Citation:

Straus, J.R. (2022), "Using social media to understand constituent and follower opinions: impact of "low quality" on US Senator information gathering", Transforming Government: People, Process and Policy, Vol. ahead-of-print No. ahead-of-print. <u>https://doi.org/10.1108/TG-10-2021-0165</u>

Doi: https://doi.org/10.1108/TG-10-2021-0165

Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0) https://creativecommons.org/licenses/by-nc-nd/4.0/

Access to this work was provided by the University of Maryland, Baltimore County (UMBC) ScholarWorks@UMBC digital repository on the Maryland Shared Open Access (MD-SOAR) platform.

Please provide feedback

Please support the ScholarWorks@UMBC repository by emailing <u>scholarworks-</u> <u>group@umbc.edu</u> and telling us what having access to this work means to you and why it's important to you. Thank you.

Using Social Media to Understand Constituent and Follower Opinions: Impact of "Lowquality" on U.S. Senator Information Gathering

Jacob R. Straus Department of Political Science University of Maryland Baltimore County, Shady Grove; Rockville, MD; USA

Acknowledgments (if applicable):

This paper reflects the views of the author and does not necessarily reflect the views of the Congressional Research Service or the Library of Congress. The author would like to thank Annelise Russell, Shannon Bow O'Brien, and the anonymous reviewers for their comments on previous drafts of this paper.

Abstract

Purpose: This paper seeks to understand why some U.S. Senators have more low-quality followers than others and the potential impact of low-quality followers on understanding constituent preferences.

Design/methodology/approach: For each U.S. Senator, data on Twitter followers was matched with demographic characteristics proven to influence behavior. An OLS regression model evaluated why some Senators attract more low-quality followers than others. Then, observations on the impact of low-quality followers were discussed along with potential effects on information gathering and constituent representation.

Findings: The study finds that total followers, ideology, and length of time on Twitter are all significant predictors of whether a Senator might attract low-quality followers. Low-quality followers can have wide-ranging implications on Senator's use of social media data to represent constituents and develop public policy.

Originality: This study uses an unique dataset to understand why some Senators have more lowquality followers than others and the impact on information gathering. Other previous studies have not addressed this issue in the context of governmental decision making or constituent representation.

Research limitations/implications: The dataset only includes Senators from the 115th Congress (2017-2018). As such, future research could expand the data to include additional Senators or members of the House of Representatives.

Practical implications: Information is essential in any decision-making environment, including legislatures. Understanding why some users, particularly public opinion leaders attract more low-quality social media followers could help decision makers better understand where information is coming from and how they might choose to evaluates its content.

Social implications: This study finds two practical implications for public opinion leaders, including Senators. First, accounts must be actively monitored to identify and weed-out low-quality followers. Second, users need to be wary of disinformation and misinformation and they need to develop strategies to identify and eliminate it from the collection of follower preferences.

Keywords: Congress, social media, Twitter, Representation, Senate

Introduction

Social media has become a centerpiece of modern communications. It has "shift[ed] how we communicate ... and how we consume content" (Alfifi and Caverlee, 2017, 218). The shift is true for "regular" citizens and for government officials like Members of Congress. Members of Congress increasingly use social media to share policy ideas and gather information from followers (Golbeck *et al.*, 2010; Greenberg, 2012; Straus *et al.*, 2013; Straus *et al.*, 2016; Straus and Williams, 2020). As social media usage among Members of Congress increases, they may attract more followers, including fake users or bots, called low quality followers in this study. If Members of Congress attract a significant number of low quality followers, what potential consequences exist for their use of Twitter and other platforms to share idea and collect information from followers?

Information Access and Gauging Constituent Preferences

Members of Congress frequently seek constituent opinions (Downs, 1957; Clausen, 1973; Wolfensberger, 2000; Wawro, 2000, Barber 2016, Abernathy 2017). Traditionally, opinion gathering occurred through letters, phone calls, constituent office visits, and formal town-hall meetings (Minozzi *et al.*, 2015). Technology now supplements these traditional activities. Specifically, Members of Congress turn to social media to gather public opinion (Hemphill *et al.*, 2020).

Even with a plethora of information, Members historically struggle to understand constituent preferences. Political scientist Richard Fenno, in his famous study *Homestyle: House Members in Their Districts*, visited with U.S. House Members to understand how they represented their constituencies. He noted that each Congressman collected and consumed information differently, according to their personality and their perceptions of the district. Their

uniqueness results in significant differences in representational styles, tactics, and decisionmaking among representatives (Fenno, 1978).

Embedded in all decision-making theories is the ability access information (Robertson 1980; Jones 1994). On Capitol Hill, information can come from committee hearings (Diermeier and Feddersen 2000), colleagues (Masket 2008, Box-Steffensmeir *et al*, 2015), staff (Hertel-Fermandez *et al*, 2019), interest groups (Box-Steffensmeier *et al*, 2019), the executive branch (Bond and Fleisher 1990, Fisher, 1997), and constituents (Kuklinski and Hurley 1994). While all information can be important, Members put an emphasis on understanding the preferences of geographic constituents (Mansbridge, 2003).

When forming opinions, people often look to public opinion leaders, including their Members of Congress. Members can be described as "official reputable sources," which are "considered valuable and actively sought" by Internet users (Castillo *et al.*, 2011, p. 675). When constituents or the media looks for content from pubic opinion leaders, they often turn to social media (Shapiro and Hemphill, 2016).

Social media can also have a profound impact on elected official's ability to gather information (Barbera *et al.*, 2019). Individual Americans who regularly post comments on social media platforms can have an outsized effect. For example, one study found that "thirty or fewer similar comments on a social media post are enough to get an office's attention..."

(Congressional Management Foundation, 2015).

Fake and "Low-quality" Followers and Bots

Not all social media followers are equal. Some are real people, while others are computers programed to interact with social media accounts. Often called "bots," these followers are "generally defined as automated agents [or] ... programs that run continuously, formulate

decisions, act upon those decisions without human intervention, and are able to adapt to the context they operate in" (Gorwa and Guilbeault 2020, p. 4; Franklin and Graesser 1996; Tsvetkova *et al.*, 2017). Bots are essentially "algorithms that exhibit human-like behavior" (Ferrara *et al.*, 2016, p. 96).

Not all bots are bad. Many are programs that periodically post information, monitor other accounts, or amplify client messages (Confessore *et al.*, 2018). Bots can present challenges to all social media users, but especially users who attract a wide variety of followers. If left unmonitored, bots can make "it difficult to pay attention to real message," as the opinion of real people, including constituents could get obscured (Diakopoulos, 2018).

This study labels fake accounts, fake followers, or bots as low-quality followers, because they can alter the perception of social media influence, artificially enlarging the audience of some people..." (Ferrara et al., 2016, 99). Low-quality followers can create an appearance of greater reach than might actually exist and can make determining follower preferences more difficult. Social media can connect a Member to worldwide followers, not just geographic constituents. If Members are primarily interested in representing their geographic constituents, then low-quality followers who engage with the Member account could create noise, making it difficult for Members to determine true geographic constituent interests (El Abaddi *et al.*, 2011; Lee *et al.*, 2011; Levordashka and Utz 2016). Noise makes information received via social media potentially problematic, especially when identifying sources, as not all followers are equal (e.g., geographic v. non-geographic) even without the potential influence of low-quality followers (Notgrass 2014).

Like any small business or other perceptive user, Members of Congress have social media goals, including the desire to increase exposure, the "number of fans and 'likes' [a] ...

post received" (Lev-On *et al.*, 2017, p. 555). To increase exposure, some Members encourage interactivity, while others generally use social media as a tool to push information and policy positions to followers (Spierings *et al.*, 2018). Member use of social media parallels general government usage (Wigand, 2010; Alfifi and Caverlee, 2017).

As Members use social media more, followers matter more. In a recent study, 76% of congressional staff indicated social media comments and posts have "some influence" on Member decision-making (Congressional Management Foundation, 2015, p. 10). If only a handful of similar comments can influence Member preferences, than a higher percentage of fake follower accounts might be significant.

Factors Influencing Senate Social Media Followers

Congressional offices increasingly use social media as part of their communications and information-gathering strategies (Congressional Management Foundation, 2015). They, however, do not all use social media equally (Straus *et al.*, 2016). Some offices are more likely to attract low-quality followers. The existing literature provides several possible hypotheses for why some Senators attract more overall and low-quality followers than others.

Social Media Staff

Senators have increasingly hired dedicated staff to manage social media (Lev-On *et al.*, 2017). Previous studies have found that dedicated social media staffers were a significant factor for predicting how often a Senator might use Twitter (Straus *et al.*, 2016; Barbish *et al.*, 2019). The more social media staff actively manage an account, the more likely they can monitor and evaluate followers. Staff evaluation of followers could identify low-quality followers and potentially reduce account noise to allow the office to focus on real followers.

Terms in Office

Experience improves decision-making (Weick, 1995), including for Members of Congress. The longer a Member serves, the better they become at understanding constituent preferences. This occurs regardless of how a Member interacts constituents or social media followers. Low-quality followers, however, create a situation where Members might lose geographic constituent opinion in the noise of social media. In those cases, the ability of the Member to use experience balanced against social media feedback to anticipate constituent positions can become perilous (Bianco, 1994).

Long serving Senators tend to have more power (Cain *et al.*, 1987; Fiorina, 1989; Hibbing, 1991, pp. 59-60; Sinclair, 1995, p. 20; Oleszek, 2014, p. 14). Longevity also gives Senators a better chance of commanding a national audience (Mansbridge, 2003; Swers, 2007). Consequently, senior Senators are expected to have a greater number of followers, including low-quality followers. Seniority is measured by the number of terms the Senators has served (U.S. Congress 2018).

Ideology

Ideology predicts many political behaviors (Minar, 1961; Calvillo, *et al.*, 2020). Studies have found that an individual's transfer their liberalism or conservatism onto social media (Hughes and Lam, 2017). Subsequently, the literature expects that more ideological Members are more likely to attract low-quality followers than less ideological Members (Xi *et al.*, 2020; Bracciale *et al.*, 2021). To understand whether the liberal-conservative dimension or ideological extremeness is the more important factor for attracting low-quality followers, both are included in the model. As shown in Table 1, ideology is measured using Poole and Rosenthal's (1997)

common space DW-Nominate scores and ideological extremism is measured by squaring the common space score (Lewis *et al.*, 2017).

Fame and Followers

Famous individuals tend to have more Twitter followers (Thomsen, 2017). Translated to Congress, fame is historically derived from leadership positions or running for president (Burden, 2002). Senators who serve as floor leaders, committee chairs, or committee ranking minority members generally have higher name recognition and more national news coverage (Squire, 1988). Therefore, Senators who have run for president (Ostermeier, 2015; *New York Times*, 2016), serve in leadership positions, or are committee chairs or ranking-members are expected to have more followers and therefore more low-quality followers.

Other Potential Factors

Additional social media specific factors might predict low-quality followers. These include the length of time the Senator has been on Twitter, total followers, and total Tweets. These factors have each been shown to potentially influence social media behavior and whether an account attracts low-quality followers (van Kessel *et al.*, 2020). Table 1 contains summary statistics of the independent variables used to estimate the model.

Data/Methodology

This study takes a two-step approach to evaluating low-quality followers and their potential impact on how U.S. Senators collect and use social media information. Step one determines why some Senators attract more low-quality followers than others. Step two uses step one's results to postulates the potential impact of low-quality followers and the role of disinformation and misinformation for Senator.

To understand the potential effect of low-quality followers on U.S. Senators, this study analyzes the official Twitter accounts for all U.S. Senators with data collected on August 15, 2017. Official accounts are those that linked on the Senator's webpage and where Senate Rules allow the Senator to use official resources to support the account. Official accounts differs from campaign accounts or personal accounts, which Senate Rules prohibit using for official Senate business (U.S. Congress, 2015).

Once official Senate accounts were identified, data was collected using a commercial service—Twitter Audit. Commercial data was chosen because the collection of social media data has become more difficult without Application Programing Interface (API) programming capabilities and as the amount of data expands (Driscoll and Walker, 2014; Stieglitz *et al.*, 2018). Twitter Audit was chosen because other studies have found it to be more accurate in predicting fake accounts that other services (Purewal, 2015).

Twitter Audit evaluates the quality of Twitter followers using an algorithm that accounts for academic studies and real-world data (Twitter Audit, 2019). Twitter Audit appraises account followers and creates a score between 0 and 5 using several criteria. These include the ratio of followers to friends; verified account status; number of friends, followers, favorites, and tweets; recency of tweets, profile customization, and tweet contents (Twitter Audit, 2019).[1] Twitter Audit then predicts the percentages of real account followers.

Twitter Audit's method does have some drawbacks. Most notably, it cannot differentiate between inactive accounts and fake accounts. If a follower is inactive, Twitter Audit will generally mark it as fake (Purewal, 2015). While this is a potentially important issue, especially if this study proposed to evaluate content created by low-quality accounts, for the purposes of

establishing a baseline number of low-quality followers, inactive accounts are not contributing to noise, since they do not post information.

Data collected from Twitter Audit included account level information on total Tweets, total followers, number of accounted followed, length of time on Twitter, and an estimate of fake and real followers. Additionally, data were collected on ideology (Poole and Rosenthal 1997), party, gender, leadership status, age, social media staff, number of terms, and whether a Senator had run for President. Figure 1 shows the total followers of Senate Twitter accounts grouped in bands and the percentage of low quality accounts that follow U.S. Senators.

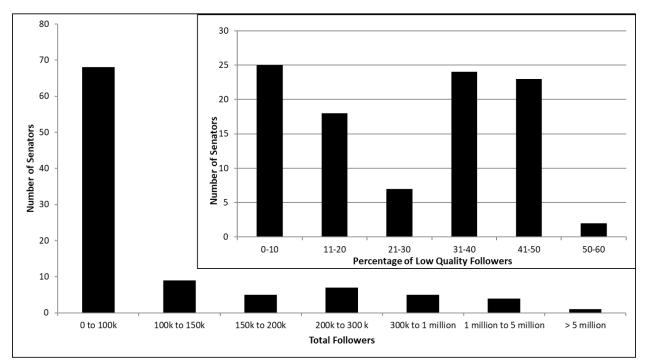


Figure 1. Total Followers and Percentage of Low Quality Followers of Senate Twitter Accounts

Overall, the data shows that approximately half the Senate has more than 31 percent of low-quality followers. The range, however, is quite broad, with 24 Senators having between 31 and 40% low-quality followers, 23 having between 41 and 50% low-quality followers, and two having between 50 and 60% low-quality followers.

Modeling Senators and Low-Quality Followers

Based on the literature's expectation, longer serving Senators, more ideologically

extreme Senators, and more famous Senators are more likely to attract low-quality followers.

Conversely, Senators who have dedicated social media staff should attract fewer low-quality

followers. Each independent variable was checked for correlation, none was found.[2] None

Table 1 reports the variables utilized in the models, including mean, median, range, and standard

deviation.

Table 1: Independent Regression variables and Summary Statistics					
Independent Variable	Coding	Mean	Median	SD	
Social Media Staff ^a	0 = no; 1 = yes	0.32	0	0.47	
Terms in Office	Range from 1 to 8	2.33	2	1.6	
Presidential Run	0 = no; 1 = yes	0.06	0	0.24	
Ideology	Range from -0.747 to 0.921	0.09024	0.158	0.448	
Ideology Squared	Range from 0.00384 to 0.848	0.206	0.162	0.175	
Days on Twitter ^b	Range from 167 to 3,749	2353.6	2400	745.5	
Total Followers ^c	Range from 2,603 to 5,755,742	259,167.5	67,047	757,374.2	
Total Tweets	Range from 409 to 60,447	5701.6	4372	6710.9	
Committee Chair	0 = no; 1 = yes	0.33	0	0.47	
Congressional Leadership	0 = no; 1 = yes	0.17	0	0.378	

 Table 1. Independent Regression Variables and Summary Statistics

Notes:

^a Social media staff were identified by their titles, including "Deputy Press Secretary for New Media," "New Media Director," "New Media Coordinator," "Director of Digital Media," "Social Media Coordinator and Press Assistant," and "Digital Coordinator."

^b Day on Twitter were calculated by determining the number of days between the Senator adopting Twitter—as determined by his or her first Twitter post, using Twitter Audit—and August 1, 2017.

^c Total followers are skewed right, so the log of the variable is used for the model in **Table 2**.

The relationship between the independent and dependent variables was tested using an

OLS linear regression model. An OLS regression model was chosen because the distribution of

the dependent variable (percentage of low-quality followers) approximate a normal distribution.

As Table 2 shows, the model has several significant variable. Specifically, total followers is

significant at the p < 0.001 level and ideology and length of time on Twitter are significant at the

p < 0.10 level. Broadly, this suggests that Senators are more likely to attract low-quality

followers when they have more overall followers, are more ideologically liberal, and have been

Independent Variable	Coefficient	Standard Error	
Social Media Staff	2.038	3.254	
Terms in Office	-0.444	1.127	
Presidential Run	-6.091	6.758	
Ideology	-10.723 *	4.415	
Ideology *2	-4.877	11.278	
Days on Twitter	0.00476 *	0.00226	
Log of Total Followers	5.509 ***	1.488	
Total Tweets	-0.000426	0.000262	
Committee Chair	1.503	3.821	
Congressional Leadership	-3.023	4.070	
Constant	-41.705	15.997	

on Twitter longer than the average Senator.

N=99; Adjusted R²=0.2930; *** p<0.001, ** p < 0.01, * p < 0.10.

Observations on Low-Quality Followers

Senators, as elite Twitter users with broad followings, are susceptible to the influence of low-quality followers. Not all Senators, however, are created equal. Some Senators are more likely to attract low-quality followers. Three specific results from the model merit discussion: total followers, ideology, and length of time a Senator has been a Twitter user.

Total Followers

Total followers has a significant (p < 0.001) and positive effect on the percentage of on low quality followers. The positive relationship suggests that the more followers a Senator has the more likely they will have a higher percentage of low-quality followers. This fits conventional wisdom and the relationship between total and low-quality followers on other social media sites (Cresci *et al.*, 2015; Zhang and Lu, 2016).

Social media followers are important. The number of followers an account has can affect reach and a user's ability to reach a wide audience (Mainka, *et al.*, 2015; Taillon *et al.*, 2020). For U.S. Senators, the more followers they have the more opinions they might be able to collect.

Since Senators represent whole states, receiving a diversity of opinion could assist them in their representational responsibilities. The more that a Senator knows about their constituencies preferences, the easier it is to design public policy and vote on measures that are meaningful to the state and voters. Too much information, however, can lead to decision paralysis. If a Senator is receiving disparate information that does not provide a clear policy path, it can make their job more difficult.

The more followers a Senator has, the greater the risk of receiving opinions or advice from low-quality followers. This can especially be true for Senators who have the most followers, as it is unlikely that all of them are from the Senator's state. The risk from receiving low-quality information could be great, but social media is not the only source of information that Senators utilize. Senators have personal staff to evaluate information (Madonna and Ostrander, 2015), aids to help draft legislation (Levy 2017), and support agencies (e.g., the Congressional Research Service, the Congressional Budget Office, and the Government Accountability Office) to assist them with research (Hill 2003). These internal Senate resources aid the decision-making, but generally do not give Senators insight into constituent opinions. Therefore, to represent states successfully, Senators have to balance internal and external information sources.

Ideology

In the popular media (Klein, 2017; Hassell *et al.*, 2020) and political science (Mann and Ornstein, 2008), ideology is a boogeyman for what ails American politics. Subsequently, it is included in many models to understand its potential role in affecting political actions. This study's regression analysis included ideology in two ways. First, it was included using established congressional voting scores (Poole and Rosenthal, 1997), which uses congressional

roll-call votes to determine a common space DW NOMINATE score for each individual lawmaking ranking from -1 (most liberal) to +1 (most conservative). Second, the square of each Senators common space DW NOMINATE score created an ideological extremism score. Past studies have found ideological extremism to be influential on congressional behavior (Straus *et al.*, 2013).

In this model, ideology is a significant indicator (p < 0.10) of having more low-quality followers. Ideological extremism was not significant. The results suggest that more liberal (towards -1 on the common space DW NOMINATE scale) Senators are more likely to have lowquality followers than their conservative counterparts. Since ideological extremism is not significant, the influence of a Senators ideology is not greater based on how extreme a Senators might be, but rather focuses on their proclivity to vote with their party (the basis of the score's measure). This might suggest that individual Senators, and likely the Senate as an institution, are more focused on party politics than on individual public policy decisions. Most Senators will choose to vote for their party's position on an issue, perhaps, on occasion, against constituent interests (Cox and McCubbins, 1993).

While political scientists have not yet explored why liberals or conservatives might be more susceptible to low-quality followers, a general observation of the news cycle might help to explain this phenomenon. A Google search for "liberal" and "fake followers," turns up a number of media articles that suggest liberals might be targeted by low-quality followers more than their conservative counterparts (O'Neil, 2017; Rolfe, 2013; Beauchamp, 2017). The model results that show liberal Senators attract more low-quality followers provides anecdotal evidence to support this idea.

Ideology could also be a shortcut for low-quality followers targeting Senate accounts. With ideological extremeness not a significant factor, low-quality followers seemingly do not target Senators because they are more extreme liberals or conservatives. Rather, more liberal Senators might be targeted by low-quality followers because of their politics. Conversely, the significance of ideology could be related to the fact that the Democrats were the minority party in the 115th Congress. Past studies have found that minority party Members are often more active on social media as they attempt to increase attention to their policy preferences, since they cannot control the congressional agenda (Russell, 2021b). Since minority party Senators cannot control the agenda (but do famously have the power to block legislation through the filibuster), low-quality followers of Senators could see that position as a chance to influence policy decisions using negative agenda control to stop, rather than promote policy (Gailmard and Jenkins, 2008).

Length of Time on Twitter

The longer that a Senator is on Twitter, the more likely they are to have more followers and more low-quality followers (p < 0.10). Length of time on social media matters, as a longtime user often has more posts and engagements than newer users, which can generate more followers. Generating followers can occur through several actions. For example, studies have shown that when users have a defined content strategy, include attention grabbing information, use images and hashtags, and post regularly increases Twitter followers (Dawley, 2017). Members of Congress generally exhibit these behaviors. Just as with other users (Kim, 2018), as the number of total followers increase, Senators are also likely to see an increased number of low-quality followers.

Older Twitter accounts might also behave differently than new accounts. For instance, it is possible that early adopters are more technologically perceptive, engage more on Twitter, and therefore gather more followers. In this scenario, long time users likely have created social media strategies to maximize their audience and reach. They understand when to post and what to post to generate attention. Further, they are also likely to have a core group of followers who are known to the user. Whether those known followers are real, however, could be hard to determine. Since older accounts are more likely to gather low-quality followers, the user will have to intervene to ensure that low-quality information is not dominating the account and potentially giving a false sense of opinion to the user.

For Senate users, there are potential intervening factors that are hard to measure. For instance, Senators are well known public figures. Just by virtue of their elected positions, they enjoy the potential to gain followers without much work. The model also does not identify whether there is a similarity between total followers and days on Twitter. The data shows that time and followers are not correlated (0.1177). In fact, there are numerous examples of politicians gaining millions of followers virtually overnight (Garcia, 2017; Weigel, 2017). In these circumstances, determining which followers are real and which are fake can be difficult in the short term. When that occurs, a user will need to be cautious about taking opinions from social media until they can identify and remove low-quality follower accounts.

Conclusions

Members of Congress use social media to provide information, to gather information, and more recently, to connect with constituents. While Members generally share accurate information from their official U.S. Senate accounts, there is an inherent risk of receiving inaccurate information and interacting with low-quality followers. To understand the potential

implications of attracting low-quality followers on Senators, this study evaluated Twitter use data for official Senate accounts and showed that total followers, ideology, and the length of time a Senator has been on Twitter are significant predictors of whether a Senator attracts low-quality followers.

This study found that all Senators have low-quality followers. As noted in Figure 1, the distribution of low-quality followers, however, is not equal. Because of the uneven distribution, two broad observations exist. First, the impact of low-quality followers depends in part on how many there are and how much noise they create. The Twitter Audit data used in this study focuses on the percentages rather than the raw number of low-quality followers. For this study, a percentage is the appropriate measure, because the focus is not on the total number of low-quality followers, but rather the potential noise they create within the Senator's total Twitter followers. The higher the percentage of low-quality followers, the more likely the Senator's Twitter account has good information about constituent preferences obscured by less-useful information.

Second, a Senators representational style matters for how much they utilize constituent opinion on social media. Information is an essential element to legislative decision making. Senators are likely to utilize any source of information they can, especially from trustworthy sources. Social media has become a primary place to gather constituent opinions (in addition to more traditional methods such as the U.S. mail, phone calls, and meetings). Subsequently, Senators must create a mechanism to filter and verify opinions to gauge policy preferences.

Senators cannot continue to serve if they cannot win elections. Therefore, evaluating constituent opinions from all sources, including social media, can help them make decisions that result in reelection (Mayhew 1974). When Senators have more low-quality followers, additional

work is required to filter and verify information. While social media staff are not a significant factor in the model, those staff do play a role in attempting to mitigate the negative effects of low-quality followers.

More broadly, low-quality followers fit the broader trends within the spread of disinformation and misinformation. Disinformation is "false or misleading information spread with the intention to deceive. It's distinct from misinformation, which is the *unintentional* spread of false information" (emphasis in the original; Atlantic Council 2021). For Senators, disinformation and misinformation could be similar. Both create noise that can make it more difficult to parse the opinions of real from fake followers.

For disinformation, the user is *purposefully* trying to mislead the Senator. With misinformation, the user is *accidently* sharing deceptive information. The differences might be nuanced, but misinformation is more likely to be shared by multiple users across platforms. (Neyazi *et al.*, 2021). If multiple users tag a Senator when they share misinformation, it is possible that Senators can identify frequently shared items, note that they contain misinformation, and disregard them from consideration when evaluating constituent opinion. Of course, this process requires active management of social media accounts to identify and discard misinformation.

Disinformation is more difficult and has the potential to cause significant harm (Fallis 2015). Disinformation could be shared widely, like misinformation, but because it is shared with purposeful intent, it can be targeted and harder to discern. Disinformation creators often begin in "relatively homogeneous 'echo chambers,' where information can be cut off from diverse political viewpoints that challenge information asymmetries..." (Krafft and Donovan 2020, p. 195). When the disinformation spreads beyond its initial ecosystem, disinformation creators seek

to "spread information or to influence the behavior of an algorithm by coordinating groups of people to share specific media artifacts ... [which] eventually ... move across networks and platforms..." (Krafft and Donovan 2020, p. 199). Disinformation, therefore, has the chance to be more impactful than misinformation, as disinformation creators can push users to share conceivably convincing content with others, including their elected officials. For elected officials, disinformation can be harder to evaluate because of the purposeful and coordinate push of their creators, and that it might appear to be legitimate and not oft repeated by existing followers.

Finally, low-quality followers can also affect how social media users might consume information shared by a Members of Congress. Most real followers follow their geographic representative or a Member with which they share a demographic trait (Barberá *et al.*, 2019; Russell, 2021a). Since Member's are generally trusted sources, they must be careful about the information they gather and share.

Members of Congress are unlikely to stop using social media. It can provide them with endless sources of information about constituents and the ability to share their opinions, unfiltered by the media. With use of social media, however, comes risks, including the potential that their accounts might attract low-quality followers in addition to constituents and other followers. Knowing that some Senators have traits that attract more low quality followers than other and the potential consequences of low quality followers information intermingled with good information their social media feeds, Senators can devise strategies to combat low quality information continue to represent their geographic and demographic constituents.

Works Cited

- Abernathy, C. (2017). "Congressional receptiveness to constituent contacts through social media." Annual Meeting of the Midwest Political Science Association, April 6-9, Chicago, IL.
- Alfifi, M., and Caverlee. J. (2017, September 13-15). "Badly evolved?: exploring long-surviving suspicious users on Twitter," In G.L. Ciampaglia, A. Mashhadi, and T. Yasseri (Eds.), *SocInfo: International Conference on Social Informatics Proceedings, Part I*, (pp. 218-233). Spring International, Oxford, UK.
- Atlantic Council (2021). "Disinformation," at https://atlanticouncil.org/issue/disinformation.
- Barber, M.J. (2016). "Representing the preferences of donors, partisans, and voters in the US Senate." *Public Opinion Quarterly*, Vol. 80 No. 1, pp. 225-249.
- Barberá, P., Casas, A., Nagler, J., Egan, P.J., Bonneau, R., Jost, J.T., and Tucker, J.A. (2019).
 "Who leads? Who follows? Measuring issue attention and agenda setting by legislators and the mass public using social media data," *American Political Science Review* Vol. 113 No. 4, pp. 883-901.
- Barbish, V., Vaughn, K., Chikhladze, M., Nielsen, M., Corley, K., and Palacios, J. (2019).
 "Congress, constituents, and social media: understanding member communications in the age of instantaneous communication," George Bush School of Government and Public Service, Texas A&M University, at <u>https://hdl.handle.net/1969.1/187026</u>.
- Beauchamp, Z. (2017). "Democrats are falling for fake news about Russia: why liberal conspiracy theories are flourishing in the age of Trump," *Vox.com*, May 19. https://www.vox.com/world/2017/5/19/15561842/trump-russia-louise-mensch.
- Bianco, W.T. (1994). *Trust: Representation & Constituents*. University of Michigan Press, Ann Arbor, MI.
- Bond, J.R., and Fleisher R. (1990). *The President in the Legislative Arena*. University of Chicago Press, Chicago, IL.
- Box-Steffensmeir, J.M., Christenson, D.P., and Craig, A.W. (2019). "Cue-Taking in Congress: Interest Group Signals from Dear Colleague Letters," *American Journal of Political Science* Vol. 63 No 1, pp. 163-180.
- Box-Steffensmeir, J., Ryan, J.M., and Sokhey, A.E. (2015). "Examining Legislative Cue-Taking in the US Senate," *Legislative Studies Quarterly* Vol. 40 No. 1, pp. 13-53.
- Bracciale, R., Andretta, M., and Martella, A. (2021). "Does populism go viral?: how Italian leaders engage citizens through social media," *Information, Communication & Society* Vol. 24 Issue 10, pp. 1477-1494.
- Burden. B.C. (2002). "United States Senators as presidential candidates," *Political Science Quarterly*, Vol. 117 No. 1, pp. 81-102.
- Cain, B., Ferejohn, J., and Fiorina, M. (1987). *The Personal Vote: Constituency Service and Electoral Independence*. Harvard University Press, Cambridge, MA.

- Calvillo, D.P., Ross, B.J., Garcia R.J.B., Smelter, T.J., and Rutchick, A.M. (2020). "Political ideology predicts perceptions of the threat of COVID-19 (and susceptibility to fake news about it)," *Social Psychological and Personality Science*, Vol. 11 No. 8, pp. 1119-1128.
- Castillo, C., Mendoza, M., and Poblete, B. (2011). "Information credibility on Twitter," International World Wide Web Conference, Hyderabad, India, pp. 675-684.
- Clausen, A.R. (1973). How Congressmen Decide: A Policy Focus. St. Maarten, New York.
- Confessore, N., Dance, G.J.X., Harris, R., and Hansen, M. (2018). "The follower factory," *New York Times*, January 27 https://www.nytimes.com/interactive/2018/01/27/technology/social-media-bots.html.
- Congressional Management Foundation. (2011). Communicating with Congress: Perceptions of Citizen Advocacy on Capitol Hill. <u>http://www.congressfoundation.org/storage/documents/CMF_Pubs/cwc-perceptions-of-</u> citizen-advocacy.pdf.
- Congressional Management Foundation. (2015). *#SocialCongress 2015*. <u>http://www.congressfoundation.org/social-congress-2015-download</u>.
- Cox, G.W., and McCubbins, M.D. (1993). *Legislative Leviathan: Party Government in the House*. University of California Press, Berkeley, CA.
- Cresci, S., Di Pietro, R., Petrocchi, M., Spognardi, A., and Tesconi, M. (2015). "Fame for sale: efficient detection of fake twitter followers," *Decision Support Systems* Vol 80, pp. 56-71.
- Dawley, S. (2017). "How to attract and engage more Twitter followers," *Hootsuite*. <u>https://blog.hootsuite.com/how-to-get-twitter-followers</u>.
- Diakopoulos, N. (2018). "The bots beat: how not to get punked by automation," *Columbia Review of Journalism* April 3. <u>https://www.cjr.org/tow_center/bots-manipulate-</u> <u>trends.php</u>.
- Diermeier, D., and Feddersen, T.J. (2000). "Information and Congressional Hearings," *American Journal of Political Science* Vol. 44 No. 1, pp. 51-65.
- Downs, A. (1957). An Economic Theory of Democracy. Harper Collins, New York.
- Driscoll, K., and Walker, S. (2014). "Big data, big questions. Working within a black box: transparency in the collection and production of big Twitter data," *International Journal of Communication* Vol. 8. https://ijoc.org/index.php/ijoc/article/view/2171.
- El Abaddi, A., Backstrom, L., Chakrabarti, S., Jaimes, A., Leskovec, J., and Tomkins. A. (2011). "Social media: source of information or bunch of noise," In Proceedings of the 20th Annual International Conference on World Wide Web, Hyderabad, India, March 28-April 11, pp. 327-328, <u>http://dx.doi.org/10.1145/1963192.1963336</u>.
- Fallis, D. (2015). "What is disinformation?" Library Trends Vol. 63 No. 3, pp.401-426.
- Fiorina, M.P. (1989). Congress: Keystone of the Washington Establishment. Yale University Press, New Haven, CT.
- Fisher, L. (1997). Constitutional Conflicts Between Congress and the President, 4th edition revised. University of Kansas Press, Lawrence, KS.

- Fenno, R. (1978). *Homestyle: House Members in Their Districts*. Little, Brown, and Company, Boston, MA.
- Ferrara, E., Varol, O., Davis, C., Menczer, F., and Flammini, A. (2016). "The rise of social bots," *Communications of the ACM* Vol. 59 No. 7, pp. 96-104, https://dl.acm.org/citation.cfm?id=2963119.2818717.
- Franklin, S., and Graesser, A. (1996). "Is it an agent, or just a program?: a taxonomy for autonomous agents." In *Intelligent Agents III Agent Theories, Architectures and Languages*. Lecture Notes in Computer Science. Berlin, Heidelberg: Springer, 21-35. <u>https://doi.org/10.1007/BFb0013570</u>.
- Gailmard, S., and Jenkins J.A. (2008). "Minority party power in the Senate and House of Representatives," In Monroe, N.W., Roberts, J.M., and Rohde, D.W. (Eds.) Why Not Parties? Party Effects in the U.S. Senate. University of Chicago Press, Chicago, IL, pp. 181-197,
- Garcia, P. (2017). "Donald Trump's Twitter following might include more than 4 million bots," *Vogue*, August 7. <u>http://www.vogue.com/article/trump-twitter-bots-fake-accounts-nicole-mincey</u>.
- Golbeck, J., Grimes, J.M., and Rogers, A. (2010). "Twitter use by the U.S. Congress," *Journal of the American Society for Information Science and Technology* Vol. 61 No. 8, pp. 1612-1621.
- Greenberg, S.G. (2012). *Congress + Social Media*. LBJ School of Public Affairs, University of Texas, Austin. <u>http://sites.utexas.edu/cpg/files/2014/05/2012-Congress-Social-Media.pdf</u>.
- Gorwa, R., and Guilbeault. D. (2020). "Unpacking the social media bot: a typology to guide research and policy," *Policy & Internet* Vol. 12 No. 2, pp. 225-248. https://doi.org/10.1002/poi3.184.
- Hassell, H.J.G., Hobein, J.B., and Miles, M.R. (2020). "There is no liberal media bias in which news stories political journalists choose to cover," *Science Advances* Vol. 6 No. 14, at https://www.science.org/doi/10.1126/sciadv.aay9344.
- Hemphill, L., Russell, A., and Shöpke-Gonzalez, A.M. (2020). "What drives U.S. congressional members' policy attention on twitter?" *Policy & Internet* Vol. 13 No. 2, pp. 233-256.
- Hertel-Fernandez, A., Mildenberger, M., and Stokes L.C. (2019). "Legislative staff and representation in Congress," *American Political Science Review* Vol. 113 No. 1, pp. 1-18.
- Hibbing, J.R. (1991). Congressional Careers: Contours of Life in the U.S. House of Representatives. University of North Carolina Press, Chapel Hill, NC.
- Hill, C.T. (2003). "An expanded analytical capability in the Congressional Research Service, the General Accounting Office, or the Congressional Budget Office," Morgan M.G. and Peha, J.M (Eds.), In Science and Technology Advice for Congress. RFF Press, New York, pp. 106-117.
- Hughes, A., and Lam, O. (2017). "Highly ideological members of Congress have more Facebook followers than moderates do," *Pew Research Center Fact Tank*, August 21. <u>http://www.pewresearch.org/fact-tank/2017/08/21/highly-ideological-members-ofcongress-have-more-facebook-followers-than-moderates-do</u>.

- Jones, B. D. (1994). *Reconceiving Decision-Making in Democratic Politics: Attention, Choice, and Public Policy.* University of Chicago Press, Chicago, IL.
- Kim, R.Y. (2018). "The value of followers on social media," *IEEE Engineering Management Review* Vol. 48 No. 2, pp. 173-183.
- Klein, E. (2017). "For elites, politics is driven by ideology. For voters, it's not," *Vox.com*, November 9, at <u>https://www.vox.com/policy-and-politics/2017/11/9/16614672/ideology-liberal-conservatives</u>.
- Krafft, P.M., and Donovan, J. (2021). "Disinformation by design: the use of evidence collages and platform filtering in a media manipulation campaign," *Political Communication* Vol. 37 No. 2, pp. 194-214.
- Kuklinski, J.H., and Hurley, N.L. (1994). "On Hearing and Interpreting Political Messages: A Cautionary Tale of Citizen Cue-Taking," *The Journal of Politics* Vol. 56 No. 3, pp. 729-751.
- Lee, K., B.D. Eoff, and J. Caverlee. (2011). "Seven months with the devils: a long-term study of content polluters on Twitter. *International AAII Conference on Web and Social Media* July, <u>https://www.aaai.org/ocs/index.php/ICWSM/ICWSM11/paper/view/2780/3296</u>.
- Lev-On, A., Sabag-Ben Porat, C. and Lehman-Wilzig, S. (2017). "A Facebook post is born: exploring the process of generating MP's social media presence," *The Journal of Legislative Studies* Vol. 23 No. 4, pp. 549-565.
- Levy, S. (2017). "Drafting the law: players, power, and process." Straus, J.R. and Glassman, M.E. (Eds.) in *Party and Procedure in the United States Congress, 2nd edition* M.E. Rowman & Littlefield: Lanham, MD, pp. 19-38.
- Lewis, J.B., Poole, K.T., and Rosenthal, H. (2017). Voteview.com. https://voteview.com.
- Levordashka, A., and Utz, S. (2016). "Ambient awareness: from random noise to digital closeness in online social networks," *Computers in Human Behavior* Vol. 60, pp. 147-154.
- Madonna, A., and Ostrander, I. (2015). "If Congress keeps cutting its staff, who is writing your laws?: you won't like the answer," *Washington Post Monkey Cage Blog*. August 20. <u>https://www.washingtonpost.com/news/monkey-cage/wp/2015/08/20/if-congress-keeps-cutting-its-staff-who-is-writing-your-laws-you-wont-like-the-answer/?utm_term=.e5168ba020f4.</u>
- Mainka, A., Hartmann, S., Stock, W.G., and Peters, I. (2015). "Looking for friends and followers: a global investigation of governmental social media use," *Transforming Government: People, Process and Policy* Vol. 9 No. 2, pp. 237-254.
- Mann, T.E., and Ornstein, N. (2008). *The Broken Branch: How Congress is Failing America and How to Get it Back on Track.* Brookings Institution Press, Washington, DC.
- Mansbridge, J. (2003). "Rethinking representation," *American Political Science Review* Vol. 97 No. 4, pp. 515-528.

- Masket, S.E. (2008). "Where You Sit is WhereYou Stand: The Impact of Seating Proximity on Legislative Cue Taking," *Quarterly Journal of Political Science* Vol. 3 No. 3, pp. 301-311.
- Mayhew, D. (1974). Congress: The Electoral Connection. Yale University Press, New Haven, CT.
- Minar, D.W. (1961). "Ideology and political behavior," *Midwest Journal of Political Science*, Vol. 5 No. 4, pp. 317-331.
- Minozzi, W., Neblo, M.A., Esterling, K.M., and Lazer, D.M.J. (2015). "Field experiment evidence of substance, attributional, and behavioral persuasion by members of Congress in online town halls," *Proceedings of the National Academy of Sciences of the United States of America* Vol. 112 No. 13, pp. 3937-3942.
- Neyazi, T.A., Kalogeropoulos, A., and Nielsen, R.K. (2021). "Misinformation concerns and online news participation among internet users in India," *Social Media* + *Society* Vol. 7 No 2, at https://doi.org/10.1177/20563051211009013.
- *New York Times.* 2016. "Who is Running for President?" July 26. <u>https://www.nytimes.com/interactive/2016/us/elections/2016-presidential-candidates.html? r=0.</u>
- Notgrass, D. (2014). "The relationship between follower's perceived quality of relationship and preferred leadership style," *Leadership & Organization Development Journal* Vol. 35 No. 7, pp. 605-621.
- Oleszek, W.J. (2014). "The evolving Congress: overview and analysis of the modern era," In *The Evolving Congress*, pp. 3-60. (113th Cong., 2nd sess. S.Prt. 113-40) Washington, DC: Government Printing Office. <u>https://www.gpo.gov/fdsys/pkg/CPRT-113SPRT89394/pdf/CPRT-113SPRT89394.pdf#page=15</u>.
- O'Neil, L. (2017). "These 'rogue' White House accounts are just liberal bait," *Esquire*, January 30, at <u>http://www.esquire.com/news-politics/news/a52677/alt-rogue-white-house-twitter-accounts/</u>.
- Ostermeier, E. (2015). "50 US Senators who ran for president since 1972," *Smart Politics Blog*, <u>http://editions.lib.umn.edu/smartpolitics/2015/04/13/50-us-senators-who-ran-for-pre/</u>
- Poole, K.T., and Rosenthal, H. (1997). *Congress: A Political-Economic History of Roll Call Voting*. Oxford University Press, New York.
- Purewal, S.J. (2015). "How to keep your Twitter following authentic: fake followers hurt your credibility—so clean up your follower list!" *CNET.com*, March 30, <u>https://www.cnet.com/how-to/how-to-keep-your-twitter-following-authentic</u>.
- Robertson, R.D. (1980). "Small group decision making: the uncertain role of information in reducing uncertainty," *Political Behavior* Vol. 2 No 2, pp. 163-188.
- Rolfe, J. (2013). "Fake Twitter followers for Tony Abbot being investigated by Liberal Party," *News Corp Australia Network* August 12, <u>http://www.news.com.au/national/fake-twitter-followers-for-tony-abbott-being-investigated-by-liberal-party/news-story/90b331e9e3ca2542ec9cbdf6d994f986</u>.

- Russell, A. (2021a). "Constituent connections: Senators' reputation building in the age of social media," *Journal of Information Technology & Politics* first view, https://doi.org/10.1080/19331681.2021.1949658.
- Russell, A. (2021b). "Minority opposition and asymmetric parties? Senators' partisan rhetoric on Twitter," *Political Research Quarterly* Vol. 74 No. 3, pp. 615-627.
- Shapiro, M.A., and Hemphill, L. (2016). "Politicians and the policy agenda: does use of Twitter by the U.S. Congress direct *New York Times* content?," *Policy and Internet* Vol. 9 No. 1, pp. 109-132.
- Sinclair, B. (1995). Legislators, Leaders, and Lawmaking: The U.S. House of Representatives in the Postreform Era. The John Hopkins University Press, Baltimore, MD.
- Spierings, N., Jacobs, K., and Linders, N. (2018). "Keeping an eye on the people: who has access to MPs on Twitter?" Social Science Computer Review Vol. 36 No. 2, pp. 160-177, <u>https://doi.org/10.1177/0894439318763580</u>.
- Squire, P. (1988). "Who gets national new coverage in the U.S. Senate," *American Politics Quarterly* Vol. 16 No. 2, pp. 139-156.
- Stieglitz, S., Mirbabaie, M., Ross, B., and Neuberger, C. (2018). "Social media analytics challengers in topic discovery, data collection, and data preparation," *International Journal of Information Management* Vol. 39, pp. 156-168.
- Straus, J.R., Glassman, M.E., Shogan, C.J., and Smelcer, S.N. (2013). "Communicating in 140 characters or less: congressional adoption of Twitter in the 111th Congress," *PS: Political Science & Politics*, Vol. 46 No. 1, pp. 60-66.
- Straus, J.R., Williams, R.T., Shogan, C.J., and Glassman, M.E. (2016). "Congressional social media communications: evaluating Senate twitter usage," *Online Information Review* Vol. 40 No. 5, pp. 643-659.
- Straus, J.R., and Williams R.T. (2020). "Tweeting the Agenda: Policy Making and Agenda Setting by U.S. Congressional Leaders in the Age of Social Media." In R. Davis and D. Taras (Eds.), *Power Shift? Political Leadership and Social Media*, pp. 76-94. Routledge, New York.
- Swers, M. (2007). "Building a reputation on national security: the impact of stereotypes related to gender and military experience," *Legislative Studies Quarterly* Vol. 32 No. 4, pp. 559-595.
- Taillon, B.J., Mueller, S.M., Kowalczyk, C.M., and Jones, D.N. (2020). "Understanding the relationship between social media influences and their followers: the moderating role of closeness," *Journal of Product & Brand Management* Vol. 29 No. 6, pp, 767-782.
- Thomsen, J. (2017). "Clinton questions Trump's 'fake' Twitter followers," *The Hill*, May 31, <u>http://thehill.com/homenews/administration/335861-nearly-half-of-trumps-twitter-followers-are-fake-report</u>.
- Tsvetkova, M., R. Garcia-Gavilanes, L. Floridi, and T. Yasseri. (2017). "Even good bots fights: the case of Wikipedia," *PLoS One* 12(2): e0171774. https://doi.org/10.1371/journal.pone.0171774.

Twitter Audit. (2019). https://www.twitteraudit.com.

- U.S. Congress, Senate. (2015). "Internet services and technology resources usage rule," November 9, at <u>https://www.senate.gov/usage/internetpolicy.htm#:~:text=Prohibited%20Uses.,campaign</u> <u>%20and%20official%20business%20purposes</u>
- U.S. Congress, Senate. (2017). *United States Senate Telephone Directory*. S.Pub. 115-1. Washington, DC: Government Printing Office.
- U.S. Congress. (2018). Official Congressional Directory, 115th Congress. S.Pub. 115-7. Washington, DC: Government Printing Office, at https://www.govinfo.gov/app/collection/cdir/cdir 115/2018-07-27/A1.
- van Kessel, P., Widjaya, R., Shah, S., Smith A., and Hughes, A. (2020). "Congress soars to new heights on social media," *Pew Research Center*, July 16, at <u>https://www.pewresearch.org/internet/wp-</u> content/uploads/sites/9/2020/07/PDL 07.16.20 congress.social.media .full .report.pdf/
- Wawro, G. (2000). *Legislative Entrepreneurship in the U.S. House of Representatives*. University of Michigan Press, Ann Arbor.
- Weigel, D. (2017). "Roy Moore's Senate campaign blames Democrats for fake Twitter followers," *The Washington Post*, October 16. <u>https://www.washingtonpost.com/news/powerpost/wp/2017/10/16/roy-moores-senatecampaign-gets-twitter-to-delete-thousands-of-fake-followers/?utm_term=.b061b92896c0</u>.
- Weick, K.E. (1995). Sensemaking in Organizations. Sage Publications, Thousand Oaks, CA.
- Wigand, F.D.L. (2010). "Twitter in government: building relationships one Tweet at a time," *Seventh International Conference on Information Technology* pp. 563-567.
- Wolfensberger, D.R. (2000). Congress & the People: Deliberative Democracy on Trial. Woodrow Wilson Center Press, Washington, DC.
- Xi, N., Ma, D., Liou, M., Steinert-Threlkeld, Z.C., Anastasopoulos, J., and Joo, J. (2020).
 "Understanding the political ideology of legislators from social media images," *Proceedings of the International AAAI Conference on Web and Social Media* 14(1), 726-737, at <u>https://ojs.aaai.org/index.php/ICWSM/article/view/7338</u>.
- Zhang, Y., and Lu, J. (2016). "Discover Millions of Fake Followers in Weibo," *Social Science Network Analysis and Mining* Vol. 6 No. 16 <u>https://doi.org/10.1007/s13278-016-032402</u>.

Notes

[1] Founded in 2012, Twitter Audit allows users to determine how many low-quality followers they might have, who those followers are, and provide strategies to remove them. For more information, see <u>https://www.twitteraudit.com</u>.

[2] Correlations were run for each independent variable in the model. None of the variables were highly correlated. The highest correlation exists between Total Tweets and Total Followers (0.5144).