Pew Research Center

FOR RELEASE DECEMBER 18, 2017

Sharing the News in a Polarized Congress

Partisan and ideological divides shape which news outlets legislators share links to on Facebook

BY *Solomon Messing, Patrick van Kessel and Adam Hughes*

FOR MEDIA OR OTHER INQUIRIES:

Solomon Messing, Director of Data Labs
Rachel Weisel, Communications Manager

202.419.4372

www.pewresearch.org

RECOMMENDED CITATION

Messing, Van Kessel, and Hughes, Dec, 2017, "Sharing the News in a Polarized Congress"

About Pew Research Center

Pew Research Center is a nonpartisan fact tank that informs the public about the issues, attitudes and trends shaping America and the world. It does not take policy positions. It conducts public opinion polling, demographic research, content analysis and other data-driven social science research. The Center studies U.S. politics and policy; journalism and media; internet, science and technology; religion and public life; Hispanic trends; global attitudes and trends; and U.S. social and demographic trends. All of the Center's reports are available at www.pewresearch.org. Pew Research Center is a subsidiary of The Pew Charitable Trusts, its primary funder.

Methodological note

This report describes findings from an analysis of all Facebook posts issued by members of the 114th and 115th Congresses between Jan. 2, 2015, and July 20, 2017. Researchers collected Facebook posts from members' official Facebook accounts using the social media platform's application programming interface (API) for public pages.

Researchers obtained 447,684 posts from 581 unique members of Congress across the two most recent Congresses. Next, they identified all Facebook posts that included links to other websites: a total of 177,467 posts, which represent 40% of all posts in the original sample.

Researchers standardized these links by identifying their domain[1] in order to measure how often members shared information from particular websites. The research team then classified all sites that were linked to at least 25 times, determining which contained news or information related to current events directed at a national audience.[2] In total, 42,219 posts – 9.4% of all posts – contained links to national news outlets with stories shared at least 25 times. A total of 106 news outlets were included in the analysis, and all of them are listed in the report Methodology.

Additional details about data collection and processing are also included in the Methodology.

[1] Specifically, researchers reduced links to their domain names and consolidated links from the same domain. For example, both www.cnn.com and edition.cnn.com resolve to cnn.com. In selected cases, researchers chose to preserve longer domains – such as paulryan.house.gov and pelosi.house.gov, to prevent collapsing websites with different content.

[2] These are defined as "media sites where the majority of links direct to stories about national issues, events, policies, and members of Congress or the President."

Terminology

Link sharing refers to a member of Congress (or members' staff) including a link as part of a public post on his or her Facebook page. When a member shares a link, his or her Facebook followers may see the link in their newsfeeds. (Note that such sharing does not necessarily involve use of Facebook's "Share" command; for instance, a member copying the URL of a news article and pasting it into a new Facebook post would constitute sharing.)

National news outlets are the websites of U.S.-based news organizations that provide coverage focused on national affairs. News outlets were included only if their stories were shared at least 25 times during the time studied, resulting in a list of 106 outlets. A complete list of the outlets analyzed in this report appears in the Methodology section.

DW-NOMINATE is a measure of political ideology that places members of the U.S. House and Senate on a liberal-to-conservative ideology scale according to their roll-call voting history in each legislative session of Congress.[3] The scale ranges from -1 (very liberal) to 1 (very conservative) across all Congresses; for the time period studied here, it ranges between -0.74 and 0.99.

Congressional sharing scores for each of the 106 national news outlets outlined above capture the average DW-NOMINATE score of members of Congress who link to a story from that outlet in a post on their Facebook page. The scores take into account the number of times members shared stories from each outlet. Overall, the goal is to determine where members who share links to the site fall on the ideological spectrum – whether it is members on the left or the right who more frequently share links to the site, or whether it has a mixed congressional audience.

Re-sharing refers to individual Facebook users encountering a link shared by a member of Congress, and then sharing it again with their own Facebook friends. Re-sharing is a form of audience engagement on Facebook.

[3] See Poole, Keith T., and Howard Rosenthal. 1985. "A Spatial Model for Legislative Roll Call Analysis." American Journal of Political Science.

Sharing the News in a Polarized Congress

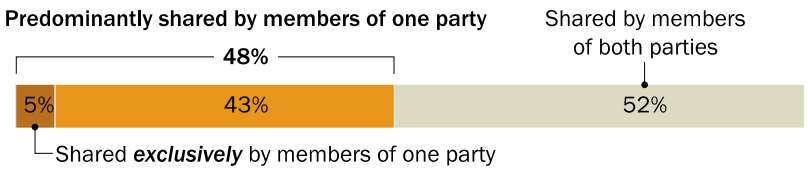
Partisan and ideological divides shape which news outlets legislators share links to on Facebook

Political divides in the American news landscape do not end with Americans' preferences for different news sources; rather, they extend to how members of the U.S. Congress communicate with constituents in the digital age.

Between January 2015 and July 2017, nearly half (48%) of the links to national news outlets that members of Congress shared on Facebook were to outlets *predominantly* linked to by members of just one party, according to a new Pew Research Center analysis.[4] What's more, 5% of these news links pointed to outlets that were *exclusively* linked to by members of one political party.

Nearly half of the links to national news outlets shared by lawmakers on Facebook were to outlets predominantly shared by one party

% of links to national news outlets shared by members on Congress on Facebook that were to outlets…



Note: 'Predominantly' means more than 75% of these outlets' shares came from one party.
Source: Pew Research Center Analysis of links shared by members of Congress on Facebook between Jan. 2, 2015 and July 20, 2017.

PEW RESEARCH CENTER

To reach these conclusions, researchers collected nearly half a million Facebook posts (447,684) by members of Congress posted between Jan. 2, 2015, and July 20, 2017. Of those, 177,467 included links to other websites, including a final sample of 42,219 that researchers identified as linking to stories from national news outlets.[5]

[4] In other words, more than 75% of individual links to each outlet came from members of just one party.

[5] Websites were included if the majority of links on each site directed the reader to stories about national issues, events, policies, and members of Congress or the President. Sites that were primarily about local news were excluded, as were government websites, think tank websites, or other non-national-news sites. Only sites that were linked to at least 25 times across the study period were included in the analysis. More than 95% of all national news links shared by members of Congress came from these 106 outlets.

The study also finds that Democratic members of Congress became more likely to share stories from national news outlets once President Donald Trump took office in January 2017. Prior to the November 2016 presidential election, 8% of all Facebook posts made by Democrats linked to national news, a proportion that doubled to 16% after Trump's inauguration. By contrast, the share of congressional Republican posts linking to national news stories remained about the same before and after the inauguration (9% vs. 8%). A May 2017 Pew Research Center survey also found a much larger appetite for national news among Democrats after the election.

As Democrats' appetite for news increased, so did the intensity of their audience's reactions. In the six months prior to the election, 5% of "reactions" to national news links posted by Democratic members were "angry," compared with 9% for Republicans. However, in the six months after the election, that number more than tripled to 18% for Democrats, while remaining at 10% for Republicans.

When it comes to disseminating news on social media, people who follow members of Congress on Facebook play an important role. A July 2016 survey by Pew Research Center found that 25% of social media users follow political candidates or other political figures online. Other research by the Center suggests that members with the most liberal and conservative legislative voting records have the most Facebook followers. In the current study, researchers examined whether this pattern extended to audience engagement with links to stories from different national news outlets, especially stories from those outlets that were predominantly shared by liberal or conservative legislators.

The new analysis finds some evidence that the ways that Facebook audiences interact with congressional posts containing news links may be modestly reinforcing the ideological divide. Specifically, the Facebook audience re-shared news stories from outlets that fell on the most liberal or conservative ends of a "sharing score" 21% to 22% more often than when the link came from a news source that fell in the middle.[6]

While Facebook comprises one important part of members' media outreach efforts, members also communicate with their constituents through press releases, town halls, media appearances and on other social media outlets. Although this report does not examine communication across all these channels, Facebook posts are relatively easy to systematically capture and study. Previous research suggests that at least some statements that members of Congress express on Facebook are similar to those they make in press releases. Focusing on Facebook posts also makes it possible

[6] The median number of re-shares of congressional posts including news links was 13. However, because some posts were shared hundreds or even thousands of times, the median can mask the real-world impact of re-sharing. Across the 5,206 links that were re-shared at least 100 times, more than 7.9 million re-shares were produced.

to measure how much a member's audience interacts with the posts by looking at likes, comments and shares. Facebook is also the social media site from which the most Americans get news.

Creating 'congressional sharing scores'

To measure the extent to which members of Congress share news links that align with their own ideology, researchers had to identify the ideological leanings of each lawmaker and link that information with the national news outlets that they link to online.

To determine each member's political ideology, researchers used an existing, widely used measure developed by academics called DW-NOMINATE. The ideology measure runs from positive 0.99 (most conservative) to -0.74 (most liberal) across the time period examined in this analysis. For example, Senate Majority Leader Mitch McConnell, R-Ky., has a score of 0.40, while House Minority Leader Nancy Pelosi, D-Calif., has a score of -0.49. Across both Congresses included in the study, all Democrats have DW-NOMINATE scores on the liberal side of the scale, and all Republicans have conservative scores.

As a next step, rather than attempting to measure the ideology of the national news site itself, researchers looked at the ideology of the members of Congress who shared news links from each outlet. To do this, researchers assigned each member's DW-NOMINATE ideology score to the news outlets they linked to online, generating a "congressional sharing score" for each news source. This score reflects the average ideological position of all members of Congress who shared stories from each source while accounting for how often the legislator shared them. A news outlet linked to 100 times by Democrats and 10 times by Republicans would have a more liberal score.

For example, stories from The New York Times were shared 4,454 times by 429 different members of Congress between January 2015 and July 2017. That number included 228 Democrats and 201 Republicans. To create a congressional sharing score for The New York Times, researchers first identified the ideology scores of all 429 members who shared a link to the site. However, not all members of Congress shared stories from The New York Times at the same rate. Democratic members of Congress who have more liberal scores shared stories from the Times in 3,761 Facebook posts, compared with a total of 693 for Republicans. Congressional sharing scores take this imbalance into account, by counting each individual link to a news story rather than each member of Congress. As a result, the sharing score for The New York Times is -0.28.

Because Republicans outnumber Democrats in Congress, the average DW-NOMINATE score across all members is 0.11, not zero. As a result, a news outlet that was shared at the same rate by all members of both parties would have a Congressional Sharing Score of 0.11.

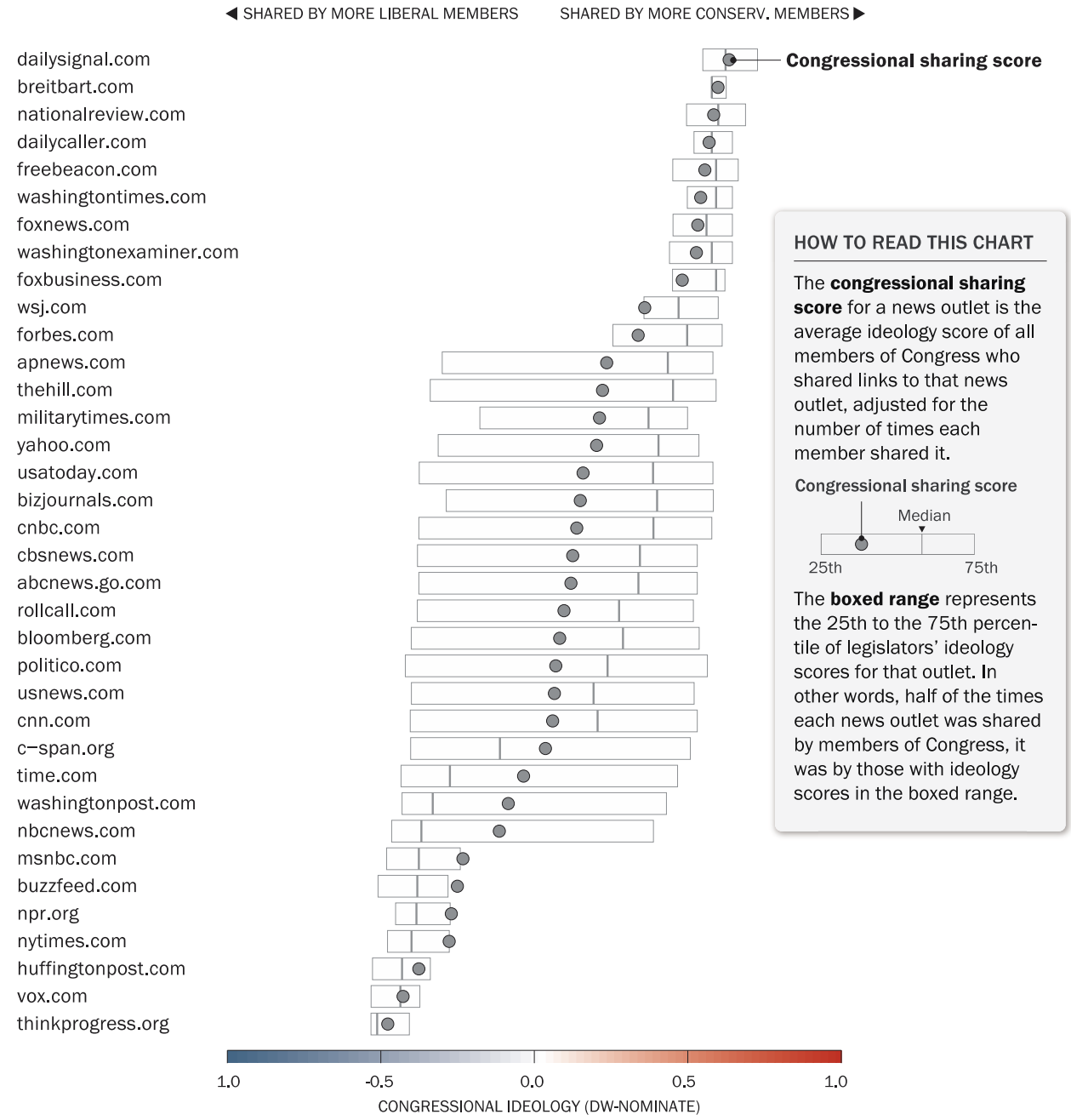
Ideology shapes which news outlets members of Congress share links to

Generally speaking, the news outlets that were most often linked to via Facebook fall into three categories: those linked to predominantly by Republicans, those linked to predominantly by Democrats and those that were linked to by members on both sides of the aisle. Researchers defined an outlet as predominantly linked to by those in one party by examining whether more than 75% of links to the outlet came from just Democrats or Republicans. Of the 106 national news outlets in the study – those that appeared in at least 25 posts by members across the study period – 32 outlets were predominantly linked to by Republican lawmakers, 30 by congressional Democrats, and 44 by both Democrats and Republicans in Congress.

The graph below shows how liberals and conservatives in Congress shared stories from different outlets, focusing only on the news outlets that were linked to most often (200 times or more) over the study period. A narrow boxed range in the graphic indicates the extent to which the outlet was linked to by liberals or conservatives in Congress. For example, Breitbart news was linked to nearly 700 times among Republican lawmakers (particularly more conservative Republicans) during the study period, and zero times by Democrats in Congress. On the opposite side of the spectrum, there were more than 1,100 links to the Huffington Post by congressional Democrats, but only 89 from Republican lawmakers. In contrast, outlets with a very wide boxed range – such as The Washington Post, The Hill and CNN – were linked to often by both liberals and conservatives in Congress. For example, news links to CNN were shared 1,011 times by Democrats in Congress during the study period, and 1,062 by congressional Republicans.

Some news outlets' stories were linked to by members of Congress across the ideological spectrum; others mostly by liberals or conservatives in Congress

Congressional sharing score, by news outlet



Source: Pew Research Center analysis of links shared by members of Congress on Facebook between Jan. 2, 2015 and July 20, 2017. The outlets included in the list were linked to by members of Congress 200 times or more during that period. Legislator ideology from Voteview.

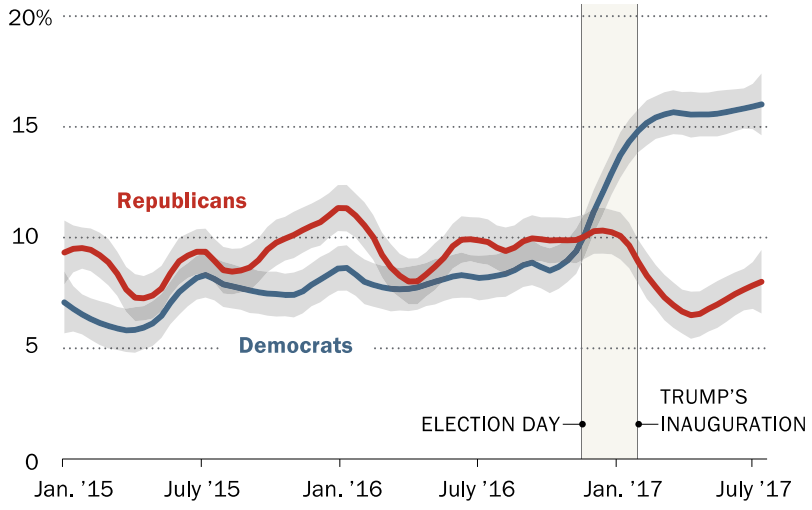
PEW RESEARCH CENTER

A partisan gap in congressional news sharing emerges after Trump's 2016 win

After Trump won the 2016 presidential election, Democrats in Congress became increasingly likely to share national news on Facebook. Between Jan. 2, 2015, and Nov. 8, 2016 – the day of the presidential election – just 8% of congressional Democrats' Facebook posts included links to national news stories. From Jan. 20 through July 20, 2017, however, that number doubled to 16%.

Congressional Democrats twice as likely to share national news on Facebook after 2016 election

% of all Facebook posts that link to stories from national news outlets



Source: Pew Research Center analysis of links shared by members of Congress on Facebook between Jan. 2, 2015 and July 20, 2017

PEW RESEARCH CENTER

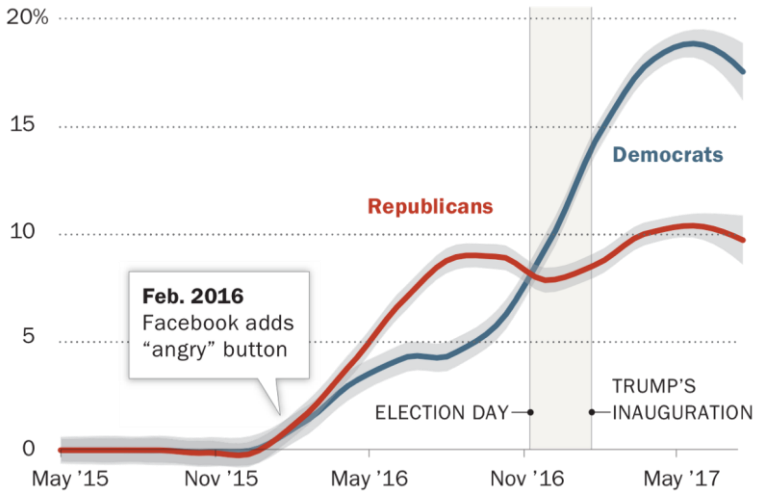
‘Angry’ reactions to national news posted by Democratic lawmakers double after 2016 election

In February 2016, Facebook introduced an array of new “reactions”[7] to content in addition to the long-present “like” button, adding to the information on how audiences feel about what they encounter on the platform.

The Center analyzed these reactions and found that, in response to posts from congressional Democrats, the proportion of reactions from the Facebook audience that used the “angry” button more than tripled after the election. From May 1 to Nov. 8, 2016, roughly 5% of reactions to national news links posted by congressional Democrats were “angry” reactions – yet between the election and July 20, 2017, fully 18% of all reactions to Democratic lawmakers’ news links were “angry.” Reactions to Republican-shared news links remained relatively stable. Between May 1 and Nov. 8, 2016, 9% of reactions to Republican posts were “angry,” compared with 10% between Nov. 9, 2016 and July 20, 2017.

After 2016 election, proportion of ‘angry’ reactions when Democrats post national news more than doubled

% of reactions from Facebook audience to posts that link to stories from national news outlets



Source: Pew Research Center analysis of links shared by members of Congress on Facebook between Jan. 2, 2015, and July 20, 2017

PEW RESEARCH CENTER

[7] The set of reactions includes “like,” “angry,” “haha,” “love,” “sad,” “thankful” and “wow.”

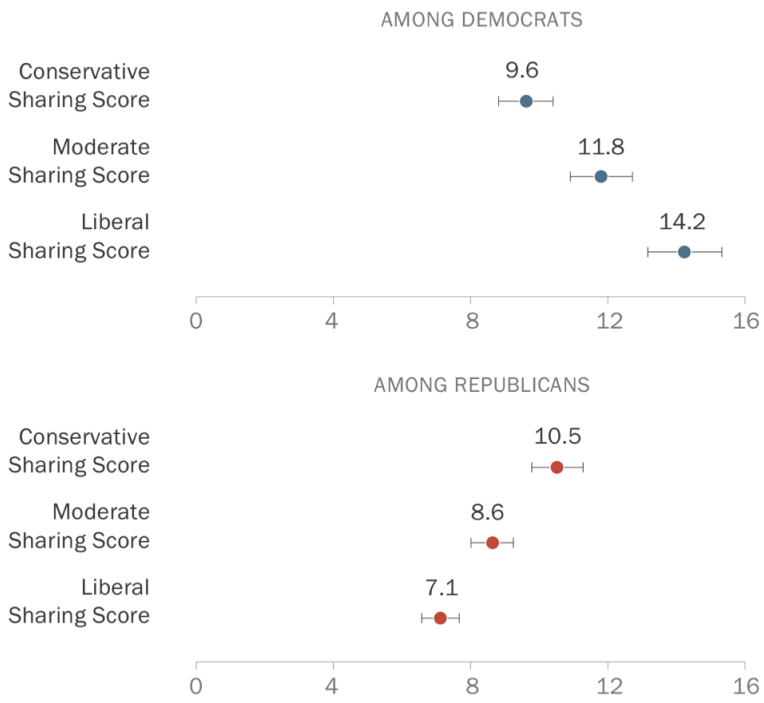
Outlets predominantly linked to by liberal and conservative lawmakers more likely to be re-shared

News from outlets whose stories were predominantly shared by more liberal *or* conservative legislators was somewhat more likely to be re-shared by Facebook users, compared with news from outlets regularly linked to by both liberals and conservatives in Congress.

Posts sharing stories from outlets that were linked to almost exclusively by conservative lawmakers – outlets with congressional sharing scores in the top 10% of the scale – had a median of 26 shares. Stories from outlets in the bottom 10% of the scale – that were linked to almost exclusively by very liberal legislators – had a median of 23 shares. In contrast, news outlets regularly linked to by both liberal and conservative lawmakers – with a congressional sharing score in the middle 10% of the scale – had a median of 11 re-shares.

Stories from outlets shared predominantly by liberals or conservatives most likely to be re-shared

Estimated Facebook re-shares for outlets with ...



Note: Predictions from regression models that shows the relationship between individual outlets' congressional sharing scores and the number of re-shares that Facebook posts containing links to those sources receive. The models include random effects for members of Congress and each week in the data. Lines indicate standard errors.

PEW RESEARCH CENTER

To better account for the fact that more liberal and conservative members of Congress have more Facebook followers, researchers estimated regression models to evaluate the relationship between

Facebook re-shares and the congressional sharing score of particular outlets. These models account for that fact that some members receive a great deal of Facebook engagement.[8]

Based on this model, when Democrats or Republicans in Congress shared stories from outlets with the most liberal or conservative sharing scores, respectively, the Facebook audience re-shared those posts 21% and 22% more often than if the stories came from outlets that fell in the middle of the score's range. On the other hand, when Democratic and Republican legislators shared a story from an outlet that was almost exclusively linked to by members on the other end of the ideological spectrum – instead of linking to an outlet with a sharing score in the middle of the scale – they could expect to receive 17% and 18% fewer re-shares from their Facebook audience, respectively.

Overall, these patterns in re-sharing add up to a slightly higher level of engagement from the Facebook audience when members of Congress posted links to news from outlets linked to almost exclusively by liberals or conservatives in Congress.

[8] Researchers also examined the number of likes and comments that links to stories from different media outlets received. The overall patterns for likes and comments is similar but smaller than the results for re-shares. More information about these tests are included in the methodology section. Models include random intercepts for each member of Congress and each week in the data, which account for the fact that members may have very different baseline levels of likes and comments.

Acknowledgments

This report is a collaborative effort based on the input and analysis of the following individuals:

Primary Researchers

Solomon Messing, *Director, Data Labs*
Patrick van Kessel, *Senior Data Scientist*
Adam Hughes, *Research Associate*

Research team

Dennis Quinn, *Data Labs Fellow*
Onyi Lam, *Computational Social Scientist*
Stefan Wojcik, *Computational Social Scientist*
Ari Boyarsky, *Data Labs Intern*
Brian Broderick, *DevOps Engineer*
Skye Toor, *Data Science Assistant*

Communications and editorial

Rachel Weisel, *Communications Manager*
Hannah Klein, *Communications Associate*

Graphic design and web publishing

Peter Bell, *Design Director*
Travis Mitchell, *Digital Producer*

Copyediting

Travis Mitchell, *Digital Producer*

In addition, the report benefited from feedback provided by the following Pew Research Center researchers: Jocelyn Kiley, Amy Mitchell, Claudia Deane, Galen Stocking, Brad Jones and Jeffrey Gottfried.

Methodology

To analyze the news that members of Congress share with their Facebook followers, researchers obtained a complete set of posts created by members of the U.S. Senate and House of Representatives and posted on their official pages between Jan. 2, 2015, and July 20, 2017. Researchers used the Facebook Graph API to download the posts.

Data collection

The first step in the analysis was to identify each member's official Facebook page. Many members of Congress maintain multiple social media accounts, consisting of one or more "official," campaign or personal accounts. Official accounts are used to communicate information as part of the member's representational or legislative capacity, and U.S. Senate and House members may draw upon official staff resources appropriated by Congress when releasing content via these accounts. Personal and campaign accounts may not draw on these government resources under official House and Senate guidelines.[9]

Researchers started with an existing dataset of official and unofficial accounts for members of the 114th Congress, and expanded it with supplementary data on members of the 115th Congress from the open-source @unitedstates project. Researchers also manually checked for additional accounts by reviewing the House and Senate pages of members who were not found in the initial dataset. Every account was then manually reviewed and verified.

The research team first examined each account's Facebook page and confirmed that it was associated with the correct politician. All misattributions were manually corrected by Center experts, resulting in a list of 1,416 total Facebook accounts. Accounts were then classified as official or unofficial based on the links to and from their official ".gov" pages. Accounts were considered official if they were referenced by a member's official house.gov or senate.gov homepage. Congressional rules prohibit linking between official (.gov) and campaign websites or accounts, as well as linking from an official site or account to a personal site or account.

In cases where it was not clear that a Facebook page had ever been used in an official capacity (particularly for members that are no longer in Congress with active webpages), the most recent historical copy of the member's official webpage was manually reviewed using the Library of Congress online archive to determine if a link to the account had been present when the webpage was active. The resulting list of all official accounts for members of the 114th and 115th Congresses

[9] Straus, Jacob R. and Glassman, Matthew E. "Social Media in Congress: The Impact of Electronic Media on Member Communications." Congressional Research Service, 2016

was then used to collect the Facebook posts published by each page between Jan. 2, 2015, and July 20, 2017.

Using the Facebook Graph API, researchers obtained Facebook posts for members of the 114th Congress (2015-2016) between Dec. 30 and 31, 2016, so that members who left office before the 115th Congress began would be included in the sample. On July 25, 2017, researchers obtained posts for members of the 115th Congress (2017-2018).

After obtaining posts, researchers checked the combined dataset and identified a small number of duplicate posts from members of Congress who served in both the 114th and 115th Congresses. The duplicates had been introduced due to changes in their unique Facebook API identifiers, resulting in mismatches between the latest copy of certain posts and older copies that had previously been collected. These duplicates frequently occurred on posts that had been edited or modified slightly – often with nearly identical timestamps and only single character variations (e.g. deleting a space). The unique identifiers of these duplicates were also very similar themselves, differing by only a few digits in specific locations of the identifier string. In all of these cases, the posts' timestamps were rarely separated by more than a few minutes, and were always within 24 hours of each other.

An additional set of duplicates were also found among posts that were produced by pages that had changed names at some point during the timeframe. These posts most frequently occurred after the end of election season, when a number of politicians change the titles of their Facebook pages – removing suffixes such as "for Congress" or adding honorifics like "Senator" to their name. In these cases, the timestamps and content of the posts were perfectly identical, but the prefixes of the posts' unique identifiers were different.

There were several patterns across multiple post fields that appeared to distinguish duplicates from unique posts. However, no clear set of rules could be identified that comprehensively explained these patterns, so researchers employed a machine learning approach to isolate and remove the duplicate posts.

First, researchers scanned the entire set of posts for each account using a sliding window of two days, and identified all pairs of potential duplicates within each window that matched either of the following criteria:

1. Identical timestamps

2. TF-IDF cosine similarity of 0.6 or above, and a Levenshtein difference ratio of 60% or higher, on the text of the post[10]

From these "candidate duplicates," a random sample of 1,000 pairs was extracted and manually reviewed. Researchers identified whether or not the two posts in each candidate pair were in fact duplicates. Only 24% were determined to be *true* duplicates. These results were then used to train a machine learning algorithm, using 750 of the pairs to train the model, and 250 to evaluate its performance. Researchers trained a random forest model using a variety of features representing the similarity of the two posts across different fields, and interactions between these features. The most discriminating features included whether the two posts shared an identical timestamp, the number of digits that overlapped between the posts' ID numbers, and the difference between the posts' timestamps in seconds. The resulting model achieved high performance, with an average precision and recall of 98% – of the 250 potential duplicate pairs used to evaluate the model, it missed only 4 duplicates and correctly classified the remaining 246.

The model was then applied to the entire collection of potential duplicates, removing duplicates when detected. In total, 23,849 posts (5% of the original sample) were identified as duplicates and excluded before the analysis began.

The final dataset included only those posts that were produced by a member's primary official Facebook account during the time in which they were serving a term as a representative or senator in Congress. The resulting dataset contains 447,684 Facebook posts from 581 different members of Congress. Photo and video posts were included in this analysis. The findings presented in this report exclude posts by nonvoting representatives, and only posts produced by members that were active in a given Congress, defined as members that produced at least 10 Facebook posts during that time period. Members that meet this threshold in only one of the Congresses are only included for that specific Congress.

Data processing and outlet classification

In order to identify the individual media outlets that members of Congress link to on Facebook, researchers needed to identify the website from which each of the links was shared. First, researchers used a script to follow each link to its final endpoint, allowing redirects along the way, and then identified its domain. For example, if a member of Congress shared a link to

[10] Furthermore, at least one of the posts had to be inaccessible by the API. By definition, each pair of duplicates consisted of a post with an ID that had been updated and replaced within the API. In cases where an entire account was no longer active or available, there was also the possibility that duplicate pairs may exist where both posts were no longer accessible via the API. However, in no case could two duplicate posts both be available by the API. Posts that experienced ID changes result in either a failed query, or the API will return the updated ID value and prevent duplication in the first place.

http://pewrsr.ch/2vS4S1x, the script would have followed the shortened link to its expanded version – http://www.pewresearch.org/fact-tank/2017/08/21/highly-ideological-members-of-congress-have-more-facebook-followers-than-moderates-do/ – and then simplified it to just pewresearch.org. This process resulted in a list of outlets that indicated which members of Congress linked to each site, and how many times they linked to it. Without executing this process, links shared via URL-shortening services may not be correctly attributed to the website hosting the actual content.

To determine when (and when not) to collapse subdomains to their root domain, researchers manually reviewed the 4,586 subdomains that were posted by members of Congress at least five times across the sample timeframe. Of these, researchers identified 857 subdomains that varied substantially in their content from other subdomains that shared the same root domain. For these cases, such as http://paulryan.house.gov and http://pelosi.house.gov, the full subdomains were preserved and treated as unique sources. The remaining subdomains were collapsed to their root domain.

Next, researchers developed a classification codebook for determining which sites consisted of national news media outlets. Researchers defined national media outlets as "media sites where the majority of links direct to stories about national issues, events, policies, and members of Congress or the President." The category included news organizations, national link aggregators, news magazines, and national audience niche content (such as military-focused news publications).

Three researchers classified the an identical random sample of 100 websites in order to ensure that the coding instructions were valid. The coders' ratings had an average Fleiss's Kappa of 0.90.

Creating congressional sharing scores

Congressional sharing scores for national news outlets capture the average ideology of members of Congress – measured using DW-NOMINATE – who link to a story from that outlet in a post on their Facebook page. The scores take into account the number of times members shared stories from each outlet.

To determine each member's political ideology, researchers first obtained DW-NOMINATE ideology estimates, which are based on legislative roll call votes, to capture the ideological position of members of Congress who link to particular websites. After joining the ideology estimates to each media link share, researchers calculated the average ideology estimate for each media outlet included in the study. This is the congressional sharing score. This score runs from positive 0.75

(most conservative) to -0.56 (most liberal) across the time period examined here. The link-level average congressional sharing score is 0.11 and the median is 0.28.

Engagement analysis

Researchers used regression models to examine the relationship between the congressional sharing scores of each outlet and the number of re-shares, comments, and likes that posts containing links to those outlets received from members' Facebook audience. The distributions of re-shares, comments and likes were heavily skewed, reflecting a small number of posts that received much more engagement than the average post that contained a link. To address this skew, researchers took the base-10 logarithm of the total number of re-shares, comments and likes for each post.

Next, researchers specified three separate regression models with each kind of engagement as a dependent variable. The key explanatory variables included each outlet's congressional sharing score, the party of the member of Congress sharing each link and an interaction term between party and the congressional sharing score. This specification allowed researchers to examine the relationship between sharing scores and Facebook engagement conditional on the party of the member who posted the link. The regression models also included random intercepts for each week in the data and for each member of Congress, which help normalize the estimated relationships across members and over time.

	Log_{10}(Re-shares)	Log_{10}(Comments)	Log_{10}(Likes)
Congressional sharing score	-0.159 (0.017)	-0.052 (0.014)	-0.060 (0.013)
Republican	-0.150 (0.039)	0.123 (0.036)	-0.160 (0.039)
Congressional sharing score × Republican	0.315 (0.021)	0.159 (0.018)	0.131 (0.017)
Constant	1.120 (0.031)	1.038 (0.031)	1.893 (0.031)
Observations	41,925	41,925	41,925
Random effects for week	X	X	X
Random effects for member of Congress	X	X	X

Note: All estimates reported in the table are statistically significant at $p < 0.05$. Since the models include an interaction term, researchers used predictions based on the data to evaluate the substantive significance of the estimates. The number of observations included in the model is lower than the total number of observations in the primary analysis because a complete set of Facebook engagement statistics were not available for 294 posts.

List of national news outlets

This report examines all national news outlets whose stories were shared at least 25 times by members of Congress between Jan. 2, 2015 and July 20, 2017. The outlets include:

News source	Congressional sharing score (average)	Median congressional sharing score	25th percentile congressional sharing score	75th percentile congressional sharing score
abcnews.go.com	0.12	0.34	-0.37	0.53
agri-pulse.com	0.41	0.41	0.40	0.51
apnews.com	0.24	0.44	-0.30	0.58
armytimes.com	0.34	0.47	0.39	0.51
arstechnica.com	-0.30	-0.38	-0.50	-0.32
axios.com	-0.06	-0.31	-0.40	0.52
bizjournals.com	0.15	0.40	-0.29	0.59
bloomberg.com	0.08	0.29	-0.40	0.54
breitbart.com	0.60	0.58	0.58	0.63
businessinsider.com	0.05	0.21	-0.43	0.52
buzzfeed.com	-0.25	-0.38	-0.51	-0.28
c-span.org	0.04	-0.11	-0.40	0.51
cbsnews.com	0.13	0.35	-0.38	0.53
cnbc.com	0.14	0.39	-0.37	0.58
cnn.com	0.06	0.21	-0.40	0.53
cnsnews.com	0.60	0.58	0.56	0.65
conservativereview.com	0.68	0.66	0.59	0.74
csmonitor.com	0.12	0.38	-0.37	0.54
dailycaller.com	0.57	0.58	0.52	0.65
dailykos.com	-0.44	-0.50	-0.53	-0.38
dailysignal.com	0.64	0.62	0.55	0.73
defensenews.com	0.37	0.45	0.34	0.53
edweek.org	-0.06	-0.33	-0.42	0.38
federalnewsradio.com	0.21	0.40	-0.29	0.49
forbes.com	0.34	0.50	0.26	0.61
foreignpolicy.com	0.15	0.27	-0.33	0.65
fortune.com	0.06	0.33	-0.42	0.54
foxbusiness.com	0.48	0.59	0.45	0.62

foxnews.com	0.53	0.56	0.45	0.65
freebeacon.com	0.56	0.59	0.45	0.67
gallup.com	0.10	0.36	-0.37	0.52
glamour.com	-0.37	-0.40	-0.46	-0.31
govexec.com	0.26	0.34	-0.17	0.65
hotair.com	0.58	0.59	0.51	0.63
huffingtonpost.com	-0.37	-0.43	-0.53	-0.34
ibtimes.com	0.15	0.39	-0.43	0.59
ijr.com	0.49	0.51	0.40	0.60
investors.com	0.54	0.53	0.45	0.65
lifenews.com	0.60	0.59	0.53	0.69
lifezette.com	0.62	0.63	0.53	0.71
marinecorpstimes.com	0.27	0.51	-0.27	0.52
marketwatch.com	0.11	0.39	-0.40	0.54
mashable.com	-0.34	-0.43	-0.50	-0.31
mcclatchydc.com	0.12	0.25	-0.35	0.45
mic.com	-0.45	-0.48	-0.53	-0.37
military.com	0.24	0.40	-0.21	0.53
militarytimes.com	0.21	0.37	-0.18	0.50
morningconsult.com	0.21	0.40	-0.34	0.57
motherjones.com	-0.44	-0.51	-0.54	-0.44
msn.com	0.11	0.40	-0.47	0.55
msnbc.com	-0.23	-0.37	-0.48	-0.24
nationalgeographic.com	-0.06	-0.27	-0.37	0.40
nationaljournal.com	0.25	0.42	-0.31	0.61
nationalreview.com	0.59	0.60	0.50	0.69
navytimes.com	0.32	0.51	0.03	0.61
nbcnews.com	-0.11	-0.37	-0.46	0.39
newrepublic.com	-0.54	-0.60	-0.60	-0.44
newsmax.com	0.54	0.59	0.49	0.65
newsweek.com	-0.15	-0.37	-0.48	0.37
newyorker.com	-0.31	-0.48	-0.53	-0.33
npr.org	-0.27	-0.38	-0.45	-0.27
nytimes.com	-0.28	-0.40	-0.48	-0.28
observer.com	-0.30	-0.50	-0.53	-0.36
pbs.org	-0.23	-0.37	-0.44	-0.24
people.com	0.13	0.32	-0.31	0.45

politico.com	0.07	0.24	-0.42	0.57
politifact.com	0.03	-0.24	-0.43	0.58
rare.us	0.75	0.70	0.67	0.88
realclearpolitics.com	0.45	0.58	0.38	0.60
reason.com	0.69	0.67	0.67	0.68
redstate.com	0.66	0.69	0.60	0.73
rollcall.com	0.10	0.28	-0.38	0.52
rollingstone.com	-0.32	-0.39	-0.47	-0.33
salon.com	-0.40	-0.51	-0.53	-0.43
slate.com	-0.43	-0.51	-0.60	-0.37
splinternews.com	-0.47	-0.53	-0.53	-0.43
statnews.com	-0.38	-0.50	-0.51	-0.43
stripes.com	0.33	0.46	0.21	0.58
talkingpointsmemo.com	-0.38	-0.43	-0.51	-0.33
techcrunch.com	-0.13	-0.33	-0.49	0.40
theatlantic.com	-0.26	-0.40	-0.51	-0.28
theblaze.com	0.62	0.59	0.58	0.68
thedailybeast.com	0.05	0.26	-0.43	0.51
thefederalist.com	0.58	0.60	0.47	0.69
thefiscaltimes.com	0.37	0.53	0.35	0.65
thehill.com	0.22	0.45	-0.34	0.59
theintercept.com	-0.18	-0.50	-0.51	0.40
thenation.com	-0.54	-0.53	-0.66	-0.51
theroot.com	-0.56	-0.60	-0.60	-0.53
theverge.com	-0.23	-0.38	-0.48	-0.24
thinkprogress.org	-0.48	-0.51	-0.53	-0.41
time.com	-0.03	-0.27	-0.43	0.47
today.com	0.11	0.26	-0.34	0.51
townhall.com	0.57	0.58	0.51	0.64
univision.com	-0.29	-0.48	-0.48	-0.32
usatoday.com	0.16	0.39	-0.37	0.58
usnews.com	0.07	0.19	-0.40	0.52
vice.com	-0.29	-0.43	-0.51	-0.29
vox.com	-0.43	-0.43	-0.53	-0.37
washingtonexaminer.com	0.53	0.58	0.44	0.65
washingtonpost.com	-0.08	-0.33	-0.43	0.43
washingtontimes.com	0.54	0.59	0.50	0.65

weeklystandard.com	0.58	0.60	0.50	0.66
wired.com	-0.25	-0.43	-0.56	-0.28
wsj.com	0.36	0.47	0.36	0.60
yahoo.com	0.20	0.41	-0.31	0.54

Pew Research Center is a nonprofit, tax-exempt 501(c)(3) organization and a subsidiary of The Pew Charitable Trusts, its primary funder.