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RRM Open Data Analysis

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Digital Information Ecosystem Report – May 2021

Findings

- RRM Canada did not observe any significant indicators of foreign interference in its monitoring of the broader Canadian digital information ecosystem.
- Campaigns related to the conflict in Tigray as well as the campaign by Indian students previously identified in the March and April monthly reports remain active on Twitter.

Purpose

This report presents summary findings from research and analysis covering May 2021, aimed at detecting foreign interference (FI) in the Canadian digital information ecosystem. It is the 6th in a series of monthly reports leading up to the 44th Canadian General Election (GE44). This series of reports is designed to establish a baseline of online behaviour to facilitate the identification of anomalies linked to potential FI as the election nears and to alert decision-makers to any potential FI activity.

Methodology

The report leverages a combination of in-house and off-the-shelf tools to examine publicly available digital platforms and websites for indicators of foreign interference in May 2021.¹ In total, RRM Canada accessed a sample of approximately 2 million Twitter posts relating to Canadian politics² from over 1.2 million individual accounts. RRM Canada also analyzed approximately 6,916 submissions to various Canada-related forums on the Reddit platform.³ Finally, RRM Canada used the BuzzSumo platform to determine which news articles relating to Canadian politics⁴ on Facebook, Twitter, Pinterest and Reddit received the most engagement. RRM Canada also monitors 462 accounts that belong to Chinese, Russian and Iranian government sources.

RRM Canada's methodology builds on past experience, assessing a set of indicators associated with FI, including: circulation of false, misleading, and polarising narratives; alignment of narratives with the objectives of hostile

¹ The scope of the report is limited in terms of access to platforms and data. Currently, RRM Canada has some capabilities to collect and analyse data from Twitter, Reddit, and web domains and webpages, as well as some limited new capabilities on YouTube. Other platforms may limit us from obtaining data or lack commercial/out-of-the-box solutions. Search terms used to collect data can differ significantly between platforms and tools, as each site structures data access differently. RRM Canada also leverages manual, open source investigations and qualitative analysis.

² For the purposes of this monthly, RRM Canada accessed the Twitter API to analyse sample tweets through the following query terms: ("general_pol": "#cdnpoli OR #elxn44 OR #election44 OR #elx44 OR #polcan OR #election2021 OR #elxn2021", "parties": "(#PPC OR #NDP OR #NPD OR #PLC OR #LPC OR #CPC OR #GPC) AND (canada OR canadian OR canadians OR canadien OR canadiens OR #canada OR ottawa OR #CDNpoli OR #Polcan)", "parties_2": "(#liberal OR #liberals OR #greens #green OR #conservative OR #conservatives*) AND (canada OR canadian OR canadians OR canadien OR canadiens OR #canada OR ottawa OR #CDNpoli OR #Polcan)", "voting_terms": "(vote OR votes OR voting OR ballot OR ballots OR election OR elections OR elxn OR #elxn OR #election OR scrutin OR scrutins) AND (canada OR canadian OR canadians OR #canada OR ottawa OR canadien OR canadiens)) NOT #elections canada", "libs": "(#justintrudeau OR Trudeau OR (Liberal Party Canada) OR @parti_liberal OR @liberal_party)", "cons": "(#Erin O'Toole OR (Conservative Party Canada) OR (#O'Toole AND (Erin OR Conservative OR #CPC OR #cdnpoli OR #polcan)) OR @erinotoole OR @CPC_HQ OR @PCC_HQ)", "greens": "(#AnnamiePaul OR Annamie OR (Paul AND Green AND Canada) OR (Green Party Canada) OR @CanadianGreens)", "NDP": "(#theJagmeetSingh OR (Singh AND (jagmeet OR NDP OR canada OR #cdnpoli OR #polcan)) OR 'New Democratic Party' OR 'NDP' OR @NDP OR @NDP_QG)", "block": "(#Bloc Québécois OR @yfbianchet OR (Blanchet AND (Yves OR Canada OR #BQ OR #cdnpoli OR #polcan)) OR @BlocQuebecois)", "PPC": "(#People's Party of Canada OR (Bernier AND (Maxime OR Canada OR Party OR #cdnpoli OR #polcan)) OR (Maxime Bernier) OR 'People's Party' OR @ppopulaireca OR @peoplespca OR @MaximeBernier)}).

³ RRM Canada accessed all submissions to three communities or subreddits which aggregate issues relating to Canada and Canadian politics. These communities were /r/Canada, /r/CanadaPolitics, and /r/OnGuardForThee.

⁴ Buzzsumo search terms included ("Canadian Election" OR "Canadian Federal Election" OR "44th General Election"), ("Bloc Québécois" OR "Yves Blanchet" OR "Yves-François Blanchet"), ("Erin O'Toole" OR "Conservative Party of Canada" OR "Parti conservateur du Canada"), ("Trudeau" OR "Justin Trudeau" OR "Liberal Party of Canada" OR "Parti libéral du Canada"), ("Annamie Paul" OR "Green Party of Canada" OR "Parti vert du Canada"), ("Maxime bernier" OR "Parti poluaire" OR "people party"), (NDP OR NPD OR "jagmeet singh" OR "New Democratic Party" OR "Nouveau Parti démocratique"), and (Canada).

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state actors; or highly suspicious and abnormal shifts in volume and scope of engagement on a given topic accompanied by signs of coordination and inauthenticity. All RRM Canada reporting is subject to an [ethical and methodological framework](#). Government and non-government partners also inform RRM Canada's reporting.

May 2021 Baseline**Twitter**

Of the approximately 2M tweets in the May sample, the most shared content came primarily from well-established Canadian sources. Top media source domains shared within our Twitter data analysis are as follows:

1. torontosun.com – 5072 links;
2. cbc.ca – 3912 links;
3. ctvnews.ca – 2828 links;
4. conservative.ca – 2687 links; and
5. globalnews.ca – 2197 links.

Some of the most shared stories on Twitter in May 2021 included:⁵

- Content critical of Bill C-10, which was by far the most shared;⁶
- A Vox article on the conflict in Ethiopia's Tigray region;⁷ and
- A link to 338 Canada's current federal political party polling data.⁸

Reddit

RRM Canada also analyzed all submissions to several popular Canada-related forums on the Reddit platform, from May 1-31, 2021.⁹ Of the 6,916 submissions in this collection, the most engaged posts, as measured by likes (called "upvotes" on Reddit), include the following content:

1. A user-generated post about sexual assault in Canada's residential schools¹⁰ – 26,220 upvotes;
2. A Toronto Star article about the rising cost of housing in Canada¹¹ – 13,347 upvotes; and
3. A Global News article about an Ontario car dealership/mechanic using a client's car for a "Joyride"¹² – 12,040 upvotes.

⁵ Exact number of shares is difficult to measure as Twitter data is less structured compared to other data sources and content can be shared in multiple ways. RRM Canada continues to refine our data aggregation and filtering methodologies and more precise measurements will be included in future reporting.

⁶ Content related to bill C-10 was by far the most visible in our sample. For examples of the most shared links see: https://docs.google.com/forms/d/e/1FAIpQL5e519earttetLk7GDr7xAvu65w_50_QOCfa2dUMalpublAwA/viewform?usp=send_form, <https://twitter.com/punditclass/status/1388279700422750210/video/1>, <https://torontosun.com/opinion/columnists/lilley-trudeaus-internet-bill-would-take-canadians-off-the-web>, <https://www.conservative.ca/cpc/stop-bill-c-10/>,

⁷ <https://www.vox.com/22370629/ethiopia-tigray-eritrea-amhara-war-ethnic-cleansing>

⁸ <https://338canada.com/polls.htm>

⁹ Reddit is a social news aggregation, web content rating, and discussion website. Users submit content to the site such as links, text posts, and images, which are then voted up or down by other users. Once a piece of content is submitted, it can also be discussed among reddit users in a comments section. Reddit is subdivided into forums called communities or "subreddits" which aggregate content by topic. For this reporting period RRM Canada downloaded and analyzed all submissions from the r/Canada, r/CanadaPolitics and, r/OnGuardForThee subreddits. Future reports may expand the list of relevant subreddits and user comments will also be accounted for as we continue to refine our methodologies,

¹⁰ <https://i.redd.it/lsnqu9hkh271.png>

¹¹ <https://www.thestar.com/opinion/contributors/2021/05/16/inflated-house-prices-are-widening-inequality-and-inheritances-will-only-further-the-gap.html>

¹² <https://globalnews.ca/news/7833976/nissan-milton-repairs-car-driven-to-woodstock/>

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Of the 6,916 submissions in the May collection, the most engaged posts, as measured by user comments, include the following content:

1. The Toronto Star article mentioned above about housing prices – 2,176 comments;
2. A Global News article about Canadian support for “Vaccine Passports”¹³ – 2,021 comments; and
3. A National Post article about millennials emigrating from larger Canadian cities due to various government regulations that favour the baby boomer generation¹⁴ – 2,008 comments.

Facebook, Twitter, Pinterest and Reddit through BuzzSumo

According to the BuzzSumo analytics platform, the top-shared articles about Canadian politics in May included the following stories:

1. An article about a rare albino moose sighting in northern Ontario;¹⁵
2. A CBC and a following CNN article about the discovery of the remains of 215 children found at a former residential school in British Columbia;¹⁶ and
3. A CBC article about Greyhound buses ceasing operations in Canada.¹⁷

Foreign Government Sponsored Accounts

RRM Canada monitors 462 accounts that belong to Chinese, Russian and Iranian government and state-linked sources. For the May reporting period, these accounts did not appear to focus on Canada or any Canadian political issues.

RRM Canada did not observe any significant indicators of foreign interference in its monitoring of the broader Canadian digital information ecosystem, as it relates to the themes identified above.

Detection of Advocacy Campaigns in Canadian Political Discussion Space

Groups of accounts that generally post and amplify content related to a single issue through retweets can be an indicator of coordinated inauthentic campaigns. However, as observed in RRM Canada’s March and April monthly reporting, grass roots advocacy campaigns can exhibit similar signatures. In an effort to detect influence campaigns targeting Canadian political discussions, RRM Canada conducted a social network analysis using a hashtag co-occurrence graph based on our May Twitter sample (see figure 1).

In this graph, individual hashtags are represented as nodes. If two or more hashtags were posted by the same account in the May Twitter sample, a link is drawn between the two nodes. Hashtags that are most often posted

¹³ <https://globalnews.ca/news/7876339/covid-vaccine-passports-canada-ipsos-poll/>

¹⁴ <https://nationalpost.com/opinion/sabrina-maddeaux-millennials-are-fleeing-canadas-big-cities-as-big-government-coddles-boomers>

¹⁵ <https://thisamazingnaturez.netlify.app/.netlify/functions/server/post/21238/?slug=21238%2F&utm=thisamazingnaturez>

¹⁶ This story continues to dominate Canadian news in June, however it was originally posted on May 27 by CBC followed by a number of other national and international news agencies. While the articles were less shared than other links in our twitter sample, this discovery, along with related First Nations issues was heavily discussed within our May Twitter sample. <https://www.cbc.ca/news/canada/british-columbia/ki-emi%C3%BAps-te-secw%C3%A9penc-215-children-former-kamloops-indian-residential-school-1.6043778> and <https://www.cnn.com/2021/05/28/world/children-remains-discovered-canada-kamloops-school/index.html>

¹⁷ <https://www.cbc.ca/news/business/greyhound-canada-1.6025276>

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by the same accounts are then clustered together. Hashtags that are posted by many accounts which post many different hashtags tend to cluster in the centre, forming the main components of the discussion of Canadian politics on Twitter; while hashtags that are not often posted with many other hashtags tend to cluster towards the outer edges of the graph.

For example, the blue cluster in the centre of the graph shows the emergence of an authentic discussion of First Nations issues following the late May discovery of the remains of 215 children in an unmarked grave at the site of a former residential school. Meanwhile, the numerous clusters of hashtags at the outer edges of the graph are formed by accounts generally posting content related to single issues, and likely constitute information campaigns. In these cases, clusters 1, 4 and 5 are hashtags related to Indian and other student activists engaged in a campaign to pressure the Government of Canada to hasten the granting of study permits, as was reported in the April monthly. Clusters 2 and 3 are hashtags related to the conflict in Ethiopia's Tigray region, as previously reported in the March monthly. Both these campaigns are still active on Twitter although are less significant as a percentage of our total sample in May than when they were originally reported in March and April respectively. Cluster 6 is a false positive relating to US politics where Canada was mentioned in the discussion.

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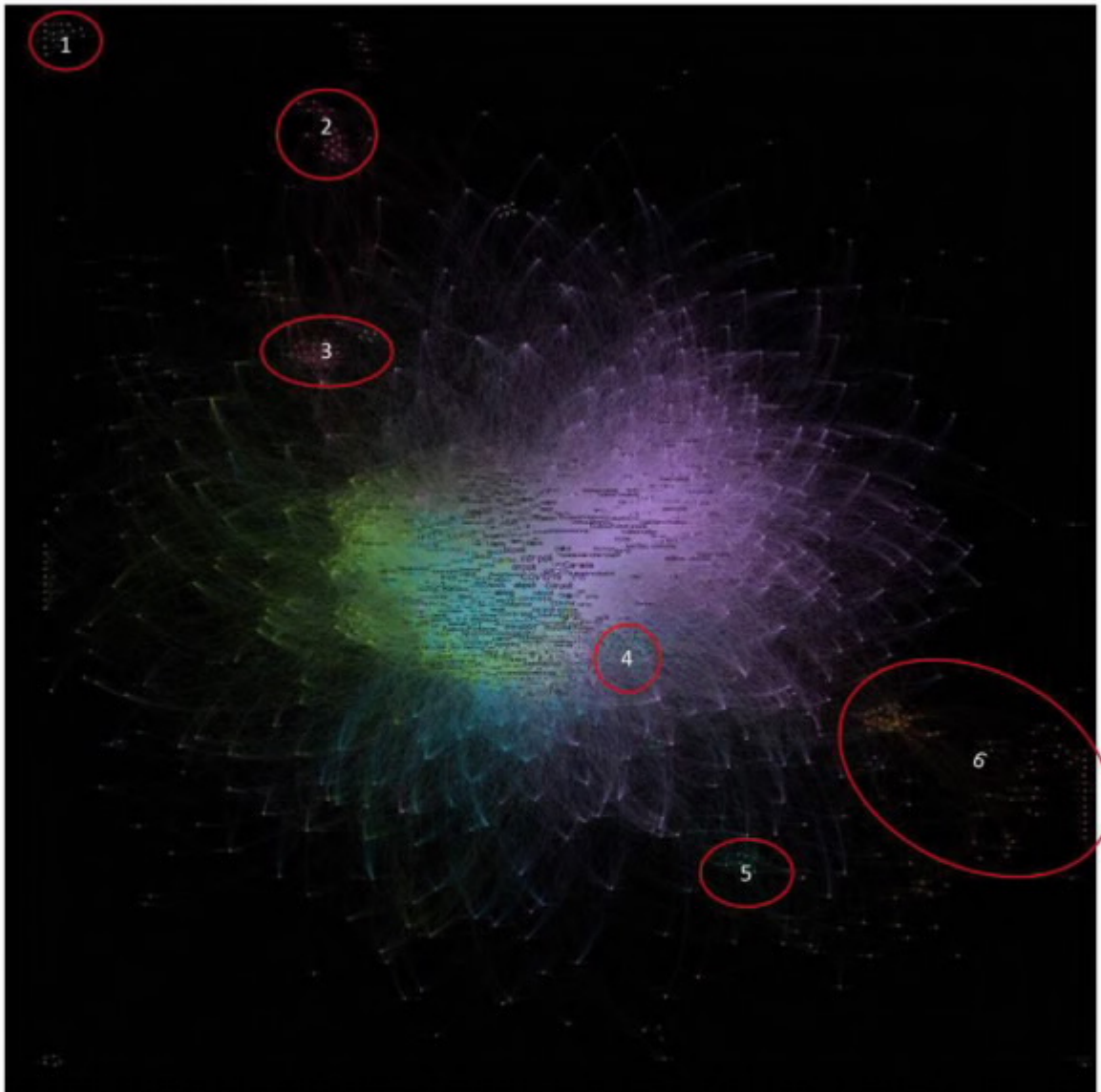


Figure 1: In this hashtag co-occurrence graph, nodes are individual hashtags extracted from RRM Canada's May Twitter sample. A link between two hashtags is drawn if they were posted from the same account from our May sample. Hashtags that are posted from the same accounts cluster closely together and are assigned a colour automatically using the Gephi social network analysis software.

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