

Tweet Acts: How Constituents Lobby Congress via Twitter

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ABSTRACT

Twitter is increasingly becoming a medium through which constituents can lobby their elected representatives in Congress about issues that matter to them. Past research has focused on how citizens communicate with each other or how members of Congress (MOCs) use social media in general; our research examines how citizens communicate with MOCs. We contribute to existing literature through the careful examination of hundreds of citizen-authored tweets and the development of a categorization scheme to describe common strategies of lobbying on Twitter. Our findings show that contrary to past research that assumed citizens used Twitter to merely shout out their opinions on issues, citizens utilize a variety of sophisticated techniques to impact political outcomes.

Author Keywords

Politics; Twitter; lobbying; linguistics; speech acts; political communication

ACM Classification Keywords

K.4.1 [Computers and Society]: Public policy issues

INTRODUCTION

For nearly two decades, we have been debating the potential of computer-mediated communication (CMC) to impact democracy and political engagement. Grossman [6] proposed that the internet could allow citizens to engage directly in political decision-making processes. Then the late 1990's saw a proliferation of online political groups [2] and people continued to discuss politics online, even in seemingly apolitical spaces [15]. Today, the popular press, especially, attributes the success of campaigns to their effective use of CMC. Twitter itself has invested in politics and elections; their "Government and Politics team" maintains an account (@gov), developed a sentiment

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monitor for the 2012 presidential election, and "verifies" accounts maintained by members of Congress and other elected officials.

Much of the existing research about political discussion online has focused on how citizens talk to one another [12,14,15]. Recent research asks how they use CMC in general [5,8] and whether they exploit the interactive capabilities of the medium [8]. Here, we turn our attention to the other side of that interactivity and examine how citizens use CMC to talk to their representatives. Specifically, we analyze whether and how people use Twitter to lobby members of the U.S. Congress (MOCs) about particular issues. We see lobbying as something distinct from soapboxing (merely shouting out personal opinions on issues).

The primary purpose of this paper is to provide a classification of linguistic approaches constituents use to lobby their representatives through social media. We provide a "social realist" [10] account of how people are actually employing technology to influence political outcomes. Twitter's public-ness provides a way for us to investigate how citizens lobby that traditional mail, phone calls, and email can't. We illustrate the myriad ways in which citizens use Twitter to try to participate in the political process. We contribute to the literatures on online political activity and political engagement generally by identifying and providing examples of various categories of issue-oriented interactions between citizens and their elected officials. We also analyze the linguistic distinctions between those interactions and discuss the different approaches citizens use when lobbying for an issue.

RELATED LITERATURE

Talking About Politics Online

Much of the existing literature about political conversations online focuses either on citizen-citizen interactions [12] or official-official interactions [5,8]. Few studies of interactions between governments or officials and their constituents focus on specific moments such as disasters [23] or on e-government services.

While Twitter is a (relatively) new forum for political interaction, all of the newly elected members of the 113th Congress had Twitter accounts maintained by their staff, or sometimes by the MOC him/herself. Some recent research suggests elected officials are starting to use Twitter to interact directly with citizens [8]. While prior work has claimed that citizens use social media as a soapbox from which they shout their own opinions at elected officials

[17], recent research provided evidence that users act in much more varied and sophisticated ways on Twitter [18]. We expand on this earlier literature by examining whether Twitter serves only as a soapbox where users can express their views or whether users actually use Twitter to engage in discussions and produce political change.

Doing Things with Words

Austin [1] first documented ways in which communication is more than just a series of utterances that provide information; most often speakers are attempting to accomplish something with their speech, such as trying to get someone to do something or describing a state of affairs to someone. Austin called these *speech acts*. Each speech act consists of two separate actions: the locutionary act and the illocutionary force. The locutionary act is the physical act of making an utterance (e.g. a child speaking the words “I want a balloon”), whereas the action that the speaker performs with that utterance is referred to as the illocutionary force (e.g. the above child expressing his desire for a balloon to his parent) [16].

Searle later refined Austin's taxonomy of illocutionary acts into five categories that more or less capture the range of possible speech acts a speaker can perform [21]:

- *directives*, which attempt to get the listener to do something;
- *commissives*, which commit the speaker to a course of action;
- *representatives*, which serve to report on the state of the world;
- *expressives*, which express a speaker's emotional state; and
- *declarations*, which change the state of a person or object (e.g. saying “I resign” actually changes your status as an employee).

Similar to Parker & Riley [16], we observe the distinction between directives and *questions*, which attempt to solicit information from the hearer, as they occupy a special place in our discussion of lobbying strategies.

Speech acts are a useful place to begin categorizing lobbying strategies because they differentiate approaches the speakers (constituents) take to motivate the listener (MOC) to take some sort of action or recognize a point of view on an issue. They also provide a theoretical framework for examining semi-public speech (tweets) by letting us focus on the impact speech acts have on their audiences. Here, we focus on the impact tweets have on only one audience: members of Congress. Each tweet in our dataset is directed at one or more MOCs using Twitter's “@” reply convention. Because these utterances are on Twitter, they are visible to the public, but they are aimed specifically at MOCs. We do not discuss the illocutionary force tweets have toward the public.

DATA

Data Collection

SOPA/PIPA was an issue that elicited a large amount of public feedback, but most of that feedback was directed in very narrow rhetorical channels, and nearly all of it was in opposition to the legislation [18]. To analyze lobbying strategies in a wider range of issues, we chose four political issues with well-established hashtags: immigration reform, the federal budget and sequestration, gun control, and internet freedom. We deliberately focused on hashtags in order to limit our analysis to issue lobbying instead of examining all kinds of political speech.

The Collaboration and Social Media Lab at Illinois Institute of Technology provides lists of all members of both the House and Senate for the 112th and 113th Congresses. We used Twitter's streaming and search APIs to collect tweets that mentioned members of Congress and that contained any of our hashtags of interest between 12/22/11 and 10/29/12, 1/25/13 and 1/29/13, and again between 4/30/13 and 5/16/13. In all, we collected 76,454 tweets from 43,079 users directed at a total of 566 Twitter accounts owned by members of the 112th and/or 113th Congress. Of those tweets, 42,398 were traditional retweets (shared content preceded by “RT”) and were not included when coding. We excluded RTs because they are linguistic duplicates of the original tweet. RTs redistribute the original message without using a new rhetorical strategy. Retweeting certainly represents a lobbying strategy but not a linguistic one and is therefore beyond the scope of our current analysis. From the remaining original tweets, we randomly selected a subsample for coding. Table 1 breaks down our sample by issue and hashtag (note that hashtag categories

Issue	Hashtags	Tweets	Users
Immigration reform	#immigration	4845	3083
	#dreamact	2591	1838
	#dreamers	3175	2495
Federal budget and sequester	#budget	13249	8767
	#fiscalcliff	978	674
	#sequestration	914	647
Gun control	#guncontrol	1743	733
	#2ndamendment	1443	1014
	#nra	1819	747
Internet freedom	#sopa	36985	21265
	#pipa	25009	15633
	#cispa	5498	3712
Total		76,454*	43,079*

* Some tweets contained multiple hashtags, and some users posted more than one tweet. These numbers represent unique tweets and unique users.

Table 1. Frequency of tweets containing hashtags associated with our selected issues.

are not mutually exclusive, meaning the sum of all categories is greater than the totals listed above).

Data Analysis

For our purposes, hashtags serve as metadata for identifying potentially relevant tweets. For us, relevant tweets are those that make lobbying efforts. We searched Twitter for hashtags that were clearly related to popular political issues during 2011-2013 expecting to retrieve some lobbying tweets and some tweets that accomplished other ends. We coded mainly for lobbying strategies, but constituents used hashtags for more reasons than lobbying for or against specific legislation or issues. For instance, constituents may have included hashtags to ensure that their tweets appeared in search results even if the content of the tweet doesn't clearly match the hashtag. @FreeRepublicUSA provides a good example: “@BachusAL06 We need #Benghazi answers BEFORE the election! #cot #tlot #bcot #ccot #gop #nra #ocra #sgp #teaparty #twisters #breitbart” (10/28/2012). The tweet appears in our collection because it contains the “#nra” hashtag, but the tweet is actually about the Libyan embassy tragedy. We chose hashtags based on their issue relationships, but some are more general than others (e.g., #budget vs. #cispa) and therefore appear in tweets that are more or less identifiable as lobbying efforts.

In order to categorize this subset of lobbying tweets, we used an iterative approach to developing a list of categories. We extended the list of seven lobbying strategies (including “other”) that was presented in [18] to include seven additional strategies, bringing our total to fourteen lobbying strategies (including “other”). After coding 300 tweets, we calculated interrater reliability using Stata's kappa command and reached a substantial [11] level of agreement ($k=0.73$). In the next iteration of coding, we identified two additional lobbying strategies, bringing the total number of lobbying strategies in our list to sixteen (including “other”). Both authors coded a 300 tweet training set plus a combined 625 additional tweets individually¹, and we discussed all edge cases until we reached agreement. We also negotiated all changes to the number and nature of categories until we agreed on new or amended categories.

LOBBYING EFFORTS

We identified sixteen distinct categories of tweets about our four selected issues. Table 9 (after References) lists all the categories and gives examples of tweets from each. In this section, we define those categories and organize our discussion by the type of speech act they perform. Table 2 lists the types of speech acts and the number of tweets in our sample that fell in each speech act category.

As Table 9 shows, *Directly oppose/support* was the most common lobbying strategy employed in 17% ($N = 108$) of tweets, but three other categories appeared more than 10% of the time as well. Tweets that point the audience to additional information accounted for nearly a quarter of all

Speech Act Type	N (%)
Directive	228 (37%)
Commissive	14 (2%)
Representative	145 (23%)
Expressive	100 (16%)
Questions	90 (14%)
N/A	48 (8%)

Table 2. Frequency of tweets by speech act type

tweets (*Promotional* [$N = 85$, 14%] and *FYI* [$N = 75$, 12%]). Expressives, where constituents express their emotional state, were more positive (*Thank you for opposing/supporting* [$N = 66$, 11%]) than negative (*I want a response from you* [$N = 14$, 2%] and *Disappointed* [$N = 20$, 3%]). “Polite” tweets (*Thank you for opposing/supporting* and *Please oppose/support*) combined with more neutral, informational tweets (*Promotional* and *FYI*) make up 41% of all tweets in our sample, demonstrating that civil and fact-based political discourse does occur on Twitter. More complex figures of speech (*Rhetorical Question* [$N = 33$, 5%], *Loaded Policy Question* [$N = 39$, 6%], and *Analogy* [$N = 5$, 1%]) were infrequent individually. Those kinds of comments are more linguistically complex than others, so it's not surprising to see fewer of them in such an informal, character-limited outlet. Their combined proportion (12%) demonstrates that sophisticated framing of issues is still a substantial part of citizen lobbying efforts on Twitter.

Directives

We identified four kinds of lobbying efforts that used directive speech acts: *please oppose/support*, *directly oppose/support*, *general directive*, and *FYI*. To distinguish between them, we look for markers of politeness (e.g., “please”, “I would appreciate”), and specific legislation. When those markers are present, we categorized the tweet as *please oppose/support*. When specific legislation is mentioned but no markers of politeness were present, we categorized the tweet as *directly oppose/support*. When no specific legislation is mentioned, we categorized the tweet as *general directive* whether or not politeness markers appeared. Finally, *FYI* tweets are indirect speech acts where the illocutionary force is a directive (e.g. “Read this”), but the syntactic structure is representative (e.g. “Here is an article that discusses this issue”) and includes a link to information that the user wants the MOC to read. We provide further detail on *FYI* tweets below. See Table 3 for examples of tweets in each category and our rationale.

The *Please oppose/support* tweets ($N = 27$, 4%) resemble the more popular *Directly oppose/support* tweets but include explicit politeness words such as “please” and “thank you”. Given Twitter's 140 character limit, it's somewhat surprising that more than one-third of the tweets directly opposing or supporting an issue used some of those limited characters to advocate politely. The differences between these two types of tweets doesn't end at word

¹ Our codebook and dataset are available at <http://repository.iit.edu/handle/10560/3057>.

Tweet Text	Category	Rationale
@farenthold Please don't trade our Liberty for Poker. #CISPA can't improve #Cybersecurity and has huge potential for abuse. #CongressTMI (Noah_Vail, 04/20/2012)	Please support/oppose	Implies opposition to CISPA and uses "please"
@FPizarro_DC @marcorubio @SenatorReid @UnivisionNews We need to pass the Dream Act. Pass #CIR Pass #DreamAct (SilvestreReyes, 03/27/2012)	Directly support/oppose	Tweeter directly requests that MOCs pass a specific piece of legislation
@RepLankford #Sequestration would mean a \$68.9 million cut & 69,000 fewer students served! Find a balanced solution! #saveTRiO #NDDUnited (simpson_kris, 10/12/2012)	General Directive	Clearly this tweet is about the budget, but it doesn't express support or opposition for any particular budget bill.
@marcorubio @MarshaBlackburn We can reform our system without the amnesty path to citizenship. #immigration http://t.co/9m0eVucTns (VictoriaSells1, 05/05/2013)	FYI	Indirect directive that includes information intended for the MOC to read (the link is to an editorial on immigration reform).

Table 3. Examples and rationale for directives

choice, though. We used separate categories for tweets that included these etiquette markers because the tone, punctuation, and presentation of polite tweets were so different from those without politeness markers.

The examples for each category in Table 9 illustrate these differences. In the *Directly oppose/support* tweet, @HartKnight employs all caps in both the text and hashtag, essentially shouting at three MOCs; this tweet closely resembles the more threatening *I'd have to vote against you tweet* in punctuation and style. In the *Please oppose/support* tweet, @valentin_tintin provides context for his comment using the "#Aurorashootings" hashtag, employs traditional punctuation and capitalization, and directs his/her tweet at a single senator. Similarly polite tweets appear in the *Thank you for opposing/supporting* category. These *Thank you* tweets express appreciation for a position or action the MOC has already taken rather than one the user would like to see. This kind of polite tweet accounts for 11% of the tweets we saw (N = 66). Together, these polite tweets

account for about 15% of the sample and illustrate the remarkable linguistic differences between appeals that are polite and those that are not. The conscious decisions users make to spend limited characters on politeness markers and punctuation set them apart from other tweets.

Directly oppose/support included implied positions. Sometimes people indicated their support or opposition explicitly (e.g., "@BillOwensNY VOTE NO! AGAINST #SOPA #PIPA i hope you are aware how these could affect the internet" [@mesaStreet, 01/18/2012]) and sometimes implicitly (e.g., "@ChuckSchumer @SenGillibrand @cbrangel #SOPA and #PIPA will destroy the free and open internet," [QiSites, 01/18/2012]).

Categories for issue tweets were less clear than for legislation-specific tweets. Without a specific piece of legislation to reference, it could be difficult for citizens to concisely tell a representative what kind of action to take. Some of these tweets fell into "general directive" because they did clearly ask representatives to do *something* but the something wasn't vote for or against a particular bill. For instance, @simpson_kris asks Rep. James Lankford (R-OK) to find a balanced solution and implies that he should avoid sequestration, but doesn't ask Rep. Lankford to vote on any particular resolution: "@RepLankford #Sequestration would mean a \$68.9 million cut & 69,000 fewer students served! Find a balanced solution! #saveTRiO #NDDUnited" (simpson_kris, 10/12/2012).

In the case of immigration, the Dream Act was a specific piece of legislation that citizens could lobby for or against. Such *directly oppose/support* lobbying attempts were much more focused: "@FPizarro_DC @marcorubio @SenatorReid @UnivisionNews We need to pass the Dream Act. Pass #CIR Pass #DreamAct" (SilvestreReyes, 03/27/2012).

Commissives

The only commissive type of lobby that we identified is the *I'd have to vote against you...* category. In this lobby type, users state their position and then indicate explicitly or implicitly that they will vote for an opposing candidate in the next election if the MOC does not adopt their position. We witnessed this strategy most often in the internet freedom debate which preceded the 2012 elections and less often on more recent issues. Obviously our sample is too small to definitively link this strategy to a particular point in time in the congressional election cycle, but that is one possible explanation for our observations. Users may also have been trying to show how strongly they felt about specific legislation, i.e. they cared so much about stopping SOPA, PIPA, or CISPA that they were willing to change their voting behavior. This kind of issue voting has been well-studied in political science (see [9] for a thorough review). We often assume that issue voters are more sophisticated than average voters because they base voting behavior on policy concerns rather than party loyalty or individual candidates [3]. While all users who include issue hashtags are likely paying attention to issues, those who use

Tweet Text	Explicit/ Implicit	Rationale
@JerryMoran #SOPA and #PIPA are bad bills. Please withdraw your support for them or you will lose my vote in the next election. (donaldrossberg, 01/06/2012)	Explicit	User explicitly states that failure to support his/her position will result in a loss of his/her vote in the next election.
@RepJohnYarmuth @SenRandPaul, I will not ever support any candidate who actively supports/votes for censorship. #SOPA #PIPA #STOPSOPA (TehLamonTeh, 01/04/2012)	Implicit	A promise to act regarding issue voting is present, though no request for a position is explicitly stated.

Table 5. Examples and rationale for commissives

commissives are more clearly marking themselves as issue voters. It wasn't possible for us to analyze initial user sentiment in juxtaposition with probable MOC position on issues, so we relied wholly on the linguistic structure when identifying tweets in this category, fully recognizing that constituents who did not support an MOC to begin with still employed this strategy. Likewise, we have no way to measure whether these voters actually follow through with their threats, but a commissive is a reasonable strategy for anyone wanting to sway a representative while indicating their own sophistication. Table 5 provides examples of both the explicit and implicit use of this strategy.

Representatives

Most representatives attempt to convey information about a particular state of affairs concerning an MOC. In the case of *Promotional* tweets, the user typically composes a short blurb about an event an MOC is speaking at or a quotation from a news piece and then links to that document. Negative promotion occurs when sentiment expressed by user is negative, but structure (content association and promotion) is the same. Later in this paper we go into more detail about the difference between *Promotional* tweets and *FYI* tweets. We found that not all promotional messages reflected the MOC in a positive light (e.g. @ItsShoBoy writes "@LuisGutierrez supports @marcorubio even if hurting #Latinos families <http://t.co/UWn7ejlU> --- #DREAMAct #immigration #p2 #tcot #latism" [05/31/2012]). Since this was an issue of negative versus positive sentiment (as opposed to an issue of a fundamentally different strategy) we include these tweets with other *Promotional* tweets.

Tweet Text	Category	Rationale
@RepReneeEllmers introduces bill to reverse #sequestration cancer cuts #stopcancercuts http://t.co/VLYBK59Ubs (communitycts, 04/10/2013)	Promotional	The user composes a short headline for an article about an MOC and links to that document.
@DWStweets Wrong. It's up to Obama and the Dems to come up with \$1.2T in cuts to avoid #Sequestration. @GOP has done their job. (Jmonwater, 02/19/2013)	Campaign ad accusation	Accuses the MOC of a position but does not provide additional information or evidence.
@LuisGutierrez @jsethanderson #Justice4AZ #SB1070 Sadly, we *CAN* have 50 different #immigration laws. We do it with marriage. #NoH8 (communitycts, 04/10/2013)	Analogy	Responding to the assertion that we need a comprehensive immigration law by equating that issue to the fragmentary and conflicting state-level marriage laws.
@DarrellIssa As your constituent, please make sure to vote 'NO' on #CISPA. It violates Internet freedom on the pretense of #cybersecurity. (AvrilPrakash, 04/18/2013)	I'm your constituent and I oppose	The user is representing a state of affairs about him/herself, and pairs a constituency reminder with a lobbying statement.

Table 4. Examples and rationale for representatives

A *Campaign ad accusation* is a special type of representative, in that the tone of the user is accusatory and the veracity of the statements is questionable or taken for granted by the author in lieu of providing evidence or support. The category name stems from the type of accusatory voiceover that traditionally adorns television campaign attack advertisements.

An *Analogy* tweet equates the issue being lobbied with another current political issue. These tweets have complex linguistic structures and usually apply a consequential or substantial relationship between the two issues.

Tweet Text	Category	Rationale
Thank you @SenatorBoxer 4 your leadership on #immigration, women & families today! #womentogether #4immigrantwomen (WomenBelong, 03/19/2013)	Thank you for opposing/supporting	The user thanks the MOC for existing support on an issue.
@RepDennisRoss we're here outside your luncheon and we would love if you came out and show support for #CIR #immigration #11MilliomDreams (veronikaperz, 05/01/2013)	I want a response from you	The user expresses a feeling, implying a request for action but not a vote on a particular issue.
@robportman Even though you aren't my senator, I need to tell you how disappointed I am in you. We need #guncontrol NOW. (Magpiemusing, 04/18/2013)	Disappointed	Especially because the user can't vote for or against the MOC, the primary purpose of the tweet is to state how the user feels.

Table 7. Examples and rationale for expressives

The final type of representative, *I'm your constituent and I oppose*, represents the user as a member of the MOC's constituency. The persuasive power of this type of statement seems self-evident, in that a user probably assumes that this lobbying strategy will garner more attention from the MOC or that their message will carry additional weight. Table 4 shows examples of each type of representative category.

Expressives

The illocutionary point of tweets in this category is to “express the psychological state [of the speaker]” [21, p.12], i.e. not to bring about a state or to assert the truth of something, but to say how one feels about the state of things. Pure expressives are rare in political speech because most political speech does aim to bring about change or assert a claim even if it does so implicitly. In our scheme, expressives fall under *Thank you for opposing/supporting*, *I want a response from you*, and *Disappointed*. Table 7 shows examples of tweets from these categories.

Questions

Above we discussed the special place questions occupy in our classification scheme. Questions are typically asked to illicit information from a listener [16]. Tweets classified as

What is your position? do just that, asking the MOC to declare support or opposition on a particular issue.

Questions can also be transformed as indirect illocutionary acts to both signal a position/express frustration (*Rhetorical question*) and presuppose the position of the listener, creating a condition where no answer can allow the listener to save face (*Loaded policy question*); in the former, a reply is not expected, while in the later, no reply would likely be offered. Table 6 offers examples of each type of question.

Whereas we elected to categorize certain speech acts by their illocutionary force rather than their syntactic form (e.g. *FYI*), we elected to group *Rhetorical* and *Loaded policy questions* with actual interrogatives because we feel they rely heavily on the syntactic form to deliver the intended illocutionary force. For instance, we could change any indirect *FYI* tweet to a directive and the utterance would retain its illocutionary force (“I want you to read this”), but converting a rhetorical question to a statement would compromise the intended rhetorical effect evoked by phrasing the directive, accusation, etc. as a question. Posing these challenges as questions is a sophisticated rhetorical strategy that deserves further inquiry, and we plan to return to them in future work.

Tweet Text	Category	Rationale
@SenJohnMcCain What is your view of President Obama's Announcement today #DreamAct (aaronazbartlett, 06/15/2012)	What is your position?	User directly asks MOC for a statement responding to someone else's position. Many users fail to punctuate syntactic interrogatives with question marks.
@LuisGutierrez: so what happen, I thought obama was going to reform #immigration, Obama throw you under the bus, huh!! how it feel? (CowboySpurs12, 05/08/2012)	Rhetorical question	This is actually a string of rhetorical questions. The user likely does not expect a response to any of them; the comment is more to express dissatisfaction and/or to preen.
@jasoninthehouse Do you not care that married couples cannot be together because of #Immigration laws? #UFAA #RFMA #CIR (Song1964, 04/23/2012)	Loaded policy question	The question presupposes the opposition of the MOC on the issue and creates a situation where no response allows the MOC to save face.

Table 6. Examples and rationale for questions

DISTINGUISHING ILLOCUTIONARY FORCES

We chose to assign tweets to a single category based on their primary lobbying strategy as determined by the coder, though some tweets made clear efforts at more than one strategy; however, the character limit of Twitter also serves to limit the number of approaches a user can take in one individual tweet, so most of the tweets we coded utilized a single approach. Early in the coding process, we recognized the difficulty in distinguishing between the sixteen categories we articulated. To address this, we constructed a decision tree to guide our classification of tweets. Still, some categories are similar in their content or speech act type, and so we justify our distinctions by providing additional information about how we assigned those tweets to a single category.

FYI vs Promotion

Some tweets' content suggested it could be either *FYI* or *Promotion*, but it was difficult to tell which one from the content of the tweet alone. Most tweets in these two categories contained links to other content, so we used information from the link (specifically whether the content was intended for the MOC to read or whether it contained information about the MOC) to determine which strategy the tweet employed.

Searle [21] describes a fundamental distinction between directives (*FYI*) and representatives (*Promotional*): direction of fit between words and the world. Searle's example describes a man at a grocery store with a shopping list given to him by his spouse and a detective following the man and writing down everything he puts in his basket. At the end of the shopping trip, both lists will contain the same information (a list of items), but the fundamental speech acts behind them are different because of how the words fit with the world. The shopping list is intended to fit actions in the world to the words on the list (i.e. a directive, "buy these items"), whereas the detective's list is intended to fit the words on the page to actions taken in the world (i.e. a representative, "that man bought these items").

Tweets in the *FYI* category provide information about a topic or issue with the intention of having the world fit their words through directing MOCs to read or understand that information. The users sometimes provide information in the text of the tweet, but most often link to the information that they want MOCs to read or understand by providing a short description or directive paired with a URL. Ultimately, there is a want or need [21] expressed by the user to direct the linked to information at the MOC, making this category an indirect directive (i.e. the implied force of the indirect utterance "here is something to read that is related to this issue" when transformed to a direct utterance would look something like "I want you to read this").

On the other hand, *Promotional* tweets attempt to make their words fit the world by describing actions taken by MOCs or rebroadcasting quotations from MOCs on particular policy issues. These tweets are meant to transmit the opinions and positions of MOCs on an issue rather than

direct information at the MOC. We categorized tweets as *FYI* when they contained information the tweeter wanted the MOC to access and as *Promotional* when the link contained information about the MOC (see Table 8).

"I'd have to vote against you" vs "I'm your constituent and I oppose"

While these categories appear quite similar, *I'd have to vote against you* explicitly commits the user to a course of action while *I'm your constituent and I oppose* only implies consequences. One could argue that the constituency reminder, if read as an implication of consequences, is akin to an indirect speech act (where the syntactic form differs from the illocutionary force), e.g. a speaker saying "it's pretty cold in here" when the speaker wants the listener to close a window. We read the constituency reminder as a signifier to the MOC to pay greater attention to the message, and thus it serves as more of an amplification of the message's persuasive power rather than as an indirect threat or commissive. The sheer number of lobbying websites that ask for a zip code or address in order to direct a message to the user's members of Congress testifies to the importance of constituency in citizen lobbying. This is, of course, a fine distinction that requires further exploration, but our experience with a large volume of tweets leads us to believe that these are distinct strategies.

Notable "others"

Some tweets eluded classification based only on their linguistic features or the content of the URLs they contained. One set of tweets that fell into this "Other" category came from a tool for tweeting and emailing Congress provided by Fight for the Future (FFTF), an online freedom lobbying group. FFTF was aiming to defeat CISPA and encouraged users to share "inappropriate, awkward, often embarrassing personal details — the kind that the FBI, NSA, CIA, IRS, and local police will soon have access to if CISPA passes." The tweets generated by

Tweet Text	Link Info	Category
@ChrisCoons #Immigration reform is critical to US economic competitiveness. Watch our videos on the issue: http://t.co/BpzYlWYQ (imovement, 02/13/2013)	YouTube video from The Innovation Movement, a immigration reform lobbying group	FYI
@BuckMcKeon: "#sequestration would do what no other external enemy could -- cripple our economy and defenses" http://t.co/AbCBLyJ5 (AIAspeaks, 06/25/2012)	An opinion piece about sequestration authored by Rep. Buck McKeon (R-CA) at Politico	Promotional

Table 8. Examples distinguishing *FYI* from *Promotional* tweets

their site (<http://www.congresstmi.org>) contain the #CISPA hashtag, so they appear in our dataset, but the content of tweets is arcane by design. For instance, @bnowbh said, “@Call_Me_Dutch #EndingOurPrivacy with #CISPA? OK: I'm off to the shower now. #CongressTMI. <http://t.co/wKCrSANI>” (04/20/2012). The canonical link for that short URL is FFTF's CongressTMI website. The #CongressTMI tweets employ a more social lobbying strategy than a linguistic one. They rely on shared knowledge and not on language to do their lobbying and therefore fell into our “Other” category.

Another type of “Other” contained tweets in which the content and hashtags either didn't match or the relationship was unclear. As mentioned earlier, tweets about the Libyan embassy tragedy often included the #nra hashtag. Often these tweets contained many hashtags that are commonly associated with Republicans [7] but are otherwise unrelated. It's not clear from the content of the tweet what the tweeter hopes to accomplish legislatively, or at least the author makes no clear lobbying effort.

Finally, some tweets in this category contained no clear message and were just amalgamations of usernames and hashtags (e.g. “@ChuckSchumer @DeptEducation #DISCLOSE #DreamAct #EBTCards #ACA. @federalreserve #AUDITFED #ENDtheFED...@DeptTransportation #Gasoline taxes” [Joseywalesful, 07/16/2012]) or were in a language other than English (e.g. “@LuisGutierrez y De que sirvio. El fue el primero en sugerir no tocar el problema migratorio, me equivoco? #DreamAct” [jchc24141, 05/03/2012]).

DISCUSSION AND FUTURE WORK

Social Media Lobbying May be Unlike Other Lobbying

Social media lobbying may differ in significant ways from email/letter writing lobbying and/or off-line lobbying. The 140 character limit of tweets does not allow the user to provide a great deal of context or lead in to their message, hence they may write more concisely than they do in emails or letters. This may also limit the amount of personalization or the telling of anecdotes, which literature on traditional lobbying suggests is important (for a discussion of web interfaces and personalization see [22] and [24]). Our example of the Fight for the Future campaign demonstrates that tweets can often appear bizarre out of the context of their larger organizational movement.

MOC websites typically require an in-district address to direct messages at MOCs, but Twitter enables any user to direct any stock message at any MOC on Twitter, whether that MOC represents them in Congress or not. Individuals may use different tactics when lobbying their own representatives (e.g., our *I'm your constituent* category) than they do when lobbying others' representatives. We were unable to identify how often users directed messages at people who don't represent them, in part because of the low usage of Twitter's geotagging feature, but future research may shed light on this issue.

Some Twitter accounts that address MOCs are lobbying groups (e.g., AIASpeaks, imovement) rather than individuals. Future work could also examine how professional lobbyist use social media in messaging campaigns.

Sarcasm

Like any qualitative coding scheme, ours has edge cases and produced disagreements between coders. We made efforts to resolve disputes by more explicitly defining categories and including example tweets for each, but some rhetorical strategies, such as sarcasm, limit the comprehensiveness of our scheme.

Tweets that contain sarcasm are difficult to categorize based solely on their content, but sarcasm is a popular tool in political speech. We categorized some sarcastic tweets as directives and sometimes as expressives. For instance, “@benquayle That's right, go after innocent kids! Way to pick your battles! #Congress #DreamAct” (droskosz, 06/18/2012) fell into *directly support/oppose* because the tweeter implies support for the DreamAct. However, that reading of the tweet requires that one know what the Dream Act entails and to recognize “go after innocent kids” is sarcastic in this context. The content alone doesn't provide that information.

Effectiveness

Our analysis does not allow us to make claims about the effectiveness or impact of these lobbying efforts. We cannot know the effectiveness of these tweets without knowing both what it means to be effective and what happens after the tweet is sent. Effectiveness is an important avenue for future work, but first we will have to define what effectiveness means in this context. Here are just a few examples of possible definitions: whether an MOC responds (on Twitter or elsewhere), whether an MOC changes his/her position, whether a user thinks the tweet is effective. We recognize that our analysis does not provide insight about effectiveness, but we consider that beyond the scope of our current study. In terms of speech acts, we would normally judge the effectiveness of a speech act on its ability to bring about the outcome the speaker wanted. The content alone doesn't allow us to claim intent though. The content and frequency of tweets allow us only to infer that people find some benefit in tweeting at their MOCs (or they wouldn't do it), not to judge whether these tweets were effective. Also, it's unlikely that any individual tweet actually influences how an MOC will vote. Before we begin discussing effectiveness of action, we need to know whether and how that action occurs. Our paper provides a taxonomy of constituent lobbying efforts, helps us understand those efforts, and enables future work on the effectiveness of constituent lobbying.

Future work could examine whether some lobbying efforts receive more responses from MOCs, for instance. Our “Other” category reveals that some of the tweets directed at MOCs are actually part of longer conversations. A larger statistical analysis of the tweets and their eventual replies

may reveal which lobbying strategies produce the highest response rates from MOCs. For instance, it may be that tweets with a clear, directive approach may be more effective than tweets that link to other documents and, through their linguistic structure, transfer persuasive power to the author of the referred to document as opposed to the author of the referring tweet.

Similarly, it would be interesting to disentangle how issue type, party affiliation of the user/MOC, or timeframe (i.e. when an issue is in the public discourse versus when it actually goes up for a vote in Congress) impact the type of lobbying strategies that citizens employ. Likewise, a study of how often tweets directed at MOCs come from users in that MOC's legislative district may reveal patterns of communication that differ with traditional, geographic conceptions of citizen lobbying.

We don't yet know what citizens' goals are when they engage in lobbying efforts. Earlier work provides some ideas including soapboxing and grassroots organizing [17]. Evidence of lobbying efforts on Twitter implies that users think *something* will happen, but without knowing what citizens know about issues and what they expect to accomplish, it's hard to say *what* they think will happen. Users may just want to feel like they're making a difference. These questions relate to the ongoing discussion of "slacktivism" in social media [4,13,20]. Our results indicate users are trying to influence political outcomes and not just expressing opinions.

Finally, we are conducting work on using machine learning algorithms to automatically classify tweets into the lobbying categories we described above. Past work with machine learning algorithms employed an automated text classification algorithm, but we identified necessary and interesting categories beyond those earlier research identified [18]. Reliable automated classification would allow researchers to examine this approach on a macro level to better understand how citizens communicate with their elected officials on social media. This paper provides a comprehensive codebook for use in automated classification efforts. For a longer discussion of our use of this codebook for automated efforts, see [19].

LIMITATIONS

Our study has a few limitations worth noting - some related to what data is included and others related to what our analysis allows us to claim. We included tweets only when they were directed at the Twitter accounts of members of Congress and included hashtags. In order to appear in our dataset, users needed to be Twitter- and politically-savvy enough to know how to use hashtags, how to find an MOC's Twitter account, and how to direct their tweets at an individual user. Our findings, then, are limited to issue campaigning where users explicitly labeled both the conversation and the audience. Users who discussed the issues we analyzed but without using a hashtag or directing the tweet at Congress may use different rhetorical strategies than those we identified. We did not capture tweets that

complained to the public about an MOC's position on an issue, for instance. Such tweets are certainly implicit lobbying efforts, but they are not aimed directly or explicitly at individual representatives and therefore fall outside our analysis.

CONCLUSION

By allowing people to communicate with their representatives and to do so publicly, Twitter provides space for broader conversations about political issues. We cannot yet measure the impact of that conversation, but we can clearly see that people try to influence politics directly through their social media use. We have described several ways constituents use Twitter to lobby their representatives about political issues and specific legislation. We applied speech acts theory to constituent-authored tweets to explain the ways in which constituents attempt to lobby MOCs. We developed a robust, sixteen-category classification scheme that captures the various strategies citizens adopt when lobbying MOCs and made this codebook and our complete dataset publicly and freely available so that other researchers may build on our work. We also demonstrated that users employ diverse and sophisticated lobbying techniques and don't only "soapbox." Finally, we elaborated on different approaches for future research, specifically how social media relates to other forms of lobbying, the challenges of dealing with classifying sarcastic speech acts, and various metrics of effectiveness that could be applied to citizen lobbying on Twitter.

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Code	Description	Example	Speech Act Type	N (%)
Directly oppose/support	User expresses his/her opinion on issue to MOC without a polite request.	@jim_jordan @sensherrodbrown @robportman DO NOT SUPPORT #PIPA! http://t.co/i8no0A3z (HartKnight, 01/13/2012)	Directive	108 (17%)
Promotional	Link to promotional media <i>or</i> simply promoting the MOC without explicitly requesting action.	@LuisGutierrez I told Piers Morgan to contact you. I think he would be a great media if he listens. #DreamAct and immigration reform** (MarkChristianPr, 01/13/2012)	Representative	85 (14%)
FYI	Directing MOC to a page on the internet via a hyperlink	@ChrisCoons #Immigration reform is critical to US economic competitiveness. Watch our videos on the issue: http://t.co/BpzYIWYQ (imovement, 02/13/2013)	Directive	75 (12%)
Thank you for opposing/supporting	Thanking MOC for opposing/supporting an issue	@RosLehtinen heard you on 1020 AM. Gotta get GOP on board for #DreamAct. Thanks for supporting the bright minds who were raised here! (josephedison, 02/27/2012)	Expressive	66 (11%)
Other	Does not fall in any of the other categories or doesn't contain enough content to classify	@gopwhip @wsj #BoycottMSM #Propaganda wing of #BarackObama #DNC2012 #coverup #treason #unemployment #DreamAct #ExecutiveOrder #tyranny (USAFBro1964, 09/08/2012)	N/A	48 (8%)

Campaign ad accusation	An allegation or accusation posited as fact that one would expect to encounter in a campaign advertisement.	@OrrinHatch, just like you, the original Republican #DREAMAct Sponsor, decided to turn your back on it for political points w/ REP voters. (deftbeta, 01/09/2012)	Representative	46 (7%)
Loaded policy question	Question with a presupposition about the MOC's issue position, an answer to which would force a positioning statement.	@SenatorLeahy You sure you want #PIPA to pass!?!? Forgive me for this, but do you realize the magnitude of such an error!?!? PIPA kills jobs (mySCRIPPSDTW, 12/29/2011)	Question	39 (6%)
Rhetorical question	Figure of speech question with no expectation of reply.	@SenatorReid Harry Reid is paid by our tax dollars to take away our internet. #sopa #pipa since when [d]o we pay the enemy ? (peplepowerusa, 12/27/2011)	Question	33 (5%)
Please oppose/support	Polite request to MOC to oppose/support an issue	@SenJohnMcCain Please, put #GunControl in your agenda. No more weak NRA laws. We can stop future massacres. #Aurorashootings #Colorado (valentin_tintin, 07/20/2012)	Directive	27 (4%)
Disappointed	Expressing disappointment or dissatisfaction with something the MOC has already done or voted on	@SenatorBegich Ashamed of you and your vote for the background check bill! When will you stop being a pawn of the #NRA (mitamuk, 04/08/2013)	Expressive	20 (3%)
General directive	Asking MOCs to "do something" that is less specific than a particular bill but more specific than a rhetorical question.	@RepLankford #Sequestration would mean a \$68.9 million cut & 69,000 fewer students served! Find a balanced solution! #saveTRiO #NDDUnited (simpson_kris, 10/12/2012)	Directive	18 (3%)
What is your position?	Request for clarification or positioning statement from MOC on an issue	@SenatorBarb When the UN asks if you'll support their global gun ban on the 27th what will you say? #tcot #guncontrol #lntyht (kwall76, 07/23/2012)	Question	18 (3%)
I want a response from you	Author is requesting a response from the MOC.	@repaaronschock and you still haven't responded to any of my emails about #SOPA and #PIPA ruining the internet and free speech (frozensolidone, 01/05/2012)	Expressive	14 (2%)
I'd have to vote against you...	Some indication that user will withdraw support for MOC. Does not take into account initial sentiment, position or constituency, only linguistic construction.	@SenatorBarb IF YOU DARE TREAD ON OUR 2nd AMENDMENT, KISS YOUR CAREER GOODBYE! @BarackObama #GunControl #tcot #lntyht #ATT #teaparty (GirlMonson, 07/26/2012)	Commissive	14 (2%)
I'm your constituent and I oppose	User positioning statement that explicitly or implicitly implies constituency	@repjohnncampbell wanted to voice my opposition to #SOPA #PIPA and as a tax paying citizen, #dreamact please vote for your constituents (Common__Cents, 01/18/2012)	Representative	9 (1%)
Analogy	Equates or transfers support/opposition of an issue to another issue or state of affairs	@RepDianaDeGette Supporting the #DREAMact HR.1751 is supporting the economy that put #USA in front! Thanks for listening. (Emanuel5280, 02/13/2012)	Representative	5 (1%)

Table 9. Definitions of the 16 categories of lobbying tweets, examples of each, their speech act types, and frequency.