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How did Russian and Iranian trolls' disinformation toward Canadian issues diverge and converge?

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Abstract

The study analyzes Russian and Iranian trolls' intervention in Canadian politics focusing on the 2015 election, revealing a wide spectrum of disinformation. Russian trolls showed some support for then prime minister Stephen Harper and were very critical of the current prime minister, Justin Trudeau. Also, they closely aligned themselves with conservative and far-right figures, while Iranian trolls supported the far left as well as the Palestinian cause. Iranian trolls frequently attacked the former prime minister, Harper, falsely accusing him of being a CIA agent and an ISIS supporter. However, Russian and Iranian trolls converged around the issue of the conflict in Syria with both showing support for Bashar Assad's regime and animosity toward the Syrian White Helmets group.

Keywords Disinformation · Russian trolls · Canada · Iranian trolls · Stephen Harper · Justin Trudeau

Introduction

This study examines the way Russian and Iranian trolls spread divisive themes around Canadian politics mostly using disseminators of disinformation and/or unwitting Canadian agents (Boghardt 2009; Matz 2016; Starbird 2019). Disinformation refers to the intentional dissemination of false information, and there are many studies that have paid particular attention to disinformation concerning debates over Brexit (the withdrawal of the UK from the European Union) and the 2016 US election (Allcott and Gentzkow 2017; Bastos and Mercea 2017; Bessi and Ferrara 2016; Kollanyi et al. 2016; Howard and Kollanyi 2016). This paper develops some of this work through a focus on the 2015 federal election in Canada, a case study of trolls with limited previous research. It draws on some of the major issues and themes that Russian and Iranian trolls engaged with between 2010 and 2020.

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On the one hand, Russian trolls attacked the Canadian government for condemning Russia's annexation of Crimea while repeatedly mocking Justin Trudeau for promoting liberal values; on the other hand, Iranian trolls disseminated false reports on Stephen Harper shortly before the 2015 Canadian election, suggesting that the CIA installed him as prime minister and that he was an ISIS supporter. Following the 2015 general elections, Justin Trudeau became prime minister of Canada representing the Liberal Party, taking over from Harper, the leader of the Conservative Party, who held office from 2004 to 2015. These findings of this research have various political implications, for local unwitting agents and/or disseminators of disinformation are often exploited by foreign states to serve their political interests that revolve around divisive issues. In order to avoid responsibility, trolls magnify controversial claims with the use of their wide network of social media users. Furthermore, Twitter was weaponized by these trolls who gamed the social media platform with their astroturfing activities, which are defined as "a practice of masking the sponsors of a political message or events to make it appear as though it originates from or is supported by grassroots participants" (Al-Rawi and Rahman 2020).

This study attempts to add to our understandings in two main areas: (1) the nature of Russian and Iranian trolls and their tweets relating to Canada and (2) the major themes on



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which these trolls diverged and converged. First, we need to take a closer look at the state of the art of "disinformation."

Disinformation

We are witnessing today a global dissemination of disinformation on many online platforms which is akin to an ongoing virtual warfare. Many political trolls have found highly effective means to make, spread, and reach audiences through the affordances of social media. There are a wide range of strategies utilized by political trolls to create and disseminate disinformation. These include misrepresenting data or recommendations, presenting fabricated information, and the sharing so-called insights or recommendations about a political topic from dubious sources.

This paper takes "disinformation" as the malicious and purposeful creation and dissemination of information that is known to be untrue (European Commission 2018, p. 5; Ross and Rivers 2018; Egelhofer and Lecheler 2019; Karlova and Fisher 2013; Keshavarz 2014; Tudjman and Mikelic 2003). In contrast, "misinformation" is often defined as the unintentional dissemination of false information (Al-Rawi 2019a, b; Ross and Rivers 2018, p. 2), although some scholars consider misinformation to cover all types of misleading information (Karlova and Fisher 2013; Keshavarz 2014; Tudjman and Mikelic 2003). The defining feature of disinformation, from which this paper proceeds, is that it encompasses only intentional forms of false information dissemination (Fallis 2015; Giglietto et al. 2016; Kumar et al. 2016). Examples of disinformation, therefore, include the spreading of false information by state-sponsored political groups to influence public opinion or the publication of fake Web sites by ordinary individuals to collect ad revenues (Farkas and Schou 2018, p. 298). Disinformation, furthermore, is often discussed in relation to the idea of informational attentionhacking, for instance in the form of "infostorms" (Hendricks and Hansen 2016), an "infoglut" (Andrejevic 2013) or "information overload" (Kovach and Rosenstiel 2011).

Whether disinformation or misinformation, a key concern is their potential impact on people's perception of reality, stemming from the issue of inherent human bias (Allcott and Gentzkow 2017; Lazer et al. 2018, p. 1094; Bronstein et al. 2019; Colliander 2019). This has consequences for social cohesion as well as for the functioning of democracies, so it is important to see "disinformation campaigns as a technology for the facilitation of social polarization and the destruction of strong social ties." (Asmolov 2018, p. 69).

During the 2016 US election, for example, individuals and parties from Eastern Europe, Russia, Canada, the USA, and the UK (Timberg 2016) were actively involved in spreading disinformation. An analysis by BuzzFeed News found that the most popular false "election news stories

generated more total engagement on Facebook than top election stories from 19 major news outlets combined" (Silverman 2016). Some of these disinformation disseminators from Canada and Georgia were involved in these efforts for the sake of profit. This included, for example, Bega Latsabidze from Georgia who admitted that he often spread disinformation stories about Hillary Clinton which went viral (Higgins et al. 2016). BuzzFeed News, furthermore, identified about 100 pro-Trump Web sites based in a small town in the Republic of North Macedonia operating for monetary gains (Silverman and Alexander 2016). Another person involved in producing disinformation stories was Paul Horner, an American who created a Facebook empire and once claimed, "I think Donald Trump is in the White House because of me" (Dewey 2016). Jonathan Albright characterizes these sites as a "micro-propaganda machines":

Most are simple in design, and many appear to be made from the same Web templates. These sites have created an *ecosystem of real-time propaganda*: they include viral hoax engines that can instantly shape public opinion through mass "reaction" to serious political topics and news events. This network is triggered on-demand to spread false, hyper-biased, and politically-loaded information (2016, parag. 4).

These fake Web sites complement the virtual warfare efforts of some nation-states, because they are cheaper to operate and can potentially reach wider audiences. Hence, it is important to focus on these information operations, as they provide key insights on the inner-workings of trolling activities. Overall, there is much greater attention afforded to the study of Russian trolls than to their Iranian counterparts. In his book Nothing is true and everything is possible (2017), Peter Pomerantsev mentions the post-Cold War political cynicism and mistrust that prevails in Russia and how this influences foreign policy decisions including the Kremlin's propaganda. One of the major tools highlighted by the author is Russia Today, the state-controlled international television network that is often cited by Russian trolls in their dissemination of Pro-Kremlin messages. With the increasing use and popularity of social media, Russia started waging hybrid warfare against Western targets especially in the USA and UK. In relation to the 2016 US election, "Russia and its proxies combined cyberattacks with psychological operations and exploited social media platforms to stoke societal tensions and discredit the anti-Kremlin candidate, Hillary Clinton" (Polyakova and Boyer 2018, p. 2). A study by Zannettou et al. (2019), for example, examined 10 million tweets and about 5500 Reddit users to understand the nature of online discussions by Russian and Iranian trolls. The authors found that Russian trolls were mostly pro-Trump, and they exerted more influence in sending URLS to different sites like Twitter, Reddit, 4chan's Politically Incorrect



board (/pol/), and Gab. In contrast, their findings suggested Iranian trolls tended to be anti-Trump and more active in their engagement on (/pol/).

A separate study, conducted by Elswah et al. (2019), examined Arabic-language tweets disseminated by Iranian trolls targeting the countries of the Arab world. The authors found that most tweets promoted pro-Iranian, Arabic-language Web sites which focused on attacking Saudi Arabia and supporting the Syrian regime and its president, Bashar al-Assad. Similar to Elswah et al.'s study, a report published by the Atlantic Council highlights how Iranian trolls on Facebook and Twitter mostly promoted Iran's narratives and propaganda to serve its geopolitical interests (Brooking and Kianpour 2020). The authors, however, found no evidence that the trolls attempted to influence previous US elections, but cautioned that they might attempt to do so in the coming elections (Brooking and Kianpour 2020).

Finally, my earlier work revealed the anti-Trump tone of Iranian trolls (Al-Rawi 2019a, b) in contrast to the case of Russian trolls who supported Trump and focused on divisive racial issues in the USA (see, for example, Badawy et al. 2018; Kim et al. 2019; Freelon et al. 2020; Linvill and Warren 2020). By examining the nature of the Russian and Iranian trolls' discussion of Canadian issues, this study attempts to answer the following research questions:

RQ1 What are the principal themes of Russian and Iranian trolls' tweets on Canada?

RQ2 How did these trolls diverge and converge in their disinformation campaigns targeting Canada?

Method

In this study, I used a mixed methods approach employing descriptive analysis, visualization, and thematic interpretation. First, the data was collected from Twitter's Election Integrity Data Archive (Elections Integrity, n.d.), using the unhashed dataset because of the need to identify the names of some of the trolls. The Twitter datasets that have been released so far belong to several state-run trolls like China, Russia, Saudi Arabia, the UAE, Bangladesh, and Venezuela, and they contain both textual and multimedia data. All the datasets were collected in August 2020. In this study, I only focused on the tweets. In relation to the Russian trolls, Twitter released four datasets totaling 13,124,189 tweets: (1) Internet Research Agency (October 2018)—3613 accounts,

(2) Russia (January 2019)—416 accounts, (3) Russia (June 2019)—four accounts, (4) Russia (May 2020)—1152 accounts. As for Iranian trolls, Twitter released a total of 9,314,829 tweets taken from five datasets: (1) Iran (October 2018)—770 accounts, (2) Iran (January 2019)—2320 accounts, (3) Iran (June 2019, set 1)—1666 accounts, (4) Iran (June 2019, set 2)—248 accounts, (5) Iran (June 2019, set 3)—2865 accounts. In total, the study processed 22,439,018 tweets using a Python script.

I focused my attention on Canadian issues in order to understand how they were discussed by Russian and Iranian trolls due to the lack of empirical studies on this country. I used over 50 relevant search terms² in English, Russian, and Persian languages to identify relevant tweets and ignore any duplicates, using a Python script (GitHub 2018). I borrowed some of these search terms from a previous CBC investigative report on Russian trolls which used limited Twitter data released by FiveThirtyEight (GitHub 2018). Though our list is not exhaustive, I believe that these search terms are the most relevant to the study. There were a few other ones used in the CBC report which I did not include because they were either too general or they referenced minor figures. After filtering the datasets, the results showed that Russian trolls sent 20,463 tweets from February 13, 2010, to December 6, 2019, while Iranian trolls sent a total of 13,079 tweets from January 31, 2011, to May 2, 2019 (Fig. 1). In total, the study focused on 33,542 tweets posted by Russian and Iranian trolls dealing with Canada. The Russian trolls retweeted 8330 posts (35%), while Iranian trolls retweeted 4357 posts (20.8%); hence, the percentages of original tweets were similar in the two groups of trolls.

In order to answer the first research question on the major themes discussed by the trolls and their audience

² The keywords I used for the Russian trolls datasets are the following ones (30 words in English and 23 ones in Russian): 'Harper', 'Mulcair', 'Bernier', 'Blanchet', 'canada', 'canadian', 'trudeau', 'justintrudeau', 'toronto', 'montreal', 'vancouver', 'ottawa', 'onpoli', 'polqc', 'cdnpoli', 'scheer', 'thejagmeetsingh', 'jagmeet singh', 'topoli', 'quebec', 'qcpoli', 'halifax', 'edmonton', 'calgary', 'alberta', 'ontario', 'winnipeg', 'manitoba', 'saskatchewan', 'british colum-'Муллер', 'Берниер', 'Бланцхет', 'Харпер', 'Канада', 'канадский', 'трюдо', 'торонто', 'монреаль', 'ванкувер'. 'оттава', 'Эндрю Шеер', 'джагмит сингх', 'Квебек', 'Галифакс', 'Эдмонтон', 'Калгари', 'Альберта', ' нтарио', 'Манитоба', 'Саскачеван', 'Британская Колумбия'. As for keywords I used for the Iranian trolls datasets, they include the following ones (30 words in English and 21 ones in Persian): زى اچ ل ام ''نىيس'''نىيس''''نىيس''''نىيس''''نىيس''''نىيس''''نىيس'''نىيس 'canada', 'canadian', 'trudeau', 'justintrudeau', 'toronto', 'montreal', 'vancouver', 'ottawa', 'onpoli', 'polqc', 'cdnpoli', 'scheer', 'thejagmeetsingh', 'jagmeet singh', 'topoli', 'quebec', 'qcpoli', 'halifax', 'edmonton', 'calgary', 'alberta', 'ontario', 'winnipeg', 'manitoba', 'saskatchewan', 'british columbia'.



¹ Interestingly, I found some discrepancy in the number of hashed tweets that exceeded the number of unhashed tweets for both Russian and Iranian trolls.

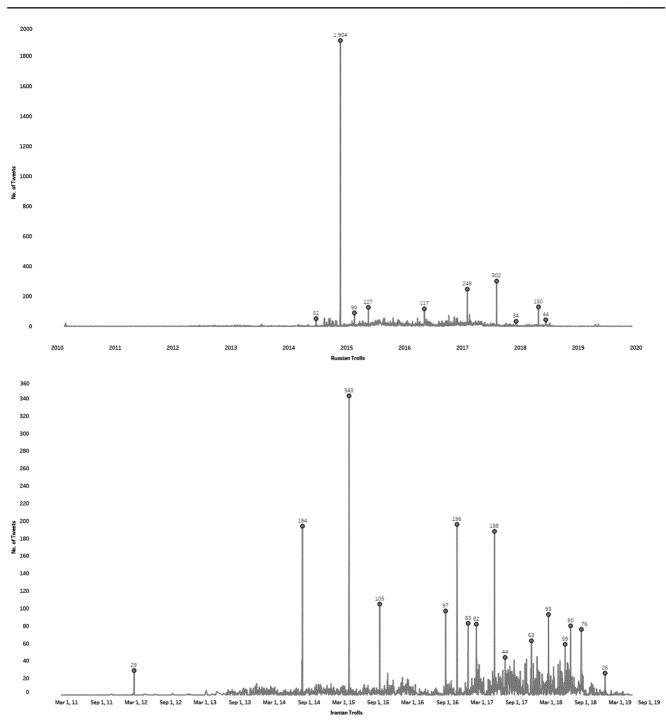


Fig. 1 Frequency of tweets referencing Canada sent by Russian and Iranian trolls

engagement, I identified the most recurrent hashtags, mentions, and retweeted posts using Python scripts, while visualization of different figures was undertaken with Tableau, a data visualization tool, to view the frequency of tweets. These measures assisted us in identifying the Russian and Iranian trolls' disinformation strategies, and how they diverged, in relation to Canada.

In her networked content analysis approach, Niederer (2019) stresses the importance of examining retweets, hashtags, and other types of networked data that can be collected from social media, while using traditional approaches such as content analysis. As Krippendorff confirms in his support for this approach, "contemporary communication is essentially networked. We create texts not just for particular



addressees, but selectively rehash, redistribute, copy, and modify texts..." (2019, p. 9). Furthermore, Salmons mentions the need to use "a holistic approach for exploring the inter-related aspects of research design in studies that use data collected online" such as qualitative measures and the use of an extant approach which is an unobtrusive method used in the examination of social media sites (2017, p. 182).

In my methodological approach, I drew on the above studies by combining computational methods and traditional ones. To interpret the findings I used Thematic Analysis (TA), which is an inductive approach based on Grounded theory and which relies heavily on interpretation and contextualization (Nowell et al. 2017). Similar to the general approach followed in networked content analysis, I also relied on data and metadata retrieved from social media such as the number of retweets, mentions, and hashtags, and I call this method networked thematic analysis. This reliance on data quantification such as using frequencies is already employed as part of Applied Thematic Analysis (Guest et al. 2011), which incorporates frequencies to ensure scientific rigor (Mackieson et al. 2019, p. 978). Networked thematic analysis borrows from the approaches described above in order to better understand what the audience has engaged with most, and different types of metadata can be used in other studies such as the number of likes, shares, views to better identify themes. In brief, the mixed method I followed helped in identifying the major themes found on social media to attain greater insight into the way Russian and Iranian trolls disseminated disinformation. With the appropriate contextualization and interpretation, it was possible to provide clear insights on the examined datasets and answer our research questions. Finally, further evidence on some prominent users was gathered from the WayBack Machine (https://archive.org/web/) since the relevant accounts were deleted.

Results and discussion

To understand the major themes that Russian and Iranian trolls most-frequently discussed and to answer the first research question, I first examined the Russian trolls' activities in relation to the 2015 Canadian federal election. In this case, Russian trolls sent the largest number of tweets (n=1904) on November 21, 2014, following the Canadian government's criticism of Russia's annexation of Crimea. All of these tweets were written in Russian, suggesting that the goal was to target Twitter users inside Russia, including messages like "What we have to do is forget about Canada until it apologizes #NoCanada." This explains why the most recurrent hashtag in the dataset is #NoCanada (n=1943) (Table 1).

Unlike their treatment of Liberal leader Justin Trudeau, Russian trolls referenced Conservative leader Stephen Harper five times in a positive way including sending tweets that either defended him or attacked his opponents. For example, one Russian troll, ShowWord, attacked an anti-Harper user calling himself @the anti harper, saying: "I am appalled you allowed to blatantly lie about Obama and Hillary, shameful, GW Bush=war criminal. #cdnpoli #RWNJ" (6/16/2015). Another Russian troll, CathyTo47590555, retweeted the following supportive message from the anti-Islam Dutch activist, Ayaan Hirsi Ali, urging Canadians to vote for Harper: "RT @ Ayaan: Dear Canadians, If you are in doubt before the polls close please vote for Stephen Harper. He is the strongest on fighting radical Islam." This retweet, alas, was sent on November 2, 2015, a few days after the election.

A major focus of Russian trolls has been attacks on the current prime minister, Justin Trudeau. Due to his liberal policies including open immigration, Trudeau has also been the target of Canadian far-right groups and their trolling activities for a long time (Patriquin 2019). He also happens to be the user most mentioned by Russian trolls (n = 241), whose tweets are either retweets or original posts (Table 2). For example, in connection to Trudeau's meeting with Trump on February 13, 2017, one tweet ridicules Trudeau and his handshake, stating: "Breaking video of Trump grabbing pussy. #TrumpTrudeau #TrudeauMeetsTrump https://t. co/Qn25K2MgOK." This post, which has been retweeted 586 times, is sent by TEN_GOP,³ the third most popular Russian troll in terms of number of followers (n = 147,767). Another tweet, sent by DominantUSA on April 24, 2018, was addressed to former conservative prime minister Stephen Harper, stating: "@stephenharper.@JustinTrudeau is a joke." In other words, Russian trolls clearly focused on supporting Harper, who was known for his strict immigration policies, while showing strong animosity against Liberal leader and current prime minister, Justin Trudeau.

The anti-Islam theme is another major issue discussed by Russian trolls. The most retweeted posts contained a range of falsehoods. For instance, @TEN_GOP sent the second most retweeted message (n = 3133), containing a fabricated claim that is widely disseminated by Russian trolls: "Criticism of Islam is ILLEGAL now in Canada, but lunatics calling for the eradication of all Jews are allowed to live there? Unbelievable. https://t.co/Ytvgk3VmuT" This claim was originally promoted by the Canadian far-right media outlet, Rebel Media, that published numerous stories on what they dubbed the "blasphemy law," claiming it to be an attack on

³ The user describes himself as follows: "Unofficial Twitter of Tennessee Republicans. Covering breaking news, national politics, foreign policy and more. #MAGA #2A."



Table 1 The top 50 most referenced hashtags by Russian and Iranian trolls

	*										
No.	Russian	Frequency	No.	Russian	Frequency	No.	Iranian	Frequency	No.	Iranian	Frequency
Τ.	nocanada	1943	26.	health	64	T.	canada	1965	26.	nodapl	75
5	news	808	27.	baseball	64	2.	cdnpoli	326	27.	muslim	73
3.	sports	782	28.	entertainment	62	3.	toronto	272	28.	NS	72
4.	канададно	770	29.	MAGA	09	4.	canadian	190	29.	dmnn	69
5.	ненавижуканадузабибера	498	30.	topnews	59	5.	breaking	184	30.	saudi	64
9.	world	302	31.	newskino	55	9.	dnepec	164	31.	usa	09
7.	canada	302	32.	Qanon	54	7.	ottawa	127	32.	shutdowncanadianembasssy	58
∞.	maketvshowscanadian	273	33.	ifiweretedcruz	52	∞.	canadastandsforkhalistan	124	33.	wildlife	57
9.	cdnpoli	239	34.	chicago	51	9.	ontario	118	34.	canada150	54
10.	environment	224	35.	8230	50	10.	science	113	35.	q4t	52
11.	politics	141	36.	banislam	48	11.	syria	1111	36.	bahrain	50
12.	stopnazi	137	37.	M103	47	12.	shutdowncanadianembassy	107	37.	humanrights	50
13.	hatecanadaforbieber	119	38.	белиберы	47	13.	photography	100	38.	palestine	48
14.	канада	100	39.	tech	46	14.	islamophobia	100	39.	canadians	48
15.	hockey	86	40.	mtvstars	44	15.	harper	66	40.	alberta	47
16.	local	95	41.	newyork	43	16.	nature	66	41.	nafta	45
17.	toronto	93	42.	showbiz	42	17.	art	94	42.	justintrudeauforkhalistan	45
18.	россияканада	68	43.	prayforfsu	42	18.	alyan	93	43.	gaza	44
19.	TCOT	68	4.	islam	41	19.	trudeau	82	4.	اداناک	44
20.	breaking	98	45.	спорт	40	20.	aleppo	82	45.	manitoba	44
21.	business	85	46.	survivalguide- tothanksgiv-	40	21.	montreal	81	46.	BDS	43
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22.	новости	92	47.	foke	39	22.	sky	81	47.	saudiarabia	42
23.	life	92	48.	canadian	38	23.	israel	92	48.	muslims	41
24.	trudeau	75	49.	dnepec	35	24.	earth	75	49.	nokxl	41
25.	стопнаци	74	50.	USA	35	25.	vancouver	75	50.	adventuretrailrunning	40



Table 2 The top 50 most mentioned users by Russian and Iranian trolls

No.	Russian	Frequency	No.	Russian	Frequency	No.	Iranian	Frequency	No.	Iranian	Frequency
] - 	justintrudeau	241	26.	tass_agency	48	I.	libertyfrontpr	264	26.	enmweather	30
2.	albertainfidel	212	27.	glennmcmillan14	48	2.	justintrudeau	188	27.	globeandmail	30
3.	midnight	200	28.	lentaruofficial	48	3.	countdown2040	173	28.	torontostar	29
4.	canadiansphynk	164	29.	talibkweli	47	4.	ultracruzcanada	167	29.	pmharper	29
5.	cathyto47590555	161	30.	postsovet	46	5.	RT_com	121	30.	unitealbertans	28
9.	rianru	151	31.	gazetaru_all	46	9.	geena_igt	92	31.	newsquebec	27
7.	Realdonaldtrump	147	32.	sigermon	45	7.	radiocanadainfo	81	32.	americanindian8	27
∞.	ezralevant	101	33.	zubovnik	45	<u>«</u>	donya2r2016	80	33.	junaidrao	27
9.	nashacanada	100	34.	foxnews	43	9.	newsfoxlive	78	34.	quebec_rt	26
10.	tarekfatah	95	35.	manny_ottawa	43	10.	huffpostquebec	29	35.	earthpixhd	25
11.	russian	87	36.	kafirkaty	40	11.	presstv	63	36.	berniesanders'	24
12.	riafanru	81	37.	torontoreggae	40	12.	harpersbazaarus	53	37.	ahmaddastaran	24
13.	vesti_news	77	38.	raja_habib	39	13.	intifada	50	38.	muharraq_rebels	24
14.	foto_blog	74	39.	stephen_taylor	39	14.	youtube	49	39.	boldnebraska	23
15.	Potus	73	40.	meldonnelly1948	39	15.	mikehudema	48	40.	khatijahfatima	23
16.	gazetaru	89	41.	ayazmian1	39	16.	realdonaldtrump	47	41.	rdotm	23
17.	charlesjharper	64	42.	brassidio	39	17.	naeemtoronto	41	42.	libertyfrontp	21
18.	cbcnews	63	43.	josephjett	38	18.	metromontreal	41	43.	jdemontreal	20
19.	glennharper_	62	44.	mariamozhaiskay	38	19.	edpresstv	40	44.	huffpostcanada	20
20.	ravenhuwolf	61	45.	creepingsharia	38	20.	remymichaels	40	45.	cbctoronto	19
21.	therebeltv	59	46.	canada4bernie	38	21.	q4tofficial	39	46.	sabena_siddiqi	19
22.	maxdementiev	52	47.	gamiliell	35	22.	whatsupic	36	47.	toronto_rt	19
23.	youtube	52	48.	canadiansparty1	32	23.	cbcnews	34	48.	uroojdossal	19
24.	thetorontosun	52	49.	saminfidel	32	24.	aliabunimah	30	49.	starrytoronto	18
25.	amymek	50	50.	spacyeva	32	25.	jimwatsonottawa	30	50.	thecurrentcbc	18

Fig. 2 A screenshot of the second most referenced user by Russian trolls. Screenshot taken from the WayBack Machine, since the user's account is suspended



free speech (The Rebel Media 2017b, c). In reality, this is a reference to M-103 which is not a bill but a non-binding motion that condemned Islamophobia following the Quebec mosque shooting in January 2017. This explains why there are 57 references to M103 in the dataset and the term is ranked 37 as the most frequent hashtag. Another prominent Russian troll calling himself @SouthLoneStar⁴ disseminated the same type of disinformation, saying for example: "Wow. Unbelievable. Criticism of Islam no longer legal in Canada. What's wrong with you, people? https://t.co/ZDHQe270DL." This message, which received 1798 retweets, is also the most replied to tweet posted by Russian trolls in the dataset (n = 690).

Related to the previous discussion, another major theme Russian trolls focus on is their support for Trump and other far-right figures. Table 2, for example, offers a list of the most mentioned users which further shows the attention given by Russian trolls to certain political actors. Great attention is afforded to conservative figures such as @ Realdonaldtrump (n = 147) (ranked 7) and @ Potus (n = 73)(ranked 7) as well as far-right groups and media outlets in Canada like @Ezralevant (n = 101) (ranked 15), @Tarekfatah (n=95) (ranked 10), @TheRebeltv (n=59) (ranked 21). The latter are known for their anti-Islamic views, and they are actively involved in disseminating disinformation or are aligned with conspiracy theorists like Alex Jones and QAnon. Tarek Fatah, for example, is a regular contributor to Rebel Media, and he has previously been accused of disseminating disinformation to promote Indian President

⁴ This user describes himself as follows: "Proud TEXAN and AMERICAN patriot #2a #prolife #Trump2016 #TrumpPence16 Fuck

Islam and PC. Don't mess with Texas!".

Narendra Modi via fake Canadian news Web sites (Yates and Bellemare 2019) and of disseminating far-right claims, falsely suggesting that the 2018 Toronto Van Attack was conducted by a Muslim (Goldsbie 2018). Furthermore, Russian trolls referenced other far-right figures and journalists from Rebel Media including @Lauren_Southern (n=7) and @FaithGoldy (n=7).

Many other anti-immigrant and Islamophobic messages were promoted by Russian trolls in their references to @ creepingsharia (n=38), @kafirkaty (n=40), and @Ravenhuwolf (n=61) and the second most mentioned user, @ Albertainfidel (n=212) (Fig. 2), who was allegedly a Canadian member of the Soldiers of Odin and a promoter of the discredited Pizzagate conspiracy theory.

Another user among the most mentioned is @Amymek (n=50), who promoted the false claim originally made by Rebel Media suggesting that the 2017 Quebec Mosque shooting involved a Canadian government cover-up aimed at hiding the alleged Muslim perpetrators of the attack; in reality, of course, the massacre was carried out by a white nationalist from Quebec (Fig. 3). In fact, this user acts like a far-right troll, exhibiting behaviors identified by Linvill and Warren in their study of Russian trolls (2020). Russian trolls promoted this outrageous false claim only 1 day after the Quebec attack, embellishing their unfounded claims in



⁵ Despite all the evidence, Rebel Media never deleted or retracted the false claims on the real perpetrator of the Quebec Mosque shooting, even suggesting it was an inside job (The Rebel Media 2017a) or casting doubt about the actual narrative suggesting there is a conspiracy. Such videos can still be found on YouTube (nwC76n99jiY) (gV62pqS7AAA) which garnered over half a million views.



Fig. 3 A screenshot from The Rebel TV's Faith Goldy promoting a conspiracy theory about the Quebec mosque shooting

various ways. For instance, TEN_GOP⁶ posted the following false message which was retweeted 1784 times: "BREAK-ING: Quebec city mosque attacker shouted 'Allahu akbar'—Radio Canada witness." Another message, retweeted 550 times, made the following bogus claims: "Media say that #QuebecShooting was organized by 'white supremacists'. Here are the names of the shooters: Basheer Al Taweed andamp; Hassan Matti https://t.co/dMpBEPl3cC." This tweet has the third most replies (n = 330). Even in the Russian-language tweets, there are several messages that echoed this conspiracy, including this ironic take: "The Canadian prime minister called the shooting in Quebec a terrorist act against Muslims. And the Holocaust was then a terrorist attack on the German people" (translated from Russian).⁷

Here, the examination of the most recurrent hashtags corroborate the findings of Russian troll support for conservative voices such as their extensive use of hashtags like #TCOT (n=89), #MAGA (n=60), and #Icelebratetrumpwith (n=28) as well as other relevant ones like the conspiracy theory group QAnon (n=54) and their associated hashtag #Followthewhiterabbit (n=20). Finally, other popular anti-Islamic hashtags include #BanIslam (n=48),

#Islamistheproblem (n = 30), and #Stopimportingislam (n = 31) (Table 1).

In sum, the major themes Russian trolls engaged with include promoting conservative and far-rights figures in North America and attacking Islam, immigrants and the liberal Canadian prime minister, Justin Trudeau.

Iranian trolls, for their part, focused their attention on different and sometimes contradictory messages, although mostly tending to support the far left. One of the major targets of attention for the Iranian trolls was Stephen Harper. In relation to the messages promoted before the October 2015 Canadian election, the highest number of tweets was just a few months earlier on March 30, 2015. On this date, the top post was sent only in French,8 indicating the intention to target Quebec and potentially influence their voters, and the message stated, "ISIS recruiter and Canadian Embassy in Jordan" which focused on the story, originally disseminated by some Turkish news media a few days earlier, of an alleged connection between Harper's appointed ambassador to Jordan and an ISIS Syrian recruiter (Chase and Freeze 2015; Fekete et al. 2015). However, some Canadian Web sites in Canada such as Global Research, whose Twitter handle @ CRG_CRM is referenced five times by the Iranian trolls, used this story to question whether Canada is a "state sponsor of terrorism" (Chossudovsky 2015). Criticism of Harper is not only confined to this theme, but rather spanned several other strategic areas. For instance, a couple of Iranian trolls retweeted the following assertion about the oppositional Iranian group, People's Mojahedin Organization (MEK): "RT @aidemarang: @stephenharper It's a shame that the former PM of Canada attended a terrorist cult gathering. #BanMEK #BanTerrorOrg."

A particularly far-fetched example of disinformation disseminated by the Iranian trolls is their promotion of the false claim that Harper was installed by the CIA as prime minister. Here, Iranian trolls retweeted the following message 30 times in different formats: "Canada's Quiet Coup: How a CIA Off-shoot Helped Install Stephen Harper as Canada's Prime Minister http://t.co/62BBFtE8vz's-quiet-coup.html." The tweets were posted between November 7, 2014, and October 11, 2015, just a few days before the general election, and the claim was promoted by Global Research News, though it first appeared on the Iranian conspiracy site http://

⁹ Global Research site is known to disseminate disinformation favorable toward Syria, Iran, and Russia (Ahmad 2017) including conspiracy theories about the US supporting ISIS (Cartalucci 2015; Hagopian 2015). Such false claims can also be found in the reports of the state-run Russian news channel, Sputnik and RT (formerly Russia Today) (see, for example, Sputnik 2017).



⁶ Though it is not a political theme, @TEN_GOP also disseminated disinformation about a nonexistent explosion in Toronto on May 1, 2017, stating: "BREAKING NEWS: A huge explosion has been reported in #Toronto, Canada. https://t.co/DHohfpf8Bq." The fabricated message got 988 retweets, and Twitter users' replies to this imaginary incident are still available online and can be viewed in the following link: https://twitter.com/TEN_GOP/status/8591657152 86417408.

⁷ The actual Russian-language tweet reads as follows: "Канадский премьер назвал стрельбу в Квебеке терактом против мусульман. А Холокост тогда был терактом против немецкого народа."

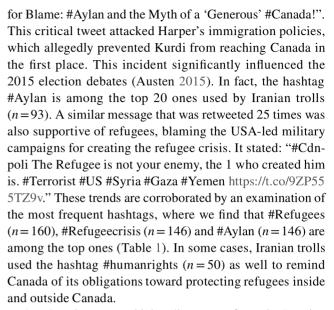
⁸ The original tweet mentions the following: "Un lien entre recruteur de l'Etat islamique et l'ambassade du Canada en Jordanie s'ébruite http://t.co/SOVTE9mZQD."

whatsupic.com/¹⁰ and later on a blog linked to Huffington Post Canada (Taliano 2014a, b). Interestingly, this claim was loosely shaped from a Wikileaks cable that neither referred to Harper nor his Conservative Party of Canada (Wikileaks 2005).

To address the second research question, we need to turn to areas of divergence between Russian and Iranian trolls. With regard to discussions of Islam, we see a clear divergence: Iranian troll never expressed any criticism. Indeed, Pro-Islam content was popular among Iranian trolls who frequently trolled users who criticized Islam including targeting the anti-Islam activist, Tarek Fatah. In one of his controversial tweets, Fatah claimed that honor killing is culturally rooted in Islam, prompting Iranian trolls to retweet many counter messages that called for closing the Canadian Embassy in Pakistan such as "RT @BilalBhatti80: #Shut-DownCanadianEmbassy You cannot consider hate speech as freedom kick out this rascal Tarek Fateh from Canada" or "RT @KhatijahFatima: #ShutDownCanadianEmbasssy Tarek Fateh is abusing and spreading disinformation against our religion Islam! Canadian...". In fact, the call to close the Canadian Embassy was repeated 135 times by Iranian trolls, amplified with the hashtag #ShutDownCanadianEmbasssy (Table 1).

In connection to this theme, Islamophobia and motion M-103 were frequently discussed by Iranian tools, who showed clear sympathy toward Muslims and a strong rejection of white nationalism. Iranian trolls, for instance, tweeted the following message six times, "Rights groups in Canada endorse anti-Islamophobia charter" and even retweeted Justin Trudeau's French message, stating "Rappel: Au Canada, la liberté vaut pour tous. #M103 (voyez le discours intégral de mars 2015: http://bit.ly/2kOs3BK)."11 Another retweet mentions the following: "RT @ shireenahmed: Absolutely gutted to see this in Toronto. Islamophobia festers in Canada. #M103." The Twitter user here expressed her concern over a far-right protest in front of a Toronto mosque that was organized because of the M-103 motion. In fact, Iranian trolls mentioned the hashtag #Islamophobia 100 times (Table 1).

Another major theme found in the Iranian trolls' tweets was sympathy and support for refugees. For instance, the most retweeted post (n=85 in different formats) deals with Alan Kurdi, the Syrian refugee child who drowned in September 2015, stating: "RT @Geena_IGT: Now Is the Time



Another theme on which a divergence from the Russian state-sponsored users is evident is the Iranian trolls' strong support for Palestine and Indigenous issues in Canada. Here, the most retweeted posts were overwhelmingly supportive of the Palestinian cause and the Boycott, Divestment, Sanctions (BDS) movement. The hashtags #Palestine (n = 48) and #FreePalestine (n = 39), for instance, were frequently used, often accompanied with others, for example: #BDS (n=43), #BoycottIsrael (n = 15), #warcrimes (n = 6), and #ApartheidIsrael (n=4) (Table 1). Furthermore, Iranian trolls showed great sympathy toward Indigenous causes in their use of the hashtag #Aboriginals (n=9) (Table 1) and repeatedly referencing the word "genocide" and the hashtag #humanrights to describe the ill treatment of Indigenous people and culture in Canada. For example, one Iranian troll tweeted: "#UN Says #Canada In Crisis Over Treatment of #Aboriginals http://t. co/QnJySdSBeB." This is another politically sensitive topic, especially the issue of missing and murdered Indigenous women, and one which could be used to provoke strong reactions on Twitter.

Unlike Russian trolls, Iranian trolls showed support for Justin Trudeau and strong sympathy toward the cause Khalistan's independence, a nationalist movement whose goal is the creation of a Sikh state in northern India. This is another major theme found in the Iranian trolls' tweets, and it is regarded as a sensitive matter among the Indo-Canadian community. Trudeau's perceived ties with the Sikh community in Canada have already created political and diplomatic tension with India (Dyer 2018), and Iranian trolls seemed interested in using this issue to gain more sympathetic followers and possibly create online tension. This is evident in the use of some frequent hashtags like #CanadaStands-ForKhalistan (n = 124) and #JustinTrudeauForKhalistan (n = 45) and: "point to be noted #CanadaStandsForKhalistan



¹⁰ The cyber security company ClearSky stated that Whatsupic got its news in different languages from RT.com (ClearSky 2018, p. 40). In fact, Whatsupic was referenced 593 times by Iranian trolls, indicating the heavy reliance on this disinformation platform.

¹¹ The tweet can be translated into: "Reminder: In Canada, freedom is for everyone. #M103 (see the full speech of March 2015: http://bit.ly/2kOs3BK)."

Thank you Justin. Thank you for taking a right stand https://t.co/XETVv6FctJ."

The primary theme on which the Russian and Iranian trolls converge is the war in Syria, owing to Russia and Iran's military involvement and strategic interests in the Middle East. In this regard, both sets of trolls heavily relied on RT news (Russia Today) in sourcing disinformation. For example, the Iranian trolls' ninth and tenth most retweeted post (n = 129 combined) is: "RT @Donya2R2016: Canadian journo totally crushes MSM reporter on what's actually going on in #Syria #Aleppo https://t.co/HBEPwvRQSm." This tweet referred to the Canadian self-proclaimed activist Eva Bartlett, known to be a staunch supporter of Putin and Assad's regimes. In this tweet, she claimed that the Syrian White Helmets group were not even present in Aleppo, and that they were terrorists, while also discrediting mainstream news media reports about the casualty numbers of Syrian children (Ahmad 2017; Worrall 2016). Such claims were also widely disseminated by Iranian and Russian state-run channels like Al-Alam and RT (Al-Alam 2016; RT 2018). In fact, Iranian trolls used numerous stories from @RT com (n=121) (ranked no. 5) and from Iranian disinformation platforms such as Liberty Front press (FireEye 2018), which is the most mentioned user by Iranian Trolls @libertyfrontpr (n=264), ¹² as well as @Countdown2040 that discusses the fall of Israel. 13 The latter Web site is the third most mentioned user by Iranian trolls (n = 173), ahead of the official state-affiliated network @PressTV which is cited 64 times (Table 2). The emphasis on the war in Syria can also be seen in the top hashtags, which include #Syria (n = 111; ranked 11) and #Aleppo (n = 82; ranked 20) (Table 1).

When it comes to the war in Syria, Iranian trolls, owing to their shared support of Bashar Assad's regime and opposition to the USA-led coalition, agreed with their Russian counterparts in framing the Nobel Prize-nominated White Helmets group as terrorists. This was the major theme that they both promoted while spreading disinformation around other highly emotional and divisive issues to further their strategic interests. Iranian trolls, however, focused on other themes, including disseminating the false claim that Harper was installed by the CIA and was an ISIS supporter, while repeatedly presenting him as a cruel politician due to his immigration policies. They also attacked Israel's policies toward Palestinians and strongly defended Islam while showing some support for Justin Trudeau especially in relation to his perceived sympathy toward the Indian Sikh community

and the aim of some of its members to establish an independent Khalistani state.

Conclusion

This study shows that Russian trolls helped in magnifying some controversial false claims disseminated by the farright community in Canada especially in relation to negative views on Islam and immigrants. Russian trolls attacked any voices critical of Russia's policies, and they repeatedly ridiculed Trudeau for his liberal immigration policies. However, Iranian trolls diverged from Russian trolls in their attacks on the political reputation of Stephen Harper particularly before the 2015 Canadian election. Using unwitting agents and/ or well-known Canadian disseminators of disinformation, Iranian trolls helped in spreading the false claim that Harper was installed by the CIA and that he supported ISIS. Unlike in Russian troll content, criticism of Islam and immigration was not found in Iranian trolls' messages. In contrast Iranian-backed trolls showed strong support for immigrants, as seen in the coverage of the death of the toddler Alan Kurdi, in order to criticize Harper's government. At the same time, Russian and Iranian trolls converged in promoting conspiracy theories in relation to the war in Syria due to their support of the Assad regime.

Our study aligns with the findings of previous research that Russian trolls mostly support or reinforce the views of the far right in the USA (Linvill and Warren 2020), conspiracy groups like QAnon, as well as Donald Trump (Zannettou et al. 2019). Furthermore, our study echoes earlier work looking at how Iranian trolls promote their regime's strategic interests (Brooking and Kianpour 2020). This paper, however, provides new detail and original insight into the way Canada was targeted by these trolls. Hence, the study is significant because it identifies for the first time the way Iranian trolls tried to intervene in the 2015 Canadian federal election through the dissemination of disinformation, while highlighting the communication strategies used by Russian and Iranian trolls in their support of disinformation disseminators and/or unwitting agents in Canada.

The principal finding here is that some state-run trolls were invested in promoting social divisions to serve their strategic interests, supporting communities who traded in disinformation against their opponents and whose views were situated at the two opposite ends of the political spectrum. Also, the themes these trolls focused on have the potential to ignite strong emotional reactions among Canadian audiences especially in relation to political polarization, freedom of speech, religion, immigration, and the Palestinian-Israeli conflict.

These findings can be useful to policy makers whether in Canada or elsewhere to identify local unwitting agents



¹² It seems that this username was later changed into @libertyfrontp (n=21) (Table 2).

¹³ The Instagram account of this Iranian propaganda Web site is still available online and can be accessed here: https://www.instagram.com/countdown2040.com_insta/.

and disseminators of disinformation to create special units to monitor and warn the public of potential similar future activities. Also, social media platforms such as Twitter and Facebook need to go further in identifying controversial claims or disinformation operations in an effort to inhibit their distribution. Finally, educators and academics can use some of the evidence examined here in their teaching and research on the activities of state-run trolls in different national contexts. The findings can offer a useful comparative perspective especially given that most previous studies on computational propaganda focus on the USA and the UK.

In terms of the study's limitations, I used only just over 50 keyword searches, and this could be decreased or increased to focus, for example, on one Canadian issue or province. Further, Twitter's Election Integrity databases are continuously updated as more tweets are added, so it is important to continue this kind of critical inquiry to study the way trolls from different national backgrounds targeted Canada and other under-researched countries. Finally, it is very important to include the accompanying multimedia in future analyses of state-sponsored trolling activities, and to this end, we need to develop innovative digital methods to automate the process of harvesting and analyzing millions of images and videos.

Compliance with ethical standards

Conflict of interest The corresponding author states that there is no conflict of interest.

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