

News and Political Information Consumption in Sweden: Mapping the 2018 Swedish General Election on Twitter

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comprop@oii.ox.ac.uk

Freja Hedman
Lund University
[@frejahedman](#)

Fabian Sivnert
Oxford University
[@fabiansivnert](#)

Bence Kollanyi
Oxford University
[@bencekollanyi](#)

Vidya Narayanan
Oxford University
[@vidunarayanan](#)

Lisa-Maria Neudert
Oxford University
[@lmneudert](#)

Philip N. Howard
Oxford University
[@pnhoward](#)

ABSTRACT

In Sweden, concerns over misinformation and computational propaganda and their effect on the democratic process are on the rise. In this data memo, we analyse political news and information shared over Twitter in the period leading up to the 2018 Swedish General Election. We find that (1) Swedish political discourse on social media is about broad public issues rather than specific candidates and parties, (2) Swedish social media users are sharing more junk news — one for every three URLs being shared with political hashtags—the largest proportion of all the European elections we have studied, and (3) most of this junk news is home grown, with eight of the top ten junk news sources being of Swedish origin.

INTRODUCTION

Social media networks have become a key platform for citizens to share news and political information. The news and information voters are exposed to on social media platforms ranges from professional news content to emotionally-driven and polarizing news content. Sources spreading deceptive or false information can often mimic established news reporting, with actors across the political spectrum leveraging misinformation to capture attention. During times of heightened public interest, social media algorithms repeatedly promote conspiracy content over accurate information.¹ This has raised concerns about the manipulation of public opinion, especially in politically sensitive moments such as elections and referenda.² In Sweden, there is increasing debate about the impact of misinformation, or of full-scale influence operations undertaken by foreign powers. This study examines high-frequency tweeting and sharing of news sources on Swedish Twitter between August 8 and August 17, 2018. In this context, our research questions are: (1) Which political parties lead the conversation over Twitter? (2) What types of content do voters share over Twitter?

THE GENERAL ELECTION AND MEDIA

Sweden has a proportional representation system, where the party landscape consists of multiple smaller parties and larger coalitions. Since 2010, eight parties have been represented parliament: the Left Party, the Social Democrats, the Green Party, the Moderate Party, the Centre Party, the Liberals, the Christian Democrats, and the Sweden Democrats. Interestingly, since the Sweden Democrats — a radical right party — entered parliament in 2010, the remaining parties have

refused to cooperate with them and as a result, Sweden has had a minority government.³ Recent polls suggest that the Sweden Democrats will increase their support in the upcoming General Election on September 9, 2018. According to such polls, if other parties remain reluctant to cooperate with the Sweden Democrats, another minority government is expected.⁴

Similar to other European countries, Sweden has a public media system which includes television and radio programmes. A 2015 study produced by the SOM- Institute for Media Studies showed that the majority of all Swedish citizens have a high confidence in the media; interestingly, the confidence level was lowest when addressing immigration. According to the same study 54% of all participants answered that they either agreed or agreed partially with the claim that the Swedish media do not produce accurate articles on issues surrounding immigration. Only 27% disagreed or partially disagreed with the statement. Additionally, an individual's confidence in media appears to be politically influenced, where Left/Green voters trust the media more compared to Centre/Centre-Right voters, while the lowest confidence levels were found among the Sweden Democrat voters.⁵

COMPUTATIONAL PROPAGANDA AND JUNK NEWS IN SWEDEN

Computational propaganda has emerged as a prominent issue among policymakers in Sweden, especially in light of the upcoming election. The Swedish government launched several initiatives in 2017 specifically aimed at preventing and combatting the influence of computational propaganda. In response, the government founded a new public authority tasked with countering

misinformation and boosting the population's resilience in the face of possible influence operations.⁶ The Swedish government has also raised questions about foreign interference campaigns. At the People and Defence conference 2018, the Swedish Prime Minister claimed that Russia were responsible for several influence operations.⁷ In a larger political context, Russia has a history of being one of the biggest intelligence threats towards Sweden.⁸ Furthermore, the Totalförsvarets Forskningsinstitut (the Swedish Defence Research Agency) recently released a report on interference campaigns which found that automated bots share URLs of known junk news sites like Samhällsnytt and Fria Tider more frequently than regular accounts; and that the majority of automated accounts that have either been suspended or removed by Twitter expresses traditional authoritarian and nationalistic views.⁹

SAMPLING AND METHODS

The Twitter dataset contains 274,953 tweets posted by 41,389 unique Twitter users, collected between August 8 and August 17, 2018, using a combination of relevant political party hashtags, election-specific hashtags, and handles for the individual parties, party leaders, and their youth organisations. It is important to note that we have only included parties who are currently in parliament. Although there are several other smaller parties competing for parliamentary seats – including the Feminist Party and the Alternative for Sweden – they have been excluded from this study. The list of hashtags associated with the Swedish election was compiled by a team of two trained coders who are native Swedish speakers and very familiar with Swedish politics. Prior to launching the data collection, the set of hashtags was refined in a trial run consisting of a two-day test data collection. The trial run revealed the most frequently used hashtags, and the list was revised accordingly.

Twitter's Streaming API was used to collect publicly available tweets. The platform's precise sampling method is not disclosed, however Twitter reports that data available through the Streaming API is, at most, 1% of the overall global public traffic on Twitter at any given time.¹⁰ Tweets were collected if they: (1) contained at least one of the relevant hashtags or at least one Twitter handle of the political parties or political leader; (2) contained the hashtag in the URL shared, or the title of its webpage; (3) were a retweet of a message that contained a relevant hashtag or mention in the original message; or (4) were a quoted tweet referring to a tweet with a relevant hashtag or mention.

During the analysis of the party-related Twitter traffic, every tweet was counted once if it contained at least one of the hashtags or the mentions associated with a political party. If the

same tweet contained hashtags or mentions for different parties, it was credited to each of the relevant parties. If a tweet included more than one relevant hashtags or mentions for the same party, it was still counted only once per party. The final dataset contains links to news sources shared five times or more on Twitter; it also includes links to content on YouTube and Facebook. Links pointing to Twitter itself were excluded from our sample. This approach resulted in 94% coverage, meaning the team coded 94% of the all URLs shared. The process of classifying the base URLs, accounts, channels, and pages, based on the evaluation of the sources, was done according to a rigorous and iterative coding process using a typology that has been developed and refined through the project's previous studies of six elections in four Western democracies and several countries in Latin America.^{11,12} To ensure a high inter-coder reliability we calculated the Krippendorff's alpha which was 0.81. The existing literature concludes that this provides a high level of reliability.¹³ The typology explaining our content classification follows below:

Professional News Content

- Major News Brands. This is political news and information by major newspapers, broadcasting or radio outlets, as well as news agencies.
- Local News. This content comes from local and regional newspapers, broadcasting and radio outlets, or local affiliates of major news brands.
- New Media and Start-ups. This content comes from new media and digitally native publishers, news brands and start-ups.
- Tabloids. This news reporting focuses on sex, crime, astrology and celebrities, and includes yellow press publications.

Professional Political Content

- Government. These links are to websites of branches of government or public agencies.
- Experts. This content takes the form of white papers, policy papers or scholarship from researchers based at universities, think tanks or other research organizations.
- Political Party or Candidate. These links are to official content produced by a political party or candidate campaign, as well as the parties' political committees.

Polarizing and Conspiracy Content

- Junk News and Information. These sources deliberately publish misleading, deceptive or incorrect information purporting to be real news about politics, economics or culture. This content includes various forms of propaganda and ideologically extreme, hyper-partisan or conspiratorial news and information. To be classified as Junk News and Information, the source must fulfill at least three of these five criteria:
 - *Professionalism*: These outlets do not employ standards and best practices of professional journalism. They refrain from providing clear information about real authors, editors, publishers and owners. They lack transparency and accountability, and do not publish corrections on debunked information.
 - *Style*: These outlets use emotionally driven language with emotive expressions, hyperbole, ad hominem attacks, misleading headlines, excessive capitalization, unsafe generalizations and logical

fallacies, moving images, and lots of pictures and mobilizing memes.

- *Credibility*: These outlets rely on false information and conspiracy theories, which they often employ strategically. They report without consulting multiple sources and do not fact-check. Sources are often untrustworthy and standards of production lack reliability.
- *Bias*: Reporting in these outlets is highly biased, ideologically skewed or hyper-partisan, and news reporting frequently includes strongly opinionated commentary.
- *Counterfeit*: These sources mimic established news reporting. They counterfeit fonts, branding and stylistic content strategies. Commentary and junk content is stylistically disguised as news, with references to news agencies and credible sources, and headlines written in a news tone with date, time and location stamps.
- Russia. This content is produced by known Russian sources of political news and information.

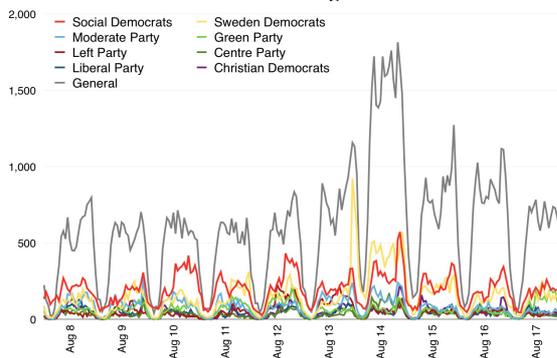
Other Political News and Information

- Political Commentary Blogs. Political blogs that employ standards of professional content production such as copy-editing, as well as employ writers and editorial staff. These blogs typically focus on news commentary rather than neutral news reporting on a news cycle and are often opinionated or partisan.
- Citizen, Civil Society and Civic Content. These are links to content produced by independent citizen, civic groups, civil society organizations, watchdog organizations, fact-checkers, interest groups and lobby groups representing specific political interests or agendas. This includes blogs and websites dedicated to citizen journalism, personal activism, and other forms of civic expression that display originality and creation that goes beyond curation or aggregation. This category includes Medium, Blogger and WordPress, unless a specific source hosted on either of these pages can be identified.

FINDINGS AND ANALYSIS

For our analysis of Twitter data, we examined the volume of tweets, the degree of high frequency tweeting and the type of news content shared on Twitter during the Swedish General Election.

Figure 1: Hourly Tweets about the Swedish General Election Based on Hashtags and Mentions



Source: Author's calculations from data sampled between 08/08/18 – 17/08/18.

Table 1: Twitter Conversation and High Frequency Tweeting about the Swedish Election

| Political party or general traffic | N | % of total | N of high frequency tweets* | % of high frequency tweets |
|------------------------------------|----------------|------------|-----------------------------|----------------------------|
| General | 143,697 | 47 | 10,826 | 57 |
| Social Democrats | 47,044 | 16 | 2,046 | 11 |
| Sweden Democrats | 36,930 | 12 | 2,554 | 14 |
| Moderate Party | 19,398 | 6 | 942 | 5 |
| Green Party | 15,098 | 5 | 687 | 4 |
| Left Party | 11,812 | 4 | 605 | 3 |
| Christian Democrats | 10,600 | 4 | 311 | 2 |
| Liberal Party | 10,192 | 3 | 437 | 2 |
| Centre Party | 8,456 | 3 | 418 | 2 |
| Total** | 303,227 | 100 | 18,826 | 100 |

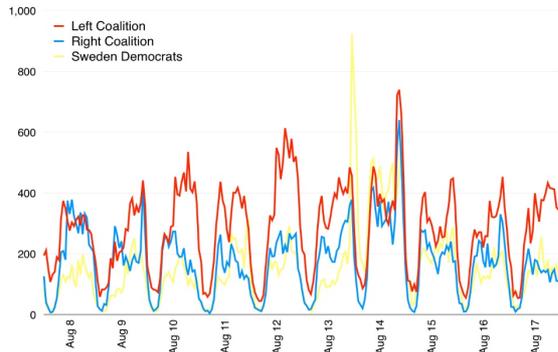
Source: Authors' calculations from data sampled 08/08/18–17/08/18.

Note: * Refers to the number of tweets from high frequency-tweeting accounts. ** A tweet counted multiple times if it contained hashtags or mentions for more than one party or candidate.

Hashtags include: #svpol, #val2018, #valet2018, #miljopartiet, #klimatval2018, #GronUngdom, #v2018, #vansterpartiet, #ungvanster, #centerpartiet, #cuf, #liberalerna, #LUFswe, #mufsw, #moderaterna, #nya_moderaterna, #kdriks, #KDUSverige, #sd2018, #Ungsvenskarna, #sverigedemokraterna; Twitter handles include: @jimmieakesson, @miljopartiet, @buchebsba, @vansterpartiet, @annielooof, @socialdemokrat, @stefanlofven, @centerpartiet, @IsabellaLovin, @liberalerna, @jsjostedt, @nya_moderaterna, @bjorklundjan, @kdriks, @ulfkristersson, @sdriks.

According to Figure 1 and Table 1 the hourly Twitter activity was consistently highest among the Social Democrats, the Sweden Democrats, and the Moderates. These parties are also the three largest based on the 2014 election result. The Sweden Democrats accounted for 14% of the hourly Twitter conversation whereas the Social Democrats accounted for 11% and the Moderates for 5%. Noteworthy is that 47% of the Twitter conversations was general content, as opposed to party specific content. It is a high amount in comparison to the project's previous studies in European democracies. In the German Parliamentary Election and the French Presidential Election, general content was shared at 29% and 26% respectively.^{14,15} This suggests that when talking about politics, Swedish users often refrain from sharing partisan affiliations and opinions, but rather remain neutral.

Figure 2: Hourly Twitter Conversation about the Swedish General Election Based on Hashtag and Mention Use (Possible Coalitions)



Source: Author's calculations from data sampled between 08/08/18 – 17/08/18.

Table 2: Twitter Conversation and High Frequency Tweeting about the Swedish Election

| Coalition or political party | N | % of total | N of high frequency tweets* | % of high frequency tweets |
|------------------------------|---------|------------|-----------------------------|----------------------------|
| Left coalition | 67,907 | 47 | 3,030 | 42 |
| Right coalition | 40,871 | 28 | 1,672 | 23 |
| Sweden Democrats | 36,930 | 25 | 2,554 | 35 |
| Total** | 145,708 | 100 | 7,256 | 100 |

Source: Authors' calculations from data sampled 08/08/18–17/08/18.

Note: For the complete list of hashtags and mentions used to collect our data, see Table 1. * Refers to the number of tweets from high frequency-tweeting accounts. ** A tweet counted multiple times if it contained hashtags or mentions for more than one party or candidate.

Figure 2 shows the hourly Twitter conversation when parties are clustered based on possible coalitions post-election. These two coalitions are based on longstanding relationships between specific parties in parliament. The Right coalition was introduced during the 2004 Swedish General Election and the Left coalition was introduced in 2008.^{16,17} The analysis includes all parties that will enter parliament, according to recent polls.¹⁸ When clustering parties based on possible coalitions, the Left coalition (the Left Party, the Green Party, and the Social Democratic Party) have 67,907 tweets with relevant mentions and hashtags whereas the most likely Right coalition (the Centre Party, the Moderate Party, the Liberal Party, and the Christian Democratic Party) only have 40,871 tweets. In other words, the Left coalition dominates the Twitter conversation with roughly 47% of all tweets associated with the parties whereas the Right coalition only had 28%.

Table 3: Types of News and Information Shares on Twitter

| Type of Source | N | % |
|--|--------|------|
| Professional News and Information | | |
| Professional News Brands* | 9,344 | 50.3 |
| Tabloids | 247 | 1.3 |
| Subtotal | 9,591 | 51.6 |
| Polarizing and Conspiratorial Content | | |
| Junk News and Information | 4,104 | 22.1 |
| Russian Content | 36 | 0.2 |
| Subtotal | 4,140 | 22.3 |
| Professional Political Content | | |
| Political Party or Candidate | 458 | 2.5 |
| Experts | 44 | 0.2 |
| Government | 40 | 0.2 |
| Subtotal | 542 | 2.9 |
| Other News & Information | | |
| Video/Image Sharing | 1,192 | 6.4 |
| Citizen or Civil Society | 1,047 | 5.6 |
| Portals, SEs, Aggregators | 791 | 4.3 |
| Political Commentary Blogs | 290 | 1.6 |
| Remaining categories** | 125 | 0.7 |
| Subtotal | 3,445 | 18.5 |
| Other | | |
| Social Media Platforms | 525 | 2.8 |
| Shopping, Services & Apps | 186 | 1.0 |
| Not Available | 50 | 0.3 |
| Other Non-Political | 45 | 0.2 |
| Language | 38 | 0.2 |
| Link Shorteners | 22 | 0.1 |
| Subtotal | 866 | 4.7 |
| Total | 18,584 | 100 |

Source: Authors' calculations from data sampled 08/08/18–17/08/18.

Note: * Major News Brand, Local News, New Media and Start-ups were collapsed into this category for this table and subsequent tables. ** Cloud Services, Fundraising & Petitions, Other Political, Political Humor, Religion were collapsed for this table as constituted low percentage.

Apart from the hourly Twitter conversation analysis we also extracted URLs from the Twitter data sample and then classified them according to the typology. Table 2 reveals that the content classified as Other Non-Political was very low (0.2%), which therefore confirms that the handles and hashtags used to capture political conversations were successful. Content labelled as Polarizing and Conspiracy comprised of 22% of the sample. Junk news thereby constituted the second largest category, only exceeded by Professional News Content, which constituted 52%. The ratio of professional news to junk news shared over social media was roughly 2:1. Comparing across other countries, junk news consumption is as high as during the US election, but significantly lower than in the UK, Germany, and France. Germany had the ratio of 4:1 and UK and France had 5:1 and 7:1 respectively.¹⁹ Junk news therefore contributed substantially to the conversation around the Swedish General Election.

An in-depth analysis of the junk news sources revealed that out of the top-ten most shared

junk news sources eight were Swedish, and only 0.2% content of all junk had Russian origin.

The most frequently shared junk news sites — Samhällsnytt, Nyheteridag, and Fria Tider — accounted for 86% of all junk news shares. All three outlets mimic the look and journalistic language of professional news content sites, therefore increasing the likelihood of being interpreted as legitimate sources of news. These findings are also consistent with the independent report recently released by Totalförsvarets Forskningsinstitut (the Swedish Defence Research Agency) which also analysed the impact of computational propaganda on the Swedish General Election and found that automated bots share URLs of known junk news sites like Samhällsnytt and Fria Tider more frequently than regular accounts. Content labelled as Professional Political Content, such as official party content, constituted 3% of the data sample. This is a small share in comparison to the project’s previous studies of France with 12%, Germany with 11% and the UK with 10%.

CONCLUSION

Our main conclusions are that (1) on Twitter, the political discourse in Sweden is about broad public issues as opposed to specific candidates and parties, (2) for every two links of professional news content shared Swedish users shared one junk news story—with 22% of all URLs shared, this was the largest proportion of junk news across all the European elections we have studied, and (3) most of the junk news originates from Swedish outlets, with eight of the top ten junk news sources coming from home grown sources. We further observe that the Twitter conversation was dominated by the three largest parties and when clustering parties based on possible coalitions, the Left coalition generates more traffic than the Right coalition. Users shared only 3% of content that came from official parties or candidates. This is in line with our findings that close to half of the tweets generated on the elections were about general issues. As compared to the project’s previous studies of European democracies, these categories had a unique distribution in Sweden. The ratio of junk news to professionally produced news was the same as in the US election. However, significantly more junk news was shared in Sweden than in the other European democracies we studied. The content shared on parties and candidates was significantly less in Sweden compared to Germany, France and UK.

Our results indicate that Swedish voters have shared a substantial amount of junk news in the run up to the 2018 Swedish General Election. Our analysis suggests that countries like Sweden still have a high volume of junk news – despite recent efforts to prevent and combat the influence of computational propaganda. In light of our findings

we foresee a need to conduct further research into the effect of junk news on individual voters.

ABOUT THE PROJECT

The [Project on Computational Propaganda](#) (COMPROP) based at the [Oxford Internet Institute](#) is an interdisciplinary team of social and information scientists researching how political actors manipulate public opinion over social networks. This work includes analysing the interaction of algorithms, automation, politics and social media to amplify or repress political content, disinformation, hate speech and junk news. Data memos are designed to present quick snapshots of analysis on current events in a short format, and although they reflect methodological experience and considered analysis, they have not been peer-reviewed. Working papers present deeper analysis and extended arguments that have been collegially reviewed and engage with public issues. COMPROP’s articles, book chapters and books are significant manuscripts that have been through peer review and formally published.

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