Note: This paper is 30 pages, with an additional 12 pages for sources and appendices

Influencing Aid Tweet by Tweet:
The use of Twitter to shape donor-recipient aid negotiations

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Abstract

The academic literature characterizes foreign aid negotiations as a relationship between donor and recipient states in which the donor has a majority of the power. New research points to the potentially increasing leverage of recipient governments in these negotiations, although it does not describe the precise modalities via which recipient governments exercise this leverage (Swedlund 2017; 2021; Whitfield 2019; Campbell and Matanock 2021). We argue that recipient government officials use social media, and specifically Twitter, as a strategic communication tool to alter the terms of the aid contract negotiations in their favor. We develop a plausibility probe by using the twitter data of elite Rwandan twitter users to test our expectations. By using our computational approach, we will identify and characterize instances of strategic communications over social media in aid negotiations in Rwanda. We then analyze the potential effect of these communications on alterations in the terms of the aid contract. Our findings will introduce a methodology which can be used to analyze donor-recipient relations among other aid-reliant states that demonstrate high levels of elite-level social media usage. These findings have implications for the aid literature's assumptions about donor-recipient power dynamics and the role of recipient governments in shaping aid allocation patterns. This project aims to research the donor-recipient relationship and how strategic communications are used to influence aid contract outcomes by analyzing tweets around aid negotiations.

1 Introduction

The recent aid literature argues that recipient countries have tools at their disposal to take ownership of official development assistance, or foreign aid, from donors (Campbell and Matanock 2021; Swedlund 2022). This contradicts common, historical assumptions that donors hold a majority of the power in dictating the means, methods, and goals through which aid is disbursed and allocated for. The academic and rhetorical argument for greater ownership of aid disbursements has been broadly supported by policy and narrative shifts which have given recipient governments more ownership of aid and more space to leverage the terms of aid contracts (Mulley and Menocal, 2006; Whitfield, 2009; Keijzer et al., 2018; Campbell and Matanock 2021). Since the late 1990s, international organizations and donors have centered concepts such as ownership, mutual accountability, and partnership in the discussion of aid disbursement (Whitfield and Fraser, 2009; Flint and Natrup, 2014). This research, part of the Changing of International Aid project, intends to explain some of the after effects of this paradigm shift in aid policy by asking what are the changing ways in which recipient governments engage with international donors? This paper will conduct exploratory research into one modality through which recipient states engage with donors: Social media. The research question which we developed to address the scope of our research is: How can social media posts be analyzed to identify instances of strategic communication by recipient countries when they are negotiating aid contracts with donors?

The identifiable shift in the academic conversation around aid where our research is centered is happening as the population and economies of the average aid recipient state increase every year (United Nations, 2020). Furthermore, recipient states have a greater variety of donors to negotiate aid contracts with as more public, private, and state funds become involved in the arena of international aid (World Bank Group, 2021). Finally, recipients of aid have learned to leverage aspects of the aid architecture and have found diplomatic and political tools which allow them to exercise leverage on donors. For these reasons, scholars have noticed many cases where recipient states, though their state institutions and economies are not as developed or strong as donors, can punch above their perceived weight and shape the outcomes of aid negotiations to a degree not expected under historically held assumptions in donor-recipient aid negotiations (Keijzer et al., 2018; Campbell and Matanock, 2021). The academic discourse has identified several methods that recipient governments use to leverage aid negotiations such as strategic partnerships, appeals to powerful rhetoric and narratives which can influence donor opinions, and economic arguments among others (Hackensech, 2013; Swedlund, 2022). However, the research into this space is limited, and many tools that may be used as leverage have not been empirically and systematically observed in the field of aid relations.

One of these possible tools that recipient states use when negotiating aid contracts could be strategic communication strategies using social media. Since the proliferation of social media in the 2010s, ministries and diplomats have incorporated social media and strategic communication strategies

as a way to engage in peer-to-peer signaling, public diplomacy outreach, and digital efforts to combat disinformation and other policies they disagree with (Bjola and Manor, 2022). Adesina (2016) mentions eight different policy goals digital diplomacy can help including public diplomacy where she mentions that it is used "to listen to and target important audiences with key messages and to influence major online influencers." This is an example of strategic communication, a concept most concisely described in 2008 by Robert T. Hastings, then the Principal Deputy Assistant Secretary of Defense for Public Affairs, when he wrote that strategic communication is the purposeful "synchronization of actions, images, and words to achieve a desired effect" (Hastings, 2008). Strategic communication is an integral part of any diplomatic negotiation, including ones seen through a "donor-recipient" lens. Academics have analyzed numerous case studies where strategic communication over social media was used by stakeholders to dramatically alter the negotiation process and ultimately shape its outcome (Duncombe, 2017; Ashbrook and Zalba, 2021). Considering the widespread use of social media as a strategic communication in diplomatic negotiations, it would make sense if it could be observed in aid negotiations.

However, there has been little to no discussion of social media being used as a strategic communication tool in aid negotiations in the scholarship on aid negotiations. This goes against our expectations for several reasons. Firstly, we know that recipient states use different modalities to try to gain leverage over donors in aid negotiations. Secondly, we know that social media, specifically Twitter, is used as a method of strategic communication during negotiations (Adesina, 2016; Ashbrook and Zalba, 2016; Chhabra, 2020; Bjola and Manor, 2022). Thirdly, because social media is easily accessible, easy to use, and allows for users to create calibrated statements among other benefits, it allows users to shift the power dynamic (Adesina, 2016; Manor and Segev, 2020). Finally, research has shown that African governments use Twitter as a way to conduct public diplomacy (Graham, 2020; Cohen and McIntyre, 2021). Twitter has been used by governments to enhance their country's image, communicate goals and policies they hope other actors will follow in a very public manner, manage crises, and escalate points of conflict (Chhabra, 2020). Rwandan president Paul Kagame often uses Twitter diplomacy by posting tweets that portray Rwanda in a positive light to garner international support and diminish criticism (Swedlund, 2017; Cohen and McIntyre, 2021). For these reasons, it seems intuitive that recipient states in Africa that are weaker on paper when compared to their donors would use social media as a strategic communication tool to strengthen their BATNAs (Whitfield, 2009; Swedlund, 2017). However, the literature in this field of international aid relations is just beginning to develop and no cogent theories have been created to identify, contextualize, or explain this possible practice. There is a gap in the research on the identification and characterization of strategic communication over social media by recipient governments in aid negotiations.

This paper attempts to address this gap in the research by analyzing elite-level twitter data using computational methods. The scope of the research began with 15 developing countries in Africa but

was narrowed down to Rwanda because the country displays many behaviors and characteristics that would increase the chances of our phenomenon being observed. The twitter data pulled from an API will be used by us to conduct exploratory research. This will mean that we are going to create a plausibility probe to analyze aid negotiations between Rwanda and its largest donors to identify and characterize examples of strategic communication by elite Rwandan actors on social media. By creating a dataset of tweets from relevant aid actors which can be analyzed, we will demonstrate how computational social science methods can be used to extract key findings and insights from the current state of aid relations. This study will help expand the literature by applying a computational method in a new context to identify modalities by which recipient states can shape the outcomes of aid negotiations. This will assist future researchers to create a theoretical framework to explain social media usage in the aid relations space.

2 Review of literature

Historically, the academic literature and common practice perceive aid negotiations to reflect a dynamic where donors have substantially more influence compared to recipient states to dictate the terms of aid contracts. However, recent research has challenged this narrative, arguing that recipients are not helpless and can leverage donor countries into achieving their own goals and objectives (Mulley and Menocal, 2006; Whitfield, 2009; Swedlund, 2017; Keijzer et al., 2018; Campbell and Matanock, 2021). This counter-narrative has shone a light on many unexplored areas of the donor-recipient relationship in the international aid literature. Specifically, little research has been conducted on identifying and analyzing the precise modalities by which recipient governments exercise this leverage. Even less research has been conducted framing social media as a way to influence aid negotiations. We hope to contribute to international aid literature by researching this unexplored aspect of aid negotiations that may occur between donors and recipients.

2.1 Shifting perceptions of the donor-recipient relationship

Until the 1990s, giving ODA to recipient countries, especially those in Africa, was historically perceived as an interaction where donors assisted recipients, controlled where this assistance was used, and set the conditions that recipient states had to follow to maintain this aid flow (Whitfield and Fraser, 2009). Though foreign aid as a practice in the modern international system has origins as a colonial-era endeavor in the 1920s and 1930s, much of the literature on aid relations began during the 1980s amidst the aid effectiveness debate that was spurred by the implementation of "conditionality" policies created by the International Monetary Fund (IMF) called Structural Adjustment Policies (Keijzer et al., 2018; Brett, 2020). These practices proved to be controversial, and today much of the discourse on conditionality criticizes IMF policies during this era, finding them dismissive of local needs and ineffective (Flentø and Simao, 2020).

The architecture of aid relations shifted in the 1990s to accommodate the needs of partner countries by making them a greater part and giving them greater control of the aid disbursement process. This process was emphasized by passages from the Millenium Development Goals in 2000 and in particular, The Paris Declaration of Aid Effectiveness in 2005 (Brett, 2020). The Paris Declaration championed two ideas that have remained an important part of the literature on aid relations (though occasionally under different names); ownership, which broadly states that recipient countries should have greater control over what they can do with the aid they receive from donors, and alignment, which says that "donors base their overall support on partner countries' national development strategies, institutions and procedures" (OECD, 2005). The reasons for this shift are multifold, but center around criticisms of the previous aid architectures which argue that IMF conditionality undermined the sovereignty of recipient states and did not include input from the citizens and officials from the recipient state (Dreher, 2009). This resulted in aid that was equally unpopular as it was ineffective.

These beliefs are not wholly accepted in the literature. Addressing the sovereignty claim, some researchers, such as William Brown, argue that foreign aid, as it is disbursed in the current aid architecture, does not undermine the sovereign rights of recipient states (Brown, 2013. However, it does undermine their national political control. Ultimately, he concludes, recipient states use their agency to act cooperatively with donors such as Tanzania, or with greater hostility such as Rwanda (Brown, 2013). However, in terms of the second claim on input from partner countries, there is a more nuanced qualification expressed in the discourse.

Instead of contradicting the claim that aid relations did not include much input from the recipient state, the current stance expressed by some scholars is that the inclusion of "ownership" and "mutual accountability" in aid relations rhetoric still does not meaningfully include recipient society (Whitfield and Fraser, 2009). In essence, it did not shift the aid paradigm that proponents of "ownership" argue it does. Adrian Flint and Christian Meyer zu Natrup (2014) propose a new aid architecture called beneficiary-led aid. They argue that the current state of aid still silences a majority of the population that actually will benefit from the aid and that the most effective way to improve aid is to crowdsource solutions from the citizenry of recipient states. This approach would, in theory, upend the top-down, expert-led process through which aid flows from donors to recipients and would make donors the facilitators of aid and citizens the decision-makers of aid flows (Flint and Meyer zu Natrup, 2014). The current state of aid relations literature has upended the historical assumptions that recipient states are passive actors. Instead, the literature points to dynamic recipient and donor actors who are constantly trying to adjust their policies amid difficult structural conditions in an attempt to reshape the local aid landscape. Especially in the 21st century, actions by donors and recipients have made the donor-recipient relationship less hierarchical which has meant that recipient countries can exercise more identifiably clear modalities of resistance when negotiating aid contracts.

2.2 Tools recipient states can use to shape aid negotiation outcomes

In the current environment where partner states can exercise ownership of aid and the discourse on aid relations is focused on giving aid recipient governments more authority over the aid given to them, the modalities that offer partner countries leverage have become more prominent. While it can be credibly assumed that governmental structures in Africa always had some way to exercise leverage on donors in aid negotiations, the results of more focused research on this field of study and greater efforts to empower recipient governments have shown that there are many ways recipient states can gain leverage and distinctly shape aid contract outcomes. One way to view this phenomenon is through Whitfield and Fraser's conceptual framework of negotiating capital (Whitfield and Fraser, 2009). This framework follows that parties use their negotiating capital, which is derived from economic, political, ideological, and institutional conditions, to guide their negotiating strategy. Agreements are formed as a result of these strategies, which are informed by the parties' capital, clashing and reaching an equilibrium (Whitfield and Fraser, 2009).

A key factor that has given recipient governments an important practical and ideological way to build their negotiating capital has been a global push to have more partner ownership of aid. There has also been a concurrent push to improve mutual accountability– where both donors and recipients grade each other's efforts and in theory hold each other accountable to fulfill their side of the aid contract. This mechanism has been used by recipient states as a method to criticize donor performance and tactically push donors to change their behavior. This method has been used, to varying degrees of success, by Tanzania, Rwanda, and Mozambique (Helleiner, 2002; Mulley and Menocal, 2005; Flentø and Simao, 2020; Swedlund, 2022). For example, Mozambique's Programme Aid Partners' Performance Assessment Framework (PAP's PAF) allowed the country to score donors based on their performance giving the country a way to leverage a donor based on its score (Mulley and Menocal, 2005). However, it is important to note that due to political developments in the country which weakened its ability to negotiate with donors and changing objectives in donor's outlook on Mozambique, the country has lost much of its ownership of aid (Whitfield, 2009; Flentø and Simao, 2020).

A more specific way states can use their ownership of aid and sovereign powers strategically is through incomplete state building contracts. Recipient governments use the incompleteness of the contract and their residual rights of control to change the initial terms of the contract to get more concessions from international organizations and enforce their sovereignty (Campbell and Matanock, 2021). Recipient states can also use the growing number of private and public donors and play them off each other. This is more likely to happen if this state has an important strategic or commercial position. Ethiopia, for example, takes in Chinese and EU support to develop different sectors and aspects of its economy (Hackensech, 2013). In this sense, Ethiopia can leverage either side for better

terms in an aid contract by saying that another donor is planning to give them aid for a similar initiative. Taking this conclusion to a logical abstract, we would expect that it is easier for some countries with ties to a diverse set of donors with competing interests to use strategic communication more often than countries which do not have this type of aid architecture.

Another powerful tool recipient states can utilize to manage their aid policy are rhetorical narratives. States can use their relationship with their former colonizer or country-specific feelings of guilt by Western powers and leverage this relationship to shape aid outcomes (Francisco et al., 2021). The country that has used this tool most effectively is Rwanda, which has used a narrative of western inaction during the Rwandan genocide to gain a moral high ground from which to pressure donors (Swedlund, 2021). Because Rwanda is the only recipient country this paper will focus on, the following subsection will describe how Rwanda uses narratives, among other tools and tactics to manage its aid policy. Nevertheless, recipient governments have structural and contingent factors which allow them to gain leverage over donors and shape aid contracts. The academic literature has been able to discern some of these methods in the policy kits of recipient states and create theories for their justification and application.

2.3 Social Media as a "hypothesized" tool

While social media has not been directly tied to aid negotiations in the literature, there has been a lot of recent attention in the literature on how social media and Twitter are tools that can be used in a negotiation (Adesina, 2016; Graham, 2020; Chhabra, 2020). Social media is increasingly used in negotiations and can be effectively used for strategic communication (Bjola and Manor, 2022). Much of the discourse on the subject focuses on the applications of social media in negotiations. An oft discussed social media is Twitter. It has the reputation of being the most influential social media among political elites and the site is associated as the social media platform for politics to be done (Chhabra, 2020; Manor and Segev, 2020). The recent rise of terms like Twitter diplomacy, or "twiplomacy" reflects this growing trend. Twitter is an easy-to-use platform that allows elites to promote their self and organizational image, instigate and signal intentions to escalate conflicts, respond to crises, or undermine traditional avenues of diplomacy (Chhabra, 2020). In diplomatic negotiations, scholars have written about how Twitter is used to shape the negotiating process (Duncombe, 2017; Ashbrook and Zalba, 2021). It allows a variety of actors to make public appeals and organize resistance or support for a certain negotiation which can alter the trajectory of the negotiations.

3 Expectations

This paper is an exploratory plausibility probe of a concept that has not received much attention from the academic discourse. For this reason, we are not in a position to generate hypotheses

about the characteristics of strategic communication. Instead, based on our intuition, knowledge of Rwanda's aid policy, and understanding of the aid literature, we are able to form expectations of the data we will collect and the analysis we will conduct. Though the way in which we collect twitter data may leave out some relevant posts and fail to parse out all of the irrelevant noise, we expect to find tweets which are likely demonstrating strategic communication by elites.

Of the tweets which display signs of strategic communication, we expect that they will be defined by several common characteristics. We expect that a majority of tweets will be expressive or contain enough content to be categorized as positive or negative to create a dictionary which can be used for natural language processing (NLP). A majority of the tweets we collect will likely display positive sentiment. Of those displaying positive sentiment, some will use neutral, more professional rhetoric. Tweets like these could be simple announcements of meetings between donor and recipient officials, and signing of aid contracts. On the other hand, there might be positive sentiment tweets with approving, more emotionally-driven rhetoric. These tweets may consist of officials offering compliments and praise to donor counterparts for taking an action these officials view as good. The purpose of these positive tweets are multifold.

Among tweets with a positive sentiment, there may be specific language about certain sectors and behaviors which may be a further signal to donors that Rwandan elites approve of certain aspects of the aid negotiation or aid contract and incentivize donors to continue repeating these practices. Though we will not be able to test this expectation, we expect praise to be used to stimulate donor competition, as Rwanda uses strategic praise to pit competing donors against each other.

We also expect there to be signs of tweets about aid policy which have negative sentiment. These may be subtle criticisms in tweets that have ostensibly neutral language. Another contingent of tweets will be more outspokenly critical and may reflect some of the combative rhetoric already used by Rwandan aid officials to manage their aid policy. These tweets are likely made for similar reasons as tweets with positive sentiment but because they are critical are more likely to generate controversy and thus have greater salience and emotional impact.

Finally, though we will conduct a preliminary investigation of the following expectations, we cannot prove but expect that the volume of tweets and/or rhetoric from elite tweets will be amplified during key points of a negotiation. We expect that one mechanism where this process would occur would be through donor and recipient officials retweeting, liking, or commenting on posts made by Rwandan officials. We believe that this behavior is likely done because recipient states want to send stronger signals and shape aid outcomes at moments they believe are ripe to advance their goals and interests. Finally, we believe that signals over social media are meant to target educated Rwandans who have access to Twitter, Rwandans in elite positions, and officials from donor countries involved in shaping their aid policy towards Rwanda. While we cannot confirm all of these expectations through

our research, the methodology we will use will allow us to make preliminary conclusions in relation to our expectations.

4 Research Design

The research design of this paper, though initially cross-national, is an elite-level, index case study which relies on qualitative analysis and computational methods to test our expectations. By saying 'elite,' we are referring to actors involved in the aid negotiation process who are considered to have the most influential and powerful actors (i.e. the elites). This study will help initiate research into this phenomenon by gathering tweets and related data by relevant officials in recipient states involved in an aid negotiation with a donor.

Following the typology of case studies from Gerring and Cojocaru, this paper uses Rwanda as an index case study. An index case study is used in exploratory research to identify the first instance of a phenomenon (Gerring and Cojocaru, 2016). This case study type fits the description of our case, Rwanda, because our case is being used as an example to identify a new phenomenon, further develop and refine our expectations, and create a body of research to generate hypotheses. Conceptually, this design is attempting to analyze Twitter posts as a form of strategic communication by analyzing instances of strategic communication in Twitter posts. This makes characteristics of tweets with strategic communication such as their sentiment, volume and velocity, content, language, and audience interactions the independent variables in this design. The dependent variable will then be tweets about aid policy which are associated with strategic communication. Thus, this design will visualize and demonstrate examples of tweets that may show attempts to convey different types of strategic communication. We will then identify if some of these tweets match up with an aid negotiation which was in our universe of cases.

The tweets that will be selected come from officials, ministries, offices, and organizations in Rwanda between 2017 and 2022. We only included cases from this time range because the further back we decided to include tweets, the more likely we will query a biased sample of tweets because past tweets are more likely to be deleted by users. In future stages of the project, this information we collect will then be collated into a dataset and then the language of the tweet and its interactions will be analyzed. The analysis will help figure out how Twitter is used as a strategic communication tool and begin a body of literature to develop expectations and create working theories.

4.1 Universe of aid negotiation cases

To carry out our research, we created a universe of cases of aid negotiations, a section of which is viewable in Appendix A.3. We identified a case as an aid interaction between a donor and a recipient or a third party that was expressed in the form of an article, press release, or statement. In our universe of cases spreadsheet, we were able to discern 438 cases between 15 recipients and 60 unique donors and

pairings of donors between 2017 and early 2022. The EU, UK, Japan, and World Bank made common appearances throughout the list, and many of the cases on this list consisted of a third party like the World Food Programme facilitating a donation made by a donor country.

To construct the universe of aid negotiation cases, we created a codebook that followed three steps: Inputting search terms, including cases, and classifying cases as data. First, we created a series of formulaic search terms such as "Rwanda Germany humanitarian aid" or "Sudan UAE budgetary aid." and inputted them into Relief Web. Each search term consisted of three parts: The recipient country, the top 5 donors for each recipient country, and a list of terms that describe aid-based interactions such as "development aid" or "humanitarian assistance."

Fifteen recipient countries were selected for inclusion in the universe of cases because they are located in Sub-Saharan Africa, the geographical scope of our research paper, and they are classified by the World Bank as low-income or lower-middle-income countries. These countries heavily rely on foreign aid to finance their budgets, have growing social media usage, and due to current or historic political instability have various forms of agreements with donor countries. Thus, we selected these countries because they demonstrate sociopolitical factors which makes them likely candidates to exercise strategic communication over twitter to manage their aid flows.

Second, we identified cases that came up in the search output. Cases were included in the universe of cases if there was evidence of a donor country or organization, including those not on the top 5 donor list for the partner country, giving some form of aid to a partner country. Generally, the aid needed to be bilateral, meaning that one donor was giving aid to one partner. However, exceptions were accounted for.

Finally, when a case was included in the universe of cases, the data from the case was classified and coded for. This included the date, partner countries, donor organizations/funds/countries/banks, a description of the case, and the title of the case with a hyperlink to the page on Relief Web. Also included was an event type column to classify the aid interaction into a category defined by the codebook and other columns to denote circumstances unique to each case.

The universe of cases that we created tracks many variables in each case. By comparing the volume of tweets to dates from cases, we may expect to find a larger than usual increase in the amount of tweets posted. Furthermore, Columns 5, 8, and 9 track independent variables that vary based on the factors presiding each case such as the donors, recipients, and date. By marking variation in each of the cases we marked, we expect to find some of the variation in the characteristics of strategically communicated tweets posted around the same time to be explained by the variation we noted in the universe of cases.

4.2 Country Case selection

Once the universe of cases was finished we narrowed the scope of our research to just Rwanda. We selected Rwanda because it is a likely candidate for demonstrating characteristics of our researched phenomenon: Strategic communication over Twitter about aid flows. Rwanda is a country that aggressively manages its aid flows through clearly delineated national documents, combatively arguing for its own goals during aid negotiations, and seeking funding from a variety of donors (Brown, 2013; Keijzer et al., 2018; Lisimba and Parashar, 2020). Furthermore, it also has an active contingent of elites, especially its president Paul Kagame, who use Twitter as a platform to make statements and conduct diplomacy (Cohen and McIntyre, 2021). These factors make Rwanda an ideal case to research our phenomena.

Rwanda provides an interesting case study of how developing countries use different tools to manage their aid policies. The country is ruled by one party, the Rwandan Patriotic Front (RPF), and is headed by President Paul Kagame, the country's autocratic president who has been in charge of the country for over two decades. Power is highly centralized in the country, meaning that few stakeholders from Rwanda are involved in the political decision-making process (Keijzer et al., 2018). This concerns our research because, in terms of aid policy, much of those decisions made internally are made top-down and by a relatively small set of actors. Elites exercise enormous influence over Rwanda's aid policy. The lead actor, according to the Rwandan government, in conducting Rwanda's aid policy is the Ministry of Finance and Economic Planning (MINECOFIN) with the Ministry of Foreign Affairs and International Cooperation (MINAFFET) acting as a liaison (Brown, 2013). The lack of stakeholders and a centralized approach to aid policy has meant that Kigali can and chooses to quickly implement aid agreements resulting in many successful development programs which have increased Rwanda's standard of living (Keijzer et al., 2018).

President Paul Kagame and the Rwandan government have been able to sustainably maintain high levels of negotiating capital and use it liberally to shape the outcomes of aid contracts. This is despite the country's high reliance on aid. Rwanda received 46% of its financing from external sources in 2021, and official development assistance is a substantial portion of the country's GNI (Ministry of Finance and Economic Planning, 2021). Nevertheless, Rwanda has high levels of ownership of its aid and actively seeks to maintain this control over its aid flows. Rwanda has laid out national development goals and frameworks for judging donors which it uses to shape the outcomes of aid negotiations to fall in line with its official aid strategy.

Another tactic Rwandan elites use to build leverage against its donors is its growing economic relationship with China. Western donors and China have divergent and competing aid policies in Africa which allow countries with investments from both groups to play these powers off each other and receive better terms from aid or aid-like contracts (Hackenesch, 2013). Rwanda, which receives substantial amounts of financing from international organizations, western powers, and China is thus able to use the diversity of donors willing to invest in it to its advantage. Rwanda can use China as a

source of financing to avoid the pressures and conditions placed on them by aid given by western donors (Lisimba and Parashar, 2020). China is described as a country that invests in Rwanda and as an equal partner as opposed to theWest which gives aid and imposes unfair restrictions on Kigali. This narrative is used by Rwanda in its aid rhetoric (Swedlund, 2022). By doing so, it plays on western fears that China is gaining momentum in Africa and going to replace Europe and the West as the main guarantor of aid and aid-like investment in Africa. Rwanda can frame its rhetoric in an evolving aid architecture to manage and shape its aid flows.

Despite the contingent reasons for selecting Rwanda, this research design can be applied to any of the other fourteen recipient countries in the universe of cases. Despite claims that Rwanda receives substantial amounts of aid due to western guilt associated with failing to prevent the Rwandan genocide, most donor officials treat Rwanda as a typical aid recipient (Desrosiers and Swedlund, 2019). Ultimately, the reason we selected Rwanda is that the literature indicates that Rwandan politicians often use Twitter as a signal which seems like strategic communication. Thus, we expect that using our methodology on Rwanda may result in a diverse set of cases where actors in the Rwandan government use Twitter as a platform to conduct strategic communication. However, this paper will provide future researchers with a stepping stone to analyze strategic communication over Twitter for any state engaged in an aid negotiation with donors.

4.3 Elite Samples

We used several criteria to compile a list of actors whose tweets we would pull. Firstly, if the actor was an individual, they were included if they were in a leadership role in the Ministry of Foreign Affairs and International Cooperation, the Office of the President, the Office of the Prime Minister, the Ministry of Finance and Economic Planning, or in an agency directly below one of these entities that were even more closely related to aid negotiations affairs between 2017 to 2022. For the finance and foreign affairs ministries, ministers that served below the foreign affairs and finance ministers were included. Furthermore, spokespersons of the Rwandan government were also included because their tweets are strong barometers of the opinions of the Rwandan government. Secondly, the accounts of the aforementioned ministries and offices were included alongside relevant agencies and governmental organizations affiliated with the aid negotiation process and the ministries mentioned above. We deemed that these actors have a credible connection to aid negotiations between the Rwandan government and its donors. We then checked if these actors had a Twitter account; if they did they were put into the elite sample. When querying tweets from these accounts, we only included tweets from individuals during the years they served in a position in the Rwandan government that relates to aid negotiations. From these criteria, we created a list of 37 twitter accounts and pulled all of their tweets.

4.4 Analysis Plan

After receiving approval from American University's IRB to conduct research on Twitter, we used our access to an Academic Twitter API v2 to collect all of the tweets, retweets, quoted tweets, and comments posted between January 1st, 2017 and March 20th, 2022 by all of the accounts in the elite sample to create a dataset in R using the academictwitteR package. This returned a data set with over 123,000 tweets. Once this data was queried and stored in R, we kept only English-language tweets resulting in a data set with over 70,000 tweets. Because a majority of tweets were in English, all of the researchers speak English, doing computational research using one language is prone to less technical difficulty, and because English is used as a de facto language in politics, we decided to do the majority of our analysis using English language tweets.

However, many of those 70,000 tweets were completely unrelated to aid policy. To filter out the noise and to include as much of the tweets related to aid policy, we created a heuristic to filter out many of the tweets in the data frame in R. Specifically, we created two dictionaries of words related to donors and to aid negotiations. These key terms included words such as variants of the names of major donors, words associated with aid negotiations, and commonly used words in the aid policy space.

For a majority of our visualizations, we tried to filter out noise and capture tweets related to Rwanda's aid policy by only including tweets that mentioned one word from the dictionary of donor-related words and one word from the dictionary of aid-related words. This returned a data set of 926 tweets. Using this data set, we analyzed the number of tweets of each word from each dictionary and created data visualizations of this analysis (Fig 2, Fig 3). We then did a sanity check by looking at the robustness of the data from each of the figures over time. For figure 2, which displays aid-related words, we also included a comparison of the data to a set of tweets which includes around 10,000 tweets all of whom mention an aid related word at least once. We did not do this figure 3 because there was a lot of noise surrounding donor names. We noticed that tweets about aid or development tended to be more about foreign aid and thus relevant while tweets about the US or UK could range from foreign aid to popular culture to soccer. We also created time series visualizations of the tweets by each word in the dictionary and overlaid these graphs with vertical lines representing cases from our universe of cases (Fig 4, Fig 5).

We also decided to analyze the data by doing some preliminary network analysis to understand more about the signaling conducted by Rwandan elites and its reception by donors and the digital audience. We used the entire twitter corpus to show the language of all the tweets that were made by the sampled users (Fig 6). Finally, we manually and computationally searched for tweets that evidenced examples of strategic communication on Twitter. We included some of the tweets to discuss the more relevant qualitative aspects of the Twitter data such as the content of tweets that state aid-related demands by the Rwandan government, tweets that display Rwanda's aid negotiations, tweets that

commend donors for their relationship with Rwanda, and tweets that defend or justify Rwanda's aid policy and act as a signal to its donors.

By demonstrating a few examples of how strategic communication is used on Twitter by Rwandan elites in the aid policy space, this research will help future academics better comprehend what types of tweets may be posted by elites to signal their perceptions on their current aid-based architectures, relations, demands, or negotiations. Furthermore, it will instigate a more informed discussion of social media usage in the aid policy sphere which can be used to develop a cohesive theory from which to better understand the changing nature of aid. This research design offers a way for academics to study social media as a tool to conduct aid policy using social media data. Because of the generous tweet cap, 10 million tweets per month, afforded to researchers who have an Academic Twitter API v2, this research design can be scaled up to include more accounts for the purposes of researching the use of social media in aid policy in other sectors or other countries. Furthermore, statistical classification methods can be used to better identify tweets related to aid policy and increase the usefulness of each tweet gathered. Finally, the creation of a dictionary designed for analyzing aid policy will allow researchers to analyze Twitter data using sentiment analysis and other natural language processing techniques. Ultimately, the research in this paper is a stepping stone to uncovering how social media is used in aid policy.

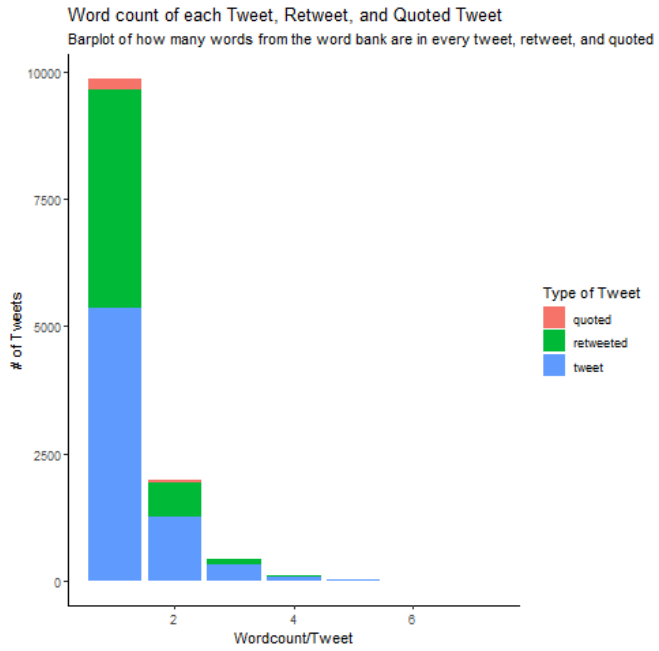
5 Results of Twitter Analysis

5.1 Computational Analysis

Using our access to a Twitter Academic API v2, we queried all of the tweets from the accounts of 37 government officials, ministries, offices, and organizations related to Rwanda's foreign aid policy from 2017 to 2022 except for some officials who did not serve in an office related to aid policy for the duration of this timeframe. After filtering for only English language tweets, we had a data frame with over 79,000 observations including tweets, retweets, and quoted tweets.

We narrowed down this data frame using a list of words which can be found in its entirety in Appendix A.1. This created a data frame with nearly 13,000 observations and became the master data frame for the rest of our analysis. Of these observations, slightly more than half were tweets by the user, slightly less than half were retweets from other users, and a small minority were quote tweets (Figure 1). In this new data frame, most of the tweets only had one instance of a word from the word bank. However, a significant minority had more than one word as shown in Figure 1.

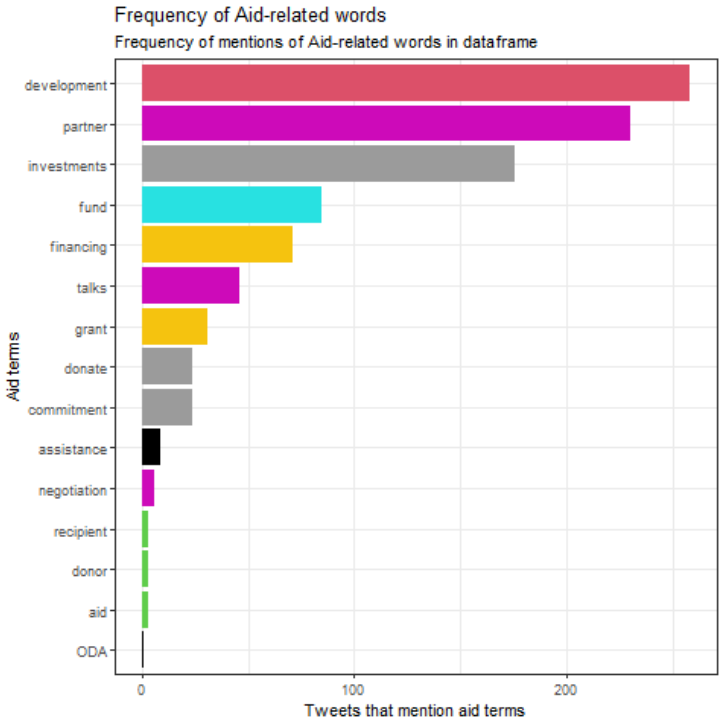
Figure 1



We then used the data frame of tweets that had one instance or more of a word related to aid policy and aid negotiation and also one or more instances of a donor related word in the data frame as shown in Figure 2. The results from this graph show that despite the importance of foreign aid in Rwanda's economy, words closely associated with it are not often used by its elites. Words related to "aid" such as "assistance" also have a low frequency of usage compared to words that imply equality such as "investment" or "partnership."[1] This may indicate that Rwandan elites prefer to characterize their aid relationships as a partnership between equals rather than a hierarchical one and also reflects the dynamic between FDI and foreign aid. Even though the two are important external financing instruments for Rwanda, the twitter data would indicate that elite Rwandans tweet about FDI far more often than foreign aid. More likely, foreign aid is characterized as a form of FDI which reflects an observation by academics and practitioners that aid and FDI are increasingly becoming more linked in the evolving aid architecture of developing countries.'

[1] The bin for partner in Fig. 2 automatically searched for variants of partner such as "partners" or "partnership." Similar to "investments" which searched for "investment" and "investments."

Figure 2

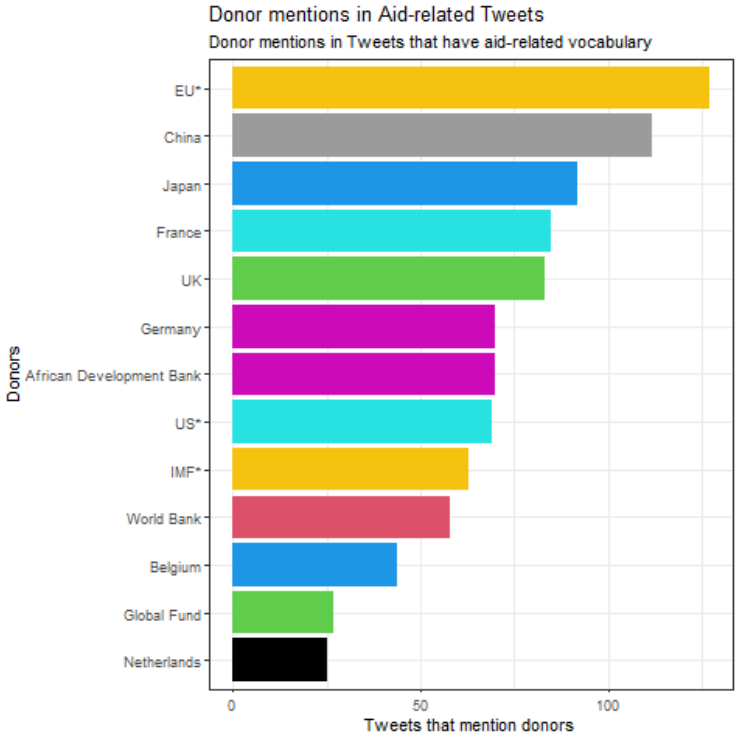


To test the robustness of the data and ensure that the visualized result is not an aggregation of outliers, we compared the results of figure 2 with the dataset but filtered the data for both by each year year and included the results of another dataset that has a set of tweets with at least one aid-related word. The table we created is viewable in Appendix A.4. This data is generally consistent, showing that Rwandan elites used most of the words tested for at a similar rate every year. One notable exception is the increase of the word donate in 2020. This increase is likely due to the outbreak of COVID-19, when donors began to donate personal protective equipment such as masks and medical supplies and many donors promised to donate vaccines to developing countries.

In addition to a barplot of aid-related words, we created the same visualization but for donor related words. The words for each bin in figure 3 represent variants of each word. For example, the "France" bin also includes commonly used variations on the word such as "French", "france", and "french." Furthermore, there are asterisks after the US, UK, and IMF because they are often referred to as acronyms in common usage which can be incorrectly parsed as a different word in R. Due to our coding methods, the results are not too far off from the actual results but are probably slightly more or less than the actual distribution of those three donors.

The results of this graph warrant further discussion. These donors were the top 10 donors to Rwanda according to the OECD DAC's most recent data from 2018-19. I also included France, China, and the IMF on this list because of their well-known importance in the aid architecture of Africa and Rwanda. Firstly, it is interesting to note that major donors such as the US and World Bank are underrepresented compared to how much Rwanda receives from them in total while China, France, and Japan seem to be overrepresented. The ranking of China and the EU as the top two donors on this list parallels discussions in the literature that pit the aid policies of the EU and China against each other. This exploratory data analysis hints at interesting takeaways such as the aversion to using words like "aid" or "assistance" in Rwandan aid policy and the competition between the EU and China over aid flows into Africa.

Figure 3



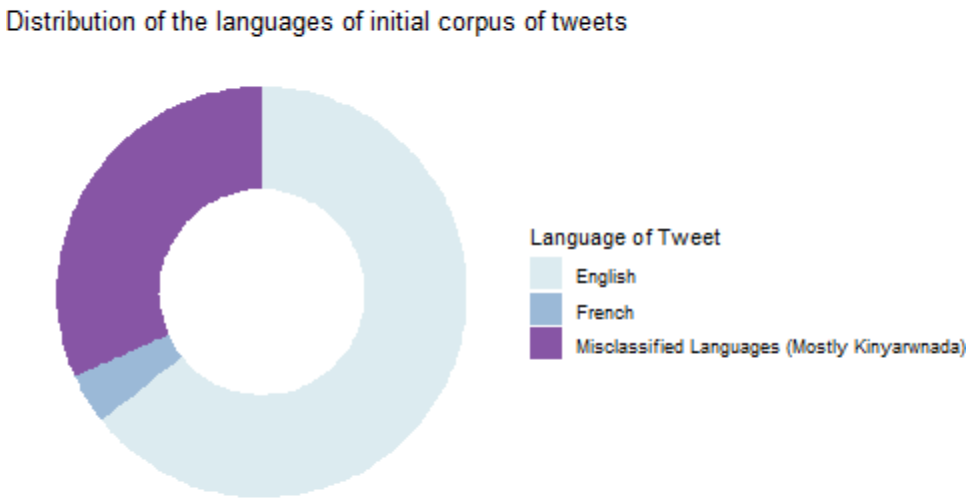
We also tested the robustness of the data used for figure 3 in the same way we did for figure 2 in Appendix A.5. However, we did not include a column for data of tweets with just one instance of a donor-related word because that set of tweets had too many unrelated tweets. Nonetheless, there is still great variation for each country every year. While this may indicate some issues with the data, it may also reflect short-term changing political situations. One year, maybe there was a big negotiation with China and thus elites overwhelmingly tweeted about China while another year Japan may have played a similar role. Furthermore, the aid-related words remained stable while donor-related words fluctuated. This may not be a flaw but actually indicative of signaling to specific countries. The variation in donor

mentions in the twitter data may demonstrate that elites use consistent rhetoric when talking about foreign aid but chose to target different countries with that rhetoric.

Another conclusion we were able to reach using the data was that the universe of cases we made did not neatly match up with the Twitter data. In Appendix A.2, we included a time-series visualization of donor mentions in tweets that already have an aid-related word over time. We then included the dates of the cases related to Rwanda from the universe of cases, and none of the cases match up with the mentions in the Twitter data. This suggests that an alternative approach to building a universe of cases may be needed in future research.

In addition to analyzing the word frequencies in the data, we also looked at the connectivity of the data. Essentially, we looked for who Rwandan elites were tweeting to, and in appendix A.6 conducted some preliminary research into the geographic origins of users who were interacting with the posts by retweeting them. In Figure 4, we used the entire twitter corpus to visualize which languages Rwandan elites tweeted in. We found that a majority of tweets were in English, followed by Kinyarwanda, the official and most commonly spoken language in Rwanda. A small minority of tweets were in French.

Figure 4



This visualization is a rough estimate because some tweets were written in multiple languages and the software could not identify and classify all of the languages of the tweets. Because it did not recognize Kinyarwanda as a distinct language, many tweets in Kinyarwanda were designated as random languages or classified as other. However, after manually recoding the variables, we were able to produce a visualization that is mostly accurate to the true depiction of the languages used by Rwandan elites on Twitter.

The results of the graph indicate that a majority of tweets were in English despite the fact that few Rwandans, except the well-educated and the political elite, speak English. This is probably a sign of targeted signaling. Rwandan elites are likely using Twitter not for their domestic audience, but for the global public and well-educated Rwandans who predominantly speak English as a language. In Appendix A.6, we included visualizations of the geographic origins of the users retweeting the tweets and separated the users by their verification statues (a.k.a do they have a blue checkmark?). We also made a visualization of the proportion of verified to total users for each country which retweeted tweets by Rwandan elites. However, because this analysis is preliminary, we included it in the appendix.

The next section will look at the Twitter data on the individual level to support some of the broader claims made in the computational analysis section and demonstrate examples of strategic communication.

5.2 Individual Tweet Analysis

After manually looking over the master data frame, we selected and grouped some tweets that reflect aid dynamics that either have been discussed in the literature or directly relate to aid negotiations. These tweets are meant to establish the face validity of the concept, characteristics of strategic communication in aid negotiations over twitter, we are researching. These tweets can be seen as examples of strategic communication on the part of the Rwandan government to signal intentions, goals, and plans to its colleagues. Furthermore, these tweets can be used to build a dictionary to conduct sentiment analysis.

5.2.1 Positive Sentiment

Within the data, there were many tweets with a positive sentiment. These tweets by Rwandan officials complimented, commended, and gave support to an initiative, policy, or rhetorical stance a donor took. For example, Figures five and six show examples of Rwandan officials signaling a positive sentiment towards a donor.

Figure 5

Tweet by user Paula Ingabire

Note. This tweet was coded in our dataset as a retweet by Nick Barigye's Twitter Account

Source: Twitter

Figure 5

Tweet by user Paul Kagame

Source: Twitter

Figure 6

Tweet by user Uzziel Ndagijimana

Source: Twitter

What is interesting about the case of Figure 5 is that this tweet was coded once as seen above and seven more times as retweets by eight accounts which we queried data from. These roughly included Twitter accounts representing Rwanda's government, state-run media, and important MINAFFET ministers. This coordination between Rwandan elites indicates that this tweet is a likely example of strategic communication being used by Rwandan elites to signal approval of the EU's aid policy. This claim is strengthened by the fact that roughly a week later after this tweet the Rwandan Government and the EU signed a financing agreement for €52.87 million related to the COVID crisis (MINECOFIN, 2020). In addition to Twitter diplomacy, this case may indicate a salient example of retweet diplomacy.

5.2.2 Rwanda-China Tweets

A common trend that was observed in the data frame was a common insistence by Rwandan elites that Rwandan-Chinese relations were beneficial for Rwanda. These tweets reflect some of the observations made by academics and professionals in the aid policy space regarding China's unique role in Rwanda's aid architecture. The following tweets in figures 7, 8, and 9 demonstrate examples of statements that either praise China or deflect criticism levied against Rwanda for working with China.

Figure 7

Tweet by user Presidency | Rwanda

Source: Twitter

Figure 8

Tweet by user Office of the PM | Rwanda

Source: Twitter

Figure 9

Tweet by user Olivier J.P. Nduhungirehe

Source: Twitter

We can parse that China is described as a partner that is not intent on controlling but cooperating with Rwanda from this limited sample. These tweets express gratitude towards how China perceives Rwanda and what China has built-in Rwanda. Compared to some of the tweets about western donors which will be discussed in the negative sentiment section, these tweets are generally positive.

5.2.2 Negative/Critical Sentiment

In contrast to the previous two sections, some tweets by Rwandan elites criticized and chastised donors. There were not many of these tweets, indicating that tweets with a negative sentiment either used different language than what was captured in the analysis or that this tactic is not used often. The following tweets below are classified with a negative sentiment.

Figure 10

Tweet by user Presidency | Rwanda

Source: Twitter

Figure 11

Tweet by user Presidency | Rwanda

Source Twitter

These tweets are unique when compared to the other tweets that are displayed in this section because they are fragments of speeches that have then been tweeted. This could be a different type of strategic communication that synthesizes digital and face-to-face messaging as a way to reinforce rhetoric. Figure 10 is a good example of reinforced rhetoric since it relays a common belief in the policy and academic literature that aid flows should be between equal partners as opposed to a hierarchical relationship. Figure 9 is an interesting example of a critical tweet because it looks like Kagame is desperately asking for French aid and criticizing France for not having more investments in Rwanda which reflects the statistics because France is not in the top 10 donors of Rwanda even though the two have close colonial connections and Rwanda is a french speaking country. Further research into tweets like these can provide further explanations as to what their less obvious intentions are.

5.2.3 Neutral Sentiment

This final section of tweets is more somewhat common. They do not explicitly learn positively or negatively against a donor, they just publicize to the public the daily meetings and negotiations Rwandan elites engage in to manage its aid flows. In an NLP model, most of these tweets would be coded as positive. These cases would be considered positive for sentiment analysis because they are choosing to interact with a donor in a way that would lead to a positive outcome in the form of an aid contract. However, this is not explicitly the case. Some tweets may use neutral language but in context are criticizing a donor. In these cases these tweets would be coded as negative. The following (Figures 12, 13, and 14) are some examples of tweets with "neutral" sentiment.

Figure 12

Tweet by user Ministry of Finance & Economic Planning

Source: Twitter

Figure 13

Tweet by user Ministry of Finance & Economic Planning

Source: Twitter

Figure 14

Tweet by user Vincent Biruta

Source: Twitter

Conclusion

As the nature of international aid changes, the modalities by which it is conducted will adapt to an evolving aid architecture. The hierarchical donor-recipient relationship model of the past is an unproductive way to discuss aid relations when both donor priorities and strategies are evolving and recipient states develop more tools to manage their aid flows. This paper uses a computational approach to analyze aid negotiations by looking at the Twitter data of the elites of Rwandan aid officials. Though this methodology has been used in other social sciences, this is among the first times it has been applied to analyze aid flows. Though this research is exploratory, it strongly suggests that some form of strategic communication is visible in aid negotiations. Future work on this subject can use our methodological approach to help develop a hypothesis to explain why strategic communication is used and what are its specific goals.

With a larger scope, better classification methods to identify tweets that are about aid flows, and a larger vocabulary to include more instances of strategic communications, this research can be scaled. Correlational analysis and other statistical methods can be used to parse out different goals elites have when they are posting a tweet that fulfills the purpose of strategic communication. Furthermore, it would make sense to adjust the universe of cases approach we had in this paper. Instead of using Reliefweb to create this universe, a different or more broad set of sources is recommended.

Alternatively, more time can be devoted to identifying actors within a recipient state to build a universe of individuals who may be affiliated with an aid negotiation.

From the data that we collected and used to analyze, we found that Rwandan elites tweeted about aid to criticize or praise donors, post about the progress they made in an aid negotiation, announce an aid agreement they completed with a donor, or justify their approach and rhetoric on aid policy. Furthermore, most of their tweets are in English, indicating that they generally intend for their tweets not to be read by the Rwandan populace but by educated, politically-connected Rwandan elites, and the broader English-speaking populace which may include donor officials. The data we gathered from elite Rwandan twitter users can be used to build a dictionary to conduct sentiment analysis and discover more trends in strategic communication over social media.

Furthermore, we also found evidence supporting positive Chinese perceptions among Rwandan elites. While all donors received some praise on Rwanda's Twitter, there was a lot of rhetoric depicting Chinese investment and aid as something uniquely, and beneficially different from western aid. This trend reaffirms much of the literature on this subject and can provide more evidence to show how recipient countries manage their aid flows with states that have divergent approaches to investing their aid.

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A Appendix

A.1 Word Banks for Donor and Aid/Aid Negotiation related words

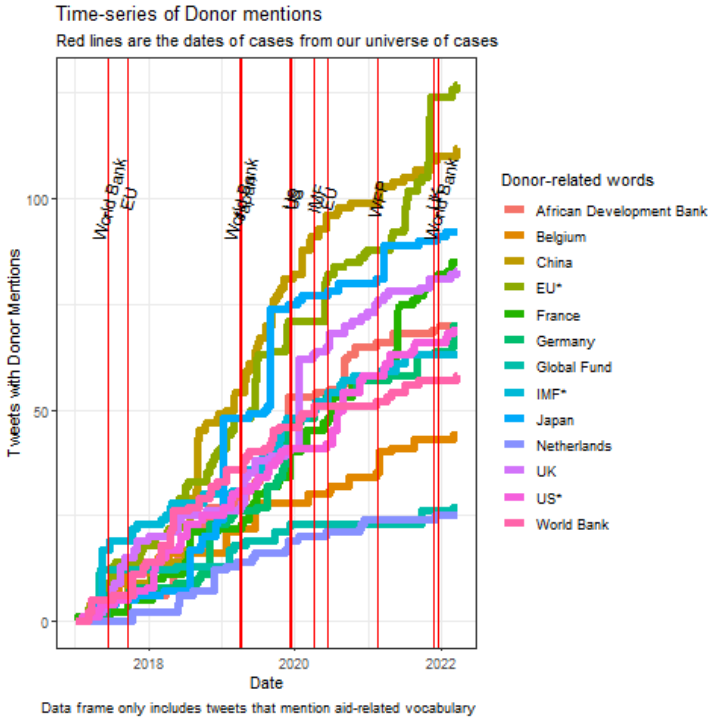
A.1.1

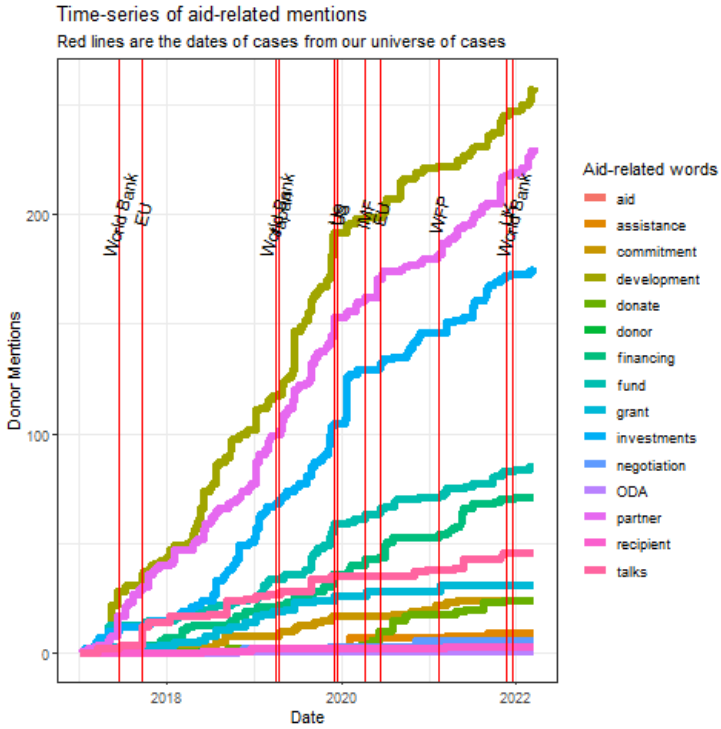
Word Bank for Donor-related words	
Note: The UK, EU, and the US have multiple variants of acronyms to avoid capturing instances of US, EU, and the UK associated with other words and currencies.	
Donor	**Terms searched for Donors**
African Development Bank	"African Development Fund", "african development bank", "african development fund", "adb", "afdb", "African Development Bank", "ADB"
Belgium	"Belgium", "Belgian", "belgium", "belgian"
China	"China", "china", "Chinese", "chinese"
European Union	"EU ", "EU/", "/EU", "EU,", "EU-", "-EU", "European Union", "european union"
France	"France", "france", "french", "French"
Germany	"Germany", "germany", "german", "German"
Global Fund	"Global Fund", "global fund"
IMF	"IMF", "International Monetary Fund", "international monetary fund"
Japan	"Japan", "japan", "Japanese", "japanese"
Netherlands	"Netherlands", "netherlands", "dutch", "Dutch"
UK	"UK ","UK,", "UK-", "-UK", "UK/", "/UK", ",UK ", "United Kingdom", "united kingdom", "british", "British"
US	"USA", "americans", "America", "america", "Americans", "United States", "US,", "US-", "-US", "US/", ",US ", "/US”
World Bank	"World Bank", "world bank"

A.1.2

Word Bank for Aid-related and Aid Negotiation-related words	
Note: The lower-case word for each term was also searched for	
Aid-related terms	**Aid negotiation related terms**
Commitment	Negotiations
Aid	Talks
Assistance	
Financing	
Development	
Partner	
Grant	
Fund	
Investment	
Donate	
Recipient	
Donor	
ODA	

A.2





Note: The red lines represent cases of aid interaction between a Donor and Rwanda which were included in the universe of cases. Donors which were not measured in the time series analysis were also filtered out

from the universe of cases for this graph with the exception of the World Food Programme (WFP) because of its unique status as an international organization.

A.3 Excerpt of Rwandan Cases from the Universe of Cases

Identification ID	Donor Country or Multilateral Organization or Fund	Beneficiary Country	Date	Event Type	Brief Description	Source/Title	Intermediary	Special Case
143	World Bank	Rwanda	15-Jun-17	Completion	The World Bank's Board of Directors today approved $175 million in International Development Association (IDA)* financing to help advance Rwanda's policy and institutional reform program for human capital development and inclusive economic growth. This financing package consists of an $87.5 million IDA grant and an $87.5 million IDA credit; and is the second in a series of three development policy financing operations, with the first $150 million approved in December 2020.	World Bank financing aims to accelerate implementation of Rwanda's human capital development program		
311	EU	Rwanda	20-Sep-17	Completion	The United Nations World Food Programme (WFP) in Rwanda welcomes €500 000 (US$600,000) in humanitarian funding from the European Union (EU) that will help meet the most pressing food needs of over 60,000 vulnerable Burundian refugees in eastern Rwanda. "The European Union has been a steadfast donor to WFP over the years and their commitment to supporting refugees is admirable," said Edith Heines, WFP Representative and Country Director in Rwanda.	World Food Programme thanks European Union for consistent support to refugees in Rwanda	X	

144	World Bank	Rwanda	2-Apr-19	Completion	The World Bank Group today approved $150 million from the International Development Association (IDA)* to help the Government of Rwanda increase access to finance and to support recovery and resilience of businesses affected by the COVID-19 pandemic.The Access to Finance for Recovery and Resilience (AFIRR) Project also benefits from $25 million in IDA grants, as well as an additional $7.5 million grant from the Global Risk Financing Facility (GRiF), to help enhance business' access to finance.	The World Bank Group supports recovery and resilience of Rwanda's COVID-19-affected businesses		
152	Japan	Rwanda	12-Apr-19	Completion	The United Nations World Food Programme (WFP) today expressed gratitude to Japan for its latest contribution of 165 million Japanese Yen (US$ 1.46 million), which will be used to provide food and nutrition assistance to over 55,000 Burundian refugees residing in Mahama refugee camp and reception centres. The official handover ceremony took place today at the WFP compound in Kigali.	WFP Welcomes Japan's Support For Refugees In Rwanda	X	
151	US	Rwanda	4-Dec-19	Completion	The United Nations World Food Programme (WFP) welcomed a US$6.5 million contribution from the United States of America in support of Congolese and Burundian refugees in Rwanda. This contribution restores full food rations to these refugees and brings the total food and nutrition assistance provided by USAID/Food for Peace in Rwanda to US$10 million this year.	WFP welcomes vital US$6.5 million USAID contribution, which restores full rations to refugees in Rwanda	X	
150	US	Rwanda	16-Dec-19	Completion	The United Nations World Food Programme (WFP) expresses gratitude to USAID/Food for Peace for the contribution of US$9 million to support food and nutrition	WFP welcomes US$9 million USAID contribution	X	

					assistance to Burundian and Democratic Republic Congolese refugees in Rwanda.	for refugees in Rwanda		
147	IMF	Rwanda	8-Apr-20	Completion	The Executive Board of the International Monetary Fund (IMF) today approved the disbursement of $111.06 million (SDR80.1 million) to Rwanda under the Rapid Credit Facility (RCF). This is the second emergency disbursement since the onset of the pandemic and will help finance the country's urgent balance of payments (BOP) and budget needs.	IMF Executive Board Approves an Additional US$111.06 Million Disbursement to Rwanda to Address the COVID-19 Pandemic		
149	EU	Rwanda	12-Jun-20	Completion	The United Nations World Food Programme (WFP) has received €1 million (US$1.1 million) from the European Commission to provide food and nutritional assistance to more than 60,000 Burundian refugees in Mahama camp in eastern Rwanda.	WFP welcomes €1 million from European Union for Burundi refugees in Rwanda	X	
1	New Zealand	Rwanda	27-Jan-21	Completion	New Zealand contributes NZD 6.8 million through the WFP to facilitate market linkages for smallholder farmers in Rwanda.	New Zealand contributes NZD 6.8 million to facilitate market linkages for smallholder farmers in Rwanda	X	
333	WFP	Rwanda	12-Feb-21	Suspension	Today, the World Food Programme (WFP) announced it would reduce food assistance to refugees in Rwanda by a dramatic 60 percent, as of March 2021. Some 135,000 Burundian and Congolese refugees in camps in Rwanda rely on humanitarian assistance to meet their basic food needs each month.	WFP cuts refugees' food rations in Rwanda as funding declines		X
399	Canada	Rwanda	26-Mar-21	Completion	The United Nations World Food Programme today welcomed a contribution of CAD 1 million (US$ 794,000) from the Government and	WFP welcomes CAD 1 million from Canada	X	

					people of Canada to provide humanitarian food and nutrition assistance to 135,000 Congolese and Burundian refugees in camps in Rwanda.	to support food & nutrition assistance for refugees in Rwanda		
146	Luxembourg	Rwanda	16-Jun-21	Completion	A longstanding supporter of global vaccination, Luxembourg has donated 409,600 doses of COVAX-19 vaccines to COVAX, with the first 12,000 doses reaching Rwanda. This donation comes on top of a previous EUR 2 million pledge to the Gavi COVAX Advance Market Commitment (Gavi COVAX AMC) to support procurement of vaccines for lower-income economies around the world, which Luxembourg has now increased by 2 million to a total of EUR 4 million.	Luxembourg stands up for equitable access by donating doses to COVAX – first doses reach Rwanda		
398	US	Rwanda	24-Jun-21	Completion	The United Nations World Food Programme (WFP) received today US$5.3 million from USAID's Bureau for Humanitarian Assistance (BHA) to provide humanitarian food assistance in the form of cash transfers to over 104,000 Congolese and Burundian refugees in camps across Rwanda.	WFP welcomes US$5.3 million from the United States for food assistance for refugees in Rwanda	X	
148	UK	Rwanda	19-Nov-21	Completion	The United Nations World Food Programme (WFP) today welcomed a contribution of £3 million (US$3.8 million) from the United Kingdom to help save the lives of over 60,000 Burundian refugees in Mahama camp in eastern Rwanda who had faced ration cuts this month.	United Kingdom contributes £3 million to feed Burundian refugees in Rwanda	X	
145	World Bank	Rwanda	17-Dec-21	Completion	The World Bank Group approved today $14.25 million International Development Association (IDA)* credit in immediate funding to support Rwanda's response to the global COVID-19 (coronavirus) pandemic under a new operation,	World Bank Supports Rwanda's COVID-19 Response		

					the Rwanda COVID-19 Emergency Response project.			

A.4 Robustness Check 1: Comparing aid-like word frequency over the years from highest to lowest word frequency

	Graph 4	**2017**	**2018**	**2019**	**2020**	**2021**	**Master Corpus**
1	Development	Development	Development	Development	Investments	Partner	Development
2	Partner	Partner	Partner	Partner	Development	Investments	Partner
3	Investments	Investments	Investments	Investments	Partner	Development	Investments
4	Fund	Fund	Financing	Fund	Financing	Financing	Fund
5	Financing	Talks	Talks	Financing	Donate	Fund	Commitment
6	Talks	Financing	Grant	Grant	Fund	Talks	Financing
7	Grant	Grant	Fund	Talks	Assistance	Donate	Talks
8	Donate	Commitment	Commitment	Commitment	Commitment	Commitment	Grant
9	Commitment	Aid	Negotiation	Aid	Negotiation	Grant	Assistance
10	Assistance	Assistance	Recipient	Negotiation	Talks	Assistance	ODA
11	Negotiation	Donate	Assistance	Assistance	Grant	Aid	Negotiation

12	Recipient	Negotiation	Donate	Donate	Donor	Recipient	Aid
13	Donor	Recipient	Donor	Recipient	Aid	Donor	Recipient
14	Aid	Donor	ODA	Donor	Recipient	Negotiation	Donate
15	ODA	ODA	Aid	ODA	ODA	ODA	Donor

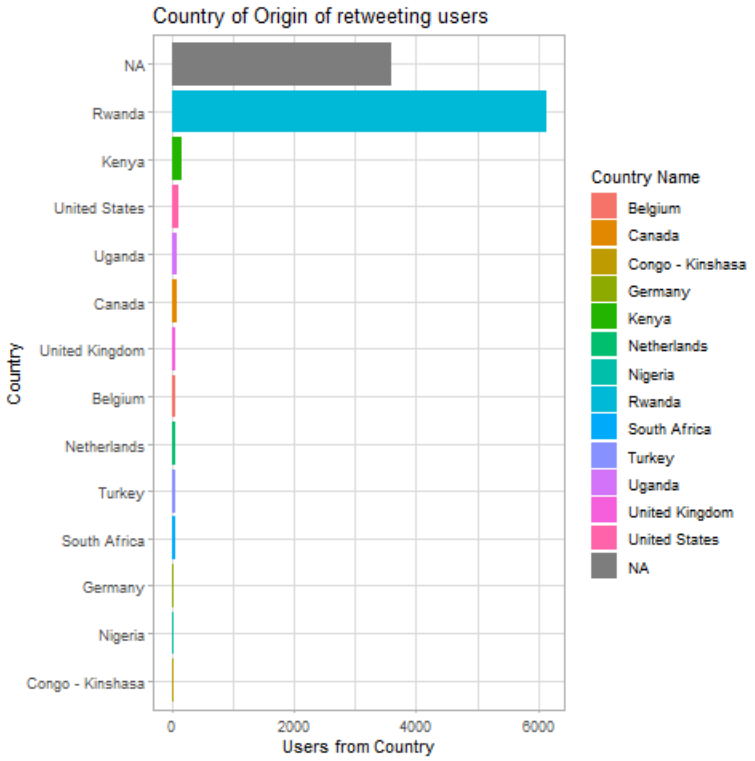
A.5 Robustness Check 2: Comparing donor word frequency over the years from highest to lowest word frequency

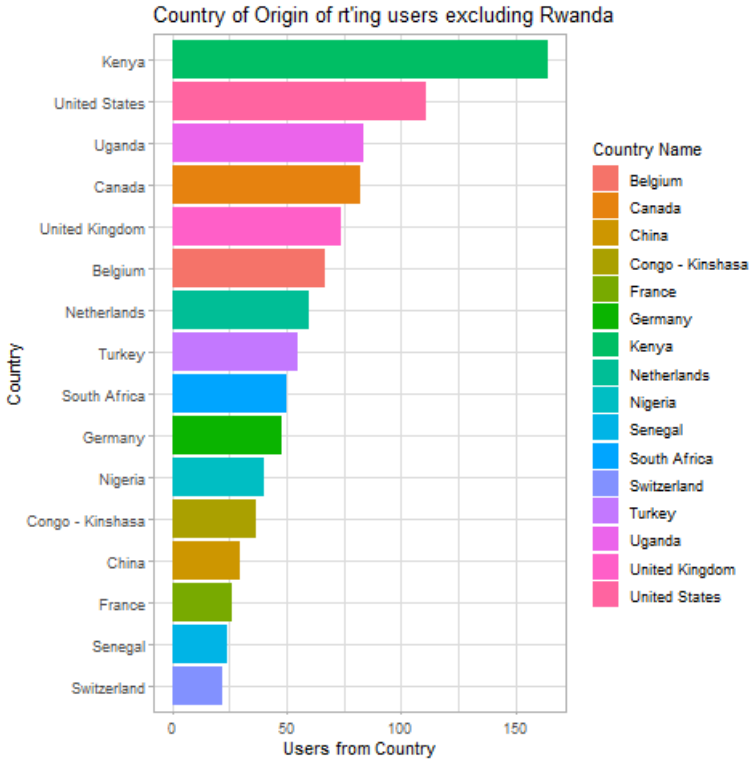
	Graph 3	**2017**	**2018**	**2019**	**2020**	**2021**
1	EU	IMF	China	Japan	UK	EU
2	China	UK	EU	China	France	France
3	Japan	EU	AfDB	EU	EU	Japan
4	France	World Bank	World Bank	AfDB	US	China
5	UK	Belgium	Japan	Germany	China	Belgium
6	Germany	Global Fund	US	IMF	AfDB	US
7	AfDB	China	France	France	IMF	UK
8	US	US	Germany	US	Germany	Germany

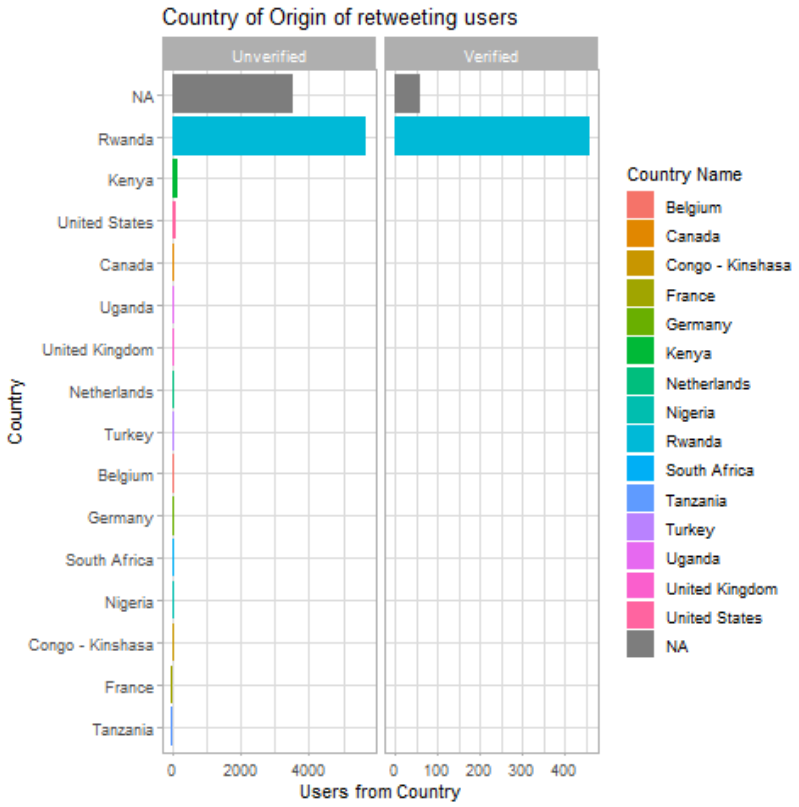
9	IMF	Germany	Netherlands	UK	Belgium	World Bank
10	World Bank	AfDB	IMF	World Bank	World Bank	IMF
11	Belgium	Japan	UK	Belgium	Netherlands	AfDB
12	Global Fund	France	Belgium	Global Fund	Japan	Global Fund
13	Netherlands	Netherlands	Global Fund	Netherlands	Global Fund	Netherlands

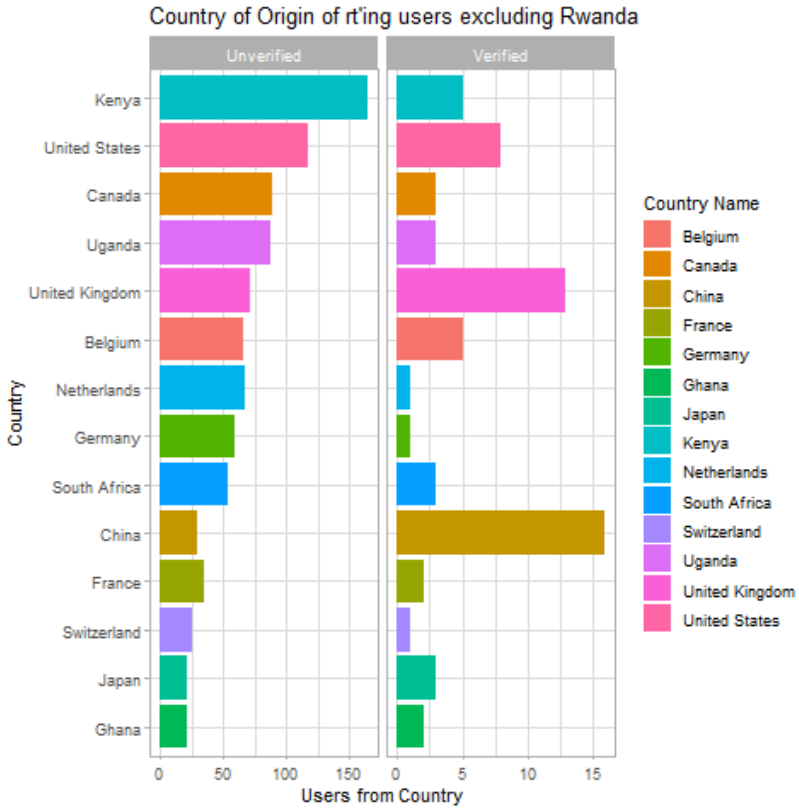
Appendix A.6

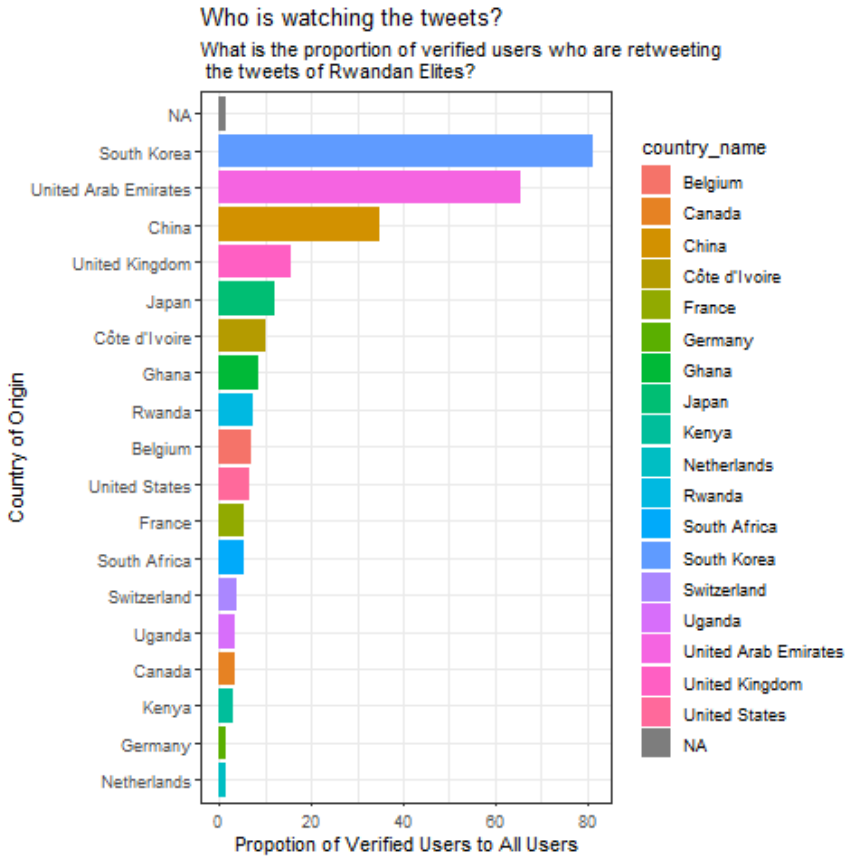
The following are some visualizations of the origins of users who retweeted the tweets of the largest Rwandan elite accounts. All of these tweets are in english and have one or more words from the donor and aid-related dictionary. The first two plots are raw totals with one the first including Rwanda and the second excluding it. The second two plots divide verified and unverified tweets with the first including Rwanda and the second excluding it. Finally, I made another barplot which measures the proportion of verified users to total users. These graphs have several limitations such as errors in the data including people not putting in their location, putting in a false location, or putting in a term that could not be associated with a country. Furthermore, when people put in multiple locations, it was difficult to classify them into a single location. Though these visualizat, these limitations should be taken into account when viewing the following visualizations.


Country of Origin of retweeting users
NA
Rwanda
Kenya
United States
Uganda
Canada
United Kingdom
Belgium
Netherlands
Turkey
South Africa
Germany
Nigeria
Congo - Kinshasa
Country
0
2000
4000
6000
Users from Country
Country Name
Belgium
Canada
Congo - Kinshasa
Germany
Kenya
Netherlands
Nigeria
Rwanda
South Africa
Turkey
Uganda
United Kingdom
United States
NA


Country of Origin of rt'ing users excluding Rwanda
Kenya
United States
Uganda
Canada
United Kingdom
Belgium
Netherlands
Turkey
South Africa
Germany
Nigeria
Congo - Kinshasa
China
France
Senegal
Switzerland
Country
0
50
100
150
Users from Country
Country Name
Belgium
Canada
China
Congo - Kinshasa
France
Germany
Kenya
Netherlands
Nigeria
Senegal
South Africa
Switzerland
Turkey
Uganda
United Kingdom
United States


Country of Origin of retweeting users
Unverified
Verified
NA
Rwanda
Kenya
United States
Canada
Uganda
United Kingdom
Netherlands
Turkey
Belgium
Germany
South Africa
Nigeria
Congo - Kinshasa
France
Tanzania
Country
0
2000
4000
0
100
200
300
400
Users from Country
Country Name
Belgium
Canada
Congo - Kinshasa
France
Germany
Kenya
Netherlands
Nigeria
Rwanda
South Africa
Tanzania
Turkey
Uganda
United Kingdom
United States
NA


Country of Origin of rt'ing users excluding Rwanda
Unverified
Verified
Kenya
United States
Canada
Uganda
United Kingdom
Belgium
Netherlands
Germany
South Africa
China
France
Switzerland
Japan
Ghana
Country
0
50
100
150
0
5
10
15
Users from Country
Country Name
Belgium
Canada
China
France
Germany
Ghana
Japan
Kenya
Netherlands
South Africa
Switzerland
Uganda
United Kingdom
United States


Who is watching the tweets?
What is the proportion of verified users who are retweeting the tweets of Rwandan Elites?
Country of Origin
NA
South Korea
United Arab Emirates
China
United Kingdom
Japan
Côte d'Ivoire
Ghana
Rwanda
Belgium
United States
France
South Africa
Switzerland
Uganda
Canada
Kenya
Germany
Netherlands
0
20
40
60
80
Propotion of Verified Users to All Users
country_name
Belgium
Canada
China
Côte d'Ivoire
France
Germany
Ghana
Japan
Kenya
Netherlands
Rwanda
South Africa
South Korea
Switzerland
Uganda
United Arab Emirates
United Kingdom
United States
NA