (x-axis, left) and from accounts with no party affiliation (y-axis, green & yellow)

plot area visualizes the overall number of tweets that we traced back to tweet banks. The x-axis classifies users by their campaign participation. The left column shows that 38% of sample tweets came from users who only participated in a single campaign. On the y-axis, we classify users based on their profile description. We developed a keyword and bigram-based classification process that extends the manual coding of the core user base. For example, 53% of users who only participated in one campaign did not mention the B.J.P., membership in an I.T. cell, or standard terms of the political right in their profiles (left, in blue).

The typical participating account has an average of 710 followers. Eighty participants have more than 50,000 followers, 6 have more than one million. The high-follower participants

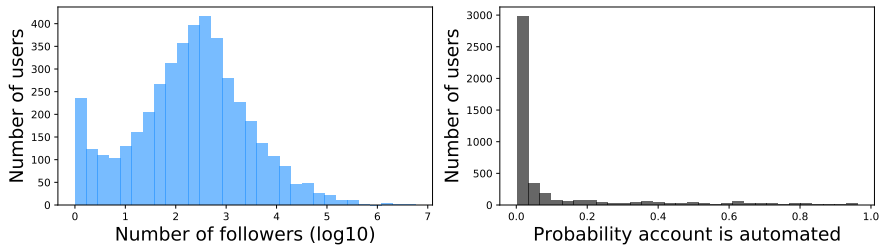

Fig. 13. Distribution of follower counts and Botometer scores for participating accounts

are mostly official B.J.P. politicians and include union ministers, national secretaries and parliament members. Their participation provides evidence of the B.J.P.'s involvement at all levels.

Botometer [52] does not detect signs of automated activity in participant' accounts (see Figure 13). Manual spot checks confirm that most accounts do look authentic. But, there are less authentic accounts among those who retweeted sample tweets. We observed a handful of I.T. Cell members that were using what appeared to be second-rung accounts to automatically retweet the samples they post.

6 CAMPAIGNS SUCCESS AND DETECTION

In this section, we analyze how the campaigns succeed in reaching country-wide trending status on Twitter. We also develop automated techniques to detect whether a hashtag was manipulated without access to sample documents and apply them to estimate the scope of the B.J.P.'s campaigns.

6.1 Trending status and campaign success

The goal of a "trend alert" is to reach trending status and leverage Twitter's algorithms to boost the campaign's visibility. Sixty-nine out of the 75 campaigns reached India-wide trending status on the day they were supposed to trend. A typical campaign trend lasted for 10 hours, with some trending for as long as two days. By the end of the trend, the average campaign had accumulated 35,000 tweets. Some campaigns achieved significantly more tweets, such as the MainBhiChowkidar (transl. "I too am a watchman") campaign. In this campaign, Modi accuses Indian National Congress leader Rahul Gandhi of corruption. The campaign trended for 44 hours, accumulated 770,000 tweets, and led many party supporters to add Chowkidar ("watchman") to their Twitter handles.

6.2 Campaign detection

We explored whether campaigns can be detected without access to the sample documents. We describe the rationale and process below.

Any regular post on Twitter may be identical to another tweet by chance. Yet, if we look at longer tweets with higher information entropy, the chance of collisions will be low. To quantify this, we collected a set of popular trending non political hashtags in early 2020 (details below) and found that on average, only 5% of tweets were a duplicate for a hashtag.

When users post tweets from a sample document, though, the chances of identical tweets increase. In the campaigns we studied, on average, 52% of the posted tweets were not unique.

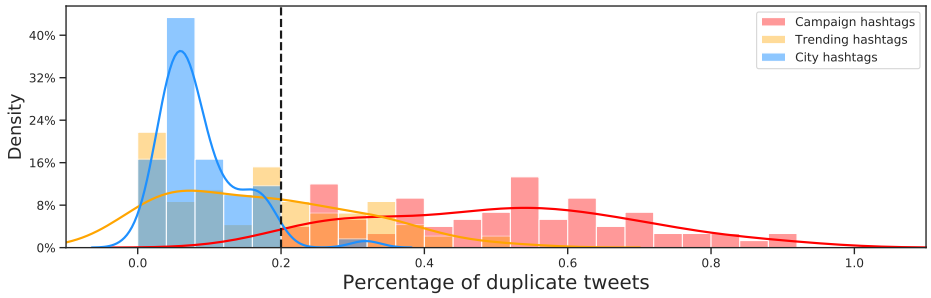

Fig. 14. Non-manipulated hashtags (blue) have about 5% of non-unique tweets, campaigns have about 50% (red)

This ratio of non-unique tweets provides a key heuristic to detect tweet bank campaigns and similar schemes. We layout a classification process below:

(1) Collect tweets containing the suspicious hashtag. It suffices to look at original tweets only.
(2) Normalize the tweets: Cast the text to lowercase, convert it to its Unicode standard form, replace all URLs, user mentions, and hashtags with spaces. Also, replace all non-word characters with spaces and aggregate sequences of many spaces.
(3) Drop the resulting normalized tweets if they contain less than 50 characters or the term " via " which indicates that a tweet includes content from an outside source.
(4) Compute the percentage of tweets in the remaining set that are not unique. Hashtags with more than a certain fraction (say, 20%) of non-unique tweets likely made use of a tweet bank or similar forms of coordination.

To calibrate and test the classification scheme, we collected two further data sets of popular hashtags. As a control group unlikely to contain manipulation, we chose the hashtags associated with the 50 largest cities in India (e.g., #mumbai or #delhi). As a second reference, we chose a sample of hashtags that were trending in India in early 2020. Figure 14 shows the percentage of non-unique tweets in city hashtags, trending hashtags, and known campaign hashtags.

A simple Naive Bayes classifier with this one feature has 99% accuracy, 98% precision, and full recall in distinguishing campaign hashtags from city hashtags. It has 85% accuracy in detecting campaign hashtags. If false positives are more problematic than false negatives, we recommend a higher detection threshold. A 25% threshold has 99% precision and 93% recall, a 35% threshold full precision while detecting 76% of the campaigns. Note that this is a simple classifier with just one feature: the fraction of unique tweets. Hence, there is no dependence on content, language or timing of the hashtag.

For real-time detection, it is necessary to work a partial set of tweets only. The classifier detects campaigns with 98% precision and 79% recall on the first 100 tweets, 99% precision and 88% recall on the first 300, 98% precision and 93% recall if only the first 1,000 tweets are available. The high performance is because sample tweets are posted primarily at the beginning of a campaign.

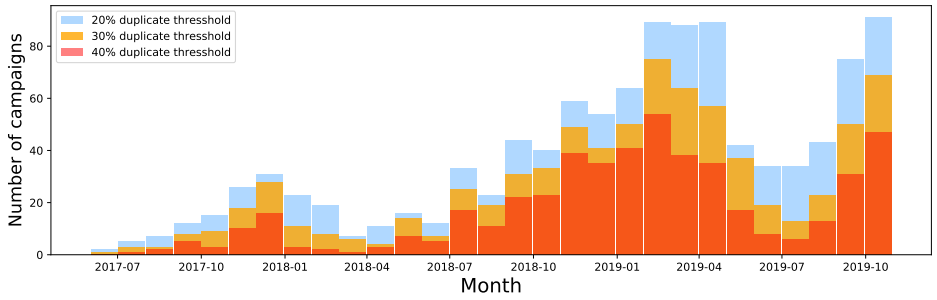

Fig. 15. Campaign levels (up to 60 a month) rise and fall with election dates

6.3 Estimating the scope of the B.J.P.'s *trend alert* operations

We use the classifier developed above to estimate the total scope of the the B.J.P.'s trend operations on Twitter.

We start with a data set containing the 3,200 most recent tweets of all users who have posted or retweeted tweets of the 75 analyzed campaigns. After grouping the data by hashtag, we drop all hashtags with less than 500 tweets. We only look at hashtags posted by at least five users who participated in the known campaigns to establish a connection with the B.J.P.'s support base.

With a conservative threshold of 40% of non-unique tweets, the classifier detects 507 campaigns between June 2017 and November 2019. With a limit of 20% non-unique tweets, it detects 1131 campaigns. Figure 15 shows the number of detected monthly campaigns.

The level of campaigning rises in November and December 2017, when state elections were held in Himachal Pradesh and Gujarat. It drops again in early 2018, from when it starts to rise until it reaches a level of about 60 campaigns a month. It climaxes in February, March, and April 2019 when the general elections took place. The campaign volume then decreased in summer 2019 but picked up again in the fall. Estimated campaign levels were back to their general election level of two digital rallies a day by October 2019, which coincided with assembly elections in Maharashtra and Haryana.

7 DISCUSSION

We have documented how B.J.P.'s distributed, cross-platform collective-action system spanning all of India. The party uses the system to launch Twitter trends on demand to defend its social media "party line" [51]. The methods used by the B.J.P. are innovative in their re-appropriation of a set of technical tools. They connect the resources of an established political organization with the light-weight toolkit of online activism. This hybrid information operation resembles a digital rally. Whether it is legitimate is an open question.

7.1 A Blueprint for Organizationally Brokered Collective Action?

The B.J.P.'s approach is different from the activities conducted by self-organizing advocacy groups [41] or trolling collectives [18] as it is directed and supported by an established traditional organization. A central I.T. Cell in New Delhi, where paid employees do the background work, directs the campaigns [51]. The organizational backbone creates a coherence and persistence of action that loose multi-issue networks can rarely generate [3].

Yet, trend alerts also differ from orchestrated information operations. The 50 Cent Army operations [57] or social bots [5] manipulate media through mercenaries. Although coordinated, the participation in the B.J.P.'s campaigns remains voluntary and autonomous. The volunteers in the actions express their sincere support of the party. What the B.J.P. has built is an organizationally brokered network of collective action [4] where it assumes the central role of "mobiliz[ing] and manag[ing] participation and coordinating goals" [4]. The output generated by such a scheme is likely larger than that of covert information campaigns. Yet, resembles that of self- or loosely-organized networks of "connective action" [4]. With this method, the B.J.P. may have provided a blueprint for online collective action uniquely tailored to the capabilities of a party with popular support. In our analysis of data from 2020, we anecdotally observed other political parties trying to emulate this pattern to create Twitter trends, to various degrees of success.

7.2 Novel use of cross-platform tools

Responsive to the volatile nature of online communities, the B.J.P. adopted a strategy of nurturing from close distance [51]. As participation on these local platforms is voluntary, the B.J.P. does not have tight control over what members do. But, by providing a script of sample contributions, the party turned digital volunteers into an enterprise resource. Through the affordances of WhatsApp, GoogleDocs, and Twitter, the party turned its capabilities as an established political organization into a system for online collective action. WhatsApp groups provide a scalable infrastructure to grow a network of distributed support pools. As one can create groups for free and add members with minimal effort, the party could enroll a massive network of potential supporters. WhatsApp's limits on group sizes have prevented the creation of a single enormous pool. But the party's federated I.T. cells and automated posting served as a workaround. Google Docs facilitated the development and distribution of a script of sample distributions. Finally, Twitter collects supporters' the micro-contributions and aggregates them on a single platform. The trending algorithm amplifies the coordinated postings, giving the campaigns country-wide visibility.

7.3 Benefits, costs, and reproducibility

This scheme allows the party to continuously reenact, promote and defend the "party line" on social media. It can now run a "permanent campaign" [34] at low cost by using the voices of a nation-wide pool of supporters. The party does not run infrastructure servers or pay a media platform for this type of advertisement. Participants do not even need to leave their workplace or bother to write a social media post. The party can adjust the campaign on the go and control its size by selecting which pools to mobilize.

7.4 Legitimacy and authenticity

We need to consider whether the B.J.P.'s strategy is legitimate, acceptable to the public, and compatible with platform policies. The campaigns do not violate Twitters' rules of information operations and civic integrity. They may fall under the platform's policy of inauthenticity, which forbids making "content appear more popular or active than they are" and "coordinating with others to engage in artificial engagement" [50].

However, Starbird et al. [43] argued convincingly that organic and orchestrated behaviors are hard to distinguish once "authentic" voices take on themes promoted by background actors, or malicious actors build on organic issues in communities they infiltrate [43]. In our case, the voices of campaign volunteers are arguably authentic. The WhatsApp group members who choose to participate express their sincere support of their party. Members

of are proud of what they do[6] and are not concealing their activities. Except for some fake accounts and retweet automation, the activities we saw are, in principle, no more "inauthentic" than an offline political rally. In February 2020, Twitter shut down 70 accounts of paid campaign organizers from the (US Democratic presidential candidate) Mike Bloomberg campaign because they posted tweets from a shared document. The company said it would suspend all accounts who behave in "substantially the same manner" [1]. So far, Twitter has not systematically suspended participants of the B.J.P.'s campaigns.

A more identifiable problem with the campaigns is context mismatch [8]. At a political rally bystanders understand that statements must be interpreted according to the social norms governing this distinct social context. But a tweet may be construed as a personal statement of an individual even if it is part of a rally. Viewers would then assign undue substantive weight to a performative expression. If Twitter had a separate trending rubric for political rallies and labeled rally messages, campaigns would be less problematic as users could interpret them in the right context.

We have shown that Twitter (and other platforms) could easily detect the campaigns and prevent them. But, this enforcement will not easily be justified. It may even provoke counter-operations where malicious actors make legitimate campaigns look inauthentic.

7.5 Limitations and reflections

We described a very specific instance of a social media operation that will be only one of many vectors of political influence of the B.J.P. We did not analyze "image banks" and performed no matching for sample media. We furthermore missed coordination activities that took place within the party or in local groups offline. Finally, we did not measure the impact of the campaigns, including how they affected the election outcomes.

The description we provided does not generalize in the traditional sense. We know other Indian parties use similar strategies. We also found trend alerts and tweet banks in the WhatsApp groups of the Congress party. Yet, we do not know whether the scale and the type of organization of their operations were similar. We also note that there is some indication of similar strategies being used in the U.S. [28].

Finally, we would like to reflect on the biases of the research team which performed this research. Jack [19] wrote that "whether a persuasive campaign is publicity or propaganda [...] is largely a matter of perspective". To be transparent, we are concerned that digital platforms allow a right-wing Hindu-nationalist leader to bypass the traditional party and media system in India [20]. This concern at least partially inspires our research agenda. However, we tried to separate our judgment from the objective analysis and description of the campaigns. We believe it is important to shed light on these information campaign practices, so policymakers, platform operators, and the wider public can decide about the legitimacy of their opaque strategies. With the rise of populist parties and movements around the globe, platforms' role in the political process will, we are certain, continue to raise significant challenges.

8 CONCLUSION

We have described a system that India's Bharatiya Janata Party (B.J.P.) uses to produce political Twitter trends on demand. With a country-wide network of cultivated WhatsApp groups, the party distributes a Google Doc to supporters. The document contains a campaign hashtag, instructions, and a list of sample tweets. At an agreed time, group members

[6]see the top reply here: https://www.quora.com/What-is-the-BJP-IT-cell

post these samples on Twitter. The synchronized high-volume activity led sixty-nine out of the 75 analyzed campaigns to country-wide trending status. Centrally controlled but voluntary in participation, this novel configuration of a digital rally expands our understanding of collective action. Whether it constitutes inauthentic or legitimate political participation is a question that merits further discussion.

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