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Algorithms and agenda-setting in Wikileaks' #Podestaemails release

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ABSTRACT

In the month before the 2016 U.S. Presidential election, Wikileaks released 37 serialized batches of e-mails authored by former Clinton campaign manager John Podesta. Each release was announced using a unique PodestaEmail related hashtag (#PodestaEmails2, #PodestaEmails3, etc.). In total, Podesta e-mail related hashtags hit town-wide, country-wide, or worldwide Trending topics lists a total of 1,917 times, remaining on Trending Topic lists everyday within the U.S. for 30 days before election day. In this article, we discuss how Wikileaks' release methodology increased the potential reach of Podesta E-mail related content. We describe how Wikileaks' tweets spoke to two audiences: Twitter users and Twitter algorithms. In serializing its content and using new hashtags for each release, Wikileaks increased the potential persistence, visibility, spreadability, and searchability of this content. By creating the possibility for this content to remain persistently visible on the Trending Topics list, Wikileaks was able to potentially realize a greater degree of agenda-setting than would have been possible through singular hashtag use.

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Introduction

During the run-up to the November 2016 U.S. Presidential election, Wikileaks—the web-site devoted to ‘analysis and publication of large datasets of censored or otherwise restricted official materials involving war, spying and corruption’ (Wikileaks, 2017)—released ‘The Podesta Emails’ (Wikileaks, 2016b). The Podesta Emails were a cache of over 50,000 e-mails from Presidential candidate Hillary Clinton’s campaign manager John Podesta’s personal e-mail account. These e-mails contained, ‘vivid illustrations of some of Clinton’s most serious controversies’ (Stein, 2016).

Who originally hacked Podesta’s email account has been a subject of some debate. The Associated Press reported that a Russian hacking organization known as ‘Fancy Bear’ that has purported ties to the Kremlin was behind the original hack (Satter, 2017). Wikileaks founder Julian Assange has refuted the claim that the Russian government directly gave Wikileaks the information (Hains, 2016). An investigative article by the *Washington Post* suggests that the e-mail messages may have passed through several middlemen (Nakashima, Mekhennet, & Jaffe, 2018). Regardless of the origin of the hack, political

commentators have argued that this release of information was one of several important moments in the election (Enten, 2016).

Wikileaks regularly releases sensitive government material. What made this particular release noteworthy is that Wikileaks *serialized* the content into almost 40 parts and installments in the series were posted once (and sometimes twice) a day, nearly every day in the month before the November 8th public vote. With each new release, Wikileaks used a new sequential hashtag (#PodestaEmails2, #PodestaEmails3, etc.). This use of sequential, but new hashtags for each batched release made it possible for Podesta-related content hit the Trending Topics lists again and again.

As media organizations covered the content of the e-mails, some additionally made note of the fact that the topic was *trending*. For example, one newspaper, *The News-Gazette* (Champaign-Urbana, IL) regularly published recaps of the day's highlights from Twitter, noting multiple times that '#PodestaEmails' was trending (Jackson, 2016a, 2016b, 2016c). An article in *The Washington Times* stated, 'Twitter's trending news feed was dominated by #PodestaEmails25 after a new batch of stolen documents belonging to John Podesta were posted online' (Ernst, 2016). *The Washington Times* story was subsequently shared by then candidate Donald Trump on his own Twitter page (see Figure 1), extending attention to the fact that this content was trending.

What is important about this event is not just the content that Wikileaks released, but also the methodology. We argue that, in releasing the information serially and using new hashtags for each release, Wikileaks took advantage of Twitter's features in a way that led to greater persistence, visibility, spreadability, and searchability for their content than would have likely been realized through a non-serialized release using a single hashtag. By creating the possibility for this content to remain persistently visible on the Trending



5:57 PM - 1 Nov 2016 from Eau Claire, WI

Figure 1. A tweet from (now) President Donald Trump remarking on Wikileaks e-mail leaks.

Topics list through the use of new hashtags for every release, Wikileaks was ultimately able to achieve a greater degree of agenda-setting through a combination of social and technical mechanisms.

In this article, we detail how Wikileaks' messaging 'spoke' to both Twitter users and Twitter's algorithms, detail the degree to which Podesta related content remained visible on the Trending Topics list, and discuss agenda-setting as a potential outcome of becoming a 'Trending Topic' on Twitter. Ultimately, we argue that, as journalists and news media rely more and more on content from social media as part of their reporting, actors that are able to take thoughtful and informed advantage of the features of social media platforms and are able to draw attention to their content through maximizing use of platform features are more likely to be able to act in an agenda-setting capacity.

Review of relevant literature

Twitter for political purpose

Twitter has become part of the media landscape of political discourse in many countries. As Croeser and Highfield (2014) observe, it has become a 'means of communicating information from official sources, such as government agencies and emergency services, and alternative voices alike' (para. 3). Because of its many-to-many structure, social media allows anyone to share content without the intervention of 'traditional' mass media (Weeks, Lane, Kim, Lee, & Kwak, 2017). At the same time that it has risen in popularity as a venue for political discourse, Twitter has also become an important medium for the distribution and discovery of news. Journalists use Twitter to help identify breaking news (Verdegem & D'heer, 2018) and half of social media users have reported sharing or posting news stories on the platform (Mitchell, Gottfried, Barthel, & Shearer, 2016). The Pew Internet and American Life Project has found, 'Nearly two-thirds of U.S. adults who use Twitter get news on the platform' (Barthel & Shearer, 2015) and that 'nearly as many Americans prefer to get their local news online as prefer the TV set' (Pew Research Center, 2019). In sum, the use of social media for politics and the sharing of news has become a staple of the contemporary media landscape (Penney, 2016).

On Twitter, there are a number of ways that users may try to extend the reach of their content using particular features of Twitter. In this work, we focus on two particular features: hashtags and Trending Topics. Definitionally, *features* are static elements built into the design of a technology. For example, a smartphone might have a built-in camera as a feature (Evans, Pearce, Vitak, & Treem, 2017). Features of technology or platforms offer a 'multifaceted relational structure between an object/technology and the user that enables or constrains potential behavioral outcomes' (Evans, Pearce, Vitak, & Treem, 2017, p. 36). Material *features* of Twitter include the functions of retweeting others' posts through the retweet button, favoriting posts, replying to other users, and hashtags. A user may include hashtags to link content to broader conversations going on through Twitter. As Bruns and Burgess (2011) observe, using hashtags is a 'means of coordinating a distributed discussion between more or less large groups of users, who do not need to be connected through existing "follower" networks.' (p. 1). Twitter's interface turns the use of a hashtag within a tweet to a hyperlink that allows a reader to follow a broader conversation through the

search function. Through the coordinate use of particular terms, a user or group of users may try to have a particular hashtag appear in Twitter's 'Trending Topics' list.

Twitter's Trending Topics has become a prominent feature of Twitter. This component of Twitter's interfaces identifies topics that are popular discussion topics on the platform. Trends are not typically curated by hand by Twitter, but rather determined algorithmically. Because Trending Topics show up prominently within the Twitter interface, getting a topic to trend is one particular way of drawing attention to a subject matter (Tufekci, 2017).

One way that a topic can reach the Trending Topics list is through the coordinated use of particular hashtags within tweets. This is sometimes referred to as *hashtag activism*. The Digital Activism Research Project defined hashtag activism as, 'what happens when someone tries to raise public awareness of a political issue using some clever or biting keyword on social media ... If your idea—linked to a good hashtag—gains traction you've started a kind of awareness campaign' (Brewster, 2014).

Twitter has become a popular venue for activists attempting to raise awareness about specific issues, causes, or events through an appearance on the Trending Topics list (Yang, 2016; Gerbaudo, 2012; Tufekci, 2017). To accomplish this, users interested in an issue will generate tweets about a topic or event using a single hashtag in a focused manner, such as #GetOutTheVote or #StopKony. When the Trending Topic algorithm determines a specific topic has enough traffic to be counted as 'trending,' the hashtag or commonly used term becomes visible on the interface timelines of other users in the 'Trending Topics' section of the interface. If the user clicks on the hashtag, by default, they are brought to the 'Top' tweets related to that particular hashtag. Twitter indicates:

Top Tweets are the most relevant Tweets for your search. We determine relevance based on the popularity of a Tweet (e.g., when a lot of people are interacting with or sharing via Retweets and replies), the keywords it contains, and many other factors. (Twitter.com, 2018)

Even if users don't click into a hashtag that appears in the Trending Topics list to explore the conversation, at the very least, they are still exposed to the message. As a result, for hashtag activists looking to promote a particular issue, choosing enticing or interesting language is important (Yang, 2016). If a user *does* click into the hashtag, greater attention can come to the most popular tweets on a particular subject.

One of the difficulties of making something 'trend,' however, is that Twitter does not disclose exactly how the Trending Topic algorithm works (Gillespie, 2012). This lack of algorithmic transparency has led to some confusion about why some topics trend but others do not. For example, during the Occupy Wall Street protests, despite the fact that thousands of users were tweeting with the hashtag #OccupyWallStreet, the term never hit the New York area list of trending topics (Lotan et al., 2011). Some accused Twitter of censoring the trend (Jeffries, 2011). In response, Twitter representatives pointed to an older company blog post, which states:

Twitter Trends are automatically generated by an algorithm that attempts to identify topics that are being talked about more right now than they were previously. The Trends list is designed to help people discover the 'most breaking' breaking news from across the world, in real-time. The Trends list captures the hottest emerging topics, not just what's most popular ... Sometimes a topic doesn't break into the Trends list because its popularity isn't as widespread as people believe. And, *sometimes, popular terms don't make the Trends list*

because the velocity of conversation isn't increasing quickly enough, relative to the baseline level of conversation happening on an average day ... [emphasis added] (twitter.com, 2010)

Reflecting on lessons that activists might draw on from the Occupy-related hashtag fiasco, Lotan et al. (2011) argues activists trying to raise the visibility of their cause through an appearance on the Trending Topics list, understanding how the algorithm determines what becomes visible is crucial for choosing appropriate messaging. He concludes:

if one seeks to keep a topic trending, it is important to change it every few days. ... a gradual rise in velocity only makes it harder and harder for the term to trend. (Lotan et al., 2011)

This suggests continuously revisiting the use of a hashtag to make sure it counts as a 'new' and 'emerging' topics of discussion, rather than a previously popular discussion topic, is important practice for users seeking to increase the visibility of their content.

Agenda-setting and social media

Agenda-setting is a term used to describe a theory of media effects in which the media (traditionally news media) are understood as influencing the amount of importance the public places on an issue (Scheufele & Tewksbury, 2006). Agenda-setting is achieved by repeatedly exposing the audience to certain news stories or spending significant screen time on a particular political candidate's viewpoint. The theory, originated by McCombs and Shaw (1972), suggests that recurring attention to an issue by news media makes the topic more accessible and salient in the minds of the audience (Kim, Scheufele, & Shanahan, 2002). For example, the theory suggests that if major news media outlets spent a proportionally considerable amount of time discussing global warming, that an audience would come to view global warming as an important topic. The concept of agenda-setting is connected to (though different from) the concepts of framing and priming (see: Scheufle & Tewksbury, 2006 for more).

Agenda-setting can occur on social media. While one might imagine that the flow of attention goes from stories appearing in traditional news outlets to things being subsequently discussed in social media, this is not necessarily the case. Russell Neuman, Guggenheim, Mo Jang, and Bae (2014) find a dynamic flow between traditional news outlets and social media. News stories appearing on social media can complement news on traditional media outlets in the minds of an audience, compounding agenda-setting effects. For example, Conway, Kenski, and Wang (2015) found a symbiotic relationship 'between agendas in Twitter posts and traditional news, with varying levels of intensity and differential time lags by issue' (p. 363). As journalists rely on social media to help identify breaking news (Diakopoulos, De Choudhury, & Naaman, 2012), the flow of attention can also go from social media to traditional news outlets. As a result, agenda-setting can work in both directions across social media and traditional news-media.

Politicians use social media to achieve agenda-setting and actively tailor the content of their messages to do so (Skogerbø & Krumsvik, 2015; Yang, Chen, Maity, & Ferrara, 2016). This can be particularly exacerbated within the context of an election cycle. For example, Lee and Xu (2018) observe that during the 2016 U.S. Presidential election, 'Some of the issues Trump stressed in his tweets (i.e., media bias and Clinton's alleged dishonesty) drew significantly more favorites and retweets, suggesting public agenda-setting possibilities through Twitter' (p. 201). Yang et al. (2016) argue that Twitter represents a

particularly appealing conversation space, particularly for opposition politicians. However, in the literature on political actors' use of Twitter for achieving agenda-setting, the focus is more on the *content* of the messages that have been tailored for the human reader, rather than ways in which politicians or other individuals take advantage of technical features of a platform in order to achieve agenda-setting.

With this particular literature in mind, in the following pages, we turn to examine Wikileaks' serialized release of the Podesta E-mails. We use this case study to illustrate how Wikileaks' messaging simultaneously 'spoke' to both regular users and simultaneously took advantage of the way Twitter's Trending Topics feature works algorithmically. This resulted in a potentially wider reach for their messaging than would have been likely using other means, ultimately increasing the possibility that they could operate in an agenda-setting capacity.

Methodology

Case study

This attempt to unpack a specific event is best understood as a case study. Case study research starts from 'the desire to derive a(n) (up-)close or otherwise in-depth understanding of a single or small number of "cases," set in their real-world contexts' (Yin, 2012, p. 2). It is, in fact, the real-world context that is critical to understand how the use of particular features of Twitter connects to agenda-setting. As such, the methodology of a case study is particularly well-suited, as the method is most appropriate when the boundaries between phenomenon and context are not clearly evident (Yin, 2013).

This work uses a single case rather than a multi-case approach. It is beyond the scope of this paper to be able to offer a multi-case approach due level of detail involved in this particular case. However, researchers interested in this topic may consider both comparative cases within a single platform (such as Twitter), and can provide further depth and nuance by describing how agenda-setting is achieved differently depending on the particular features of a platform (for example, how agenda-setting may or may not be achieved through other popular platforms such as Reddit).

Data collection

This analysis relies on multiple data sources. First, it relies on data collected from the Wikileaks' Twitter account. Tweets authored by Wikileaks were manually collected through a combination of the Twitter web-based search engine, the archival web recording tool webrecorder.io, and python-based parsing code (a Jupyter Notebook that explains the process in greater detail is available at [Summers, 2017]). A total of 34,775 tweets originally authored by Wikileaks were identified. Wikileaks' profile page indicates that they have a total of 47.9k Tweets. However, the profile page tweet count includes re-tweets, which we did not collect. It is assumed that the 34,775 tweets collected are comprehensive of materials that have not been deleted previously and were not retweets. Second, this analysis relies on data collected from the website Trendogate.com. Trendogate provides historical information on trending topics, in particular, information about locations where a particular hashtag trended and at what time. Third, this analysis relies on news stories

and other secondary sources that analyze the impact that Wikileaks had on the 2016 election. Lastly, we rely on data points collected from *Nexus Uni* (which indexes over 5,600 news, business, legal, medical and reference publications, primarily newspapers, magazines and journals newspaper articles) and *Access World News* (NewsBank), which includes the full-text of over 600 U.S. newspapers. In particular, we searched each of these databases for articles that mentioned ‘Podesta’ and ‘Wikileaks’ within the same article, and any variation of the exact term ‘#PodestaEmails’ (‘#PodestaEmails2’, ‘#PodestaEmails3’ etc.) that appeared in the month prior to the election (Oct 8, 2016 to Nov 8, 2016).

The multiple data sources are important because, as noted by Yin (2012), case studies require triangulation in order to find converging lines of evidence. In this case, we examine how these converging lines of evidence speak to how Wikileaks’ content release methodology increased the reach of this content, and ultimately helped Wikileaks’ more readily achieve agenda-setting.

Case

When a topic ‘Trends,’ more Twitter users are likely to see the content and to engage with Tweets related to the topic. This is because the topic will show up as part of the ‘Trending Topics’ list, shown by default next to the users’ timeline on the web-based Twitter interface. As for the effects of this, in a 2015 blog post, the social media engagement business *Buffer* wrote that in creating content related to things that were trending on Twitter they created, ‘our best-performing tweets of all time, earning somewhere in the ballpark of 11,000+ clicks and more than 3x our normal engagement rate’ (Seiter, 2015). This suggests that having something appear on the Trending Topics list not only promotes visibility, but also content engagement.

However, as previously noted, one of the difficulties of making something ‘trend’ is that Twitter does not disclose exactly how the Trending Topic algorithm works (Gillespie, 2012). While it is impossible to say for certain without discussing the matter with Wikileaks operators, Wikileaks’ previous behavior on the platform suggests some familiarity with how the Trending Topics algorithm works.

According to Lynch (2014), Wikileaks’ use of hashtags has changed over time. In the early years of their Twitter use:

Wikileaks initially experimented with placing “#Wikileaks” at the end of their tweets” (p. 2682), however, they ultimately abandoned this practice as “it was difficult to track or index Twitter conversations about Wikileaks’ activities among multiple followers; more importantly, the absence of hashtags made it difficult for non-followers to discover Wikileaks through conversations keyed to such tags. (p. 2682)

Instead, Wikileaks began to encourage the use of single hashtags to collate conversations around specific leaks. Lynch (2014) observes that the first time Wikileaks invented a hashtag to gather together those interested in discussing a specific leak was in November of 2009, ‘when they urged followers to use #911texts to discuss a leak of New York-area pager messages from September 11, 2001’ (p. 2682). They also previously asked interested Twitter users to use specific hashtags during events in order to raise awareness around a particular topic or issue. For example, tweeting, ‘For tweets regarding [sic]

Julian #Assange's hearing on the 12th and 13th, please use hashtag #wljul.” (Wikileaks, 2011).

Wikileaks has also been involved with some degree of controversy around the Trending Topics feature previously. For example, in late 2010, Wikileaks released a cache of U.S. diplomatic cables. This release would become known as ‘#CableGate.’ During this release, Twitter was accused by some users of censoring CableGate and Wikileaks related hashtags from appearing on the Trending Topics list. The accusation prompted Twitter to write a response on its company blog entitled, ‘To Trend or Not to Trend’. The blog-post stated:

This week, people are wondering about WikiLeaks, with some asking if Twitter has blocked #wikileaks, #cablegate or other related topics from appearing in the list of top Trends. The answer: Absolutely not. In fact, some of these terms, including #wikileaks and #cablegate, have previously trended either worldwide or in specific locations. (twitter.com, 2010)

The fact that Twitter publicly responded to the controversy suggests Wikileaks may have taken notice. In July of 2016, Wikileaks itself accused Twitter of ‘shadowbanning’ a topic from appearing within the Trending Topics list, tweeting, ‘@Twitter Is Twitter “shadow banning” the #DNCLeak hashtag? <https://t.co/dsI0NtoOer>’” (Wikileaks, 2016a). This history suggests Wikileaks’ operators were at least aware of some of the technical characteristics of the way the Trending Topics algorithm functions and, assuming they had read Twitter’s public response to the questions of censorship for their content, some of the potential pitfalls of reusing the same hashtag as it relates to content trending.

Roughly one month before the November 8th, 2016 election day, Wikileaks began to release the Podesta e-mails on its website, and announcing the leaks on its Twitter page. Rather than dumping the Podesta e-mails in bulk and making a single announcement, Wikileaks released the information in batches, spread out just over one month. Each newly released batch was announced on Twitter using its own sequential hashtag (#PodestaEmails1, #PodestaEmails2, etc.). By creating a new hashtag for each release, Wikileaks took advantage of the way Twitter’s Trending Topics algorithm operates, achieving a broader impact for this leak than it might have been able to achieve through the use of a single hashtag for each release. This is because had they continued to use the same hashtag over and over (#PodestaEmails for the first release, #PodestaEmails for the second release, etc. etc.), the topic would likely have not trended beyond the first release, since the volume of Tweets likely would not have changed significantly from day to day. But, because there were new hashtags for each release (even though it only varied by a trailing digit), the relative velocity that was being measured against was almost always a prior state of zero, thus yielding a stronger velocity slope.

In sum, Wikileaks created 37 specific hashtags related to the Podesta email leak ranging from #PodestaEmails (created 6:42 PM – Oct 7, 2016) to #PodestaEmails36 (created 12:04 PM – Nov 9, 2016). Across just the Wikileaks tweets that have the first use of a new hashtag (#PodestaEmails, #PodestaEmails2), etc. those 37 tweets have a total of 399,795 retweets and 361,399 likes, with each release tweet averaging 10,805 retweets and 9,768 likes.

As shown in Table 1, Wikileaks introduced at least one new Podesta E-mail hashtag every day for their releases from October 10th, 2016 to November 9th, 2016. In the final week before the election, they were sometimes introducing two new hashtags a day. Given the time-ranges involved in the creation of hashtags, it suggests that the intent

Table 1. Hashtags by date.

Month	Day	Hashtag Introduced
10	7	#PodestaEmails
10	10	#PodestaEmails2
10	11	#PodestaEmails3
10	12	#PodestaEmails4, #PodestaEmails5
10	13	#PodestaEmails6
10	14	#PodestaEmails7
10	15	#PodestaEmails8
10	16	#PodestaEmails9
10	17	#PodestaEmails10
10	18	#PodestaEmails11
10	19	#PodestaEmails12
10	20	#PodestaEmails13
10	21	#PodestaEmails14
10	22	#PodestaEmails15
10	23	#PodestaEmails16
10	24	#PodestaEmails17
10	25	#PodestaEmails18
10	26	#PodestaEmails19
10	27	#PodestaEmails20
10	28	#PodestaEmails21
10	29	#PodestaEmails22
10	30	#PodestaEmails23
10	31	#PodestaEmails24
11	1	#PodestaEmails25
11	2	#PodestaEmails26
11	3	#PodestaEmails27, #PodestaEmails28
11	4	#PodestaEmails29, #PodestaEmails30
11	5	#PodestaEmails31
11	6	#PodestaEmails32
11	7	#PodestaEmails33, #PodestaEmails34
11	8	#PodestaEmails35, #PodestaEmails36
11	9	#PodestaEmails37

was to make this information available specifically before Election Day in the U.S. and to try to draw attention to their content in the critical weeks before the election on Tuesday, November 8, 2016.

As shown in [Table 2](#), in total, Podesta Email related hashtags hit town-wide, country-wide, or worldwide Trending topics lists a total of 1,917 times. Podesta related hashtags hit the Worldwide trending topics list 10 times during that month, hit the United States

Table 2. Count of Trending Topics Locations.

Town-Wide Trending Topics Lists (Aggregated to Countries)		Country-wide Trending Topics Lists		Worldwide Trending Topics Lists	
United States	1345	United States	29	Total	10
Vietnam	145	Vietnam	27		
United Kingdom	117	Canada	10		
Canada	100	Russia	6		
Russia	73	United Arab Emirates	6		
United Arab Emirates	21	United Kingdom	3		
Australia	14	Australia	2		
Belarus	4	Latvia	2		
Algeria	1	Algeria	1		
Latvia	1	Total	86		
Total	1821				

trending topics list 29 times during that month, and hit U.S. city or town trending topics lists 1,345 times.

Podesta related hashtags remained on Trending Topics lists from October 8, 2016 until November 8, 2016. In the U.S., a Podesta related hashtag hit the trending topics list in at least one town every day from October 10th until November 8th, 2016. On average between October 8, 2016 until November 8, 2016, in the U.S., a Podesta related hashtag showed up in 42.9 city-wide or nation-wide trending topics lists a day. This activity peaked on November 5th, with Podesta related hashtags appearing in on 120 city-wide trending topics lists within the U.S. [Figure 2](#).

As a result of their use of new hashtags for each release, Wikileaks was essentially able to keep Podesta Email related hashtags on Trending Topics lists for an entire month. Had they simply used a single hashtag to collate the entire release (such as using #PodestaEmails for every new release) it is highly unlikely that the topic would have been as persistently present in the Trending Topics.

It is difficult to capture and isolate the exact and full effects of Wikileaks successfully landing Podesta related hashtags on the Trending Topics lists for over a month versus the impact of the actual content contained in the released e-mails itself. However, we can see evidence of both facets appearing in media outside of Twitter. A search of *Access World News's* database of newspapers revealed 3,199 articles that mention Podesta and Wikileaks together in the same article. In a search of *Nexus Uni*, we find Podesta-Email hashtags (such as '#PodestaEmails4,' etc.) were mentioned *explicitly* a total of 339 times.

In regards to Podesta-Email hashtags showing up outside of Twitter, in some cases, articles were simply quoting Tweets from Twitter as part of their reporting. For example, one Associated Press article stated:

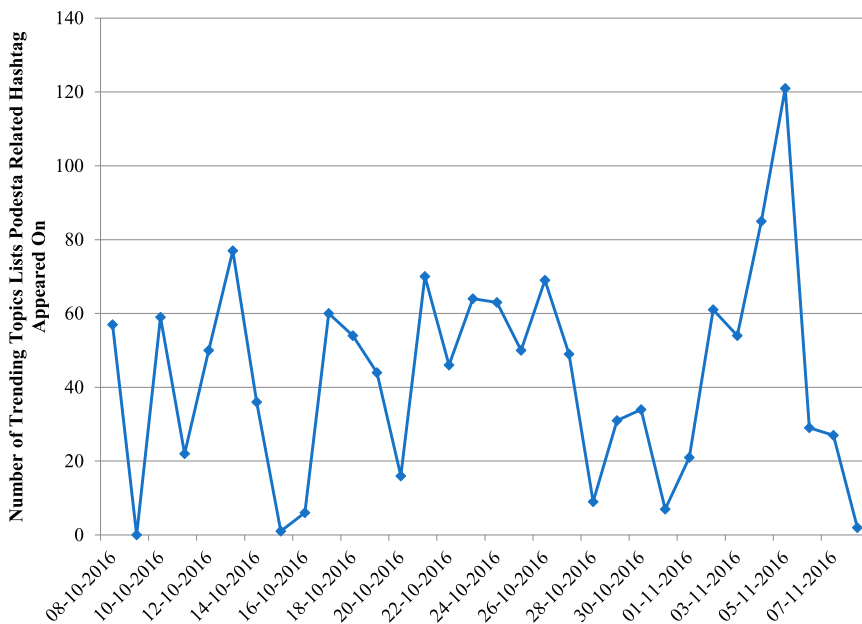


Figure 2. Number of Trending Topics Lists Podesta Related Hashtags Appeared on by Day.

Questions were raised on social media about the speed with which Russia Today, a news site funded by the Russian government, tweeted about Podesta's e-mails, the latest in a series of hacked emails published by WikiLeaks. The group said the e-mails were visible on its website "well before" it started tweeting them. RT dismissed the questions as conspiracy theories. 'We were fastest on #Podestaemails6, faster than @wikileaks, and the US conspiracy machine can't handle it,' the network said in a tweet. (Daly, 2016)

One newspaper, *The News-Gazette* (Champaign-Urbana, IL) regularly published a recap of on-goings on social media, providing 'a quick glance at the best that Twitter has to offer.' This included noting that '#PodestaEmails' related topics was trending as part of multiple articles (Jackson, 2016a; 2016b; 2016c). These kinds of quotes and references expanded the reach and attention drawn to the content beyond the scope of Twitter users to a wider public.

In some cases, the trending itself also became a part of the story. For example, an article in *The Washington Times* states,

Twitter's trending news feed was dominated by #PodestaEmails25 after a new batch of stolen documents belonging to John Podesta were posted online. A March 2, 2015, discussion between Mrs. Clinton's top advisers shows Mr. Podesta expressing a desire to 'dump all those emails.' (Ernst, 2016, para. 2).

Then Presidential Candidate Donald Trump himself drew attention to the story in his own tweet, seen in Figure 1. This linking of the story by a presidential candidate likely drew even more attention to the release.

Looking over the entire history of Wikileaks' tweets and hashtag use reveals that, prior to the #PodestaEmail leaks, Wikileaks use of sequential hashtags for multi-part releases was uncommon and far less temporally concentrated. When Wikileaks did create multiple hashtags for content releases, the different hashtags were often spread out across longer spans of time, and involved far fewer parts of the sequence. For example, in late 2011, WikiLeaks began publishing The Spy Files, 'thousands of pages and other materials exposing the global mass surveillance industry' (Wikileaks, 2014). Wikileaks published four 'parts' to this collection, two published in December of 2011, one published in September of 2013, and one in September of 2014. Wikileaks did use multiple hashtags for these releases—#SpyFiles for the initial release, and #SpyFiles4 for the fourth release—but did not create a #SpyFiles2 or #SpyFiles3. Instead the second and third parts were announced using the original #SpyFiles hashtag. In comparing the volume of hashtags created for the #PodestaEmail leak and the frequency at which these were created to Wikileaks' other use of hashtags, the #PodestaEmail hashtags stand out as a clear outlier. While it is impossible to say without interviewing the individuals creating the tweets, the nature of the use, combined with the previous controversy regarding why their content did not trend, suggests that Wikileaks' use of serial hashtags was likely purposeful, intended to take advantage of the possibility of getting content to repeatedly trend.

Discussion

boyd (2014) argues features of Twitter, such as hashtags, make possible affordances that include: persistence, visibility, spreadability and searchability. Wikileaks' creative messaging 'spoke' to Twitter's Trending Topics feature by using new hashtags for each release,

thereby furthering the realization of persistence, visibility, spreadability and searchability. By creating new hashtags for every release, Wikileaks made it possible for each new release related to the Podesta leak to appear *persistently* on Trending Topics in at least one U.S. town every day from October 10th until November 8th, 2016. Wikileaks' use of sequential hashtags also increased the potential *visibility* of this release. It provided the opportunity for parallel narratives about Podesta and Clinton to appear within Twitter, and made it possible for these narratives to be more easily *spread* to different individuals and different media spaces.

The careful use of multiple hashtags may have also impacted the *searchability* and *discoverability* of content related to the Podesta e-mails. Twitter's search algorithm shows the most recent top tweets by default. Twitter indicates it determines top tweets by determining 'relevance based on the popularity of a Tweet (e.g., when a lot of people are interacting with or sharing via Retweets and replies), the keywords it contains, and many other factors' (twitter.com, 2018). However, if a topic appears on the Trending Topics list, it becomes more likely that people will interact with tweets related to that topic in some way. As a result, the use of multiple hashtags to improve the chances of landing on Trending Topic lists created a virtuous circle where related content then additionally became more likely to float to the top of search results.

Wikileaks' hashtag use shows how agenda-setting capacity can be furthered through taking advantage of social media features. Wikileaks' ability to function as an agenda-setter was shaped not just by the *content* of the release, but also by the way their messaging spoke to the technical features of Twitter. In many ways, what Wikileaks did was enact Twitter's algorithms through a particular, novel practice (Seaver, 2017). However, we wish to emphasize there is not a *deterministic* relationship between the use of multiple hashtags, appearing on the Trending Topics list, and agenda-setting. It is important to note that, were it not for the hundreds to thousands of Twitter accounts liking Wikileaks' tweets or retweeting them, or creating their own content in response, the use of multiple, sequential hashtags may not have made any difference to how robustly Wikileaks was ultimately able to achieve any level of agenda-setting. However, *without* the use of sequential hashtags, the degree to which Wikileaks successfully realized persistence, visibility, spreadability, and searchability of this release through the features of the platform would have been stunted.

Knowledge of technical features of social media platforms, particularly platforms that are often opaque, will continue to provide an edge in realizing specific goals and outcomes, achieving agenda-setting, and ultimately, in expressions of power. Symbolic power is the ability to 'impose the principles of construction of reality – in particular, social reality – [and] is a major dimension of political power' (Bourdieu, 1977, p. 165); or as Watts (2011) describes Bourdieu's concept, the 'power to make people see and believe certain visions of the world rather than others' (p. 4). Increasingly, techniques for successful realization of symbolic power depend on technical knowledge about social media systems and their particular features.

We argue that, based on its history of interactions with Twitter's platform and the Trending Topics algorithm, Wikileaks' use of sequential hashtags at the rate of roughly one a day for the entire month up to election day, rather than using a single hashtag, was likely a strategic choice. Through this choice, Wikileaks' messaging had a higher chance of showing up on the Trending Topics lists for an extended length of time than

a one-time, bulk release with a single hashtag. In structuring their messaging campaign in this way, Wikileaks' ability to successfully achieve agenda-setting was deeply shaped by its ability to work the features of Twitter platform to realize persistence, visibility, spreadability, and searchability for its content.

Wikileaks' messaging spoke to both social media audiences and algorithms, furthering a dynamic flow between Twitter and traditional news outlets. News stories about the Podesta E-mails trending complemented news stories about the content of the e-mails. As journalists rely on Trending Topics to identify breaking news, and report trending as newsworthy in itself or as part of a larger story, agenda-setting is now a potential by-product of getting content to trend. We suggest that scholars consider how agenda-setting theory might need to be expanded to account for how sociotechnical systems and their features fit into contemporary agenda-setting practices.

In their original article defining the theory of agenda-setting, McCombs and Shaw (1972) write,

In choosing and displaying news, editors, newsroom staff, and broadcasters play an important part in shaping political reality. Readers learn not only about a given issue, but also how much importance to attach to that issue from the amount of information in a news story and its position (p. 176).

On social media, news, editors, and newsroom staff are often not the ones making choices about what content appears prominently on a site. Instead, algorithms are often making these decisions, based on data produced by the activities of users. Users who are aware of this, and who have some degree of technical knowledge, may be able to take advantage of the ways these algorithms work. In doing so, these users may find they are more likely (but not guaranteed) to potentially influence what others see by taking strategic advantage of system features. As traditional media cover events happening on social media, the agenda-setting potential is multiplied.

Conclusion

The goal of this article was to discuss how Wikileaks' release methodology took creative advantage of the way that the Trending Topics algorithm works, thereby creating the potential to further the reach of Podesta E-mail related content. Wikileaks did this by crafting tweets that spoke to two audiences: Twitter users and Twitter algorithms. In serializing its content and using new hashtags for each release, Wikileaks was able to create the potential for persistence, visibility, spreadability, and searchability of Podesta e-mail related content, ultimately furthering their ability to function in an agenda-setting capacity.

Knowledge about how social media sites operate will continue to be a key component in achieving agenda-setting. However, as we noted above, Wikileaks use of serial hashtags only created the possibility for this to occur more readily. One does not get to the Trending Topics list merely by using lots of different hashtags. Instead, content must be shared repeatedly for this to occur. Indeed, there is an outstanding question of how collective action during the 2016 election made agenda-setting possible in these digital spaces. It is beyond the scope of our data and this manuscript to comment on this aspect. However, as researchers move towards creating a more robust account of agenda-setting through

social media, it will be critical for scholars to additionally contend with that facet, and consider questions about the kinds of power and resources necessary to coordinate such activities.

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