Affording Extremes: Incivility, Social Media and Democracy in the Indian Context

Anmol Panda
Microsoft Research India
anmol.panda777@gmail.com

Sunandan Chakraborty
Indiana University - Purdue
University Indianapolis
sunchak@iu.edu

Noopur Raval
University of California - Irvine
naraval@uci.edu

Han Zhang
University of Michigan
hzhan@umich.edu

Mugdha Mohapatra
Microsoft Research India
mumoha@microsoft.com

Syeda Zainab Akbar
Microsoft Research India
zainu9514@gmail.com

Joyojeet Pal
Microsoft Research India
joyojeet.pal@microsoft.com

Figure 1: Samples of extreme speech usage by India's two main parties against the leadership. Tweet by INC reads 'Prime Minister or Propaganda Minister?', tweet by BJP reads 'Baby Rahul won't accept'

ABSTRACT

In this mixed-methods study of political discourse, we study the affordances of Twitter in the context of free speech in India. We critically examine specific cases of the legal prosecution of free speech and the use of extreme speech in attacks on people to document the risks to citizens when they engage in antagonistic online discourse, particularly against the state or political institutions. We follow this up with quantitative study of the use of extreme speech through 477 hashtags used by a random sample of thousand political actors on Twitter and find that politicians are rewarded, through higher retweet rates, when they engage in extreme or uncivil messaging. We contextualize these findings to the postcolonial history of India and the laws and institutions that enable differential consequences for engaging in various forms of speech. In conclusion, we propose that the affordances of new ICTs like social media need to be carefully considered for their unintended consequences, and that functional access to free speech may differ dramatically based on one's access to institutions.

CCS CONCEPTS

• **Human-centered computing** → **Social media**; • **Social and professional topics** → *Governmental surveillance*; *Governmental regulations.*

KEYWORDS

datasets, neural networks, gaze detection, text tagging

1 INTRODUCTION

"... When a country has experienced a long period of colonial rule in which populations were frequently surveyed, classified, described, and controlled, (this) shapes not merely the strategies of states but also the forms of political demands and community that arise to resist them"

- *Kathryn Trevenen*, in her review [84] of 'The Politics of the Governed: Reflections on Popular Politics in Most of the World' by Partha Chatterjee

The post-colonial experience underlines an important challenge of both the legal structures and the consciousness that governs much of the Global South. Systems and laws meant to classify and suppress have on one hand left a historical consciousness of how citizens expect to be governed, but also allowed for legal structures to enforce certain forms of discipline. Theorist Partha Chatterjee's view proposes that while India is a formal democracy, the very rules that govern civil society marginalize the poorer masses and undercut citizens' abilities to exercise the rights they have on paper [84] [14].

An important vestige of the colonial system has been the ability to suppress and prosecute speech, especially through the frame of national interest. Colonialists' view [50] of Indians (as other colonized populations) as "emotionally and religiously excitable subjects that are quick to create public disorder on provocation based on insult to religious beliefs" shaped laws to regulate speech in colonial India. Rather than removing these as remnants of an oppressive political system, modern political actors have consistently used these against their detractors and the citizenry alike, often using the same language of national interest that their colonial predecessors did [50]. Although free speech is guaranteed under Article 19(1)(a) of the Indian constitution, it is subject to reasonable restrictions, and laws such as the colonial sedition law - Sec. 124 A of the Indian Penal Code, and the National Security Act, have increasingly been used against citizens for acting against the national interest. Despite the fact that people charged under these are rarely ever convicted, the duration and duress of the legal process can be an effective gag against anyone wishing to take on the state without an appropriate battery of lawyers [48].

We base our study in the assertion that free speech rights and the affordance of digital public spheres to voice dissent are inseparably intertwined with development through a bidirectional causal relationship [21, 52, 68, 74, 76]. The onset of social media, and their affordances that allow citizens to become content producers and broadcasters, created new spaces for free speech, but the state also reacted to create new ways of prosecuting speech [49]. The campaign of Barack Obama in the 2008 US presidential elections serve as a benchmark moment in the use of social media outreach by a political actor, and a beacon for politicians around the world [16]. In the years since, social media has dramatically changed politicians' communication with voters, not just in the West, but increasingly through much of the Global South [59].

The Indian 2014 general elections saw a massive investment by Narendra Modi, the eventual winner by a landslide, into various forms of communications technology, in running a campaign that would eventually be credited with metamorphosing Indian elections [22]. In the years since, social media has increasingly been intertwined with modernity in India, as thousands of politicians, including those with largely rural electorates with limited access to technology, have turned to platforms like WhatsApp, Twitter and Facebook for their outreach. However, social media both changed the nature of democratic accountability as politicians move to direct and selective online communication [12], and created a rich space for polarizing and extreme speech, often targeted at vulnerable populations [86] [64] [6]. Moreover, while the early years of social media use were accompanied by hopes of a horizontal, empowering milieu that enabled citizens to speak up to power, such hopes declined both with the tightening institutional grip on social media [46], and the realization that the state and politicians could do much with the affordances of social media that ordinary citizens could not.

In this paper, we critically analyze social media as a platform for public or political discourse, focusing on the affordances it presents to users and how these affordances differ based on the user's position in the socio-economic hierarchy. We do so by focusing on extreme speech, proposing that politicians are not only protected from the exposures that common citizens may face, are indeed rewarded for being controversial or incendiary.

Prior research has shown the asymmetric distribution of influence that Twitter affords by virtue of its platform design, with the most popular and followed users carrying a disproportionate influence in determining what content gets maximum attention [28]. Twitter and other social media allow documentation of the text as well as the conversations that follow a thread, which can be legally examined in a variety of ways. We argue here that these amplify pre-existing positional asymmetries - the same affordances that disadvantage common citizens privilege political actors and act as a source of public outreach and popularity.

To do this, we specifically examine the notion of extreme speech, which can variously include insults, hate speech, or calls to action - elements that are typically targets of legal stricture against citizens. We do not define extreme speech as inherently positive or negative, given that prior work has shown contrasting implications of the same [86] [19]. We contextualize extreme speech to the affordances of social media, using the hashtag as the primary object of speech for textual analysis. We posit that while political privilege affords one the right to not only indulge in extreme speech on Twitter but also be rewarded, the same activity by citizens invites penalties from the State, at the behest of politicians. Based on this premise, we

formulate the following hypothesis: Tweets of politicians that contain extreme hashtags receive higher retweets than tweets without extreme speech content

This paper is organised as follows. In the next section, we present our theoretical framework of affordances, prior work on its application to social media platforms like Twitter, and their correlation with spread of extreme speech and incivility. We then detail three major aspects of the State's intervention that impact users / citizens affordances vis-a-vis their participation in political discussions on WhatsApp and Facebook. Here, we also report important events that affected these interactions and relate them to our theoretical framework. Thirdly, we present our definition of extreme hashtags, our method for building a list of politicians and classifying their tweets based on the aforementioned typology and statistical results validate hypothesis 1.

2 AFFORDANCES OF TWITTER AND EXTREME SPEECH

The theory affordances posits that an environment offers opportunities for action to an interacting user who has the agency to act upon those opportunities [29] [69]. Fox et al. [27] discuss ten communicative affordances that affect the perceived social affordances of communication while Leonardi shows the role of technology affordances in enabling network changes in organizations. Moreover, it has been used widely to study social media [23]. In essence, while social media platforms grant agency to the user to create and share content of their choosing, they also greatly influence the user's interaction by filtering the information reaching them and can solicit users to act with the reward of increased popularity, quantified by followers, likes retweets and shares. All of this is in turn subject to a pan-optical observation when the engagement is public.

This is critical to the study of extreme speech on social media in developing countries, with two key factors that determine how these discourses are shaped - the affordances of platforms like Twitter and the role of the State. To analyse these, we use the four findings from the framework by [95], namely: individual capabilities of an agent affect affordances (T1), not all affordances are equally important (T2), they are shaped by socio-cultural context (T3) and past experiences with an environment affect them (T4). Further references to these four findings in the paper are abbreviated as in table 1.

There are many affordances of Twitter that make it different from traditional media as well as other social networking sites. Firstly, Twitter affords 'personalized publics' defined by Schmidt et al. [75] as consisting of three elements: the ability to curate information of one's choosing, channeling content from select sources, and the use of conversational (informal) patterns and tones in discourse (as opposed to the formal means of publishing or broadcasting information). The third aspect of conversational behavior is critical to our discussion on extreme speech.

With the advent of new media platforms, the structure of political discourse in the West changed significantly from ritualized and pre-programmed events [20] [19] to a more hybrid model, with real time responses and informal Twitter conversations consisting of humor, satire and insults during and after key political events [91]

[92]. In India, the trend of moving out of the mould of polite talk to more colloquial, humorous and banal talk began with the media liberalization in the 1990s, grew with the advent of the Internet and video blogging sites like YouTube and intensified significantly with the large scale adoption of social media platforms like Twitter, Facebook and WhatsApp [86].

Schmidt [75] also describes Twitter's textual affordances such as the unmoderated hashtag feature which allows for creation and propagation of any number of topics. The primary purpose of a hashtag is to contextualize the content of the tweet to a particular topic or event. Beyond that, hashtags can be important markers of sentiment and geographic location [39]. The affordances of hashtags are critical to understanding dissemination of information, including extreme speech. Hashtags are known to yield higher retweets [82], making them a useful tool for propagandists. Moreover, hashtags create ad hoc publics [11], either through pre-planned efforts (like political campaigns) or via quickly generated public consensus, allowing for networking among people with common interests or shared identities [77]. This, coupled with the ability to tag anyone with the @ character allows users to channelize content to specific audiences, thereby affording networking beyond one's follower / followee networks. The networking of such disparate clusters of users, brought together by hashtags, can greatly amplify the popularity of topics [4].

However, these affordances are not without significant pitfalls. Twitter's most notable feature, the 280-character limit, enforces simplicity by demanding wit and word-play while disallowing sophisticated, involved arguments [56] and encourages impulsivity through its real-time updates and ease of response [86]. This motivates even the educated citizenry to post bigoted and prejudiced content[56], and breeds incivility by de-individuating and depersonalizing users [57]. Oz et al. found that Twitter's affordances of limited length posts and the degree of de-indivduation it offers, makes it more likely to host abusive discourses, compared to Facebook which is a more personalized platform to interact with friends and family that does not restrict post length [57]. The tweet length restriction also makes political tweets less engaging, producing a negative correlation with offline political participation [10]. Moreover, the primary means to get more followers on Twitter is to make one's tweets 'interesting' so other users retweet and follow you [18], favoring sensationalism and abuse over facts and reasoned discussions. In the Indian context, online abusers and trolls revealed that abusive language was the most effective means to get attention on Twitter [86], further lending credence to how Twitter's affordances foster extreme speech. Researchers have devoted significant effort in studying the creation of online firestorms [63] [40] ,and measuring verbal violence [35] and partisanship [36] on Twitter, and hostility [41] on Instagram. Efforts have also been dedicated to study the persistence of political hashtags [70] and political outreach on social media [12]. We build upon these works to understand the role of extreme speech in political discourses in India and its asymmetric effects on the citizenry.

3 SOCIAL MEDIA, EXTREME SPEECH AND THE STATE

Social media has had transformational impact on change in the way political outreach happens in India, [13], in particular how propaganda disseminate in the masses [26].

It has built on a evolving yet dominant narrative of the identity of the young, new India, with technology as its central theme [58], with twitter hosting over thirty-two million users in 2019 [43] and WhatsApp over two hundred million [5]. Underlying these staggering numbers is a dramatic expansion of mobile device and internet access in India in the last five years. For an overwhelming number of internet users now, the mobile device is the first time they have been actively online.

It is important to sub-text the expansion of social media use in India with this caveat: these new users never went through iterations of desktop social media use, or even technologies such as email before using social media. In that sense, we contend that social media platforms' affordances of free speech or political / public discourse cannot be studied independent of the larger politico-judicial environment of the country.

In India, we recognize at least three ways in which the State shapes speech affordances on dominant social media platforms like WhatsApp and Facebook, namely (1) the State's response (or lack thereof) to acts of violence spreading through rumour and hate speech on social media, (2) the legal instruments used to curtail speech deemed 'objectionable' by the State and their interpretation by local law enforcement, and (3) the bypassing of courts and use of extreme legal measures to curtail dissent against the government. In this section, we study these three aspects using our theoretical framework and key events in the past nine years that relate to the same.

3.1 Social Media, Violence and the State's response

Between May 2015 and December 2018, there were 44 recorded instances of lynchings by cow-protection vigilantes [90] while scores of persons were killed [33] in dozens of cases of mob violence on the pretext of being child abductors, organ traffickers, beef transporters or sellers, often due to rumour perpetrated on social media platforms like Facebook and WhatsApp.

While these attacks generally receive condemnation from most politicians, those associated with local and provincial governments, have been found downplaying, condoning or even excusing such acts [17] , [8], [47]. Historically, there is precedent of the politicians across the spectrum condoning such violence. Former Prime Minister Rajiv Gandhi's (from the main opposition Congress party) infamous statement - When a big tree falls, the earth crumbles [2] - to explain the riots that killed over four thousand Sikhs in the aftermath of his mother and then-PM Indira Gandhi's assassination or the then Gujarat Chief Minister Narendra Modi's own logic of action and reaction to explain the 2002 riots [73] are emblematic of this trend.

These statements, and the knowledge in hindsight that they were largely unpunished legally or failed to dent the political prospects of their respective speakers, emphasize ways in which politicians can enjoy impunity for their speech, especially when backed by a mob. Social media has also enabled new forms of mob action, with deadly consequences [5], and indeed the state has been accused of allowing militant political outfits to resort to violence [47].

Moreover, the spontaneity of mobs has meant little accountability. The State's response to mob violence spreading via social media platforms has critical implications for the democratic potential of these platforms. Social media platforms afford (relevant to T1 from affordance theory) anti-social elements the ability to spread and amplify incendiary speech. Indeed, technology has ironically made for a foil, since the government has treated these as a fake news problem as opposed to a law and order issue [5]. The clampdowns against these have targeted the affordances of the technology - thus ranging from shutdowns of mobile internet services, attempts to collect users' metadata to disabling of communication services and expunging of certain keywords from websites [72].

3.2 Free Speech Laws and their interpretation

The affordances of law, specifically the privileges it affords to the State in curtailing citizens' rights, have a significant impact on the use of social media. In November 2012, a 21-year old girl of a minority community (relates to T1 and T3) living about 100 kilometers from Mumbai posted on Facebook, critiquing events following the death of a leader of the majority religion. Her friend used the Facebook feature of like to show approval of the post. The two were arrested [87] under Sec 295A (offending religious feelings) of the Indian Penal Code (IPC) and Sec 66A of the IT Act (offensive messaging through communicative devices) and later released on bail. Despite the outrage on the high-handedness of the State, senior members of the late leader's party praised their supporters for restraining their anger and acting lawfully [53] (relates to T3). In the ensuing legal challenges to articles 66A, 69A (power to block content) and 79 (regulation of internet intermediaries like social media platforms), the Indian Supreme Court struck down [50] 66a but upheld 67A and 79, citing the Additional Solicitor General's (ASG) argument that, unlike print media, social media reaches illiterate audiences who may not have specialized knowledge of the issues discussed on such platforms [50]. In doing so, the ASG echoed a view of Indian citizens similar to colonialists' like Thomas Macaulay (pertinent to T3 and T4). Ironically, the very affordances of participatory discourse made available by social media to communities hitherto underrepresented in mainstream media, such as illiterate individuals, became the premise for the State to restrain it (relevant to T1 due to socio-economic position of these groups). [50].

3.3 Extreme Speech and Extra-judicial Detention

The State can bypass courts to suppress dissent or what may be perceived to be offensive speech. In August 2018, Kishorechnadra Wangkhem, a thirty-nine year old journalist based in the north eastern state of Manipur, was arrested [67] for inflammatory speech after he referred to the ruling Bhartiya Janata Party as Budhu Joker Party [93] (party of fools and clowns) but was released subsequently. On 20 November, he was arrested [79] again for remarks made against the state chief minister and held in custody for six days. When the police presented him before a magistrate to seek further

Abbrev.	Theoretical Findings from [95]	Indian social media examples
T1	The individual and environment-driven capabilities of an agent greatly impact the affordances made available to it	A user in rural Karnataka accessing Facebook on a cheaper smartphone with limited RAM and less reliable data connection receives very different affordances than the person accessing the same website on a computer with a high speed datalink in California
T2	Some affordances are more significant than others	To a online stalker targeting specific person(s), the anonymity of social media is of greater value than the access it affords to millions of other users, as their target(s) is/are limited
T3	Culture plays a very important role in shaping affordances	A tribal woman from the Sahariya community living in Orchha village of rural Madhya Pradesh in central India would face social boycott and fines for using mobile phones, the most common medium of internet use in India [83], thereby affecting the affordances available to her [83]
T4	Past experiences of users play an important role in shaping their choices vis-a-vis the affordances made available to them	Women bloggers' use of social media platforms is affected by their experience with sexist and misogynist abuse [86] [19].

Table 1: Theoretical findings reported by[95] with relevant examples from Indian social media

remand, the judge dismissed the plea, commenting that mere expression of opinion against the public conduct of a public figure in a street language cannot be deemed seditious [9]. However, the police arrested him a third time on 27 November, this time under the National Security Act (NSA) that allows detention without an open trial for up to one year. He has been in prison since then. The chief minister of the state, N Biren Singh, justified the arrests, saying he could not tolerate the humiliation of national heroes and the Prime Minister [66].

From a cultural standpoint, the people of Manipur and other communities in India's northeastern region have views of their own heritage that conflict with the official narrative of Indian history [15], a point Wangkhem made repeatedly in his posts (relates to T3). The state also has a history of insurgency, intra-tribal rivalries and calls for independence [9] (relates to T1, T3 and T4). From Withagen's framework, Mr. Wangkhem's cultural background (T3) and the political significance of his defiance of the State (T1) impacted the affordances he could act upon and the consequences of those actions. Moreover, the episode of his arrest can intimidate other journalists working under similar socio-political circumstances [34] [32] (relates to T4), thereby affecting the affordances at their disposal when using social media to criticize the State.

These examples show that what is commonly protected speech in the US can lead to intimidation, arrest and prosecution of dissenting voices critical of the State or considered to be objectionable in the slightest by dominant social groups [47]. That a majority of the arrests quoted above were of poor individuals from religious minorities is yet more troubling. This proves our claim that the social status of the user and the political context of their speech as well as the legal and law enforcement apparatus of the State significantly impact the affordances of social media platforms.

The examples here include commonly protected speech not only in many parts of the world, but often indeed by the letter of the law, in India itself. These not only have led to intimidation, arrest and prosecution of dissenting voices critical of the State or considered to be objectionable by dominant social groups [47], but have also often

escaped any formal legal censure. The attempt to technologize the solution - thus shutting down communication services, passing the responsibility of monitoring or censorship to social media platforms to expunge certain words underline the unwillingness of states to own responsibility for extreme speech. Such interventions by the State have critical implications for the free speech and privacy rights of users/citizens. In the following section, we will consider politicians' own engagement in extreme speech.

To study the use of extreme speech by Indian politicians, we collected the tweets of Indian political figures up to 23 March 2019. We defined Indian politicians as public figures relevant to Indian politics such as members of parliament, state legislatures and local governing bodies. We also included unelected members of political parties such as party secretaries, spokespersons and media managers, members of youth and student wings, booth agents, etc. We began by iteratively building the list of politicians, starting with 800 manually curated Twitter handles of Indian politicians - members of parliament and senior state leaders. We use these to train NivaDuck's [1] classifiers. The primary classifier considers only the Twitter profile description text whereas the secondary classifer is trained on tweets. For both classifiers, we trained machine-learning Logistic Regression models [62] with unigrams, bigrams and trigrams of the profile description and tweet text as feature vectors respectively. Table 2 shows a sample of five politicians' Twitter description text. We used GridSearchCV to optimise for the regularization parameter and the precision-recall curve to select classification thresholds that yielded a high recall output from the primary classifier and a high precision set from the secondary classifier.

NivaDuck had a precision score of 90 percent and recall score of 65 percent on the test set. We prioritized precision over recall. To find new politicians, we used four different sources - friend-network and list-network of known politicians, election commission database, and users who tweeted trending political hashtags. These accounts were fed to NivaDuck to identify new politicians. Every classified politician was manually verified to remove false positives.

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[1] Marathi word for 'selector'

NivaDuck's precision on the predicted set of politicians varied between 85pc to 93pc, depending on the source. The limitations of this archive are two fold. First, it may exclude accounts that are not well networked to other politicians through friend/follower links. Second, we observed a bias toward politicians of the two national parties - BJP and INC - in find new politicians. We mitigated this by manually adding missing politicians from major regional parties in our database. Our paper[61] describes the data collection in detail.

We chose an ML-based procedure for three reasons. Firstly, per our knowledge, there are no large public repositories of social media handles of politicians for India and other nations of the Global South. Prior works have only considered major parties, their senior politicians and other members of parliament. While the Election Commission of India (ECI) publishes social media handles of candidates, these are often outdated as politicians change parties and do not account for those who have not contested national or state elections. Secondly, manual collection of these accounts is error-prone and tedious, making it hard to replicate over time. Moreover, the large, multi-lingual and multi-party Indian political system makes human effort even more inefficient and ineffective. An ML-based procedure allows for a large scale study like the one we pursued here. Thirdly, we intend to repeat this study for other large democracies, especially in the Global South. NivaDuck's scalability and adaptability aspects make it a suitable method to build large corpora of political figures on Twitter worldwide.

Presently, our database of Indian politicians consists of over 18500 accounts. These included 7714 politicians from the ruling BJP, 6663 from the main opposition Indian National Congress (INC), 560 from the Delhi-based Aam Aadmi Party (AAP), 399 from the Uttar Pradesh-based Samajwadi Party, 361 from the Tamil Nadu-based [2] Dravida Munnetra Kazhagam (DMK) and 299 from the AIADMK. There were 124 other parties that contributed less than 250 politicians each. We collected tweets of these political handles using Twitter's public API [1] [42].

Handle	Twitter profile description
@narendramodi	Prime Minister of India
@Dev_Fadnavis	Chief Minister of Maharashtra
@AmeetSatam	M.L.A., Andheri west, Mumbai. Views are personal
@INCIndia	The Official Twitter Account of India's Most Vibrant Political Movement - The Indian National Congress

Table 2: Examples of Twitter profile descriptions of Indian politicians

3.4 Definition of Extreme and Controversial

To identify extreme speech in tweets, we used Twitter's hashtag feature, given the affordances of information searchability [97], content channeling [85], networking [75] and contextualising [80] it presents.

Prior research has defined extreme speech as a means to capture the overlapping usage of humor, insult, shame and abuse [86] [64] [19] while others have included wordplay, sarcasm, labeling, criticism and direct personal or group insults within its definition [30]. ElSherief et al analysed the psycho-linguistic aspects of target oriented hate speech [24] [25] while Gonawela et al. [31] provided a typology for insults based on their intended purpose. We have defined extreme and controversial hashtags as follows. A hashtag is extreme if it includes an insult or a slur (eg. shamelessModi - ref. to PM Modi, pappu - reference to INC president Rahul Gandhi), an action verb relating to a negative action (like BJPKilledDemocracy, CongressHatesHindus, etc.) or a call to action on controversial issues (eg. BanEVM). We must note that the extreme or controversial nature of these hashtags may be limited to the Jan-May 2019 period only. In another period or context, the categorization of a given hashtag could be different.

We differentiated controversial hashtags from extreme hashtags because the former include topics like #AyodhyaRamMandir (reference to land disupute between Hindus and Muslims at Ayodhya), #TripleTalaqBill, #RafaleGrandExpose (related to corruption), #AugustaWestland (related to corruption), etc. These topics yield higher retweets simply due to the contentious nature of their discussions and can act as confounding variables in our analysis.To account for these, we identified topics that are historically contested in Indian politics or relate to present day controversies. These definitions are described in Table 3 with relevant examples from our collection of hashtags.

We snowballed on 44 extreme hashtags to iteratively built a sample of extreme tweets. From these, we selected the top 900 commonly used hashtags for our analysis. We then annotated each hashtag as being extreme, controversial or neither based on the definitions in table 3. The annotations were made by two authors independently, and yielded a Cohen's kappa score of 0.720 on a scale ranging from -1 (complete disagreement) to 1 (complete agreement) [3]. Using these category labels - extreme, controversial, neither - we annotate the tweets of politicians in four categories: tweets that contain only extreme hashtags, those that contain only controversial hashtags, those that contain both, and those which have neither extreme nor controversial hashtags. Table 4 shows extreme tweets used by key political figures from the BJP and the INC.

We used a linear mixed effects model to estimate the effect of using extreme and controversial hashtags on retweets and favorites. We ran the model for original tweets posted during the campaign period of the 2019 national elections i.e. between January and May 2019, by a random sample of one thousand politicians. We found that seven of these accounts had not posted any original tweets in the study period, resulting in a sample of 993 politicians that posted about 219K tweets. These politicians had used 308 extreme and 169 controversial hashtags from our annotated set. We controlled for the user who posted the tweet, their followers count, the date on which the tweet was posted and its language.

We found that tweets with only controversial hashtags yielded about 42% more retweets, with only extreme hashtags produced 45% more and those with both yielded almost 64% more retweets compared to the baseline (tweets without extreme or controversial

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[2]Tamil Nadu is a state in southern India, Uttar pradesh is a state in Northern India and Delhi is a city-state that includes the capital New Delhi

[3]We used the sklearn.metrics package in Python

Type	Definition	Example hashtags
Extreme	An insulting word or a slur	Pappu, Feku, Liar, Chor (Hindi for thief), Chowkidaar (Hindi for Gate-keeper), ShamelessModi, 420Congress, Khangress, Anti-National
Extreme	An action verb that suggests a negative action	BJPCheatedAP, BJPKilledDemocracy, BJPKickedOut, ModiAttacksRBI
Extreme	A call for action to enact or preserve drastic change (on controversial issues)	SaveKeralaFromCommunists, MandirWahinBanayenge, SmashBrahminicalPatriarchy, BanEVM
Controversial	A contentious issue that does not include a call for action or drastic change	TripleTalaqBill, SurgicalStrike, BajrangDal, RafaleGrandExpose, JNU, Sabarimala, AccidentalPrimeMinister, CBIRafalegate, Rafale, MensCommission, CBIVsCBI, Ayodhya, Bhrashtachar
Controversial	Political events that become trending topics	RahulHugsModi, SPBSPAlliance, AsthanaGetsMallya, UnitedIndiaRally, MahaGathbandhan (GrandAlliance)
Controversial	Gender related issues that became viral	MeToo, MenToo, GenderBiasedLaws
Controversial	Caste / religion related issues that became viral	ScStAct, GoHatya, RamMandir, PrayagrajBegins, Hindutva, ReservationBill, CasteFreeQuota

Table 3: Definitions of extreme and controversial hashtags

Twitter handle	Tweets with extreme hashtags
@AmitMalviya	Well, Dassault has spoken and spoken unequivocally! Rahul Gandhi has egg on his face, again. #RahulKaPuraKhandanChor
@sanjanirupam	Former French President has exposed naked lies of Modi Govt. It was Modi who imposed Anil Ambani-led Reliance Defence on French for #Rafaledeal #ChowkidarChorHai #ModiRafaleLiesExposed
@INCIndia	There was consensus in our room that BJP's corruption on Rafale, Demo & other areas is simply not acceptable & we're going to fight it and do what we can to expose it: Congress President @RahulGandhi #ModiDestroysRBI
@JhaSanjay	#ChowkidarChorHai is now a Humpty-Dumpty. He is irreparably damaged. No Fevicol can put it back together again. #WhoAteTheRafalePie
@mssirsa	Because not all Congressi are keen to drink #PappuMutra
@Bunibroto	After Jagaddal,now Agarpara. Mohammad #Pappu helped another Muslim to get rental house 5 months ago at Rs.24000 per month to build illegal arms factory so it is clear Muslim criminals running arms factory in North & South 24 pargana but for whom?

Table 4: Examples of extreme tweets posted by key political accounts from the BJP and the INC

Table 5: Pairwise contrasts for retweets of different categories

Observations	233,387
Contrasts	Estimate
category::Both - Extreme	0.1168
category::Both - Controversial	0.1410
category::Both - Neither	0.4952****
category::Extreme - Controversial	0.0243
category::Extreme - Neither	0.3784****
category::Controversial - Neither	0.3541****

Note: *p<0.05;**p<0.01;
***p<0.001;****p<0.0001

Table 6: Pairwise contrasts for favorites of different categories

Observations	233,387
Contrasts	Estimate
category::Both - Extreme	0.07768
category::Both - Controversial	0.06797
category::Both - Neither	0.37552****
category::Extreme - Controversial	-0.1095
category::Extreme - Neither	0.1318****
category::Controversial - Neither	0.2413****

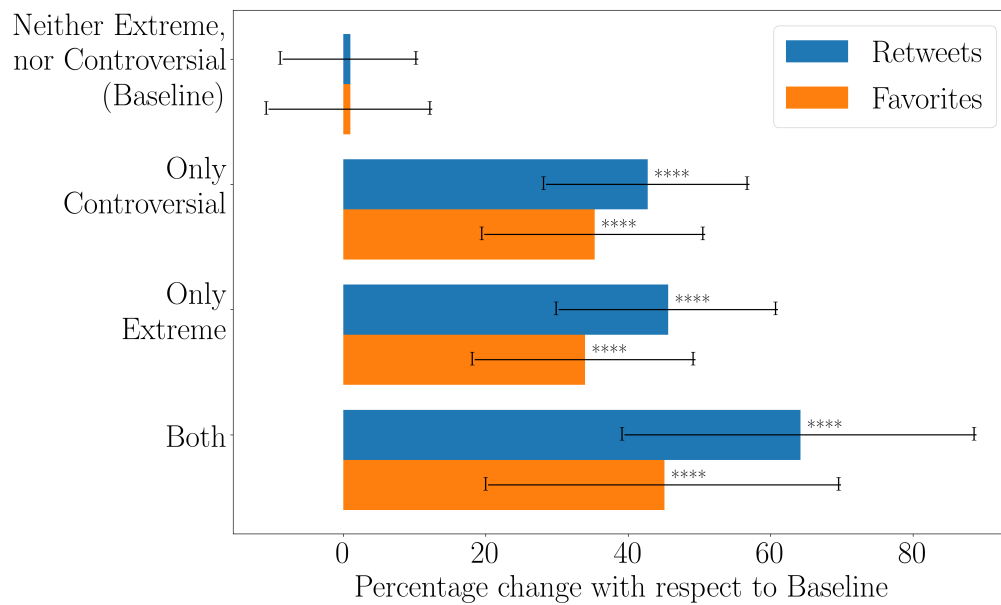*Note:* *p<0.05;**p<0.01;
***p<0.001;****p<0.0001

hashtags). All differences with baseline were statistically significant. With regards to favorites, controversial tweets got 35% more, extreme got 34% more and both got 45% more than baseline.

Tables 5 and 6 show that pairwise differences between the baseline and both, extreme and controversial were significant. No

Figure 2: Effect of using extreme and controversial hashtags on retweets and favorites of politicians' tweets

other pairwise differences showed a statistically significant difference.

Finally, the presence of extreme hashtags alone gave an increase of 32.3% in retweets, controlling for controversial hashtags ($p < 0.0001$). Therefore, the null hypothesis can be rejected. This shows that when politicians use extreme hashtags selected in this study during political discussions on Twitter, the platform's affordances allow for increased traction and attention, as measured through retweets. This is significant since the phrases used by Kishorechandra Wangkhem [9] in his Facebook posts to refer to politicians would meet our definition of extreme speech. But while the State detained him for his uncivil speech, lawmakers and unelected stakeholders in the political establishment in India not only use similar extreme speech without penalty but are also rewarded for the same by virtue of the affordances of Twitter. Critically, while individual citizens too may receive increased retweets on posting extreme speech, they face consequences beyond the virtual boundaries of these platforms, where as politicians escape scrutiny and accountability offline, further enabling their abusive behaviour online.

It is also pertinent that the increase in retweets is greater than the increase in favorites. While we are yet to investigate the reasons for this difference, its impact on the spread of extreme speech is notable: favorites show approval of a tweet but retweets propagate the message to newer audiences, effectively aiding its dissemination. Prior research has also found retweets to be the most significant metric of influence [71].

4 RELATED WORKS

ICTD researchers have dedicated significant effort to studying online abuse, reconstruction of socio-economic biases in usage of digital platforms and devices, use of social media and technology

for political communication and its impact in the Global South. In their paper on online sexual harassment, Nova et al. [54] analysed the interplay between the affordances of anonymity on social media and a communal culture of abuse in Bangladesh. Kamath [38] reported on the reinforcement of caste prejudice through ICTs like cell phones in Bengaluru and the misplaced understanding of the widening digital divide in India while Pal et al. [60] studied the gender divide in access and usage of mobile devices in urban Rwanda and Malawi. Sen et al. [76] discuss the dominance of politicians and businesses in media reportage on critical issues of ICTD policy making in India and the marginalization of communities negatively impacted by their implementation. Chakraborty et al. [13] show that technological solutions in delivery of government services require mediation by civil society groups to enable their usage by intended beneficiaries in India. Masiero et al. [44] discuss how technological interventions in social safety programs in India can be used to drive specific political goals and the need to include perspectives of impacted communities in their design. In rural Indonesia[89], Wahid et al show the limitations of information systems (LIS) in resolving land disputes due to historical complexities of un-certified land. In Brazil, Nemer et al.[51] discuss the role of digitized artifacts in exacerbating inequalities in Vitoria.

Moreover, Obeysekare et al. [55] discuss the need to integrate communities in health information flows while Xu et al. [96] adress similar concerns in asset based community development (ABCD) of refugees. Varanasi et al.[88] illustrate how teachers are forced to change their work practices due to technology-driven teaching interventions in India. Furthermore, Shoemaker et al. [78] justify the need to engage refugees in design of identity managements systems used by humanitarian organisations in Uganda, Jordan and Lebanon while Poon et al. [65] showcase how technical affordances interplay with local perceptions to shape students use of educational

material on digital devices in Cameroon. Additionally, Medhi-Thies et al. [45] provide recommendations on building and adapting social network applications for low-literate farmers in India.

Researchers in this field have also considered the role of Twitter in shaping political discourse. Best et al. [7] contrast the themes of Twitter political discussions in Nigeria, Ghana and Kenya and show that social media echo the extant politics of a nation and vary substantially across countries. Jaidka et al. [37] report on the use of Twitter by ten Indian political parties during the 2014 national elections. Smyth et al. [81] discuss the impact of social media on politics of Nigeria and Liberia - two younger democracies with scarcer traditional media than western nations.

This substantial body of literature shows that decisions of introducing ICTs in nations of the Global South, the nature and purpose of their usage, and their impact on marginalized communities must be not be evaluated without contextualising the prevailing political circumstances, social hierarchies and judicial processes, and the history that shaped them. We build upon these works by reporting on the unequal affordances of social media as a platform to express political dissent. Prior works considered qualitative and mixed methods explorations with relatively smaller samples ($N < 100$), and focused on major party accounts or only top politicians from national parties. On the other hand, our work is unique as it presents a large scale study of one thousand politicians, sampled from a database of over 18500 Indian politicians representing 130 parties at the national, state and local levels. This presents a comprehensive account of political extreme speech usage in India, beyond popular figures that are well-studied, filling a void that has escaped attention thus far. Moreover, our scalable and adaptable methodology allows for replication of this study in other large, diverse democracies.

One area where our work is novel is the connection of colonial era law to modern day social media behavior. Existence of strong institutions, civil society, and a tradition of human rights are often thought of as the enablers of human development. By systematically studying social media output through with the frame of free speech laws, we interrogate the asymmetries of power as a reflection of the quality of public discourse in a nation state.

5 DISCUSSION

The affordances of broadcast speech, and in particular the use of extreme speech by users of social media cannot be studied independent of the politico-juridical environment of a nation-state and its cultural, socio-economic and political history. We see in this paper that technology, inserted into an environment in which the legal history and political culture of speech complicate its regulation, can have vastly different meanings for those protected by structures of power, and those outside of it. The colonial legacy of the Indian Penal Code, reflected in the codification of notions such as 'modesty', 'sedition' and 'offensive (expression)', alongside an incendiary political climate, and a partisan enforcement of law can have serious implications for free speech on social media platforms.

In this paper, we reported the following findings. Firstly, using the framework presented by Withagen et al. [95] [94], we studied three aspects of the State's role that affect the affordances of social media for Indian users/citizens. We used widely reported key events that involved major interventions by the State in relation to users /

citizen's social media posts. We analysed their status, background or political context of social media interactions, and its tension with the ability to act on the platforms' affordances. The cases of action against individuals serve as a strong warning through the examples made. They underline the threat of what is possible and should loom on the minds of well-informed social media users. The postcolonial leftovers of punishable speech empower the State as well as vigilante forces, to act, particularly to the end of creating a spectacle that in turn can be made into a media event of its own. While we find that extreme speech and defamatory insults are traded generously online by politicians from parties across the ideological spectrum, the gross cases of legalistic targeting by the state are not against rivals among the political elite, but rather against common citizens.

Secondly, we presented a definition of extreme speech, that captures insults, hate speech, humor, satire and calls to action on controversial issues. Notably, we do not posit that such speech always be viewed negatively. Given our broad definition, we agree with prior work [86] [19] that on one hand, extreme speech is used for abusing, trolling and intimidating in social media spheres. However, on the other, it can also open new lines of political communication and can break norms established by socio-political elites, thereby allowing marginalised groups an opportunity for political participation.

Our work is an effort to understand the interplay between extreme speech and the affordances of Twitter, independent of the context or intent of its use. To that end, we selected commonly used extreme hashtags and conducted an empirical study of the extreme speech content posted by politicians on Twitter. We show that while politicians benefit online by tweeting abusive and extreme speech and do not face consequences offline, regular citizens face the brunt of the State's persecution. This validated our argument that Twitter's affordances contribute to encouraging extreme speech behaviour of Indian politicians. Moreover, the very behavior the State proposes to control, its representatives indulge in with reward.

Finally, we contend that the affordances of the State in India and those of social media platforms grew largely independent of each other. While the State is not responsible, per se, for the incivility-breeding affordances of platforms like Twitter, the colonial legacy and prevailing politico-judicial environment fundamentally shapes online speech abilities of citizens in India. This interplay of factors creates unique situations that reinforce and amplify existing hierarchies by advantaging institutional actors. This has implications for democratic discourse. At a time when social media platforms are under increased scrutiny [3] for their role in impacting democratic processes [98] [3], a deeper understanding of this interplay is critical to the study of democracy in the Global South. It can also guide developers of such platforms as to the effect their technology on users / citizens of developing nations while also informing civil society on the benefits and pitfalls of social media engagement.

For a long time, the movement of studying Information and Communications Technology for Development (ICT4D) has focused on the role of building technology as a means of bringing about some form of economic development or social outcomes such as health or human development benefits. A study of social media and the role of technology in speech alerts us on ways in which

technologists have failed to pay attention to political speech rights (or lack thereof) in the Global South.

In this paper, we have attempted to show how a coming together of computational techniques and in-depth examination of social media artifacts can be valuable means of examining a multi-faceted problem. But this case also shows us how an understanding of social theory and the history of control and censorship can be critical in making sense of the political environments we inhabit. As the political elite in many parts of the world move to a form of mediated interaction from behind the curtains of Twitter or Facebook, it is critical that researchers interrogate ways in which democratic discourse is changing. It is equally important and responsible that the citizenry understand the choices they make when they engage with social media, and keep a watchful eye on their political elite. Finally, it is imperative that scholars of socio-technical systems constantly re-examine the consequences - intended and otherwise - of new technologies in the hands of eager users.

6 LIMITATIONS AND FUTURE WORK

In this work, we have shown the differing affordances of social media platforms available to users in India. Our method and results have the following limitations. First, Indian social media is a semi-regulated platform, with significant penalties for speaking against established beliefs or government narratives. This affects what people and politicians choose to tweet and how they express and frame their opinions. Using such pre-curated content to gauge the extent of extreme speech use has significant methodological concerns.

Second, our database of hashtags were specific to the study period. Their popularity and contextual meaning can and do change with time, thereby changing their categorization into extreme or controversial hashtags. If the same study were to be repeated for another period, the hand annotations must be repeated for all hashtags, independent of their classification in this work. Arguably, that India was in a time of significant political polarization, in the heat of a national election.

Third, we did not consider tweets of common citizens in India due to the difficulty of securing a reliable representative sample of tweets of non-politician users. Using Twitter's public API, we can secure a 1-2 percent sample of tweets of specific hashtags or use bounding boxes on co-ordinates to isolate a sample of tweets from a given geographical location. However, given the non-transparent sampling methods of the API and low fraction tweets tagged with location metadata being very small, the resulting sample of tweets would not be a fair representation of the Twitter posts of regular Indian users. Moreover, it would be hard to confirm the veracity of handles that posted those tweets, given the prevalence of bots and fake accounts. Consequently, it was not possible to make a fair comparison of the extreme speech use of non-politicians on Twitter with politicians, given the limited data available using the public API. Finally, while we restricted the hashtags to English and Hindi languages only, India's linguistic diversity mandates a more inclusive approach towards a subject such as this.

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