

**CPD PERSPECTIVES ON PUBLIC DIPLOMACY**

Paper 6, 2012

# Practicing Successful Twitter Public Diplomacy: A model and case study of U.S. efforts in Venezuela

By Erika A. Yepsen

La Diplomatie Publique

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**PRACTICING SUCCESSFUL TWITTER  
PUBLIC DIPLOMACY: A MODEL AND CASE  
STUDY OF U.S. EFFORTS IN VENEZUELA**

Erika A. Yepsen

**July 2012  
Figueroa Press  
Los Angeles**

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Published by  
**FIGUEROA PRESS**  
840 Childs Way, 3rd Floor  
Los Angeles, CA 90089  
Phone: (213) 743-4800  
Fax: (213) 743-4804  
www.figueroapress.com

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ISBN 13: 978-0-18-213624-7

ISBN 10: 0-18-213624-8

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## **Abstract**

Despite recent interest in Twitter, the role it can and should play in public diplomacy and how it should be utilized to meet this role has not been established. Current policies for diplomats engaging on Twitter can steer them away from the very conversations that hold the most potential value, and existing research is too limiting in its scope to capture these valuable conversations. While public diplomacy scholars are nearly universal in their agreement that public diplomacy should be enacted as two-way communication and Twitter offers a mechanism through which two-way communication might be achieved, not enough is understood about this network environment to make engagement valuable. This research combines public diplomacy scholarship and Twitter research to define successful Twitter public diplomacy and propose the opinion leader network model as a method to achieve successful engagement in Twitter. The model is tested in a case study of a Twitter network and U.S. Embassy Twitter engagement in Venezuela.



## Introduction

Governance and diplomacy in today's interconnected world pose challenges for world leaders that could scarcely have been imagined even 10 years ago. From the citizens within a country's own borders to people half a world away, the internet revolution has yielded benefits and challenges that continually catch governments by surprise. While the internet is not the first revolution in communication—the printing press, telegraph/telephone, and television have come before—it is the first medium that is good both at creating groups *and* conversations, making “the moment we’re living through...the largest increase in expressive capability in human history.”<sup>1</sup>

Social media has been alternately credited or blamed for the 2009 protests in Moldova, the Green Movement uprising in Iran in 2009,<sup>2</sup> and the Egyptian Revolution in 2010,<sup>3</sup> to name only a few. Although the impact of any one social media tool in these movements is difficult to demonstrate, governments of all stripes are taking notice. Governments are supporting the spread of social media or attempting to block social media in what has been termed a constant struggle between those who support the freedom to connect and those who think such freedom threatens their survival.<sup>4</sup> U.S. Secretary of State Hillary Clinton frequently equates internet freedom with the universal right of individuals to express their views freely, while China, Burma, Vietnam, and Iran have tried cyber attacks, censorship, or physical threats to limit internet access.<sup>5</sup> Some of these efforts are limited, such as China's apparent censoring of Twitter before the anniversary of Tiananmen Square,<sup>6</sup> while others are continuous, such as Iran's blocking of sexual, politically sensitive, and women's rights sites.<sup>7</sup>

Governments view Twitter as both a threat and an opportunity. Venezuelan President Hugo Chavez equated using Twitter to terrorism shortly before he joined the website himself<sup>8</sup> and became the most followed user in Venezuela.<sup>9</sup> The British government, usually a champion for internet freedom, briefly toyed with the idea of limiting access to Twitter following the London riots in August 2011.<sup>10</sup> Twitter itself acknowledged its possible role in governance



by defending its decision to refuse to censor Tweets based on their content, claiming “Some Tweets may facilitate positive change in a repressed country” in the early days of the Arab Spring,<sup>11</sup> and also continuing to stand by that decision after criticism blamed Twitter for exacerbating the London riots.<sup>12</sup>

How governments do and should use Twitter has been the focus of studies examining everything from presidential elections to U.S. President Barack Obama’s trip to Brazil.<sup>13</sup> While these studies are informative and valuable, their utility for understanding the effects of Twitter on long-term governance and diplomacy are limited, since they focus on specific events that take place during a limited time frame. This paper attempts to expand understanding of Twitter as a tool of government communication by examining its use in public diplomacy. It seeks to define successful Twitter public diplomacy and proposes a model to achieve success through a case study of the use and implications of Twitter in U.S. public diplomacy in Venezuela.

### *Defining Public Diplomacy*

In proposing a definition of success in public diplomacy, it is first necessary to define public diplomacy. The U.S. State Department’s Bureau of Public Diplomacy and Public Affairs defines public diplomacy as a government’s attempts to “understand, inform, engage and influence global audiences, reaching beyond foreign governments to promote greater appreciation and understanding of U.S. society, culture, institutions, values and policies.”<sup>14</sup> While this is only one of several definitions of public diplomacy published by the State Department, and there are multiple criticisms possible of each version,<sup>15</sup> it is the most recent definition and the one to which embassies’ efforts may reasonably be expected to aspire. One key aspect of this definition is “understanding and engaging,” or the necessity of two-way communication.

Although scholars, practitioners, and government reports have criticized U.S. public diplomacy for its tendency to focus only or

primarily on sending information, and to neglect receiving and listening, the necessity of exercising two-directional communication is now widely accepted in theory. Practice, unfortunately, often lags behind.

While scholars and many practitioners advocate that “The communications process that underlies the conduct of public diplomacy is best maintained as a dialogue—a two-way relationship,”<sup>16</sup> many government reports illuminate our failures. “We have failed to listen and failed to persuade. We have not taken the time to understand our audience, and we have not bothered to help them understand us. We cannot afford such shortcomings.”<sup>17</sup>

Recommendations for improved listening and understanding vary from the general “Adapting to the 21st century also means engaging in two-way communication”<sup>18</sup> to the specific “The creation of American Studies programs in Arab and Muslim countries, through a collaborative effort with the private sector and with local universities, should be pursued.”<sup>19</sup> Scholars and practitioners agree the U.S. needs to better understand foreign attitudes and cultures. The purposes of this improved understanding, however, vary considerably.

### *The Excellence Theory of Public Relations*

One framework for viewing these criticisms of unidirectional public diplomacy is the Excellence study in public relations,<sup>20</sup> which has been successfully applied to public diplomacy.<sup>21</sup> The Excellence study classifies public relations practice into four different models based on directionality of communication (one-way or two-way) and symmetry (symmetrical or asymmetrical). According to Excellence theory, two-way public diplomacy can be symmetrical or asymmetrical. Symmetry refers to communication effects on the sender and receiver. For example, two-way symmetrical public diplomacy means the U.S. government and the foreign audiences are affected, although perhaps not equally, through their communication. On the other hand, two-way asymmetrical public diplomacy means

that although communication might be both sent and received (by the U.S. government), the effects of the communication are limited to the foreign audience and the U.S. government remains unaffected.

In public diplomacy, I find it is useful to view two-way asymmetrical communication as tactical listening, and two-way symmetrical communication as strategic listening. Although the words tactical and strategic have multiple meanings, I use them to convey a distinction between listening for the purpose of communicating more effectively (tactical) and listening for the purpose of informing policymaking decisions (strategic).

The purpose of this definition of terms can be seen when examining critiques of U.S. public diplomacy. For example, compare these two recommendations for improving two-way communication: “Persuasion begins with listening, and listening requires a more creative and resourceful diplomatic community on the ground and new thinking at all levels in public diplomacy.”<sup>22</sup> The end purpose of successful listening in this statement is to improve public diplomacy’s ability to persuade others. This is what the Excellence theory considers asymmetrical two-way communication and what I call tactical listening. In a different report, “It [strategic communication] will engage in a respectful dialogue of ideas that begins with listening and assumes decades of sustained effort. Just as importantly, through evaluation and feedback, it will enable political leaders and policymakers to make informed decisions on changes in strategy, policies, messages, and choices among instruments of statecraft.”<sup>23</sup> The purposes of successful listening in this report are to persuade others and also, importantly, to inform policymakers’ decisions. The latter would be considered symmetrical two-way communication in Excellence theory. I will refer to it as strategic listening.

While I advocate that strategic listening in public diplomacy enables public diplomats to “be included in the takeoffs, not just the crash landings” of foreign policy,<sup>24</sup> my focus in this paper is tactical listening through Twitter.

*The actors*

Not included in the State Department's definition of public diplomacy is an explanation of who conducts public diplomacy or the environment in which it is conducted. As the department of the government charged with maintaining foreign relations, the State Department is an obvious answer, but the Department of Defense's multiple publications on and efforts in strategic communication (its preferred term for the same phenomenon) make it apparent that more actors are involved than the State Department. The extent to which governmental, and also non-governmental, actors have a role in public diplomacy is a matter of much recent scholarship. Since I am primarily concerned with the State Department in this study, I will focus on its role as a government actor, with the recognition that it is one among many stakeholders in public diplomacy.

The influx of numerous government departments, non-governmental organizations, private companies, and citizens as public diplomacy actors is a product of the information age.<sup>25</sup> The internet and other technologies have lowered the cost of access to information, disbursing information and its inherent power more widely: "Information creates power, and today a much larger part of the world's population has access to that power."<sup>26</sup> The surplus of information, however, creates a "paradox of plenty" in which attention, not information, becomes the scarce resource.<sup>27</sup> Some scholars suggest that within this environment, the state is unlikely to succeed as an independent actor, but instead must rely on networks.<sup>28</sup> This decline in state power is not absolute; rather it reflects a diffusion of power as other actors emerge on the international stage.

To be successful in this new environment, nations must connect with the masses in the bazaar rather than build a cathedral:<sup>29</sup> "In those days [prior to the information age], the communicator with the most information won. Today, the one with the most extensive network and strongest connections wins."<sup>30</sup> Power is no longer defined by control of information, but by the process of communication and relationships within a network. This gives the United States both an

advantage and a disadvantage. U.S. “demography, geography, and culture” provides an advantage,<sup>31</sup> but as government actors compete for influence in networks, they are constrained by regulations and risk-averse organizational cultures that limit their options.<sup>32</sup> Thus, although governments continue to set their own public diplomacy goals, participants in networks play a growing role in helping or harming the achievement of those goals.

### *The network*

Understanding how the actors in public diplomacy connect is vital to understanding their potential to succeed. Arquilla and Ronfeldt identify three types of communication networks: chain, hub/star, and all-channel.<sup>33</sup> The chain network is similar to a hierarchical structure in which information flows in linear fashion between nodes. In hub networks, one node is the focal point through which all communication flows. This node can control the flow of information and become a single point of network failure.<sup>34</sup>

In a third model, the all-channel network, each node is connected with all the other nodes. It fits Castells’ description of how “new information and communication technologies, including rapid long-distance transportation and computer networks, allow global networks to selectively connect anyone and anything throughout the world.”<sup>35</sup>

The all-channel network model of public diplomacy is embraced by many theorists.<sup>36</sup> Within this model, “information flow is direct, multidirectional, and simultaneous.”<sup>37</sup> This model also changes the relative power of information holders. Within the hub or chain models, a few individuals hold power over the network in that they control either the information or the flow of information. This power dynamic changes within the all-channel network in that each member of the network is equally powerful in terms of connections and information.

Zaharna and Castells focus on the decline of the power of the state and the flattening of information power. Nye too argues that power is more diffuse.<sup>38</sup> He points out that because the quantity of information overwhelms in this environment, attention rather than information is crucial. Power is held by “cue-givers” who can identify valuable information. This is echoed by Fisher,<sup>39</sup> who describes the current information environment as a multi-hub, rather than an all-channel, network. This suggests that not all members of a network are equal in that some are better able to influence the network than others.

*Opinion leaders, cue-givers, and the few*

Nye’s views on attention and cue-givers resembles the traditional two-step flow communication model<sup>40</sup> that has long been influential in public diplomacy. In this model the influence of opinion leaders often has a greater effect on decisions and opinions of a media audience than the mass media. Opinion leaders are located in every social group and generally are influential within certain fields of interest. Their status as opinion leaders is related to personification of certain values, competence, and strategic social location, which Katz summarizes as: who one is, what one knows, and whom one knows.<sup>41</sup>

These criteria have been elaborated by Gladwell in his study of the manner in which ideas, products, and messages spread like viruses.<sup>42</sup> Gladwell’s “Law of the Few,” refers to the same individuals Katz called opinion leaders. Gladwell describes these few as “connectors, mavens, and salesmen” and suggests they influence all aspects of our lives.<sup>43</sup> Gladwell’s “connectors” are individuals who are influential because of who they know, the first of Katz’s criteria. “Mavens” are those who “know things that the rest of us don’t,” making them information brokers characterized by what they know, another of Katz’s descriptions of opinion leaders.<sup>44</sup> “Salesmen,” are individuals “with the skills to persuade us when we are unconvinced of what we are hearing.”<sup>45</sup> In discussing their verbal and nonverbal communication, Gladwell views the influence of “salesmen” as being part of who they are, the last of Katz’ criteria.

Both Katz and Gladwell focused on interpersonal relationships, which are when individuals have personal, first-hand knowledge of the others with whom they are interacting; but social networking tools, such as Twitter, often connect individuals who have no first-hand acquaintance with each other. These tools raise important questions. Do online opinion leaders possess the same traits as their offline counterparts? Are they in fact the same individuals? What characteristics of their online personae can be used to identify them? These questions require a closer look at social media in general and at Twitter.

### *Why social media?*

In their study comparing the dialogic principles of weblogs to traditional websites, Seltzer and Mitrook found that weblogs are more effective at creating dialogic relationships than traditional websites.<sup>46</sup> Twitter, as a microblogging service, has many of the same characteristics of a weblog, but it is also characterized by lower attention and time demands on users and faster interaction speed.<sup>47</sup> Its dialogic nature meets the public diplomacy requirement of bi-directional engagement, and its reduced time requirements make it attractive to busy diplomats. Although Twitter and weblogs have similar characteristics, this does not necessarily mean opinion leaders who use Twitter have characteristics similar to leading bloggers.

### *Twitter and opinion leader influence*

In 2009, the U.S. State Department asked Twitter to delay a scheduled network upgrade to ensure that Iranians could use the service to protest their presidential election without interruption.<sup>48</sup> There is considerable evidence of the U.S. government's belief in the power of the internet and social media tools in democracy promotion.<sup>49</sup> Secretary of State Clinton has delivered major speeches on the importance of free and open access to the internet.<sup>50</sup> However, critics such as Morozov fear that by aligning the U.S. government with internet companies and services, the U.S. has increased the fear in some foreign governments that these tools are intended for use in bringing down their regimes.<sup>51</sup>

What Morozov and Shirky, who both support the U.S. government's use of social media, have in common—despite their many differences—is agreement that these tools are playing an important role in politics and governance. They do not suggest that government can or should avoid using social media tools. Rather, they call for careful analysis of their benefits and disadvantages. Morozov, for example, looks at a challenge for the U.S. government—how best to establish credibility on social media platforms.<sup>52</sup> In the realm of Twitter, credibility is often measured in terms of influence. Influential users are those whose messages are the most widely disbursed and repeated and who hold a greater potential to set the conversational agenda.<sup>53</sup> These are individuals who have established themselves as cue-givers capable of sorting the wheat from the chaff of Twitter chatter.

A common measure of Twitter influence is to measure the number of individuals following a particular user. In my experience as an Air Force public affairs officer, this is an oft-used and easy measure for success for Twitter efforts. Clicking on a Twitter user's profile will provide this information for all publicly available accounts. However, this measure of success views Twitter as a broadcast medium and ignores the ability of users to interact with content.<sup>54</sup> The focus on gaining followers has been dismissed as “The Million Follower Fallacy,” because it discounts individuals who follow accounts from reciprocal etiquette rather than genuine interest.<sup>55</sup> I can attest to the existence of this etiquette, as I created an account for this study through which I produced no Tweets, but gained two followers from those I followed. Leavitt et al. and Cha et al. suggest that measures of interaction, not merely measures of connection, are necessary to understand the influence of Twitter users.

Cha et al. identify three types of Twitter influence: Indegree influence, Retweet influence, and Mention influence.<sup>56</sup> Indegree influence consists of the number of followers a user has. Retweet influence demonstrates the user's ability to generate content that travels beyond the user's immediate network through other users reposting Tweets produced by the user. Mention influence measures



the user's conversation-generating capacity by measuring Tweets containing the user's name produced by others. Leavitt et al. identify similar categories, but for measurement purposes they combine Retweet and Mention influences.<sup>57</sup>

Another recent influence study suggests identifying opinion leaders in particular topics by searching for users of topic-related hashtags and then measuring frequency of posting content related to the topic, the number of followers and views, and quantity of Retweets or comments in response to their topic-related tweets.<sup>58</sup> These studies attempt to narrow examinations of influence to particular topical areas. Studies such as Fisher and Montez's draw attention to the diversity within Twitter. As the Twitter creators' blog states, "Some Tweets may facilitate positive change in a repressed country, some make us laugh, some make us think, some downright anger a vast majority of users."<sup>59</sup> A simple survey of recent conversation trends on Twitter will span a range of topics from celebrity gossip to news to rush hour tips.

These hashtag studies help examine influence within a specific interest area, but they are limited in time and inclusion parameters. Most of these studies focus on influential individuals for a limited topic during a limited time span. Additionally, inclusion criteria for these studies are problematic. Not all users utilize hashtags, and searching for those who do use the particular one with which the study is concerned often means these users are merely influential upon other users who follow the hashtag. Cha et al. suggest that an influential user who is able to generate conversation and Retweeting is generally able to do so over a wide range of topics.<sup>60</sup> This suggests that a Twitter user who is primarily concerned with fashion, for example, might trust political news from users they already follow rather than seeking out other sources or users to get the same information.

When comparing literature regarding characteristics of Twitter opinion leaders to those defined in the two-step flow model, two similarities are apparent. Whom one knows, as defined by two-

step flow theory, is comparable to the number of followers a Twitter user has. A key difference is that Twitter relationships are less defined. An etiquette of reciprocity, rather than an intent to seek a user's opinion, creates some relationships. Modifying the measure of "whom one knows" to include Retweet and Mention influences serves to control for these types of relationships. A second characteristic is that specialization, or "what one knows," increases a user's influence within the Twittersphere.<sup>61</sup> The third characteristic of opinion leaders in two-step flow theory is "who one is." This characteristic's carryover to Twitter can be seen if one looks at the popularity-ranking website [Twitaholic.com](http://Twitaholic.com). A survey of the top ten most followed Twitter users as of September 11, 2011, reveals in order: Lady Gaga, Justin Bieber, Barack Obama, Katy Perry, Kim Kardashian, Britney Spears, Shakira, Taylor Swift, Ashton Kutcher, and Ellen DeGeneres, all names even those who are not fans of celebrity news are likely to know.

Twitter-relevant literature thus far reveals support, with minor modifications of "whom one knows," for the three characteristics of opinion leaders proposed more than 50 years ago by Lazarsfeld and Katz. However, I wish to return briefly to the characteristic of "what one knows." As stated above, although having an area of expertise is important to gaining influence, Twitter opinion leaders tend to have influence in areas beyond their primary focus.<sup>62</sup> This finding suggests that in determining who is influential in a certain area, a Twitter user with greater influence but less expertise on a topic might be of greater or equal importance to a Twitter user with a greater expertise but less overall influence.

While it may seem obvious, it is important to note that individuals using Twitter are in fact real individuals who exist in a physical as well as digital world. Both Twitter opinion leaders and other users are influenced by a variety of factors from media to coworkers to social groups. Just as religious leaders, coworkers, and close friends may influence individuals, a Twitter opinion leader is merely one voice in the information cacophony in which we all exist.

*Defining success in Twitter public diplomacy*

Defining public diplomacy success in Twitter starts by examining what constitutes successful public diplomacy overall. In the literature, successful public diplomacy may include bi-directional communication efforts aimed at promoting “greater appreciation and understanding of U.S. society, culture, institutions, values and policies.”<sup>63</sup> Subject for debate is the degree to which listening efforts should be tactical or strategic.

Promotion of U.S. interests and policy objectives is an integral part of what constitutes success in public diplomacy. Accordingly, influence is an equally necessary measure of success as listening is when examining Twitter as an instrument of public diplomacy. U.S. influence should not be viewed as *the* hub in a Twitter network, but instead must be seen as *a* hub within a multi-hub network. The bounds of this network can be defined by balancing a measure of influence against an amount of focus on pertinent topics as suggested by hashtag studies. Measuring influence as prescribed by Cha et al.<sup>64</sup> and Leavitt et al.<sup>65</sup> demonstrates how success along one direction of communication (sending) might be measured, but it also suggests how to measure success as a receiver by estimating the government’s position as a listener relative to other important and relevant hubs in the network. As Zaharna<sup>66</sup> and Melissen<sup>67</sup> suggest, the most central and connected member of a network is the most powerful. Thus, although I continue to advocate Twitter’s use for strategic listening in the formulation of policies, for the purpose of this study, successful Twitter public diplomacy will be defined as active, bi-directional communication within a network of government and politically-focused Twitter opinion leaders. The measures for determining both directionality of communication and influence will be discussed in further detail in the study’s research methods.

## Research Methods

The approach to successful Twitter public diplomacy in this paper suggests that a network of opinion leading Twitter users who discuss government, governance, and politics in which the embassy is a centrally located user as both a sender and receiver of information is the model which defines success. The best manner of testing the validity of this model is to build a case study in which the model can be created and examined.

### *Selecting a case study*

In selecting a case study, there were many factors to consider: internet and Twitter penetration rates, U.S. Embassy presence in Twitter, and language. Additionally, although I was unable to find supporting academic literature, newspaper coverage of the Egyptian revolution<sup>68</sup> seemed to suggest that internet and social media are more important in countries that lack a free press, and the recent events of the Arab Spring made the possibility worth considering when selecting a country to examine.

The most practical limitation, language, limited potential case studies to English and Spanish speaking countries. Given that restriction, I assumed the next most challenging criterion would be finding a country with low press freedom. I utilized Freedom House ratings to look for an English or Spanish speaking country with a press freedom rating of “Not Free.” Cuba and Venezuela both received Not Free ratings in 2010.<sup>69</sup> Venezuela had much greater internet penetration than Cuba (37.7% and 14.5% respectively)<sup>70</sup> making Venezuela the obvious choice.

Additionally, a press release from comScore, a company billing itself as “a global leader in measuring the digital world,” stated that 19% of internet users in Venezuela use Twitter, making it the country with the third highest Twitter penetration in the world behind Indonesia and Brazil.<sup>71</sup> U.S. Embassy personnel also confirmed the popularity of Twitter in Venezuela. According to the embassy’s press office, Twitter is the sixth highest used web site in Venezuela and is

so commonly used that many people have their Twitter username printed on their business cards.<sup>72</sup>

I then examined the State Department's list of Embassy Twitter users and found that the U.S. Embassy in Venezuela had the third highest number of followers of all U.S. embassies, a common measure of success, as of August 19, 2011. The U.S. Embassy's account (@usembassyve) had 14,737 followers. The only other embassies with more followers were the embassies in Bangkok (@usembassybkk) and Jakarta (@usembassyjkt).

Finally, I examined freedom of speech on the internet in Venezuela, since significant censorship would undermine the value of the data for the purposes of listening and understanding in public diplomacy. Freedom House rated internet freedom in Venezuela as partly free with certain applications blocked, but no substantial political censorship.<sup>73</sup> Its report did note, however, that certain anti-regime bloggers or online activists had been subjected to harassment, intimidation, and arrest.

### *Research Design*

The research design consisted of two phases: first, identifying the network in which the U.S. Embassy in Venezuela should attempt to be centrally located--which I will refer to as the ideal network—and second, testing the validity of the ideal network. As a proof of concept, I conducted all steps of the first phase with free, publicly available tools. Although the second phase could also be executed using free tools, due to time limitations, I used a program designed for this study.<sup>74</sup>

### *Network Identification*

Twitter, like a telephone, television, or the printing press, can be used to communicate about anything a user wants. Although Twitter policies provide some rules and restrictions, a vast array of topics from celebrity gossip to traffic tips to planning a revolution can be discussed through Twitter. Due to the abundance of topics and

users, even within one country, identifying the ideal network for an embassy requires limiting the topics of focus so as to find users with whom interaction will be valuable.

The desire for public diplomacy to be involved in the “takeoffs” as well as the “crash landings” of foreign policy requires that listening, if it is to potentially be strategic, must concern itself with aspects of governance both of the host country and of the United States. While there could be some tactical value in listening to other Twitter content, this knowledge will help the public diplomat in his or her practice, but it will not aid policymakers in theirs. Ideally, the criteria for identifying topics of interest would be compiled by embassy personnel based on their knowledge and skills. Unfortunately, I was unable to reach anyone in the U.S. Embassy in Venezuela in sufficient time to gain their input when shaping the criteria I used to define the network. For that reason, topic criteria were mostly general regarding government, governance and politics within Venezuela and the United States.

In identifying the network, I sought to identify those opinion leaders whose influence had the greatest possibility to affect the 9 million Twitter users in Venezuela. Cha et al.’s research into opinion leaders proposed three criteria to identify these leaders—Indegree influence, Retweet influence, and Mention influence.<sup>75</sup> Using free, publicly-available websites, I was able to find two websites that identified these criteria—*Twitaholic* and *RetweetRank*. *Twitaholic* identifies the Twitter users with the most followers (Indegree influence), and *Retweet Rank* provides a user’s ranking compared to all other Twitter users based on a measure which combines Retweet influence (a user’s reposted Tweets) and Mention influence (Tweets containing the user’s name). For the purpose of clarity, the rest of this study will refer to Indegree influence as follower strength. Retweet influence and Mention influence will be combined and considered as Retweet strength. Additionally, I added another measure of influence proposed by Melissen<sup>76</sup> and Zaharna,<sup>77</sup> the centrality of network location and number of connections, which I will refer to as network strength.

Both sites allow you to look up individuals by their username, but *Twitaholic* also provides a list of the top 1,000 most followed Twitter users. This provided me with a starting point for building the ideal network. Using the self-identified location of each Twitter user, I examined the top 1,000 list to identify any users from Venezuela. This search yielded six users as of August 16, 2011: *@chavezcandanga* (President Hugo Chavez), *@ElUniversal* (a newspaper), *@la\_patilla* (an “information and investigation” website), *globovision* (a television news channel), *@Noticias24* (a news website), and *@LuisChataing* (an actor and television personality). These six individuals became my leaders. Next, I put all the leaders’ usernames into the TweetStats website. This website provides a wealth of information about a given user’s behavior. It also identifies what other users a given user replies or Retweets to, which is of interest to this study. Because Retweets and replies are seen by all of a user’s followers, and these leaders had the most followers out of all users in Venezuela (considering only those who disclosed their location), I gathered all users who were replied to or Retweeted at least 10 times by one of the leaders and added those to the initial six users to create a list of candidates for the network.

Before expanding the list of network candidates, I took a sample of 100 Tweets from each leader and content analyzed them to determine if at least 30% of their Tweets met the criteria I had set for the network. I gathered the replied or Retweeted users mentioned above without this check, because even if one of the leaders didn’t meet the criteria for the network, the number of their followers would ensure large exposure for anyone they Retweeted or replied to frequently, and some of these individuals might meet the network criteria. A threshold of 30% was set to allow for relationship maintenance Tweets and diversified interests. Taking these considerations into account, I decided 30% would be a satisfactory limit to ensure the content would be worth the public diplomat’s time while still allowing for opinion leaders with other topical interests to be included.

After content analyzing the Tweets from the six leaders, one (@*LuisChataing*) was eliminated. I created a Twitter account for the study and followed the other five leaders. I then used Twitter's suggestions of who to follow based on the five leaders I was following, and Twitter's suggestions of users similar to the five leaders to compile a final list of 73 network candidates including the initial 5 leaders. I sampled 100 Tweets from each candidate and reviewed them to determine if they met the same 30% content criteria I applied to the leaders. Based on these criteria, 31 users were eliminated. One additional user was eliminated due to the hacking and subsequent removal of her account.<sup>78</sup>

It was decided a network of 30 users would be sufficient to provide diversified input. To achieve this size, another 11 users needed to be eliminated. Up until this point, only one measure of influence, follower strength, had been taken into account, since the entire candidate list was built based upon the Venezuelan users with the highest follower strength. However, to determine this network consisted of the correct individuals, I reintroduced the measure of Retweet strength. Additionally, to test the proposed theory that the most connected, network central individuals are the most influential, I also added the measure of network strength to determine their connectivity using free software called NodeXL.

I listed the 5 leaders and 41 network candidates in a spreadsheet, making all equal candidates. Although this method of compiling network candidates did not yield the U.S. Embassy's account, it was added to the network since my study was concerned with its public diplomacy in Venezuela. For each of these 47 individuals, I determined their follower strength, Retweet strength, and network strength. Follower strength was determined by accessing the individual's account on Twitter and obtaining their number of followers. Retweet strength was obtained by inputting each user's name into the RetweetRank website to get their ranking. Finally, network strength was obtained by putting all 47 individuals' user names into the NodeXL software to determine their relationships with each other. The NodeXL software provided a measure of how



many users within the network a given candidate was following and how many users were following the candidate, which determined the candidate's location in the network. These figures were converted to rankings and combined to create a network strength measurement.

To combine these measurements, each was converted to a ranking, and each candidate received a rank in each measurement relative to the others. This was necessary because of the numerical disparity between the different categories. For example, *@chavezcdanga* (Hugo Chavez) had more than 2 million followers, but the maximum number of network connections possible was 92. Combining the measures as raw numbers would have disproportionately emphasized users' follower strength while negating both the Retweet strength and network strength of a candidate. After each category was ranked, the rankings were combined and sorted. Candidates whose combined ranking placed them below the top 30 were eliminated with the exception of the U.S. Embassy, which would have been eliminated, but was included as the focus of the study. The remaining users became the network members. The network leader was identified as the user with the highest network strength within the network.

### *Network Analysis*

With this as a model, it remained to validate the selection of the network members and the influence of the most centrally located individual. Retweet strength and follower strength validity had already been tested in previous studies,<sup>79</sup> but the validity of including network strength as a measure of influence still needed to be tested. Additionally, the entire network needed to be examined to ensure that the criteria used for the 30% content analysis determining eligibility translated to related discussion topics in the final network, since I was unable to have an additional coder verify my initial 30% content analysis. Finally, I wanted to know if multiple influential user networks were discussing the same topics.

This yielded the following research questions:

RQ1: Does the identified ideal network discuss relevant topics of interest as identified in the criteria for the 30% content analysis (government, governance, politics, etc)?

RQ2: Does the identified network leader exhibit influence over the network conversation?

RQ3: Although the embassy is not a member of the identified ideal network, is its Tweet content similar, indicating the possibility of participation in a similar but different and unidentified network?

To answer these questions, I performed a word count analysis of the network and individual users' Tweet content. Tweets were gathered for four weeks starting on September 25, 2011, and ending on October 22, 2011. Each week was treated as a unit of analysis. A total of 62,463 Tweets were captured from 31 user accounts over the four-week period. While this compiled an inordinately large amount of data, this extended sampling time frame allowed for trends to be created and captured. Additionally, since both the U.S. Embassy and the network leader Tweeted infrequently compared to the news organization accounts, this allowed the best possibility for capturing sufficient text for analysis from these two users.

Each week included five different samples: Tweet text from the network as a whole including the embassy, Tweet text from the network leader, Tweet text from a randomly selected network member, Tweet text from the network member with the lowest network strength, and Tweet text from the U.S. Embassy. Each sample was analyzed to determine the 30 most used terms. Commonly used words such as the, it, and, for, etc. were eliminated. Using this model, I was able to (1) analyze network content to answer RQ1, (2) compare the network leader's content to content from the network as a whole and other network members to answer RQ2, and (3) compare the embassy's Tweet content and that of the network to answer RQ3.

## Results

To answer RQ1 (“Does the identified ideal network discuss relevant topics of interest as identified in the criteria for the 30% content analysis?”), I examined the top 30 most used words during all four weeks of the study. The words *Venezuela*, *Chavez*, *gobierno* (government), and *presidente* (president) were present in every week. The lowest score one of these words received was 17th of the top 30 words (*gobierno* in week 4). One of these words was the top scoring word three out of four weeks (Chavez on Week 1, Venezuela on Weeks 2 and 3), with the exception being former Libyan leader Muammar Gaddafi (Gadafi) as the top word in the week in which he was killed. The average placement for these words was Venezuela–3rd, Chavez–3rd, *gobierno*–11th, and *presidente*–12th. Words, such as *foto* (photo) were present in all four weeks, but stripped of their context they were less able to inform about the network’s adherence to the prescribed content. Other words present each week, such as Caracas, *ministro* (ministry), and *Venezolanos* (Venezuelans), did indicate adherence to the identified content. Thus the answer the RQ1 is affirmative. The top 30 most used words by the network indicate that the Tweet content of network members was related to the identified topics of interest.

To answer RQ2 (“Does the identified network leader exhibit influence over the network conversation?”) and RQ3 (“Is the embassy’s Tweet content similar, indicating the possibility of participation in a similar but different network?”), I examined the top 30 most used words from (1) the network in its entirety; (2) the network leader, *@AlbertoRavell*; (3) a randomly selected network member who ranked 16th in network score, *@NelsonBocaranda*; (4) the network member with the lowest network strength score, *@RCTVlinea*; and (5) the U.S.embassy, *@usembassyve*. I compared the overlap between the entire network and each of the listed individuals and then between the network leader, the other two network members, and the U.S. Embassy’s account.

Table 1

*Percent overlap between Top 30 most used words as compared to the network as a whole*

Account	Week 1	Week 2	Week 3	Week 4	Average
<b>@AlbertoRavell</b> most connected network member	12/30 40%	12/30 40%	9/30 30%	12/30 40%	37.5%
<b>@NelsonBocaranda</b> 16 <sup>th</sup> most connected network member	14/30 47%	15/30 50%	12/30 40%	9/30 30%	41.7%
<b>@RCTVenlinea</b> least connected network member	9/30 30%	12/30 40%	11/30 37%	11/30 37%	35.8%
<b>@Usembassyve</b> Embassy account, not a network member	2/30 7%	2/30 7%	3/30 10%	4/30 13%	9.2%

Table 2

*Percent overlap between Top 30 most frequently used words as compared to network leader*

Account	Week 1	Week 2	Week 3	Week 4	Average
<b>@NelsonBocaranda</b> 16 <sup>th</sup> most connected network member	6/30 20%	8/30 27%	8/30 27%	6/30 20%	23.3%
<b>@RCTVenlinea</b> least connected network member	10/30 33%	7/30 23%	4/30 13%	7/30 23%	23.3%
<b>@Usembassyve</b> Embassy account, not a network member	1/30 3%	1/30 3%	1/30 3%	0/30 0%	2.3%
<b>@NelsonBocaranda</b> as compared to <b>@RCTVenlinea</b>	5/30 17%	6/30 20%	5/30 17%	5/30 17%	17.5%

The tables demonstrate a high level of overlap between each individual user's 30 most used words and the network's, with the exception of the U.S. Embassy. However, *@NelsonBocaranda*, not the network leader *@AlbertoRavell*, had the highest percentage of overlap with the network as a whole. Both *@NelsonBocaranda* and *@RCTVenlinea* also had a high overlap with the network leader *@AlbertoRavell*, although in both cases this percentage is less than their respective overlaps with the network as a whole. Although I was unable to analyze the overlap for each user within the network, the data suggested a strong relationship between all network members' most used words as compared to the network. The data did not show a marked difference for the network leader in answer to RQ2. The ability of this analysis to demonstrate influence is difficult and will be discussed in more detail later.

To answer RQ3, whether the U.S. Embassy might be participating in a similar but distinctly different network, the lack of commonality between most used terms indicates the answer is negative. This result is unsurprising when paired with information provided by the U.S. Embassy in Venezuela regarding restrictions on their interaction within Twitter.

## **Discussion**

The results from RQ1 are fairly straightforward, but the results from RQs 2 and 3 are more nuanced. Measurement of the influence of the network leader to answer RQ2 is important to determine if network centrality measured in this study as network strength is indeed a measure of influence as was proposed by Melissen<sup>80</sup> and Zaharna.<sup>81</sup> The other two measures of influence used in this study, follower strength and Retweet strength, have been examined at length by other scholars.<sup>82</sup> However, the power of the most connected member has not yet been extensively tested in Twitter. In testing the commonality of most used words between the network leader and the network, I had assumed that a strong overlap would indicate the ability of the network leader to direct the conversation of the network.

Looking at the measurements of influence, although *@AlbertoRavell* has the highest network strength, he ranks sixth in terms of Retweet strength and eighth in terms of follower strength. Ignoring his network strength, *@AlbertoRavell* would be considered the sixth most influential member of the network based on combined Retweet strength and follower strength rankings. However, when combining all three, he is ranked second in terms of overall influence. *@NelsonBocaranda*, who ranks 16th in terms of network strength, on the other hand, ranks 13th in terms of Retweet strength, and seventh in terms of follower strength. His combined score places him as the eighth most influential member of the network, yet his 30 most used words had greater overlap with the network as a whole than did *@AlbertoRavell*'s.

If content similarity is unable to verify the strength of the network leader, then either the supposition that the most centrally located member is the most influential must be dismissed, or a new test must be devised to verify the theory. Although I have yet to determine a suitable alternative test, anecdotal evidence I found in the course of my research makes me loath to discount the theory that the most centrally located member is the most influential. In the same hacking incident previously mentioned which forced the removal of a network candidate, a member of the pro-Chavez hacker group that claimed responsibility later identified Alberto Ravell as “the jewel in the crown” for their hacking goals in a Venezuelan newspaper interview.<sup>83</sup> This anecdotal evidence seems to support the theory that the most centrally connected member is the most influential, even though I was unable to verify this through my research.

An additional factor complicated using top word count overlap as a measure of influence. I failed initially to consider that examining the network leader's influence is not only a measure of similarity, such as was achieved by examining overlap between the 30 most used words. It also needs to include consideration of timing. If the network leader, *@AlbertoRavell*, was the first to generate a discussion topic, which was then echoed through the network, then he is likely leading the conversation. On the other hand, if the

network leader is not the first to generate a discussion topic, which is echoed within the network, then he is likely a content aggregator. The question then becomes whether the difference between being a conversation generator or a content aggregator is important. After reviewing the final network, I am inclined to think it is not, assuming other measures of influence such as follower strength and Retweet strength are present.

Of the 30 network members, 14 were individual accounts and 16 were organizational accounts, primarily news organizations, a nearly even split. On average, individuals were more likely to Retweet and interact, whereas organizations were more likely to post primarily original content and interact and Retweet less. Users who posted both types of content ranked highly and were included in the network. This seems to indicate that production of Tweet content that will generate user influence is unrelated to originality of Tweet production (using originality to mean the content, not the character of the Tweets).

In relation to RQ2, there are a couple of reasons why overlap between network members' Tweet content and the network's content was so high. One is quantity of Tweets of various members. For example, in Week 1, #RCTV was the 10th most used word in the network as a whole. It was used 195 times. It was also used 195 times as the most used word by @RCTVonlinea. This shows how repeated use of a word, phrase, or hashtag by one highly active network member can skew the word count for the network as a whole. By examining the network's most used words, one might assume that many members of the network are Tweeting about RCTV, yet in actuality only one network member was doing so. Unfortunately, since the program I used to gather Tweets only gathered individual content for the users I have already listed, I was unable to determine if this had happened with other words and users in the network's 30 most used words. Despite the effect this had on the network as a whole, the other users I sampled posted too infrequently to be responsible for a similar effect on the network. Although in the case of other users the network's results may be skewed towards heavier

Twitter users, it can reasonably be assumed that was not the case for *@AlbertoRavell*, *@NelsonBocaranda*, and *@usembassyve*.

Another consideration that affects RQs 1 and 2 is the words used in the final analysis. Words such as “he,” “she,” “it,” and “is” were removed in an attempt to ensure more meaningful results. However, several other topic neutral words, such as today, photo, and new, were left in the sample. These words were often the cause for overlap between the Embassy’s most used words and the network’s most used words. While there may have been value in removing words whose intent could not be understood outside their context, they were included due to difficulties in distinguishing their meaning. For example, the word president was most often used to discuss Venezuelan president Hugo Chavez, but it could have also referred to President Barack Obama or any other country’s president. Because of the difficulty of creating such distinctions when handling more than 16,000 Tweets, I made the decision to err on the side of inclusion. Although this likely increased overlap between users’ and the network’s most used words, the increase should have remained relatively equal across users. Additionally, this increased the likelihood of capturing similar topics of conversation outside the general focus of the network such as Blackberry, which was one of the most used words during the Blackberry outage that occurred during the sampling period.

The final consideration in understanding the results from RQ2 is that all three users sampled—*@AlbertoRavell*, *@NelsonBocaranda*, and *@RCTVenlinea*—are anti-Chavez individuals or organizations. As the highest and lowest network strength users, *@AlbertoRavell* and *@RCTVenlinea* could not have been substituted with other users. *@NelsonBocaranda* was chosen by random number sampling based on ranking within the network. Because the information environment in Venezuela is largely bipolar and highly politicized, replacing this selection with another member of the network who also possessed a middle range network strength ranking and who was pro-Chavez might have supplied different results.



In RQ3, I strove to determine if the U.S. Embassy was engaging in similar conversations in a different network, allowing for the possibility that the opinion leader network I identified might be one of many. The answer was resoundingly no. Speaking with the press office at the Embassy, I learned its non-participation in this network was intentional.

One of the challenges in this project was identifying the ideal Twitter network in which the U.S. Embassy in Venezuela should be situated. I was unable to get a response from the Embassy to help determine inclusion criteria in time to meet the project deadline. Because of this, I used the guiding principle that public diplomacy is an essential component of foreign policy as a basis for identifying the Embassy's ideal network. I identified this ideal network by focusing content analysis on the government, governance, and politics of Venezuela and the United States when the source in question was located in Venezuela. However, after I created the inclusion criteria and built the network, I was able to speak with members of the press office at the U.S. Embassy. While I still believe I correctly identified the network to which the embassy should be listening, I was unaware of constraints on the embassy's Twitter efforts.

As a matter of policy, the U.S. Embassy in Venezuela does not engage in political discussions and deletes partisan comments posted on its Twitter account. The Embassy's outreach efforts in Twitter aim to avoid political discussions and engage instead in cultural topics such as art and music, and sports. The embassy also does not follow the opinion leaders identified by this study.<sup>84</sup> Because of these considerations, it is understandable that the U.S. Embassy's Twitter account wasn't identified when building the ideal network and that its content does not correlate with the ideal network.

The policy constraint preventing interaction on political topics likely does not mean the Embassy does not wish to influence the identified network. Instead, it probably means the Embassy is highly desirous of influencing the identified network, but cannot be seen to do so overtly. If this supposition is correct, the value of

listening to and monitoring the ideal network increases. Assuming the embassy wishes to influence these individuals, listening can provide information of strategic importance for policy formulation. Importantly, it also can provide information of tactical importance about discussion on topics of interest to influential network members with which the embassy may be able to engage, the “hidden conversations” Fisher discusses.<sup>85</sup> Of the 30 network members, seven followed the Embassy’s Twitter account even though the Embassy did not follow any of the 30 accounts. This suggests that users in the network look to the Embassy for information. However, since there was minimal overlap between the Embassy’s most used words and the network’s most used words, it is reasonable to conclude the content the Embassy created was not of sufficient value to the network to be Retweeted or discussed enough to influence the network. On the one hand, this is not surprising since the Embassy purposefully avoids the main topics of conversation within the network. On the other hand, if the Embassy were to engage in topics of interest in the network that did not violate embassy restrictions, there is a possibility they might increase followers within the network and thus gain influence.

A possible example where the Embassy might engage in a topic of interest is the prevalence of the word “Gaddafi” during the last week of the study, which coincided with the killing of Muammar Gaddafi on October 20, 2011. This was a highly politicized situation and a topic of interest to the network. Translating and posting one of President Obama’s statements regarding Gaddafi’s death would have allowed the Embassy to join the network’s conversation and to possibly have had some influence. Instead, the Embassy’s only reference to Gaddafi’s death was a Retweet in English from the White House’s Twitter account announcing that President Obama would make a statement at 2 p.m. This suggests the Embassy may need to modify its Twitter engagement strategy.

### *Implications for public diplomacy*

The opinion leader network model tested in this case study provides a model of two-way communication that public diplomats

could use to engage foreign publics. It takes public diplomacy practice from a one-way broadcast use of Twitter to the bi-directional communication advocated by scholars and increasingly by many practitioners. The opinion leader network model provides a method for identifying users whose Tweets are worth listening to. What is done with the information gathered by listening remains a matter for further consideration. Because I advocate that foreign policy should be informed by this action, I believe that identifying the opinion leader network and listening to the opinion leaders is only the first stage. The information gathered by listening to these users should be collected and synthesized into intelligence that can be used by policymakers to inform policies. This process should be institutionalized and become routine.

### *Implications for Twitter studies*

This study was undertaken in part to address a concern about the temporally limited hashtag studies of Twitter. Examining the words most used by the network and the individuals sampled has only increased my concern about the value of such studies. Hashtags, at least in the case of the identified network in Venezuela, seem to be a stylistic choice of users.

The only hashtag identified in the network's most used words was #rctv, which was only utilized by one network member. The network leader did not have a hashtag as one of his 30 most used words in any week during the study. Thus, if a hashtag study were conducted to understand how Venezuelan Twitter users discuss President Chavez, the network leader would have been left out of the sample, despite the fact that pro-Chavez hackers identified Alberto Ravell as their number one target. Even the network users who did use hashtags, such as @RCTVenlinea, often used them inconsistently. For example, in the fourth week of the study, Gadafi was @RCTVenlinea's second most used word and #Gadafi the 21st most used word. The infrequent and inconsistent use of hashtags among network members suggests that although there might be merit in understanding and mapping hashtag networks, this method

is of dubious value for understanding influence and influential users outside of one time-limited conversation.

### *Future Research*

High internet and Twitter penetration rates in Venezuela permitted easy identification of six highly followed users through Twitaholic's list of the top 1,000 most followed Twitter users. Without those six users, I would have had much more difficulty identifying a starting point, and building the ideal network would have been much more challenging. In my initial research, before I had identified the methodology by which I would build my network, I was able to identify many of the users who were eventually confirmed as network members through word searches on Twitter and utilization of Trendsmap.com. I could possibly have built the same network by starting with five or six individuals identified by searching for topical Tweets, completing the same 30% content analysis check, and evaluating follower strength of the initial candidates. Evaluating whether this might be possible would be a valuable pursuit for future studies, since the portion of this study in which users' Tweets were analyzed to ensure 30% related content was the most labor-intensive part of the data collection.

Another possible area of study would be to compare this opinion leader network model with the findings of a hashtag study to determine if identified conversations are similar and if the same influential users are identified. While I think there may not be much overlap between the two, identifying what information is excluded through each method could provide a greater understanding of both techniques. Additionally, although I was not able to examine the model's application on other social media platforms, exploring its potential in other networking sites with platforms similar to Twitter would be worthwhile.

Finally, I believe it would be valuable to implement this opinion leader network model over an extended time frame to determine its viability and value. By identifying the opinion leaders within a given

network, this method of Twitter engagement would enable more proactive public diplomacy engagement and provide predictive value through monitoring opinion leaders' discussions. While I continue to believe this method identifies the opinion leaders within the desired network, verifying this and determining the value of having this ability require further testing in real world situations.

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I would like to thank Bruce Gregory for his unfailing encouragement, guidance, editorial assistance, and patience from beginning to end of this project. I'd also like to thank Kevin Ivarsen for his time and support in writing the program to assist with Tweet gathering and analysis.

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