Technical briefing on the state of the information ecosystem, August 2024 🔹 www.cdmrn.ca

## Introduction

Welcome to the fourth edition of the **Canadian Information Ecosystem** Situation Reports! Each month, we report on the state of the information ecosystem in the previous month as it relates to politics, media, and the broader state of democracy. Our goal is to enhance collective understanding of the stable and dynamic dimensions of the Canadian information ecosystem (CIE), articulate its vulnerabilities, and characterize current and emerging information threats. Our Method combines digital trace data (social media analysis of Canadian individuals and organizations that are politically influential across TikTok, X/Twitter, Instagram, Facebook, YouTube, and Telegram), opinion tracking (a monthly survey of the Canadian population), and media monitorina.

## **Key findings:**

- Canadians want the government to get involved in the fight against bots — public opinion this month shows that Canadians prefer that the government investigate bot incidents on social media (58%). Many Canadians also believe that social media platforms should do more (44%).
- The ecosystem has become slightly more polarized — increased insularity scores across all parties suggests that communities in the CIE have drifted further apart and are talking to each other less. Members of the NDP and Liberals in particular were more
- divided in August perhaps foreshadowing the dissolution of the supply-and-confidence agreement.
- Engagement with misinformation and concern about fake content increases Canadians are slightly more concerned about generative AI (+2.3%) and foreign interference (+1.8%) than last month, while engagement with links to known misinformation sites has increased (+6.8%). Canadians may be concerned about misleading AI generated content (perhaps due to the Kirkland Lake bot incident), but we speculate they find it challenging to identify various forms of misinformation.

## Important note for this month:

This month's Situation Report does not include data from Facebook due to Meta's decision to shut down Crowdtangle, a research tool for monitoring the

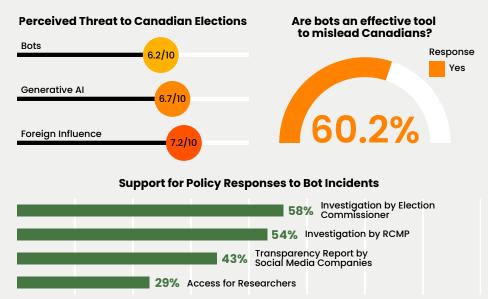
platform. All measures using social media data reflect month-to-month changes with all Facebook data excluded.

## **Ecosystem Snapshot**

# What's all this buzz about bots?

Each month we provide a visualization of the CIE that highlights key findings. In light of the bot activity on X surrounding Pierre Poilievre's visit to Kirkland Lake in late July/early August, we focus this month on bots — specifically, what are bots, to what extent they are a threat to the Canadian information ecosystem, and who is responsible (you can read our full analysis of the Kirkland Lake bot incident here.)

A **bot** is just a program that does repetitive tasks online. On social media, the most dangerous bots appear to be real people, but are usually part of a single network that work to amplify content, spread misinformation, or harass or scam actual users. Political bot networks specifically attempt to mislead social media users by engaging with political topics, repeating similar sentiments many times from many different accounts to give a false impression about public opinion. These bots can spread and amplify disinformation and present an important vulnerability on social media and in the CIE.



We find that 60.2% of Canadians think bots are an effective tool to mislead the country and impact public opinion, but consider generative Al and foreign interference to be a bigger threat to Canadian democracy. Put together, these three threats amplify each other: with the proliferation of cheap, user-friendly generative Al tools, it is now easier for malicious foreign actors to create more elusive bot networks and interfere in Canadian political discourse. Canadians also prefer the

government to investigate bot incidents rather than compel social media platforms to do so: when asked how they think the government should respond to the Kirkland Lake bot incident, most Canadians wanted the RCMP (54.4% of respondents) or the Election Commissioner (57.8%) to investigate, while only 44% thought that social media companies should publish transparency reports about bot events.

## Health of the information ecosystem VULNERABILITIES

We evaluate the vulnerability of the information ecosystem by looking at four characteristics. First, inequality helps us understand the extent the online conversation in the CIE is skewed towards a minority of voices. Second, polarization shows how segregated information flows are within communities. Third, toxicity captures how harmful and uninviting the information environment can be to individuals, communities, and organizations. Fourth, we measure trust to gauge the extent that people believe information gatekeepers are acting in the best interests of Canadians. Together, these four characteristics can open or restrict information flows, diversify or narrow information sources and beliefs. and influence acceptance or denial of false or accurate information. Most measures are reported on a scale of 0 (low) to 1 (high).

## Inequality

#### Measurement

We evaluate inequality using the Gini coefficient (the extent influence within an information ecosystem deviates from a perfectly even distribution). The scale ranges from 0 (each entity has equal influence) to 1 (a single entity has all the influence). Fewer information sources (high value) severely restricts information flows. which can lead to the faster spread and deeper penetration of misinformation.

## **Findings**

Inequality in the CIE is stable at 0.87. The conversation remains highly skewed to a small number of highly influential accounts.

#### Inequality

How skewed is the CIE towards a small set of accounts?



## **Polarization**

## Measurement

We evaluate polarization through segmentation (the extent a network is divided into distinct communities. 0=low segmentation and 1=high segmentation), insularity (the extent political party families engage with others outside their political party, with a higher number representing a more insular party family) and division (how people feel about their own political party versus other parties, 0=low and 1=high).

## **Findings**

Polarization increased slightly this month. Group segmentation is lower, with a score of 0.87 (-0.02 from July), but party insularity has increased. The least insular party is the Conservatives and the most insular is the NDP. Overall, we see party groups becoming more insular than the previous month. Division towards political outgroups is a stable moderate, with a score of 22.2. These moderate-to-high scores indicate that information flow does occur across and between communities but that the flow is quite unequal and there is some suspicion of information from political outgroups.

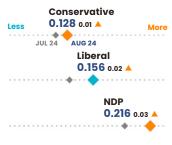
#### **Segmentation**

How divided into distinct communities is the CIE?



## Insularity

How insular are parties relative to one another?



## Division

How do people feel about their own political party versus other parties?



## **Toxicity**

#### Measurement

We evaluate toxicity by measuring toxic speech (presence of toxic speech among posts by political influencers, with lower values indicating lower toxicity), chilled speech (extent people avoid online political discussion and opinion sharing, 0=low to 1=high), and news avoidance (extent people avoid the news all together, 0=low to 1=high).

#### **Findings**

Toxicity is stable. Toxicity speech in the CIE is very low, with a score of 0.016. 64% of Canadians are fairly hesitant to engage in politics online and/or refrain from sharing personal opinions on politics, and 30% of Canadians actively avoid seeking out news stories on social media. Together, we observe that content produced by key figures in the CIE has low toxicity, but that a significant number of Canadians still avoid the news and abstain from political discussion.

#### Toxic speech

How prevalent is toxic speech in the CIE?





What extent do people avoid political discussion and opinion sharina? What extent do people avoid the news?



# 64.4%

## **Trust**

#### Measurement

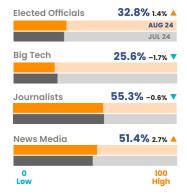
We evaluate trust by asking Canadians about their confidence in information gatekeepers (journalists, media organizations, politicians, and big tech).

Trust is stable. Information gatekeepers have an average trust level of 41.3%. The most trusted actors are journalists (55.3%), followed by news media (51.4%). The actors with the

least trust are elected officials (32.8%) and big tech companies like Meta and Google (25.6%). Low trust in information gatekeepers makes the CIE more vulnerable to external influence and misinformation.

#### Trust by types of information aatekeepers

How much do people trust each type of aatekeeper?



## Trust in information aatekeepers

How much do people trust each type of gatekeeper?



## Health of the information ecosystem

## THREATS

We assess threats to the CIE by evaluating the presence of and concern regarding misinformation (and disinformation), foreign influence (and foreign interference), and AI-generated content. Combined and in isolation, each of these threats can distort the online conversation and diminish our collective ability to discern truth from fiction. They can mislead and manipulate Canadians, and, ultimately, destabilize the pillars of our democracy.

## General

#### Measurement

We evaluate the overall threat of misinformation and foreign influence by measuring public discussion about misinformation and foreign interference (0=low to 1=high discussion).

#### **Findings**

We find that 0.22% of posts reference the topics of misinformation, disinformation, foreign interference/ influence, fake news, or deep fakes, slightly more than the previous month.

We evaluate the threat of misinfor-

mation by measuring Canadians'

concern about misinformation

(0=low to 1=highly concerned), and

the extent misinformation links are

shared and engaged with across so-

cial media platforms by politically

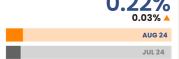
influential voices (0=little to 1=high

**Misinformation** 

Measurement

#### Discussion about misinformation and foreign interference

How often do people post about misinformation and foreign interference?



## Foreign influence Measurement

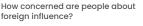
We evaluate the threat of foreign influence in the CIE by measuring concern about foreign governments influencing Canadian media and politics (in general and by country) and how connected prominent news and political accounts from countries with a record of interference (China, Russia and India) are to Canadian accounts

#### **Findings**

We see a slight overall increase in and the least with the UK 7.3% (on news and political accounts are most the previous month). China follows

concern about foreign influence and connectedness this month. 53.7% of Canadians are concerned about foreign governments influencing Canadian media and politics (+1.8%). By country, people are most concerned about China 65.2% and Russia 53.2% average +1-2% increase). Of all connections identified in our network. we observe that prominent Indian connected to the CIE (14.7% of connections - over 11 times larger than with 1.35% (5 times larger than July), and Russia relatively stable with just

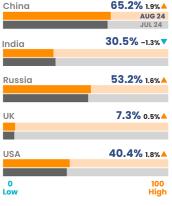
## 0.21% of all connections. Concern about foreign influence





#### Concern about foreign influence by country

How concerned are people about the following countries conducting foreign



#### Directed foreign influence

To what extent are overt foreign influencers impacting the CIE?



## sharing) **Findings**

We see a slight increase this month around misinformation. 47.8% of Canadians are very concerned about misinformation (+2.3%). We find that 1.87% of links shared in posts by Canadian influential voices are to known misinformation websites, garnering 20% of total engagement with links (+0.2% and +6.8% from July). Canadians continue to be deeply concerned about the role misinformation plays in our political discourse. This concern is appropriate, as significant engagement with the CIE goes to posts sharing links to known misinformation websites.

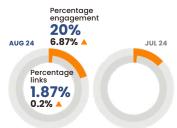


Concern about misinformation

How concerned are people about

#### Linking to known misinformation websites

How common and popular are web links to known misinformation websites?



## Artificial intelligence



#### Measurement

We assess the threat of generative AI by measuring concern about AI generated content misleading the general public.

There is a slight increase in concern this month -47.8% of Canadians feel that AI-generated content misleading the public is a serious problem (+2.3%).

Health of the information ecosystem

**STATE OF ENGAGEMENT** WITH NEWS & **POLITICS** 

We report on the state of engagement with news and politics to provide insight into social media preferences and behaviours for news and politics consumption and dialogue. We evaluate news by looking at news-seeking and sharing to capture the appetite for news, regional preferences for news consumption, and engagement in online political conversation. Second, we characterize engagement with news outlets by assessing inequality, top outlets, and platform preferences to identify dominant news sources and the main mechanisms for

digital news engagement. Finally, we examine online engagement with politicians by looking at relative engagement with party leaders and politicians, as well as platform preferences. We do so to identify where most of the political discussion takes place (on which platform) and who leads this conversation. In a healthy ecosystem, we would expect to see a high level of news seeking across a variety of sources and the free flow of ideas and commentary on the political and media landscape.

## News

#### Measurement

We evaluate engagement with political news and current events using six indicators: 1) **news seeking** (the extent Canadians seek out news); 2) **news sharing** (the frequency of sharing news and opinions on social media); and 3-6) **news consumption** sources and mediums (the proportion of Canadians that consume news from various sources and mediums weekly).

#### **Findings**

We observe that 38.9% of Canadians search for news and 10.2% share news and their political views at least once a week. National news outlets continue to be the most popular source of weekly news (42.6%), followed by local (41.9%) and then international news outlets (33.9%). About three quarters of Canadians use digital me-

#### **News seeking**

How many Canadians seek out information about the news?



#### **News sharing**

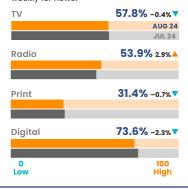
How much do Canadians actively engage in posting and sharing news on social media?



diums for news consumption weekly (73.6%), but only one third use social media for news (36.8%). TV is the most popular traditional medium for news (57.8), followed by radio (53.9%), while print is the least used (31.4%).

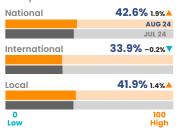
## Mediums of weekly news (digital, print, radio and TV)

How many people use each medium weekly for news?



#### Sources of weekly news

How many people use each source for weekly news?



#### Social media for news

How many people use social media weekly for news?



#### **News outlets**

#### Measurement

We evaluate four characteristics of Canadian news outlets: 1) inequality of engagement with Canadian news outlets; 2) top outlets (the scale and nature of engagement with Canadian news outlets); 3) national versus local news engagement (preferences for local versus national news providers); and 4) social media platform usage trends of Canadian news outlets.

#### **Findings**

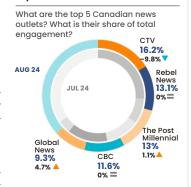
Engagement with Canadian news outlets is more unequal than the overall ecosystem with a Gini coefficient of 0.95. We find the top 5 Canadian outlets that attract the most engagement are CTV (consistently at the top). Rebel News, the Post Millennial. CBC, and Global News (Rebel News and CBC switched places this month). Collectively they receive 63.2% of all online engagement with Canadian news content (+2.38% from July). Local news outlets received 20.2% (-5.6% from last month) of all engagement with news content. Overall, X remains the platform with the most engagement with news outlets (37.4%). although we see a 5.7% decrease this month, followed closely by TikTok (33.8%), then YouTube (18.2%) and then Instagram (10.6%).

#### Inequality

How skewed is the CIE to a small number of news outlets?



#### Top 5 Canadian news outlets



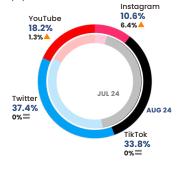
#### National vs. local news engagement

How skewed is preference for national versus local news?



## Social media platforms

Which social media platforms are most popular for news?



## **Politicians**

#### Measurement

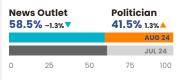
We evaluate the roles and characteristics of politicians in the information ecosystem using four measures: 1) the **top social media platforms** for engagement with Canadian politicians; 2) political engagement on social media (engagement with federal party leaders and elected party families; and 3)news versus politician engagement (comparing engagement between politicians and news outlets).

## **Findings**

Politicians continue to receive the most engagement on Instagram (48.9% of engagement), closely followed by X (45.4%). Once again, the leader and members of the federal opposition party (Conservatives) received significantly more engagement than other elected party leaders and members. We see a slight increase in engagement with NDP leadership (+2.3%) and decrease with Liberal leadership (-4.8%). Contrary to last month, members of the NDP received slightly more engagement (25.5%) than members of Liberal parties (22.3%). Engagement with news outlets (58.5%) continues to be higher than engagement with politicians (41.5%).

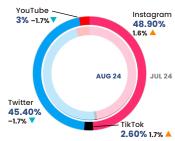
#### Politicians vs. news engagement

How skewed is preference for politician versus news content?



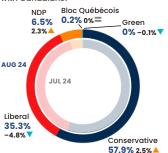
## Social media platforms

Which social media platforms are most popular for Canadian politicians?



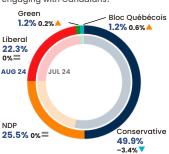
#### **Engagement with party leaders**

Which party leaders are most engaging with Canadians?



## Engagement with elected party members

Which elected party members are most engaging with Canadians?



Each month, we identify the top topics that were discussed online by prominent voices in the Canadian information ecosystem. We also analyze certain

elements of the conversation: when and where it occurred, who drove it, and what the nature of the discussion was

## This month's topics

This month, Canadians paid attention to a wide range of political issues close to home. Discussions related to the wildfires in Jasper were prominent online in late July, as politicians and news outlets noted the devastation to local communities and wildlife. Right-leaning news organizations and influencers also attributed the wildfires to federal government environmental and emergency response mismanagement, and associated the wildfires with issues of "wokeism" rather than climate change. The CN and CP railway stoppage on August 22 led to criticisms of the rail companies and its chokehold on the Canadian economy, leading to the demands by provincial leaders for federal intervention. On August 20, Premier Doug Ford announced that he would ban safe injection sites near schools, leading to sustained discussion about their effect on local communities. This conversation and narrative about 'cleaning up streets' is largely led by conservative political leaders such as Pierre Poilievre and BC Conservative leader John Rustad ahead of the BC Election in October.

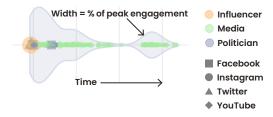
Looking abroad, engagement with American politics continued to permeate Canadian discourse. Throughout the Democratic National Convention from 19 to 22 August, Canadian right-leaning news organizations such as the Post Millennial, Western Standard, and CPAC discussed the validity of Kamala Harris' nomination as the Presidential candidate and the viability

of the Democratic Party to ensure the principles of freedom in America. News coverage also highlighted Israeli Prime Minister Netanyahu's visit to Congress on July 24, his meeting with Trump, and Harris' silence on his visit.

Other notable issues Canadians paid attention to included floods across the country,- particularly a pipeline burst in Montreal and local flooding in Chilcotin River in BC, Ukraine's offensive in the Kursk region of Russia, housing policy, and changes to the temporary foreign workers program. Canadians also celebrated the accomplishments of Team Canada at the Paris Olympics, particularly the accomplishments of Canadian swimmer Summer McIntosh.

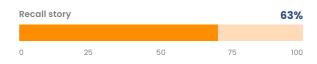
#### **Violin plots**

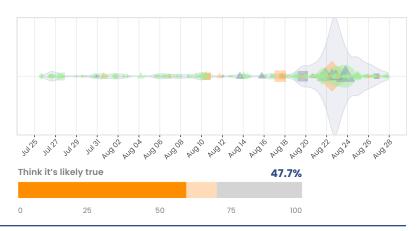
We depict the online discussion of these stories using violin plots. The 'violin' (the shape of the outline) indicates the distribution of engagement with each topic. The width of the plot is normalized against maximum engagement (when a story is being talked about the most) across the time period. A small violin indicates a burst of attention whereas a large violin indicates a longer, drawn out conversation. Shapes are used to depict different platforms (Facebook, Instagram, X/Twitter, and YouTube). Colours are used to identify the type of source (influencer, media, and politician). Combined, this analysis provides insight into engagement with news stories and misinformation across given news stories or events.



#### National rail strike and stoppage

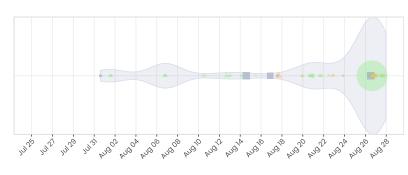
In the early hours of August 22, Canadian National and Canadian Pacific railways locked out their employees, following a stall in negotiations between the Teamsters Canada Rail union and the companies. The workers auickly set up picket lines, leading to a nation-wide shutdown of railways. We saw small, but sustained coverage by news outlets of the negotiations prior to the strike, along with growing concern from commentators and politicians. On the day of the shutdown, discussion quickly exploded across X, TikTok, and YouTube: commentators accused the railway companies, rail workers, and the federal government alike of "holding the economy hostage", and called for intervention from the Ministry of Labour. 68% of Canadians had heard about the rail stoppage and 56% knew it to be true (perhaps because they were affected by it).





## Restrictions on low-wage temporary foreign workers

All eyes were on the temporary foreign workers program this month. On August 5, reports emerged that the Trudeau government was considering cutting the number of temporary foreign workers in Canada. Nine days later, the United Nations released a report calling the program a "breeding ground for contemporary slavery". Less than **two weeks later**. online conversation about the program peaked when Trudeau officially announced a reduction on the number of temporary foreign workers, along with restrictions on "high unemployment" sectors. The conversation was largely dominated by right-leaning news outlets and politicians, particularly Pierre Poilievre, calling for federal legislation to give jobs "back to Canadian youth" and changes to Canadian immigration policy, while left-leaning commentators emphasized the role of exploitative employers abusing the program. One TikTok, a video by CBC News about Trudeau's August 26 announcement, garnered over 300,000 likes, far surpassing any other posts about the program. 70% of Canadians heard about the new restrictions on temporary workers, while 59% believed it to be true.

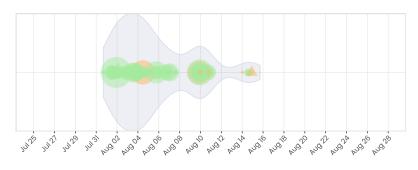




## Women's boxing at the Olympics

While the overall tone of the conversation about the Paris Olympics was victorious and patriotic (thank you Summer Walker!), it wasn't all supportive. Within a few days of the start of the games (July 26), misinformation quickly spread about the gender identity of Algerian boxer Imane Khelif and Taiwanese boxer Lin Yu-ting, leading to significant online debate about transgender athletes, transphobia, and misogyny, largely centered around Khelif. Although Khelif is a cisgender woman, some Canadian commentators took to X to call for her removal from the Olympics on the (completely unfounded) grounds that she is a man. Others quickly leapt to Khelif's defense, pointing out that the allegations were not only transphobic, but deeply offensive to women as well. Although discussion about Khelif mostly occurred in early August, we saw sustained engagement through to August 10 (when she won gold in her category) and August 14 (when French prosecutors opened an investigation into online harassment of Khelif). 63% of Canadians had heard about the controversy and 48% believed that she had indeed faced intense scrutiny over her gender.

CANADIAN INFORMATION ECOSYSTEM SITUATION REPORT







# ABOUT THE RESEARCH

Data for this report includes social media 504,987 posts from 2,273 distinct entities across four social media platforms (Instagram, TikTok, Twitter, and YouTube) with a total of 3,764 unique and active social handles for the period of July 25th to August 27th, 2024 and survey responses from 1463 Canadian adults conducted from July 24th to 29th using a commercial survey panel provider. The margin of error for a comparable probability-based random sample of the same size is +/-2.6%, 19 times out of 20. Engagement totals include engagement from Ca-

nadian and international audiences, which cannot be distinguished from each other. Unlike previous versions, this report does not include data from Facebook due to Meta's decision to shut down Crowdtangle, a research tool we used to collect post data from the platform.

For a link to our detailed methodology <u>click here</u>. To sign up for our month situation reports, <u>click here</u>

Please provide any comments you have on these reports to <a href="mailto:info@cdmrn.ca">info@cdmrn.ca</a>.

## ABOUT THE CDMRN

The Canadian Digital Media Research Network (CDMRN) is a pioneering initiative committed to fortifying and fostering resilience within Canada's unique information ecosystem. Our mission is to understand the dynamics of

information production, dissemination, and consumption across digital media with the goal of empowering Canadians to navigate the complexities of the modern digital age.











