# **Research Article**

# Is the Alt-Right Popular in Canada? Image Sharing, Popular Culture, and Social Media

Fenwick McKelvey, Scott DeJong, Saskia Kowalchuck, & Elsa Donovan Concordia University, Montreal, Quebec, Canada

#### Abstract

**Background**: In popular coverage and social media analysis, the alt-right has been described as a popular phenomenon. Following Stuart Hall's understanding of popular culture, we question the status of the alt-right in Canada as both a political and methodological problem that requires critical attention to social media metrics and critical experimentation in developing new digital methods.

**Analysis:** Our study developed a novel method to analyse image circulation across major social media platforms. We find that image sharing is marginal, yet the spread of images distinguishes political communities between Twitter hashtags, subreddits, and Facebook pages. We found a distinct alt-right community in our sample, active but isolated from other popular sites.

**Conclusion and Implications:** While the findings suggest the limited significance of image sharing to conceptualize popularity in cross-platform analysis, our novel method offers a compelling alternative to corporate social media analytics and raises new questions about how popular politics, especially the popularity of the alt-right, may be studied in the future.

Keywords: Alt-Right, Facebook, Twitter, Memes, 4chan, digital methods, social media analytics

#### Résumé

Contexte: Dans les médias traditionnels ainsi que les analyses sur les réseaux sociaux, l'extrême droite (« alt-right ») est décrite comme étant un phénomène populaire. Basé sur la conception de culture populaire suggéré par Stuart Hall, nous remettons en question le statut du « alt-right » au Canada comme un problème à la fois politique et méthodologique qui néces-

McKelvey, Fenwick; DeJong, Scott; Kowalchuck, Saskia; & Donovan, Elsa. Is the Alt-Right Popular in Canada? Image Sharing, Popular Culture, and Social Media. Canadian Journal of Communication. doi:10.3138/cjc.2022.0021

©2022 Fenwick McKelvey, Scott DeJong, Saskia Kowalchuck, & Elsa Donovan CC BY-NC-ND

site une attention critique tant qu'aux métriques des médias sociaux et une expérimentation critique dans le développement de nouvelles méthodes numériques.

Analyse: Cette étude développe une méthode novatrice afin d'analyser la circulation des images sur les principales plateformes de réseaux sociaux. Nous constatons que le partage d'images est marginal, mais que la diffusion d'images distingue les communautés politiques entre les « hashtags » sur Twitter, les « subreddits » et les pages Facebook. Nous avons trouvé une communauté d' « alt-right » qui se distingue dans notre échantillon, active, mais isolée des autres sites populaires.

Conclusion et implications: Bien que les résultats de cette recherche suggèrent une importante limitation tant qu'à l'utilisation du partage d'images afin de conceptualiser la popularité à l'aide de l'analyse multiplateforme. Notre méthode novatrice propose une alternative intéressante face aux analyses des médias sociaux des entreprises et soulève de nouvelles questions sur la façon dont la politique populaire, en particulier la popularité de l'« alt-right », peut être étudiée à l'avenir.

Mots clés: droits alternatifs, Facebook, Twitter, mèmes, 4chan, méthodes numériques, analyse des médias sociaux

## Introduction

From trending #TrudeauMustGo hashtags to QAnon's popularity in Quebec to claims by filmmakers that Canadians are "overrepresented in the alt-right" (Allen, 2021; Remski, 2020), media coverage and social media analytics suggest that the alt-right is popular in Canada. But how can we quantify its popularity? In the United Kingdom, Brown and Mondon (2021) find that press coverage can lead to a "populist hype" that may amplify and legitimize otherwise incoherent and marginal political movements. Yet, the problem goes beyond press coverage. Claims about politics increasingly rely on disputed social media metrics. Facebook, for instance, has exaggerated video's popularity (Herrman & Maheshwari, 2016) and undermined confidence in its public metrics (Roose, 2021). The alt-right's popularity might then depend on coverage, metrics, and academic research. Therefore, to determine the alt-right's popularity we need to consider what is popular now, based on observations by cultural theorist Stuart Hall, and the alt-right's influence itself.

This article took up the twin challenge of method and political analysis. Following calls to consider digital methods as experiments (McKelvey, 2015), we explored how the spread of images across major social media might represent Canadian politics and situate the alt-right's influence. Canada's political culture is defined by a par-

ticipatory condition with media habits increasingly premised on sharing—what we understand as the participatory turn (Barney, Coleman, Ross, Sterne, & Tembeck, 2016). Increasingly, people use images, especially memes and other remixed images, to communicate personal views and emotions. To understand the politics of sharing, we studied image posted during the 2019 Canadian federal election by collecting 169,765 images found on Canada's most popular social media platforms (Facebook, Twitter, Reddit, and 4chan). Building on research discussing issue objects in politics (Elmer, Langlois, & McKelvey, 2012), we tracked the popularity of images based on how often they were shared. By adapting methods from computer science (Zannettou et al., 2018), we could detect the number of times the same or similar images appeared in our large sample and how images spread between different social media platforms.

Given the experimental nature of the methodology, we analysed data first to understand:

RQ1. If and how images spread across Facebook, Twitter, Reddit, and 4chan.

Overall, we found that the quantity of image sharing is low in Canadian political communication, but that the spread of images between groups demarcated distinct political communities. Based on this finding, we asked:

RQ2. Were alt-right communities active during the election? RQ3. How popular were alt-right aesthetics and templates?

We identified a distinct community of what we define as the alt-right online in Canada sharing both popular images and meme templates as well as their own distinct images. Judging by the most popular images in circulation, these communities shared a hatred of Prime Minister Justin Trudeau, an embrace of far-right parties, and a dislike of immigrants and environmental activists. Our results then contribute both to the demarcation of alt-right communities online as well as ongoing debates about the articulation of popular politics on social media.

## The alt-right, media, and media activism

There is no clear consensus of what the alt-right is, less so in Canada (Ganesh, 2020; Gray, 2018; Salazar, 2018; Woods & Hahner, 2018).

The term itself came about as an act of political branding by white supremacist Richard Spencer (Bar-On, 2019). The term was intended to normalize Spencer's extremist politics. Early adopters of the term Allum Bokhari and Milo Yiannopoulos (2016) described the alt-right in Breitbart News as an anti-establishment and "amorphous movement" comprised of dark intellectuals, conservatives, and meme makers. The alt-right, following the success of its favoured candidate Donald J. Trump in the 2016 US presidential election, came to be described as a popular movement. Trump's impact and the amorphous label of alt-right animated Canada's right-wing extremisms and prompted the creation of new far-right movements (Davey, Guerin, & Hart, 2020; Scrivens & Amarasingam, 2020). These communities have been "animated by a racially, ethnically, and sexually defined nationalism. This nationalism is typically framed in terms of White power and is grounded in xenophobic and exclusionary understandings of the perceived threats posed by such groups as non-Whites, Jews, immigrants, homosexuals, and feminists" (Perry & Scrivens, 2016, p. 821). Increasingly, these identitarian antagonisms mix with economic ones and Canada's extractivist political economy (Malm & The Zetkin Collective, 2021; McCurdy, 2018). In the 2019 federal election, the People's Party of Canada and its leader Maxime Bernier courted an alt-right base trying to leverage Trump's popularity in Canada.

The emergence of the alt-right in Canada coincided with dramatic changes in the national media systems where information sharing is increasingly coordinated by large social media platforms (Chadwick, 2013; Humprecht, Esser, & Van Aelst, 2020). Canada has what is considered a hybrid media system involving an interplay between established news outlets, social media platforms, and entrepreneurial journalism. Canada has its own comparable Breitbart in the Rebel News, which featured white nationalist Faith Goldy and Gavin McInnes who later founded the far-right Proud Boys movement (Perry, Mirrlees, & Scrivens, 2019). Canada also has an active series of far-right online communities including subreddit r/metacanada. These right-wing outlets, while important, have limited readership in Canada. The Digital Democracies Project found that Canadians by and large lack comparable levels of polarization and partisan media systems found in the United States. Canada has partisan news industries, yet these outlets have little day-to-day readership (Digital Democracy Project, 2020).

At the same time, social media usage is high in Canada and the overall media system is undergoing a period of platformization. Platformization involves the reorganization of politics and media around "(re-)programmable digital infrastructures that facilitate and shape personalised interactions among end-users and commentors, organised through the systematic collection, algorithmic processing, monetisation, and circulation of data" (Poell, Nieborg, & van Dijck, 2019, p. 3). As we discuss, Canadians are active users of Facebook, YouTube, Twitter, and Reddit, platforms that have become central to Canada's media system.

The immediate effect on platformization on the alt-right is that political activity is constituted by what Bucher (2018) calls "programmed sociality" where political action is organized around and designed to take advantage of platform logics. Political activity's platformization involves sharing, spreading, and virality as functions of collective action (Shifman, 2011; Sampson, 2012; Nahon & Hemsley, 2013; Jenkins, Ford, & Green, 2013). Marginalized groups and counter-movements organizing online rely on sharing images like memes to build shared values and identities (Mina, 2019). Canadian altright groups show similar behaviours (McKelvey, DeJong, & Frenzel, 2021). Benkler, Faris, and Roberts (2018) identified two distinct rightand left-wing media ecosystems on Twitter by studying hyperlinking patterns to different news sites that were either overtly partisan or preferred by specific partisans. These ecosystems had very different sharing practices: reality-check dynamics between politicians, publics, and media versus a propaganda feedback loop where the spread of content mutually reinforces participants' beliefs. The overall function of this second circuit is similar to how Starbird et. al. argue that disinformation's spread is now participatory, the result of content being shared by users and legitimated by elites (2019). The central challenge, as we discuss, is how to parse this political activity online as platformization marks a new period of struggle over Hall's (1981) interpretation of popular culture as a site of struggle.

How social media analytics represent popularity and culture is now a central question in the study of the political (Langlois, 2014). Many of these claims come down to a debate over the significance of social media analytics (Christin, 2020; Duguay, 2017; Gillespie, 2014). As Baym insightfully notes while considering social media metrics in the longer history of audience measurement, "since [social media metrics] are so visible, accessible, and seemingly such transparent

markers of popularity and engagement, higher numbers are widely taken to imply more legitimacy, popularity, visibility, and influence ... and thus more economic potential" (2013, n.p.). These concerns about platformization do not legitimate prior media systems; instead, debates about what's popular reiterate a constitutive anxiety in liberal democracy over who can call themselves "the people" and the capacity of the media to deceive or simulate the public (Lefort, 1988). The challenge then is that social media data has replaced other forms of counting as a phenomenon of democratic culture (Peters, 2001) and *what* counts as a political movement is inextricable from its algorithmic sorting (Chun, 2021). Such uncertainty may further contribute to the "populist hype" exacerbated not only by journalist coverage but also an uncertainty about what social media analytics and trends signify (Brown & Mondon, 2021). Canadian newspapers and broadcasters feed this shift, now looking to social media analytics to indicate what should be covered. Journalists further confer legitimacy by inferring that social media is a proxy for public opinion (Dubois, Gruzd, & Jacobson, 2020; McGregor, 2019).

The alt-right has capitalized on these changes and uncertainties in the media system and what counts as popular (Marwick, 2018). The alt-right's media activism resembles the tactical media of progressive and counter-globalization movements (Boler, 2008; Jenkins & Thorburn, 2003). Tactical media has, however, become outmoded in favour of a more negative concept of *media manipulation*. Former publicist and self-confessed media manipulator Ryan Holiday (2013) popularized this manipulation through his account of covert marketing. One of Holiday's terms, "trading up the chain," has come to describe an important tactic of the alt-right that relies on gaming social media metrics and trends to add legitimacy to a story, pressuring increasingly authoritative journalist sources to cover or follow their agenda (Fielitz & Thurston, 2019; Krafft & Donovan, 2020; Starbird, 2019).

Research into the alt-right in Canada is intractably part of concurrent debates around platformization as the field debates how best to study the alt-right. Studying social media platforms is mired in compromised data brokered through arrangements with large platforms, or unavailable altogether (Bruns, 2019; Elmer, Langlois, & Redden, 2015; Freelon, 2018; Tromble, 2021). Research relies on data provided by platforms that often can be imprecise and raise risks about research biases (Tromble, 2021). Indeed, Facebook itself has an internal debate, now made public, about how CrowdTangle's met-

rics signify popularity and whether its transparency tool CrowdTangle accurately represents political activity on the platform. According to the New York Times, Facebook executives said "CrowdTangle measured only 'engagement,' while the true measure of Facebook popularity would be based on 'reach,' or the number of people who actually see a given post," yet, "with the exception of video views, reach data isn't public, and only Facebook employees and page owners have access to it" (Roose, 2021, n.p.). Further, large-scale social media data collection raises issues about informed consent and the consequences of re-purposing public discussion for academic study (Gilbert, Vitak, & Shilton, 2021). Further, social media data purports to offer up a new view omnipotent view of cultural life, promoting what D'Ignazio and Klein call big dick data. This is "a formal, academic term that we, the authors, have coined to denote big data projects that are characterized by patriarchal, cis-masculinist, totalizing fantasies of world domination as enacted through data capture and analysis" (D'Ignazio & Klein, 2020, p. 151). These are issues actively addressed in our research methodology although we acknowledge that we lack the space here to adequately engage in the needed integration of feminist methodology with internet research (see Luka & Millette, 2018).

# Methodology

Our study used open-source methods that may offer alternatives to proprietary digital methods (McKelvey, 2015). Our emphasis on images deliberately sought to better resolve the tension between user privacy and big data research. As per the Ethical Guidelines of the Association of Internet Researchers, our research design sought to minimize the use of personally identifiable information in analysis. As objects of shared authorship, images, particularly memes, offer a means to study publicity without focusing on individual statements. Much of the images circulated online are examples of collective expression (Phillips & Milner, 2017). Studying images directly addresses growing concerns about re-purposing of social media data for research by looking at shared not individualized expressions (Gilbert et al., 2021).

Our focus on cross-platform image analysis was experimental owing to the challenge that the "field of visual social media studies is a nascent one," and visual cross-platform studies more so (Pearce et al., 2020, p. 167; Rogers, 2021). Images function as unique digital objects that may be tracked to study popular culture. Early internet

research used hyperlinks, or what Shields (2000) describes as vectors, to map connections and show how users navigate information on the internet (Park & Thelwall, 2003). Though hyperlinks remain an important object of study, its evolution from a link to an interactive feature of platforms challenge earlier mapping exercises that studied the link between sites (Elmer, 2006; Helmond, 2013). Now hyperlinks have become what Elmer and Langlois refer to as digital objects that signify meaning on platforms and contribute to understanding data analytics, e.g., a "like" button, as well as link people and content (Langlois & Elmer, 2013). Whereas the study of digital objects has productively led to comparative analysis of app interfaces based on walkthrough studies (cf. Duguay, 2016), digital objects often function in code and thereby do not lend themselves to mapping information flows as hyperlink analysis had. In looking for alternatives to hyperlinks, Elmer and Langlois introduced the traffic tag to point to the unique identifiers duplicated across the web. For example, every YouTube video has a unique ID that may map connections while being more specific than a URL (Elmer & Langlois, 2013). We argue images can function as another kind of traffic tag that can be followed across the web.

Our methods tracked the frequency and circulation of images across major social media platforms to identify popular images and popular meme templates as well as the sharing practices between political subsites (e.g., subreddits, boards, Facebook groups) and Twitter hashtags. First, we collected images from four major social media platforms in Canada. We analysed these images using hashing, clustering, and community detection. Second, we used a technique known as perceptual hashing (p-hashing) that converts visual information into unique text strings (or hashes). Hashing does not read text in images or identify elements of an image, but rather interprets the distribution of colour and other visual elements. Hashing simplifies the computational work of comparing images (through measuring the hamming distance between strings) and is frequently used to detect copies of images as an anti-piracy measure. Past studies found hashing can detect the same or similar images without knowing the meaning or content of an image (Abilov, Hua, Matatov, Amir, & Naaman, 2021; Zannettou et al., 2018, 2019). Clustering is a second technique that groups hashed images together. The same images (or the same hashes) are assigned to the same cluster. The larger the cluster, the more images in it. Clustering can analyse similar images (or hashes with minor differences) to distinguish emergent clusters of similar-looking images. We used both approaches to detect large clusters of frequently occurring images and large clusters of visually similar images. Manual coding confirmed that clusters included similar or the same images. Finally, we used clusters to detect connections between different parts of our sample. Sharing images belonging to the same clusters creates connections between, for example, Twitter hashtags and subreddits. Community detection analyses these connections to identify closely connected sites and assign them to a community. Together, we used perceptual hashing to interpret images, clustering to determine popular images, and community detection to understand the spread of images across sites.

Data collection differed for each platform. For Twitter, Reddit, and 4chan, we collected and analysed images posted between September 1, 2019, and November 27, 2019. We also included Facebook data manually collected over four weeks (September 28, 2019, to October 28, 2019). We could not include Instagram due to issues with data collection on the site at the time. As well, we found few political accounts there. We collected images from subreddits, hashtags, pages, and groups identified as being active in federal politics through a wider scan of social media and politics in the lead-up to the 2019 election (McKelvey et al., 2021). Following how Schradie (2019) emphasizes the need to understand class in digital activism, in the following section we summarize demographic information for each platform to better characterize its users based on education, class, gender, and education.

• Facebook is the most popular social media platform in Canada. Eighty-four percent of Canadians had a Facebook account in 2017, 83% of Canadians in 2020. Facebook use is stable across demographics and above 73% no matter age, income, gender, or education (Gruzd & Mai, 2020). Facebook is also difficult to study. Researchers have limited access and we were unable to collect images at scale from the platform. Instead, teams of students at the University of Ottawa and Concordia University collected memes (or what we defined as images with words or text, not presented as infographics) shared on 15 major public groups and pages about Canadian politics including memes shared on two major third-party Facebook pages "North 99" and "Canada Proud." We collected a total of 882 images identified as memes. While we did not seek

out right-wing extremist content, our Facebook sample does represent an exhaustive study of political activity on the platform in the run-up to and after the 2019 federal election. Other studies report that Facebook does host right-wing extremist content (Davey et al., 2020). While categorically different from the broad automated samples from the other platforms (see below), we included our manually collected Facebook data in this paper to assess how memes circulated in the sample.

- Twitter has been adopted heavily by elites (journalists and politicians) in Canada although it has also been a central platform for Indigenous activism (Callison & Hermida, 2015; Small, 2011). Forty-two percent of Canadians used Twitter in 2020, the same as in 2017 (Gruzd & Mai, 2020). Twitter users skew to younger demographics (54% aged 25–34 with only 27% aged 55+), higher income (38% earning under 20K/year compared with 47% earning \$60-99K), and higher education (37% with high school education vs. 49% with a bachelor's degree). The Digital Ecosystem Research Challenge provided a list of political tweets it collected from key accounts and hashtags related to Canadian politics (listed in Appendix I). Using the list, we collected 77,994 images. Retweets count toward that total image count; therefore, frequently retweeted images appear multiple times in our sample.
- Reddit usership is small but growing, with 15% of Canadians using Reddit in 2020, up from 9% in 2017 (Gruzd & Mai, 2020). Reddit skews toward a younger (41% aged 18–24 compared with 3% aged 55+) and male usership (18% male, 13% female). The site hosts the default subreddit for Canadians (r/canada) which has over 874,000 users as of January 19, 2020, making Reddit a notable site for nationally oriented online discussion, even if its use is marginal in Canada. The Digital Democracy Project found 181 Canadian subreddits during the 2019 federal election (Digital Democracy Project, 2020). Reddit was not included in a 2020 online environmental scan of rightwing extremism in Canada, but Reddit is known to host alt-right Canadian subreddits like r/metacanada (Brown, n.d.) We developed a custom scraper for Reddit using a

ı

- sample of 10 major subreddits including known alt-right subreddits adapted from the Digital Ecosystem Research Challenge to collect 4,634 images.
- 4Chan is a site known for its right-wing extremist, altright, and racist content as well as a major hub of altright cultures. We included 4Chan as the most probable site of extreme images given its long-standing visual culture and influence on early meme culture (Nissenbaum & Shifman, 2017; Phillips, 2016). We have no survey evidence of 4Chan's popularity in Canada, but accounts associated with Canadian Internet addresses (IP address) "created 37,918 threads (5.35%) in 2019, out of 708,932 total threads globally, and 1,636,558 posts (5.71%) on /pol/ out of 28,649,533 total posts" (Davey et al., 2020, p. 33). We scraped 4Chan data from its /pol/ board to collect 86,255 images associated with posts the site geo-located in Canada.

After converting all images collected from Facebook, Twitter, Reddit, and 4chan into hashes, we ran two variations of cluster analysis that found:

- 1. 531 clusters of identical images (hamming distance 0) shared by more than one platform. Two independent coders reviewed all clusters to confirm the results were not erroneous and that images were identical. We also coded if the clusters contained memes using our coding criteria from our 2019 meme study (McKelvey et al., 2021). Meme coding had an intercoder reliability that achieved a 95% agreement and a Krippendorff Alpha of 0.9 (Freelon, 2010). A third coder resolved disagreements, flagging eight images as too indeterminate to code as a meme or not.
- 2. 619 clusters of similar images (hamming distance 12) shared across one or more platforms. This second analysis emphasized image variation as hashing allowed for the detection of meme templates where the image stayed the same and the caption changed. Two coders reviewed each cluster and coded if the cluster contained images whose modification was part of its circulation. Coders

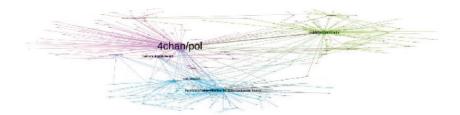


Figure 1. Network map of similar image clusters shared between hashtags, subreddits, 4chan, and Facebook pages and groups.

Note: Nodes and edges coloured by detected community.

agreed on 619 clusters out of 748 generated by the clustering algorithm. Only clusters with inter-coder agreement were included in this sample.

With these two sets of clusters, we mapped the connections between hashtags, subreddits, Facebook pages and groups, and 4chan that shared images in the same clusters.

Using Gephi, we calculated centrality and interconnectedness (or modularity) to identify communities of connected sites sharing the same or similar images as seen in Figure 1 and Figure 7 (Blondel, Guillaume, Lambiotte, & Lefebvre, 2008).<sup>[1]</sup>

## **Findings**

RQ1. If and how images spread across Facebook, Twitter, Reddit, and 4chan during the election.

Neither viral nor shared images made up a sizable amount of the sample. Out of 169,765 total images, only 5,963 (3.51%) identical images appeared on multiple platforms. The results suggest much less inter-connection than anticipated. Images do not spread, at least not all images and not between all platforms. We observe a long tail effect, seen in Appendix 2, where a few images spread significantly more than others though to a lesser degree when excluding retweets. This demonstrates the potential amplification effect of Twitter's affordances.

If individual images describe a limited perspective on Canadian politics, the more interesting finding involves how these sites shared images in the same clusters. Table 1 presents the total number of clusters shared between platforms. Twitter shares the most clusters with Reddit, then Twitter and 4Chan. The shared clusters between

Table 1. Identical image clusters shared between hashtags, subreddits, 4chan, and Facebook pages and groups during 2019 Canadian federal election.

	Facebook	Reddit	4Chan
Twitter	133	208	156
4Chan	15	41	-
Reddit	65	-	-

Facebook are also significant since we had a much smaller sample on Facebook.

Twitter shared images with most other clusters suggesting that it acts as an important hub for image sharing.

Clustering confirms popular accounts of the election, an election where the revelations of Trudeau's appearance in blackface and brownface was a pivotal moment in his campaign. The largest cluster of images was Trudeau's scandalous yearbook photo in blackface (379 instances of the same image including retweets). Released the same day as the other yearbook photo of Trudeau wearing brownface while working as a teacher, CBC first reported the image, seen in Figure 2, at 7:11 PM on September 18, 2019 (Zimonjic, 2019).

After CBC and other outlets shared the Trudeau yearbook photo, subreddit r/metacanada shared the image and it appeared on Twitter early the next morning under hashtags #cdnpoli, #elxn43, #breakingnews, #blackface, and #brownface, and then moved to 4chan. The image is notable for being a good example of a scandalous object well placed to circulate online as well as an example of a *popular* image shared across multiple partisan communities (McKelvey et al., 2018). Trudeau's blackface and brownface scandals inspired numerous re-mixes and memes. The most popular cluster excluding retweets (24 instances), seen in Figure 3, remixes a screenshot of an iPhone keyboard selecting emoji skin tone. The meme first appeared on the subreddit r/canada the day after the reports of Trudeau in blackface and brownface mentioned above. The image stayed in circulation until October 2, 2019, circulating between popular election hashtags and r/canada.

The spread and interpretation of Trudeau's blackface/brownface scandals do illustrate how our methods may study popularity in visual culture, both in detecting shared imaged and remixed images.



Figure 2. Yearbook photo of Justin Trudeau in blackface



Figure 3. Justin Trudeau emoji keyboard meme

doi:10.3138/cjc.2022.0021

This advance access version may differ slightly from the final published version

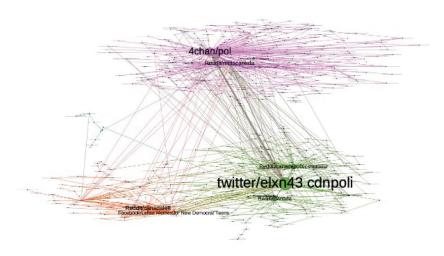


Figure 4. Flows between hashtags, subreddits, 4chan, and Facebook pages and groups for all images.

RO2. Were alt-right communities active during the election? The alt-right is one of four distinct political communities found in our analysis. These communities are colour coded in the two network maps seen in Figure 4 (and Figure 1 above) that visualizes the links between 4chan, subreddits, Twitter hashtags, and Facebook pages and groups.

Node size is based on the number of images sent to other nodes. Arrows indicate how images were shared, or who shared the image first.

The four distinct communities represented in Figure 4 are as follows:

- 1. Aquamarine is a community of anti-Trudeau tweets with hashtags including #blackface, #brownface, #trudeau, and #racisttrudeau.
- 2. Purple is a community of nodes associated with 4chan, r/metacanada, and anti-Trudeau sentiments. 4chan is highly influential within this community. 4chan shares 24 image clusters with the second largest node, r/metacanada, a known hub of alt-right activities. Other nodes included anti-Trudeau Facebook pages "Don't Drink the Canadian Cool-Aid," "Justin TrudNo," "Justin Trudeau Not," and "Old Stock Canadians" (one of the groups allegedly frequented by the Rideau Hall attacker). The community

doi:10.3138/cjc.2022.0021

also includes the #PPC hashtag for People's Party of Canada and the pro-PPC Facebook group "Mad Max Bernier," suggesting some affinity in this community for Bernier's failed campaign. Twitter hashtags in this community frequently include #trudeaumustgo in addition to #blackface, #trudeaublackface, #fakefeminist, and #trudeaucorruption. The purple community also contains the "Canada Proud" Facebook group, yet it is disconnected from the major hubs and its images are only shared on Twitter.

- 3. Green nodes included major popular hashtags and subreddits. The centre represents the default Twitter hashtags for the election (#exln43, #cdnpoli), the default subreddit for Canada (r/canada,) the most popular Canadian political news subreddit (r/canadapolitics), and the popular subreddit r/canadapoliticshumour that acts as a clearinghouse for political cartoons, memes, and funny videos. Images from the subreddit end up on Twitter associated with hashtags include #trudeaumustgo. In green, too small to see on the map, the Conservative Facebook meme page "Team Scheer" aggregates images already seen on Twitter.
- 4. Orange refers to nodes containing Canada's political left including the pro-New Democratic Party (NDP) Facebook group "Leftist Memes for New Democratic Teens" (LMNDT) and the non-partisan subreddit r/canadaleft. The Facebook community also contains the pro-Liberal National Meme Board of Canada. As seen by its strong arrows to both LMNDT and another known pro-NDP meme clearinghouse Facebook group "Gamechangers," many of these images appear on the subreddit r/onguardforthee, a group started to keep watch of rightwing activity.

Together these communities participated in three distinct information flows during the Canadian election. First, the purple flow in Figure 4 helps characterize Canada's alt-right. Designed to be a big-tent idea, the alt-right's inherent ambiguity has helped serve as a catch-all that we attempt to clarify. The alt-right in Canada centres around a dislike of Trudeau, anti-feminism, anti-immigration, and overt white

ı

nationalism as seen in images shared between the two largest nodes, 4chan and r/metacanada. Of the 24 images shared between the group, eight focus on Trudeau, highlighting his appearance in blackface/brownface as well as his alleged sexual misconduct. The latter is a common theme in right-wing content in Canada. During the election, the Conservative Party of Canada stoked these concerns by issuing a press release legitimating unsubstantiated claims that Trudeau left a teaching appointment due to sexual misconduct. Yet, images emphasizing Trudeau's #fakefeminism circulate among misogynist images of Greta Thunberg, Liberal MP Catherine McKenna, and in one case Pepe the Frog with brown skin tone wearing a keffiyeh assaulting a popular 4chan character known as Wojak meant to represent a Swedish woman.

A second, smaller flow exists between Liberal Party, NDP, progressive, and left nodes. At least 14 images from the subreddit r/canadaleft were shared to the "Leftist Memes for New Democratic Teens" Facebook group. These images, all memes, joked about progressive politics including a wealth tax and coalition voting, and one mocked Canadian celebrity psychologist Jordan Peterson. These memes were notably policy focused like results from a study of anti-Harper memes (Lalancette, Small, & Pronovost, 2019). Related, the subreddit r/onguardforthee also functions as a hub for the left and progressives. The node is small on the map, indicating that it receives more images than it shares.

A third flow involves what might be called mainstream networks, or rather sites without expressed political leanings but caught up in politics. Twitter functioned as a key node in the election because it hosted two major popular hashtags, #exln43 and #cdnpoli, which frequently seeded other nodes. Reddit's default subreddit for Canadians (r/canada) is another popular node centrally located. Both act as important hubs where a lot of images end up, suggesting these nodes are pathways to greater reach. People share content outside the partisan clusters that circulates and ends up on mass hashtags and subreddits. Images in our largest clusters appeared on these hashtags and subreddits first. The largest clusters shared with the hashtag #elxn43 are the Trudeau emoji meme (Figure 3) and a second mocking Andrew Scheer for resembling Baby Sinclair from the early 90s sitcom Dinosaurs, seen in Figure 5. Both memes do not reference distinct memetic families nor require special literacies to be interpreted by followers. Further, both relate to the top party leaders at the time.



Figure 5. Meme comparing Andrew Scheer to Baby Sinclair from Dinosaurs.

A user on r/canada appears to have first posted the Scheer meme on September 14, 2019. The next day, the image appeared on other subreddits r/canadapoliticshumour and r/onguardforthee and days later on r/metacanada and the pro-NDP Facebook page "Leftist Memes for New Democrat Teens" on October 18, 2019. That r/metacanada shared an anti-Scheer meme is telling and further evidence of a split between traditional conservatives and what we loosely describe as the alt-right in Canada.

RO3. How popular were alt-right aesthetics and templates? Alt-right nodes did not share many images with mainstream communities described above nor did they generate popular images identified through glustering. Images went to alt right nodes rather than

findes described above for the they generate popular images identified through clustering. Images went to alt-right nodes rather than from alt-right nodes. To understand the alt-right's popularity, we be-

gin by noting the two categories that emerged from our review of the top 20 similar image clusters:

- Normie images or popular meme templates drawn for an everyday meme culture found on all platforms and used to express opposing political views. These memes reference popular culture or popular images that become re-purposed through politically. These images are then highly spreadable without being specifically political.
- 2. Bespoke images of Canadian politics used as memes by political sites, such as re-captions of an image of Andrew Scheer holding a piece of paper used to mock his candidacy by opponents to an image of Singh weightlifting used by his supporters to images of Trudeau in blackface used by his detractors on 4Chan and r/metacanada.

The results of these two distinct types of images help distinguish between spread and popularity. Some images spread by being floating signifiers so adaptable to become popular without having a specific political significance whereas other images are part of, and used in the identification of, a movement such as Singh weightlifting or Trudeau in blackface.

Alt-right images do not spread into other communities. They are not popular if we mean they are used by many communities, but, alt-right images are popular if we mean they express a collective identity even if shared only in its community. Our detected altright community had their own visual codes including Pepe the Frog and ambiguous white power messaging. We found two images that celebrated white pride, including Figure 6, showing Pepe the Frog and Maxime Bernier giving the OK sign, a code for white power (Anti-Defamation League, n.d.).

The image first appeared on 4chan's /pol/ board on October 9, 2019, at 8:39 pm then moved to the r/metacanada subreddit four days later. The Canadian alt-right network notably shares little with other networks in Canada. However, it does have crossover with major hashtags and subreddits. Tweets tagged with #elxn43 and #cdnpoli flow into the network, but little flows back. These bespoke images then define a distinct community, but one disconnected from popular nodes in Canada.



Figure 6. Meme of Pepe the Frog and Maxime Bernier gesturing to white power.

### Discussion

The proximity of 4chan, r/metacanada, and anti-Trudeau meme pages define an alt-right community in Canada that remains self-contained. Their shared clusters demarcate this community as well as the common references encoded in their images mocking Trudeau. The overall effect corresponds with our past research that sees online partisans creating and constituting scenes (McKelvey et al., 2021). However, the alt-right is creating distinct political identities as opposed to other political communities we detected which are largely identified along traditional party lines. Here we are reminded of Stuart Hall's interest in the popular as "the capacity to constitute classes and individuals as a popular force: that is the nature of political and cultural struggle. To make the divided classes and separated peoples ... into a popular-democratic cultural force" (1981, p. 239). The alt-right then articulates a popular force that exists and can be found online for those looking for it. People do have to look. Alt-right images do not circulate widely.

The marginal presence of the alt-right community in our sample helps distinguish the changing concept of the popular and the uptake in social media analytics as a measure of popularity. The alt-right may be unpopular in a metric sense yet still capable of articulating a popular identity through shared collective references and images. Platforms then enable a kind of popular politics disaggregated from mass audiences. Historically, Hall maintained an interest in popular culture as part of a wider concern with a Gramscian theory of politics and concerns for a war of position. Where this war of position might have involved mass media and popular media, alt-rights seems less engaged in this mainstream tactic or media manipulation that might

bring its political message to new audiences through press coverage. The alt-right could have engaged with the third "mainstream" community, but we do not find evidence of such.

The alt-right's war of position is better understood as a technological populist media strategy focused on identifying and speaking as a people (Baldwin-Philippi, 2019). The overall work is meant to articulate a collective identity, but through internal jokes, common references, and user-generated content in the scene. The platformization of the popular with its democratization of media access suggest that movements may be able to articular the popular without engaging in a war over the centre. By contrast, media manipulation brings attention to these niche activities, what we might call popularization. If we do not observe the alt-right's efforts to go mainstream, then we have to question algorithmic recommendation and other acts of political discoverability that might surface these movements to theorize a new era of the popular marked as both populist and niche.

Our findings have equal implications for political methodologies. Images did not spread significantly in our sample, undercutting sharing as a concept of popularity. Jenkins et al. (2013) spreadability captures some of what we find in the sample, but not nearly to the degree implied by its assumption of an active audience. Most often, users did not share images across platforms. We can think of a few explanations for low engagement. Our mapping might not capture an individual's own position in multiple networks. In other research, Facebook partisans described themselves as "very online" so one possible explanation is that the user themselves acts as the link between parts of the web. The user then aggregates and connects a diversity of content individually as seen in audience studies that would not be easily found in our network maps (Dubois & Blank, 2018). Future studies might look past a "big picture" mapping exercise toward audience habits. Further, multi-platform research must contend with the significance of different metrics on the platform such as Facebook's multiple emotional reactions versus upvoting on Reddit as specific forms of networked sociality.

Future methods might move away from spread toward visual analytics that highlights the conflicted nature of the popular. Conflict was central to Hall's own understanding of popular culture as "one of the sites where this struggle for and against a culture of the powerful is engaged" (1981, p. 239). That struggle may now be visualized. In developing our final methodologies, we produced several prototypes including Figure 7.



Figure 7. Plot of images found in clusters shared across platforms.

Figure 7 plots images according to their unique hash value. The location of the images—a function of the hash values—is less important than how it *presents* many different shared images at once, showing both variations in memes as well as unique or bespoke images in the larger sample across the entire political campaign. The plot here is not filtered but future plots could better presence distinct, insular visual and memetic cultures as well as plotting images not in clusters to identify these tensions and foreclosures needed to make claims about describing popular culture. What is *not* shared becomes as interesting as what *is* shared, as a marker of the contested nature of popular culture.

## Conclusion

Our methods and findings demonstrate that what is popular in Canada remains controversial and that communication research today must contend as much with the methodological as the political work of popular culture. Our study offers a proof of concept that alternative methods endure for social media research. At the outset, we sought to find ways to study social media without focusing on users, nor using commercial social media analytics. Our results are only the start of possible uses for the methods described herein. Image

analysis offers a new way to interpret how different sites relate to each other. Beyond the identical images studied here, fuzzier cluster matching could discern how images change and share visual identities across platforms. Hopefully, our approach encourages further research into the emerging study of images as collective expression and political culture in Canada.

We are only beginning to understand the significance of these political communities, or what has been described elsewhere as scenes, in Canada. During our analysis, a middle-aged sausage vendor from Manitoba attacked the Prime Minister's residence on July 2, 2020. The man, an active Canadian Ranger, drove his truck through the gates of Rideau Hall, armed with an M14 rifle, a revolver, and two shotguns. He uttered threats to Trudeau during the 90-minute standoff that ended in his arrest. Just before the attack, he posted a meme on his business Facebook page containing a popular COVID-19 conspiracy (Tunney & Ling, 2020). According to reports, the man had an active social media profile, participating in some anti-Trudeau Facebook groups included in our sample (Lamoureux, 2020). The Rideau Hall attack was a powerful reminder about the political violence involved in some parts of Canada's alt-right, and how seemingly fringe sites might help someone indulge their hatred of Trudeau. While we cannot begin to understand the pathways to extremism, our methodologies allow for us to identify and understand popular images and cultures within the alt-right.

A year after the Rideau Hall attack, a new alt-right coalition manifested in Ottawa, the Freedom Convoy. Based on reporting, we find the Convoy built on the same participatory functions we noted in the alt-right communities first detected in 2019. These groups shared memes, created their own alternative networks, and produced a culture of exuberance that in the Convoy's case kept a party-like atmosphere during a cold month in Ottawa. In some press coverage, the Freedom Convoy's success seemed unprecedented as if the alt-right were new but our research demonstrates the alt-right is an enduring feature of Canadian politics but also one that we struggle to easily qualify. The initial occupation did not lead to a city-wide strike or what we might call a popular movement. Nonetheless, the Convoy thrived without being a mass movement adding further merit to our claim that perhaps social media enables new capacities for articulation of popular identities that sustain themselves through bespoke memetic vernaculars and media practices. The alt-right in Canada is then popular, but not in ways that we understand that term today.

## **Acknowledgements**

We wish to thank the other member of Concordia's "meme team," Janna Frenzel for their support and participation in the larger project as well as the manuscript's anonymous reviewers, editors for this journal, the editors of these special issues for their tireless support of a very long paper, students in the 2019 COMS 460 course at Concordia University, and participants in the SSRC Workshop on Extreme Right Radicalization Online: Platforms, Processes, Prevention. This project is funded in part by the Government of Canada. We wish to thank Dr. Wendy Hui Kyong Chun and the Digital Democracies Institute for infrastructural support and the Infoscape Research Lab for server space for meme hosting.

Data Accessibility: All data will not be made publicly available. Researchers who require access to the study data can contact the corresponding author for further information.

Fenwick McKelvey is Associate Professor at Concordia University. Email: fenwick. mckelvey@concordia.ca

Scott DeJong is a PhD candidate at Concordia University. Email: scott.dejong@concordia.ca

Saskia Kowalchuck is an MA student at Concordia University. Email: saskia.kowalchuk@mail.concordia.ca

Elsa Donovan is Data Engineer at Contentsquare. Email: elsa.donovan@concordia.ca

#### **Notes**

- \* Hamming distances is named after American mathematician Richard Hamming who developed the technique of distinguishing strings of the same length by the different in symbols at the same position. Lower distances identify more similar images.
- 1. We used the follow method to identify and visualize groups in our Gephi maps: https://parklize.blogspot.com/2014/12/gephi-clustering-layout-by-modularity. html.
- 2. For more about the treatment of Catherine McKenna online, see: https://www.cbc.ca/news/politics/catherine-mckenna-rebel-media-exchange-1.4387510.

#### References

- Abilov, A., Hua, Y., Matatov, H., Amir, O., & Naaman, M. (2021). VoterFraud2020: A multi-modal dataset of election fraud claims on Twitter. *ArXiv:2101.08210 [Cs]*. Retrieved August 21, 2022, from http://arxiv.org/abs/2101.08210
- Allen, S. (2021, January 19). Canadians "overrepresented in the alt-right", says film-maker who chronicled movement's rise. The Hill Times. Retrieved August 21, 2022, from https://www.hilltimes.com/2021/01/19/canadians-overrepresented-in-the-alt-right-says-filmmaker/279274
- Anti-Defamation League. (n.d.). Okay hand gesture. *Anti-Defamation League Website*. Retrieved February 25, 2021, from https://www.adl.org/education/references/hate-symbols/okay-hand-gesture

doi:10.3138/cjc.2022.0021

- Baldwin-Philippi, J. (2019). The technological performance of populism. New Media & Society, 21(2), 376–397. https://doi.org/10.1177/1461444818797591
- Barney, D., Coleman, G., Ross, C., Sterne, J., & Tembeck, T. (Eds.). (2016). The participatory condition in the digital age. Minneapolis, MN: University of Minnesota Press.
- Bar-On, T. (2019). Richard B. Spencer and the alt right. In M. Sedgwick (Ed.), Key thinkers of the radical right: Behind the threat to liberal democracy (pp. 224–241). Oxford, UK: Oxford University Press. https://doi.org/10.1093/oso/9780190877583.003.0014
- Baym, N. (2013). Data not seen: The uses and shortcomings of social media metrics. *First Monday*, *18*(10). https://doi.org/10.5210/fm.v18i10.4873
- Benkler, Y., Faris, R., & Roberts, H. (2018). *Network propaganda: Manipulation, disin- formation, and radicalization in American politics*. Oxford, UK: Oxford University Press.
- Blondel, V., Guillaume, J.-L., Lambiotte, R., & Lefebvre, E. (2008). Fast unfolding of communities in large networks. *Journal of Statistical Mechanics: Theory and Experiment*, 2008(10), P10008. https://doi.org/10.1088/1742-5468/2008/10/p10008
- Bokhari, A., & Yiannopoulos, M. (2016, March 30). An establishment Conservative's guide to the alt-right. *Breitbart*. Retrieved August 21, 2022, from https://www.bre-itbart.com/tech/2016/03/29/an-establishment-conservatives-guide-to-the-alt-right/
- Boler, M. (Ed.). (2008). Digital media and democracy: Tactics in hard times. Cambridge, MA: MIT Press.
- Brown, J. (n.d.). We need to talk about reddit (No. 220). *Canada Land*. Retrieved February 25, 2021, from https://www.canadaland.com/podcast/need-talk-reddit/
- Brown, K., & Mondon, A. (2021). Populism, the media, and the mainstreaming of the far right: The Guardian's coverage of populism as a case study. *Politics*, 41(3), 279–295. https://doi.org/10.1177/0263395720955036
- Bruns, A. (2019). After the "APIcalypse": Social media platforms and their fight against critical scholarly research. *Information, Communication & Society*, 22(11), 1544–1566. https://doi.org/10.1080/1369118x.2019.1637447
- Bucher, T. (2018). If ... then: Algorithmic power and politics. Oxford, UK: Oxford University Press.
- Callison, C., & Hermida, A. (2015). Dissent and resonance: #Idlenomore as an emergent middle ground. *Canadian Journal of Communication*, 40(4), 695–716. https://doi.org/10.22230/cjc.2015v40n4a2958
- Chadwick, A. (2013). The Hybrid media system: Politics and power. Oxford, UK: Oxford University Press.
- Christin, A. (2020). Metrics at work. Princeton, NJ: Princeton University Press.
- Chun, W. H. K. (2021). Discriminating data: Correlation, neighborhoods, and the new politics of recognition. Cambridge, MA: MIT Press.
- Davey, J., Guerin, C., & Hart, M. (2020). An online environmental scan of right-wing extremism in canada. Institute for Strategic Dialogue. Retrieved August 21, 2022, from https://www.isdglobal.org/isd-publications/canada-online/
- Digital Democracy Project. (2020). Lessons in resilience: Canada's digital media ecosystem and the 2019 election. Retrieved August 21, 2022, from https://www.mcgill.ca/maxbellschool/files/maxbellschool/ddp-lessonsinresilience-en.pdf

doi:10.3138/cjc.2022.0021

- D'Ignazio, C., & Klein, L. (2020). Data feminism. Cambridge, MA: MIT Press.
- Dubois, E., & Blank, G. (2018). The echo chamber is overstated: The moderating effect of political interest and diverse media. *Information, Communication & Society*, 21(5), 729–745. https://doi.org/10.1080/1369118x.2018.1428656
- Dubois, E., Gruzd, A., & Jacobson, J. (2020). Journalists' use of social media to infer public opinion: The citizens' perspective. *Social Science Computer Review*, 38(1), 57–74. https://doi.org/10.1177/0894439318791527
- Dubois, E., & McKelvey, F. (2019). Political bots: Disrupting Canada's democracy. *Canadian Journal of Communication*, 44(2), 27–33. https://doi.org/10.22230/cjc.2019v-44n2a3511
- Duguay, S. (2016). Lesbian, gay, bisexual, trans, and queer visibility through selfies: Comparing platform mediators across Ruby Rose's Instagram and Vine presence. Social Media + Society, 2(2), 2056305116641975. https://doi.org/10.1177/2056305116641975
- Duguay, S. (2017). Social media's breaking news: The logic of automation in Facebook Trending Topics and Twitter Moments. *Media International Australia*, 1329878X17 737407. https://doi.org/10.1177/1329878x17737407
- Elmer, G. (2006). Re-tooling the network: Parsing the links and codes of the web world. *Convergence*, 12(1), 9–19. https://doi.org/10.1177/1354856506061549
- Elmer, G., & Langlois, G. (2013). Networked campaigns: Traffic tags and cross platform analysis on the Web. *Information Polity: The International Journal of Government & Democracy in the Information Age*, 18(1), 43–56. https://doi.org/10.3233/ip-2011-0244
- Elmer, G., Langlois, G., & McKelvey, F. (2012). The permanent campaign: New media, new politics. Bern, CH: Peter Lang.
- Elmer, G., Langlois, G., & Redden, J. (Eds.). (2015). Compromised data: From social media to big data. New York, NY: Bloomsbury Academic.
- Fielitz, M., & Thurston, N. (Eds.). (2019). Post-digital cultures of the far right: Online actions and offline consequences in Europe and the US. Bielefeld, DE: Transcript-Verlag.
- Freelon, D. (2010). ReCal: Intercoder reliability calculation as a Web service. *International Journal of Internet Science*, 5(1), 20–33.
- Freelon, D. (2018). Computational research in the post-API age. *Political Communication*, 35(4), 665–668. https://doi.org/10.1080/10584609.2018.1477506
- Ganesh, B. (2020). Weaponizing white thymos: Flows of rage in the online audiences of the alt-right. *Cultural Studies*, 34(6), 892–924. https://doi.org/10.1080/09502386.2 020.1714687
- Gilbert, S., Vitak, J., & Shilton, K. (2021). Measuring Americans' comfort with research uses of their social media data. *Social Media + Society*, 7(3), 20563051211033824. https://doi.org/10.1177/20563051211033824
- Gillespie, T. (2014). The relevance of algorithms. In T. Gillespie, P. J. Boczkowski, & K. A. Foot (Eds.), *Media technologies* (pp. 167–194). Cambridge, MA: MIT Press.
- Gray, P. W. (2018). "The fire rises": Identity, the alt-right and intersectionality. *Journal of Political Ideologies*, 23(2), 141–156. https://doi.org/10.1080/13569317.2018.1451228
- Gruzd, A., & Mai, P. (2020). The state of social media in Canada 2020 [data set]. Borealis. https://doi.org/10.5683/SP2/XIW8EW

- Hay, J., Hall, S., & Grossberg, L. (2013). Interview with Stuart Hall. *Communication and Critical/Cultural Studies*, 10(1), 10–33. https://doi.org/10.1080/14791420.2013.768404
- Helmond, A. (2013). The Algorithmization of the hyperlink. *Computational Culture*, 3. Retrieved August 21, 2022, from http://computationalculture.net/article/the-algorithmization-of-the-hyperlink
- Herrman, J., & Maheshwari, S. (2016, September 23). Facebook apologizes for overstating video metrics. New York Times. Retrieved August 21, 2022, from https://www.nytimes.com/2016/09/24/business/media/facebook-apologizes-for-overstating-videometrics.html
- Holiday, R. (2013). Trust me, I'm lying: Confessions of a media manipulator. New York, NY: Portfolio.
- Humprecht, E., Esser, F., & Van Aelst, P. (2020). Resilience to online disinformation: A framework for cross-national comparative research. *The International Journal of Press/Politics*, 1940161219900126. https://doi.org/10.1177/1940161219900126
- Jenkins, H., Ford, S., & Green, J. (2013). Spreadable media: Creating value and meaning in a networked culture. New York, NY: NYU Press.
- Jenkins, H., & Thorburn, D. (2003). Democracy and new media. Cambridge, MA: MIT Press.
- Krafft, P. M., & Donovan, J. (2020). Disinformation by design: The use of evidence collages and platform filtering in a media manipulation campaign. *Political Communication*, 37(2), 194–214. https://doi.org/10.1080/10584609.2019.1686094
- Lalancette, M., Small, T., & Pronovost, M. (2019). Trolling Stephen Harper: Internet memes as online activism. In M. Lalancette, V. Raynauld, & E. Crandall (Eds.), What's trending in Canadian politics? Understanding transformations in power, media, and the public sphere (pp. 106–126). Vancouver, BC: UBC Press.
- Lamoureux, M. (2020, July 3). Armed man who allegedly stormed Justin Trudeau's residence appears to have posted QAnon content. *Vice News*. Retrieved August 21, 2022, from https://www.vice.com/en/article/z3ez39/armed-man-corey-hurren-who-allegedly-stormed-justin-trudeaus-residence-rideau-hall-appears-to-have-posted-qanon-content
- Langlois, G. (2014). Meaning in the age of social media. London, UK: Palgrave Macmillan.
- Langlois, G., & Elmer, G. (2013). The research politics of social media platforms. *Culture Machine*, 14. Retrieved August 21, 2022, from http://www.culturemachine.net/index.php/cm/article/viewDownloadInterstitial/505/531
- Lefort, C. (1988). Democracy and political theory (D. Macey, Trans.). Cambridge, UK: Polity Press.
- Luka, M. E., & Millette, M. (2018). (Re)framing big data: Activating situated knowledges and a feminist ethics of care in social media research. *Social Media + Society*, 4(2), 2056305118768297. https://doi.org/10.1177/2056305118768297
- Malm, A., & The Zetkin Collective. (2021). White skin, black fuel: On the danger of fossil fascism. London, UK: Verso.
- Marwick, A. (2018). Why do people share fake news? A sociotechnical model of media effects. *Georgetown Law Technology Review*, 474. Retrieved August 21, 2022, from https://www.georgetownlawtechreview.org/why-do-people-share-fake-news-a-sociotechnical-model-of-media-effects/GLTR-07-2018/

- Matamoros-Fernández, A., & Farkas, J. (2021). Racism, hate speech, and social media: A systematic review and critique. *Television & New Media*, 22(2), 205–224. https://doi.org/10.1177/1527476420982230
- McCurdy, P. (2018). From the natural to the manmade environment: The shifting advertising practices of Canada's oil sands industry. Canadian Journal of Communication, 43(1). https://doi.org/10.22230/cjc.2018v43n1a3315
- McGregor, S. (2019). Social media as public opinion: How journalists use social media to represent public opinion. *Journalism*, 20(8), 1070–1086. https://doi.org/10.1177/1464884919845458
- McKelvey, F. (2015). Openness compromised? Questioning the role of openness in digital methods and contemporary critical praxis. In G. Elmer, G. Langlois, & J. Redden (Eds.), Compromised data: From social media to big data (pp. 126–146). New York, NY: Bloomsbury Academic.
- McKelvey, F., Côté, M., & Raynauld, V. (2018). Scandals and screenshots: Social media elites in Canadian politics. In A. Marland, T. Giasson, & A. Lawlor (Eds.), *Political elites in Canada: Power and influence in instantaneous times* (pp. 204–222). Vancouver, BC: UBC Press.
- McKelvey, F., DeJong, S., & Frenzel, J. (2021). Memes, scenes and #ELXN2019s: How partisans make memes during elections. *New Media & Society*, 14614448211020690. https://doi.org/10.1177/14614448211020690
- Mina, A. X. (2019). Memes to movements: How the world's most viral media is changing social protest and power. Boston, MA: Beacon Press.
- Nahon, K., & Hemsley, J. (2013). Going viral. Cambridge, UK: Polity Press.
- Nissenbaum, A., & Shifman, L. (2017). Internet memes as contested cultural capital: The case of 4chan's /b/ board. New Media & Society, 19(4), 483–501. https://doi.org/10.1177/1461444815609313
- Park, H. W., & Thelwall, M. (2003). Hyperlink analyses of the world wide web: A review. *Journal of Computer-Mediated Communication*, 8(4). https://doi.org/10.1111/j.1083-6101.2003.tb00223.x
- Pearce, W., Özkula, S. M., Greene, A. K., Teeling, L., Bansard, J. S., Omena, J. J., & Rabello, E. T. (2020). Visual cross-platform analysis: Digital methods to research social media images. *Information, Communication & Society*, 23(2), 161–180. https://doi.org/10.1080/1369118x.2018.1486871
- Perry, B., Mirrlees, T., & Scrivens, R. (2019). The dangers of porous borders. *Journal of Hate Studies*, 14(1), 53. https://doi.org/10.33972/jhs.124
- Perry, B., & Scrivens, R. (2016). Uneasy alliances: A look at the right-wing extremist movement in Canada. *Studies in Conflict & Terrorism*, 39(9), 819–841. https://doi.org/10.1080/1057610x.2016.1139375
- Peters, J. D. (2001). "The only proper scale of representation": The politics of statistics and stories. *Political Communication*, *18*(4), 433–449. https://doi.org/10.1080/1058 4600152647137
- Phillips, W. (2016). This is why we can't have nice things: Mapping the relationship between online trolling and mainstream culture. Cambridge, MA: MIT Press.
- Phillips, W., & Milner, R. (2017). The ambivalent internet: Mischief, oddity, and antagonism online. Cambridge, UK: Polity Press.
- doi:10.3138/cjc.2022.0021

- Poell, T., Nieborg, D., & van Dijck, J. (2019). Platformisation. *Internet Policy Review*, 8(4). Retrieved August 21, 2022, from https://policyreview.info/concepts/platformisation. https://doi.org/10.14763/2019.4.1425
- Remski, M. (2020, December 3). When QAnon came to Canada. The Walrus. Retrieved August 21, 2022, from https://thewalrus.ca/when-qanon-came-to-canada/
- Rogers, R. (2021). Visual media analysis for Instagram and other online platforms. *Big Data & Society*, 8(1). https://doi.org/10.1177/20539517211022370
- Roose, K. (2021, July 14). Inside Facebook's data wars. *New York Times*. Retrieved August 21, 2022, from https://www.nytimes.com/2021/07/14/technology/facebook-data.html
- Salazar, P.-J. (2018). The alt-right as a community of discourse. *Javnost: The Public*, 25(1–2), 135–143. https://doi.org/10.1080/13183222.2018.1423947
- Sampson, T. (2012). Virality: Contagion theory in the age of networks. Minneapolis, MT: University of Minnesota Press.
- Schradie, J. (2019). The revolution that wasn't: How digital activism favors conservatives. Cambridge, MA: Harvard University Press.
- Scrivens, R., & Amarasingam, A. (2020). Haters gonna "like": Exploring Canadian farright extremism on Facebook. In M. Littler & B. Lee (Eds.), Digital extremisms: Readings in violence, radicalisation and extremism in the online space (pp. 63–89). Cham, CH: Springer International Publishing. https://doi.org/10.1007/978-3-030-30138-5\_4
- Shields, R. (2000). Hypertext links: The ethic of the index and its space-time effects. In A. Herman & T. Swiss (Eds.), *The World Wide Web and contemporary cultural theory* (pp. 145–160). Oxfordshire, UK: Routledge.
- Shifman, L. (2011). An anatomy of a YouTube meme. *New Media & Society*, 14(2), 187–203. https://doi.org/10.1177/1461444811412160
- Small, T. (2011). What the hashtag? *Information, Communication & Society*, 14(6), 872–895. https://doi.org/10.1080/1369118x.2011.554572
- Starbird, K. (2019). Disinformation's spread: Bots, trolls and all of us. *Nature*, *571*(7766), 449–449. https://doi.org/10.1038/d41586-019-02235-x. Medline:31341295
- Starbird, K., Arif, A., & Wilson, T. (2019). Disinformation as collaborative work: Surfacing the participatory nature of strategic information operations. *Proceedings of the ACM on Human-Computer Interaction*, 3(CSCW), 127:1–127:26. https://doi.org/10.1145/3359229
- Tromble, R. (2021). Where have all the data gone? A critical reflection on academic digital research in the post-API age. *Social Media* + *Society*, 7(1), 2056305121988929. https://doi.org/10.1177/2056305121988929
- Tunney, C., & Ling, P. (2020, July 6). Corey Hurren had multiple firearms, uttered threat against Trudeau, court documents allege. *CBC News*. Retrieved August 21, 2022, from https://www.cbc.ca/news/politics/hurren-firearms-charge-1.5639043
- Woods, H. S., & Hahner, L. (2018). Make America meme again: The rhetoric of the altright. Bern, CH: Peter Lang Publishing.
- Zannettou, S., Caulfield, T., Blackburn, J., De Cristofaro, E., Sirivianos, M., Stringhini, G., & Suarez-Tangil, G. (2018). On the origins of memes by means of fringe web communities. ArXiv:1805.12512 [Cs]. Retrieved August 21, 2022, from http://arxiv.org/abs/1805.12512

- Zannettou, S., Caulfield, T., Bradlyn, B., De Cristofaro, E., Stringhini, G., & Blackburn, J. (2019). Characterizing the use of images by state-sponsored troll accounts on Twitter. *ArXiv:1901.05997 [Cs]*. Retrieved August 21, 2022, from http://arxiv.org/abs/1901.05997
- Zimonjic, P. (2019, September 18). Trudeau says he is "deeply sorry" he appeared in brownface at school gala in 2001. *CBC News*. Retrieved August 21, 2022, from https://www.cbc.ca/news/politics/trudeau-brownface-arabian-nights-1.5289165

## Appendix 1. Detailed data sample

- Subreddits: canada, canadaleft, canadapolitics, canadapoliticshumour, canadianpolitics, lpc, MetaCanada, ndp, onguardforthee, piratepartyofcanada
- Twitter Hashtags: #BlocQc, #GPC, #cdnpoli, #polcan, #NDP, #canpoli, #Cdnpoli, #CPC, #cpc, #LPC, #elxn43, #PPC, #cndpoli, #CdnPoli
- Facebook pages and groups: "Canada Proud," "Don't Drink the Canadian Cool-Aid," "Game Changers," "Justin Trudeau Not," "Justin Trudno," "JustinTrudeauNot," "Leftist Memes for New Democrat Teens," "Mad Max Bernier," "National Meme Board of Canada," "NL Strong," "North99," "OccupyCanada," "Old Stock Canadian," "Quebec FIER," "Team Scheer"

# **Appendix 2. Distribution of clusters**

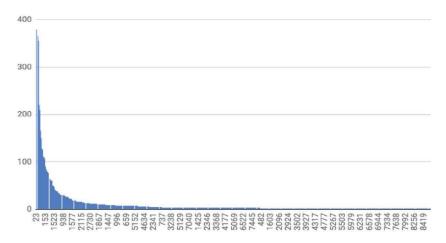


Figure 1. Clusters by number of images including retweets

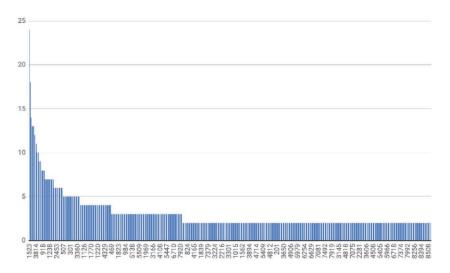


Figure 2. Clusters by number of images excluding retweets