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Tweetheads: An Exploratory Analysis of Twitter Use by Heads of State Across the Democracy Index

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ABSTRACT

Twitter has become a prominent platform for world leaders to communicate with the public. As an exploratory analysis, we investigate its use by nine heads of state across the democracy index. Using a frequency analysis from qualitative coding, we did not find significant differences in Twitter use among leaders of democratic and authoritarian regimes, except when it comes to condemning others, requesting cooperation, or discussing the environment. We also find some indication that leaders of 'flawed democratic governments,' particularly Donald Trump, have communication patterns via Twitter similar to those of populist states.

Type	Country	Score (max 10)
Full Democracies	Norway	9.87
	Iceland	9.58
	Canada	9.15
	Australia	9.09
Flawed Democracies	The United States	7.96
Authoritarian Regimes	Djibouti	2.87
	Azerbaijan	2.65
	Yemen	1.97
	Chad	1.61

Table 1: Countries and scores in the Democracy Index

Selected Heads of State		
Name	Country	Twitter Handle
Macky_Sall	Senegal	Macky_Sall
Marito Abdo	Paraguay	MaritoAbdo
John Magufuli	Tanzania	MagufuliJP
Justin Trudeau	Canada	JustinTrudeau
Donald Tusk	EU	donaldtusk
Juan Orlando H.	Honduras	JuanOrlandoH
Carlos Alvarado Quesada	Costa Rica	CarlosAlvQ
Klaus Iohannis	Romania	KlausIohannis
Donald Trump	United States	realDonaldTrump
Ana Brnabic	Serbia	SerbianPM
Ismail Omar Guelleh	Djibouti	IsmailOguelleh
Ismail Omar Guelleh	Cameroon	IsmailOguelleh

Table 2: Randomly Selected Heads of State for First Round Coding

CCS CONCEPTS

• **Human-centered computing** → **Empirical studies in HCI**.

KEYWORDS

Politics; Twitter; Democracy; Heads of State

INTRODUCTION

As of 2018, ninety-seven (97%) of heads of government and foreign ministers of the United Nations' member states have at least one institutional or personal Twitter account, making it the political social media channel of choice [1]. From Indian Prime Minister Narendra Modi's use of Twitter to address his problematic past image [4], to U.S. President Donald Trump's use of it to shape political discourse [3], the platform is utilized by heads of state in diverse ways across various political contexts. These studies show Twitter can play a significant role in politics while changing the landscape of governance and diplomacy where political, public, and private spheres are seen to intersect, overlap, and blur. Given these intersections and the changing global political landscape, we seek to compare Twitter use between heads of state as to identify if such differences in political communication do occur across varying forms of government.

METHODOLOGY

We investigate potential similarities and differences across the political spectrum by conducting an exploratory study of tweets from heads of state - paying attention to their content, use, and form. We use the Democracy Index [2] to frame our sampling and shape our questions. Published yearly by the independent research group The Economist, the Democracy Index evaluates and classifies 197 nation states under four types of regimes: "full democracy," "flawed democracy," "hybrid regime," and "authoritarian regime." We utilize the Democracy index to sample and compare the use of Twitter from heads of state across these regimes (see Table 1). Given the nature, prominence, ubiquity, and reach of Donald Trump's tweets, we pay special attention to the U.S., labeled as a 'flawed democracy' in comparison to democratic and authoritarian governments and their leaders.

We performed a content analysis of tweets based on grounded theory [5], where we built codes into categories from the data extracted. We began by open coding the content, use, and form of tweets posted by 12 randomly chosen different heads of state (See Table 2). Content describes what sort of information the heads of state were tweeting about (e.g., Environment, Security, Diplomacy, Travel, Policy). Use describes the actions heads of state take on Twitter (e.g., Informing, Congratulating, Condemning, Announcing). And form describes what affects or emotions the tweets evoked (e.g., Reminiscent; Mournful; Proud). The Twitter accounts were scraped using Twitter's API, capturing the

most recent 50 tweets per world leader generated before February of 2018. The sample only included tweets in English, Spanish, and French for each head of state between February 2018 and January of 2019.

Three (3) coders were given four (4) accounts each with 200 tweets in total per coder. This initial open coding produced over 120 codes which were later categorized and refined through several rounds of coding followed by intercorder meetings and discussions. A final codebook was eventually developed through this process

The code book was then used to compare tweeting patterns across nine (9) officially recognized Twitter accounts of heads of state on the democracy index split into three distinct levels of democracy (See Table 1). This is done by clustering four heads of state into full democracies and four into authoritarian regimes to determine if there are any significant differences between the two general forms of government. We also compare the heads of state to a 'flawed' democracy, the United States. This provides an exploratory analysis of how different forms of government within the democracy index may use Twitter differently.

FINDINGS

Through their tweets, heads of state broadly relay information of various forms (informational use) or use tweets as a platform to engage with people, actions, and/or events (relational use). Degrees and frequency of use vary with the nature of the information and the subject of relation. This variance was captured in the subcodes. Further analysis on these levels and categories are expected to be rich.

Descriptive statistics on our data did not reveal clear patterns that would correlate the use of Twitter by heads of state with the Democracy Index clustering. We also performed a two-tailed t-test and a two-sample unequal variance on the frequency of codes between countries higher on the Democratic Index ("full democracies") and countries scoring low ("authoritarian regimes"). We only found three codes of significant difference between full democracies and authoritarian regimes (p-value ≤ 0.05): (1) when heads of state are condemning a person or situation, (2) when they are requesting broad cooperation, and (3) when discussing the environment.

We found statistically significant evidence for distinct government differences between the process of 'condemning' (p-value = 0.04) and 'requesting cooperation' (p-value = 0.01). Heads of state ranked lower in the Democratic Index had an average of six condemning tweets out of 50 (12% of coded tweets), whereas those from "Full Democracies" had an average of 0.25 (0.5% of all coded tweets). An exception to this trend was Idriss Deby from Chad, who had only one condemning tweet. In other words, heads of states from "authoritarian regimes" were much more likely to use Twitter to criticize and attack others, including people, institutions or countries. Heads of state from countries higher in the index rarely used Twitter to condemn others.

The Environment Descriptive code also pointed to a marked difference between the two clusters of countries. On average, leaders of "full democracies" mentioned the Environment eight times out of 50 (16% of all coded tweets), while "authoritarian regimes" did only once (2%). Full democracies also mentioned subjects related to climate change more often, in particular Australia and Iceland. In general, these suggest that heads of states in more democratic countries, which correspond to more developed and richer countries, tweeted more often about environmental issues.

Comparing the tweets of Donald Trump with other heads of state, his tweet patterns have similarities with both democratic and authoritarian leaders. However, there were two codes that were most prominent: (1) condemning and (2) discrediting. In previous research of Twitter use by heads of state in Latin America, scholars found that populist heads of state use Twitter primarily for presidential attacks on press and citizens, and lashing out against critics [6]. We see a similar pattern here where the primary uses of Twitter by Trump are to condemn and discredit others. Thus, we find some indication that a head of state from a 'flawed democracy' may show patterns similar to populist leaders.

LIMITATIONS

As an exploratory study, there are limitations that future work can address. Reliability testing and further refinement of codes are needed, in addition to working with a much bigger sample of heads of state and total number of tweets. More research should be done to determine the accuracy of such results.

CONCLUSION

Our exploratory study demonstrates that heads of state utilize Twitter for a number of informational and relational uses. While we were not able to find overwhelming patterns of Twitter use between heads of state from full democracies and authoritarian regimes, there are some differences that we were able to identify. Heads of state from countries scoring higher in the democracy index would generally talk more about the environment than their authoritarian counterparts. While heads of state from countries scoring lower in the democracy index use Twitter for condemnation more often than their democratic counterparts. Lastly, we find some indication that patterns of Twitter use by President Trump are split between authoritarian and democratic regimes, indicating populist practices through tweets. Once replicated and expanded in terms of sample and scope, findings of this study and that of future works can help identify patterns and signs of shifting political environments and help account for such changes.

REFERENCES

[1] Cohn Burson and Wolfe. 2018. Twiplomacy. twiplomacy.com Accessed: 2019-03-18.
[2] Laza Kekic. 2007. The Economist Intelligence Unit's index of democracy. *The Economist* 21 (2007), 1–11.

[3] Ramona Kreis. 2017. The "tweet politics" of President Trump. *Journal of Language and Politics* 16, 4 (2017), 607–618.
[4] Joyojeet Pal, Priyank Chandra, and VG Vinod Vydiswaran. 2016. Twitter and the rebranding of Narendra Modi. *Economic & Political Weekly* 51, 8 (2016), 52–60.
[5] Anselm Strauss and Juliet Corbin. 1998. *Basics of qualitative research techniques.* Sage publications Thousand Oaks, CA.
[6] Silvio Waisbord and Adriana Amado. 2017. Populist communication by digital means: Presidential Twitter in Latin America. *Information, Communication & Society* 20, 9 (2017), 1330–1346.