Who Won it Online? A comparative study of 2019 Indian General Elections on Twitter

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Introduction

Political discussions constitute a significant portion of trending topics on online social media during election period. Politicians and political parties catch up with these trends, and social media then becomes a part of their publicity agenda. **Twitter** is a major platform where we observe these trends.

In this work we compare Twitter usage of politicians from the two main political parties in India, the **Bharatiya Janata Party (BJP)** and the **Indian National Congress (INC)**, in 2019 General Elections. We also analyse and compare the online activity of handles held by PM candidates of these parties namely **Narendra Modi(@narendramodi)** and **Rahul Gandhi(@RahulGandhi)** respectively, using factors such as "following", "tweeting habits" and "sources used" along with text analysis of their tweets.

We mainly observe that BJP had a wider reach to public through increased involvement of its members on Twitter as well as due to soaring popularity of its leader Narendra Modi. We also observe that Narendra Modi used this platform more effectively as compared to Rahul Gandhi based on the analysis of their tweet content.

Data Description

The data was collected during **2019 Indian General Election** with the intent of capturing the related conversations on Twitter.

Election Schedule

The 2019 general elections were held in 7 phases from 11th April 2019 to 19th May 2019. 67.11% turnout was observed in the election, and a total of 8,049 candidates contested 543 seats2. Results were declared on 23rd May 2019[1].Narendra Modi again became the prime minister with Rahul Gandhi as his main opponent in the opposition.

Data Collection Strategy

Hashtag Based Collection: Trending hashtags were observed on a daily basis and those related to the General Elections were added to the search pool. Hashtags such as LokSabhaElections2019 and namo were used as search queries.

Candidate Based Collection: Popular political leaders, official handles of political parties and lists of handles submitted by election contestants were used to form a pool of user ids. All tweets by these handles were collected. Tweets of @narendramodi and @RahulGandhi were collected using the same approach.

Election day tweet collection: On the seven election days, we collected tweets based on hashtags curated every hour. Frequency of manual hashtag refinement was increased from the earlier strategy. We followed this strategy to capture finer and highly regional sentiments. Regional hashtags such as #OruviralPuratchi and #isupportgautamgambhir which were popular in Chennai and Delhi were captured.

User Snapshots: A total of 45 million tweets were collected by taking daily snapshot of user data for these handpicked users for about 3 months.

General Public on Twitter in 2019

Number of Users: 64,283,615
Average Number of Followers per user: 98.37
Average Number of Friends per user: 174.30
Averga Number of Statuses per user:122.76
Percentage of Verified users: 0.02

Comparison between BJP and INC

Statistic	BJP	INC
Number of contestants	436	421
Number of politicians on Twitter	238	167
Number of verified handles	144	83
Average number of followers	500,927	248,923

Table 1:Comparison of BJP and INC contestants on Twitter in 2019 elections, with followers number showing a popularity of BJP in public.

Handle Creation Dates: We show the plot of profile creation dates of political handles of BJP and Congress, although we see a spike for both after 2014 it is visible that more politicians from BJP have joined Twitter
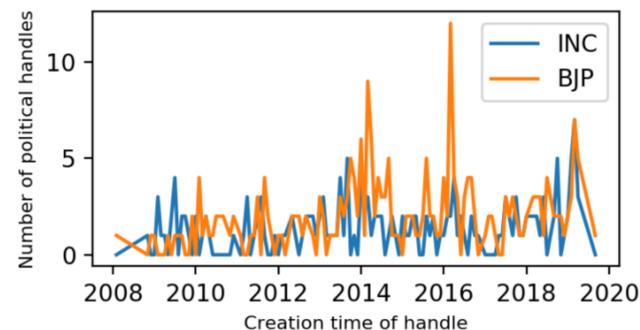

Figure 1:Profile Creation Dates for BJP and INC contestants

User Mention Analysis: Mentions are used to interact with fellow users on the platform. We create a graph of 20 most followed users mentioning each other. The graph clearly shows greater online presence of BJP politicians. @narendramodi being the most mentioned handle, @girirajsingh has mentioned most other handles in top 20, activity of @rahulgandhi is less compared to others in the sphere.
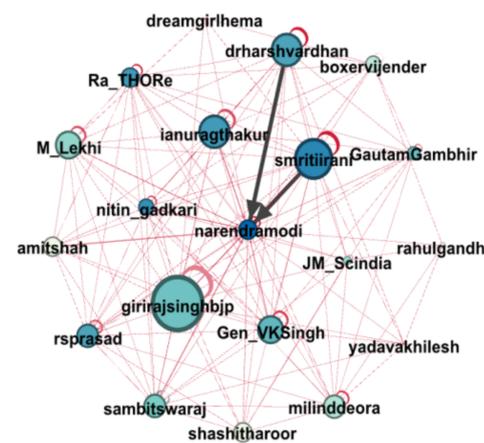

Figure 2:Top 20 most followed politicians mentioning each other

Comparison between Narendra Modi and Rahul Gandhi

Statistical Analysis

Comparison of Number of Tweets and Retweets.

Handle	Total retweets	Tweet count
@narendramodi	8,549,315	1,880
@RahulGandhi	1,619,153	221

Table 2:Comparison of Tweets and ReTweets of @narendramodi and @RahulGandhi

Comparison of Followers: Though the number of followers is more for **@narendramodi** than **@RahulGandhi**, the percentage of followers with atleast one tweet is greater for the latter.

Statistic	@narendramodi	@RahulGandhi
Number of followers	47,402,233	9,731,841
Verified followers	8,734	2,689
Followers with at least one tweet	58.46%	63.27%
Average tweets by followers	146.85	225.48
Average tweets by followers with at least one tweet	251.17	356.36
Average followers of followers	82.23	104.38
Average friends of followers	107.03	156.13

Table 3:Follower comparison of @narendramodi and @RahulGandhi.

Linguistic Cues

Z-Score: Z-score [2] is used to compare the topic usage patterns . The score assumes that the frequency of the text follows a binomial distribution. A positive z-score of a word indicates that the word is over-used compared to the other candidate, while negative score implies the opposite

@narendramodi	@RahulGandhi
government	incindia
development	modiji
india	govt
pmoindia	rahul
narendramodi	gandhi
efforts	congress
nda	rss
people	panjab
shakti	rafale
projects	students

Table 4:Top words in terms of Z-score, showing the favourite words/topics of @narendramodi and @RahulGandhi.

We obsereve that while **@narendramodi** mostly talks about himself, his party and his agendas, **@RahulGandhi** along with his party, also talks about the opposition, especially **@narendramodi**, significantly.

References

[1] ECI.
General election 2019.
[2] Hussam Hamdan, Patrice Bellot, and Frederic Bechet.
The impact of z-score on twitter sentiment analysis.
01 2014.

Link to Full Project

http://labs.precog.iiitd.edu.in/elections-2019/