Appendix B: Supplemental data

The supplemental data release contains four files that provide additional information about how members of Congress used social media, Jan. 1, 2015-May 31, 2020. The following tables provide summaries of each file's variables and their respective definitions along with a link to the file.

Social media statistics for members of the 116th Congress

This file contains information on members of Congress' posting activity and engagement on Twitter and Facebook during their time in office in the 116th Congress. Each member is included twice, once for Facebook and once for Twitter.

Variable name	Variable description
Platform	The platform on which the politician was active
Party	The politician's party. Independents are associated with the party they caucused with for the majority of the study period, but identified with parentheses.
Bioguide ID	The Biographical Directory of the United States Congress identifier for the politician.
Number of active accounts	The number of active accounts the politician had on the platform while serving in the 116th Congress (up to May 31, 2020).
Max total followers	The highest observed total number of followers the politician had across all of their accounts on the platform during the time that they served in the 116th Congress (up to May 31, 2020). This value may be empty if researchers did not capture follower data for one or more of their accounts during the period in which it was active on the platform.*
Start of term	The start of the politician's term in the 116th Congress.
End of term	The last day the politician served in the 116th Congress (if applicable).
First post	The date of the first post the politician created on the platform in the 116th Congress.
Last post	The date of the politician's most recent post created on the platform in the 116th Congress (up to May 31, 2020).
Total posts	The total number of posts the politician created on the platform while serving in the 116th Congress (up to May 31, 2020).
Average post favorites/reactions	The number of favorites (for Twitter) or reactions (for Facebook) that the politician's average post receives. On Twitter, this value is only computed for original or quoted tweets; retweets are excluded.
Average post retweets/shares	The number of retweets (for Twitter) or shares (for Facebook) that the politician's average post receives. On Twitter, this value is only computed for original or quoted tweets; retweets are excluded.

*For example, Greg Gianforte has two Twitter accounts but has not posted on either since July 2019. Because researchers did not begin tracking both accounts until September 2019, there is no available follower count information for the period in which Gianforte was active on Twitter.
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Download CSV file: Social media statistics for members of the 116th Congress.

Top 10 events associated with increased engagement in each party

This file contains, for each party, the 10 time periods that were associated with the greatest average increase in engagement for the median legislator's average post, across all four metrics of engagement: reactions and shares on Facebook, as well as favorites and retweets on Twitter. Events are defined as beginning on a day in which all four of these measures increased by at least 10% relative to the prior day, and end when one of these measures has a negative day-over-day change. For more information, see the report methodology.

Variable name	Variable description
Party	The party for which the event was associated with higher levels of engagement.
Start date	The day in which the median party member's average post began experiencing at least 10% higher engagement (across all four metrics) relative to the prior day.
End data	The last day in which all four engagement metrics continued to increase day-over-day.
Average percentage change	The average of the four engagement change metrics.
Percentage change in Facebook reactions	The overall percentage change in the median party member's average Facebook post reactions, as measured by comparing the last day of the event with the day prior to its beginning.
Percentage change in Facebook shares	The overall percentage change in the median party member's average Facebook post shares, as measured by comparing the last day of the event with the day prior to its beginning.
Percentage change in Twitter favorites	The overall percentage change in the median party member's average tweet favorites, as measured by comparing the last day of the event with the day prior to its beginning.
Percentage change in Twitter retweets	The overall percentage change in the median party member's average tweet retweets, as measured by comparing the last day of the event with the day prior to its beginning.

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Download CSV file: Top 10 events associated with increased engagement in each party.

Top 100 terms associated with engagement boosts in each party

This file contains a list of the 100 terms associated with the highest average predicted increases in engagement for posts from members of a specific party in a specific year (2015-2020). The effects were determined using statistical models that estimated the engagement that posts from members of a particular party received in each year, based on the terms mentioned in the posts. Separate models were trained for each party, year and engagement metric (reactions and shares on Facebook, and favorites and retweets on Twitter). The effects are expressed as a percentage difference between a model's prediction for the engagement that would be received by a post from the median party member that used a specific term, relative to the model's prediction for a post from the median party member that did not use any of the terms included in the model. For more information, see the report methodology.

Variable name	Variable description
Term	The word or phrase (ngram) associated with increased engagement for a given year and party. The terms shown represent the cleaned/stemmed version that was used in the analysis.
Year	The year in which the term was associated with higher engagement for posts created by members of the specified party.
Party	The party for which the term was associated with higher engagement in the specified year.
Average percentage effect	The average of the four different engagement effects.
Number of Facebook posts	The total number of Facebook posts the term appeared in (among posts created in the specified year by members of the specified party).
Percentage effect on Facebook reactions	The effect of the term on a Facebook post's reactions, expressed as a percentage difference between the predicted reactions for a post from the median party member that used the term relative to one that did not mention any terms.
Percentage effect on Facebook shares	The effect of the term on a Facebook post's shares, expressed as a percentage difference between the predicted shares for a post from the median party member that used the term relative to one that did not mention any terms.
Number of tweets	The total number of tweets the term appeared in (among tweets created in the specified year by members of the specified party).
Percentage effect on Twitter favorites	The effect of the term on a tweet's favorites, expressed as a percentage difference between the predicted favorites for a tweet from the median party member that used the term relative to one that did not mention any terms.
Percentage effect on Twitter retweets	The effect of the term on a tweet's retweets, expressed as a percentage difference between the predicted retweets for a tweet from the median party member that used the term relative to one that did not mention any terms.

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Download CSV file: Top 100 terms associated with engagement boosts in each party.

Top 100 terms used most exclusively by members of each party

This file contains a list of the 100 terms associated with the highest average predicted increases in engagement for posts from members of a specific party in a specific year (2015-2020). The effects were determined using statistical models that estimated the engagement that posts from members of a particular party received in each year, based on the terms mentioned in the posts. Separate models were trained for each party, year and engagement metric (reactions and shares on Facebook, and favorites and retweets on Twitter). The effects are expressed as a percentage difference between a model's prediction for the engagement that would be received by a post from the median party member that used a specific term, relative to the model's prediction for a post from the median party member that did not use any of the terms included in the model. For more information, see the report methodology.

Variable name	Variable description
Term	The word or phrase (ngram) associated with a large party difference. The terms shown represent the cleaned/stemmed version that was used in the analysis.
Party	The party that used the term more often.
Positive to negative ratio	The ratio of between "Proportion of party" and "Proportion of other party" (used to select the top terms).
Proportion of party	The proportion of party members that ever mentioned the term on Facebook or Twitter while serving in office between Jan. 1, 2015, and May 31, 2020.
Proportion of other party	The proportion of members in the other party that ever mentioned the term on Facebook or Twitter while serving in office between Jan. 1, 2015, and May 31, 2020.

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Download CSV file: Top 100 terms used most exclusively by members of each party.