

Democracy, Disinformation and Deep Fakes

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Defending Our Forum of Democracy from Disinformation and Deep Fakes

As a freshman, I looked up to internet companies as honourable, and figured the government had a regulatory fix for everything. The problem of online disinformation never really came up. I thought each community was free to its own views, even conspiracies, so long as those views did not harm society. I assumed mechanisms were in place to remove harmful content quickly and reliably, and internet companies were transparent and consistent with their content moderation policies. I was naive.

Remember the Rideau Hall intruder who fell prey to disinformation? The morning after Canada Day, a 46-year-old military man drove his heavily-armed truck from northern Manitoba to Ottawa, crashed onto the grounds of Rideau Hall, got arrested, and ended up with 22 charges. To quote the Post, “Shortly before he crashed his Dodge Ram pickup truck through the heavy gates around Rideau Hall early Thursday, a conspiracy theory meme supporting the notion that global elites purposely launched the novel coronavirus, was posted to his meat company’s Instagram account.”¹

As a 25 year-old citizen, having spent time studying Systems Design Engineering at the University of Waterloo, my mind has changed. When I consider cases such as the Rideau Hall intruder, how we interact with social media feeds, emerging deepfake technology, and our dependence on internet monopolies, I view disinformation as nothing less than an existential threat to our democracy. I believe the government must intervene to protect Canadian media

¹ Humphreys, Adrian. “Man Who Allegedly Crashed Truck through Rideau Hall’s Gate with Four Guns Is Soldier Troubled by COVID Conspiracies.” *Nationalpost*, National Post, 3 July 2020, nationalpost.com/news/man-who-allegedly-crashed-truck-through-rideau-halls-gate-with-four-guns-is-soldier-troubled-by-covid-conspiracies.

ecosystems and democratic values from irreversible harm. If we don't act quickly and prudently, then it will be too late.

Canadian media drives the public forum. It drives the free flow of ideas in a healthy democracy. Our public forum is a town square, where all are welcome and free speech is sacrosanct. As written in our Charter of Rights and Freedoms 2(c), everyone has “freedom of thought, belief, opinion and expression, including freedom of the press and other media of communication”.² If the public forum of democracy is working, then it means free expression is thriving, ideas are being exchanged, and we are collectively steering towards a more fair and inclusive society.

Today's public forum is the internet, a vast town square where information is shared broadly and faster than at any time in human history. It gets forgotten that holding up a democratic system of government on the internet is new to us. When Athenian democracy existed 2,600 years ago, town criers shouted to anyone within earshot. When Gutenberg stood up the printing press 570 years ago, pamphlets were distributed to citizens within a feasible radius. Many centuries later, in 1933, the Canadian Broadcasting Corporation (CBC) held its first radio newscast. In the last 50 years alone, personal computers, the modern internet, smartphones, and social media emerged as the primary means of communication. Today, anyone with an internet connection can reach thousands of people with their message - instantly and at no cost.

Canadians routinely open Twitter and Facebook or search Google and YouTube. We spend attention on content recommended to us by algorithms. We choose our diet, and for an average

² Branch, Legislative Services. “Consolidated Federal Laws of Canada, Access to Information Act.” *Legislative Services Branch*, 27 Nov. 2020, laws-lois.justice.gc.ca/eng/const/page-15.html.

of 4 hours a day, feast on an intellectual buffet of entertainment and information.³ Our networks influence what we see too. Facebook's News Feed has "made the world more open and connected" and so have forums like Reddit, image boards or free speech social networks like Parler.

We are more openly connected to falsehoods and internet trolls. We learn more everyday about how social media interacts with our cognitive biases in toxic ways, separating us from information that we disagree with.⁴ Concepts like fake news, filter bubbles and echo chambers are now common language at family dinner tables. The Covid-19 pandemic has raised concerns about whether communities can embrace a "shared sense of reality".⁵ We know it's easier to skim headlines than to read an entire article, and it's easier to tune into what people in our networks say. Extreme content also gets more clicks than moderate content. It all means that even with fact-checkers trying their level best, we are witnessing a decay of truth and trust in the public forum.⁶

An MIT study from 2018 found that hoaxes and false rumours reached people ten times faster than accurate stories. The paper states, "falsehood diffused significantly farther, faster, deeper, and more broadly than the truth in all categories of information, and the effects were more

³ "Report: 46% of Canadians Admit to Using a Phone in the Washroom." *Canadian Internet Registration Authority (CIRA)*, www.cira.ca/resources/corporate/factbook/canadas-internet-factbook-2019.

⁴ Ciampaglia, Giovanni Luca. "Biases Make People Vulnerable to Misinformation Spread by Social Media." *Scientific American*, Scientific American, 21 June 2018, www.scientificamerican.com/article/biases-make-people-vulnerable-to-misinformation-spread-by-social-media/.

⁵ "Truth Decay: How Digital Technologies Are Helping Shatter Our Shared Sense of Reality | CBC Radio." *CBCnews*, CBC/Radio Canada, 13 Nov. 2020, www.cbc.ca/radio/spark/truth-decay-how-digital-technologies-are-helping-shatter-our-shared-sense-of-reality-1.5456006.

⁶ "Truth Decay: Fighting for Facts and Analysis." *RAND Corporation*, www.rand.org/research/projects/truth-decay.html.

pronounced for false political news”.⁷ The use of sophisticated advertising tools compounds this effect, as maligned actors can target falsehoods at specific community segments. Similar to the misleading sophists of Athenian democracy, we have 2020’s internet trolls of our Canadian democracy, peddling in inflammatory falsehoods.

Soon, these trolls will be armed with deep fakes too. Deepfake technology “makes it possible to create audio and video of real people saying and doing things they never said or did”.⁸ As written in Facebook’s community standards, “the video is the product of artificial intelligence or machine learning ... that merges, combines, replaces, and/or superimposes content onto a video, creating a video that appears authentic”.⁹ As this technology gets more convincing, more available, and more user-friendly, trolls will use deep fakes to fabricate the evidence that supports the false claims of their disinformation campaigns.

Consider a hypothetical deepfake of someone Canadians trust, like CBC’s Rosemary Barton, CTV’s Evan Solomon, or Peter Mansbridge. Picture them speaking and looking like themselves, but saying the World Economic Forum’s “Great Reset” initiative is a power grab by global elites who launched the pandemic on purpose. What is the impact on our public discourse if deep fakes disseminate across social media feeds with the message that the government is out to seize their property, censor free speech, and install an authoritarian regime? Catherine Carter, who drove 2 hours from Windsor to Aylmer, Ontario to participate in

⁷ Vosoughi, Soroush, et al. “The Spread of True and False News Online.” *Science*, American Association for the Advancement of Science, 9 Mar. 2018, science.sciencemag.org/content/359/6380/1146.

⁸ Citron, Danielle K., and Robert Chesney. “Deep Fakes: A Looming Challenge for Privacy, Democracy, and National Security.” *Scholarly Commons at Boston University School of Law*, scholarship.law.bu.edu/faculty_scholarship/640/.

⁹ “Community Standards.” *Facebook*, www.facebook.com/communitystandards/manipulated_media.

an anti-mask protest, said "I'm here to voice my opposition to a tyrannical government. I want to show support to this community. People are here for masks, I'm here for freedom."¹⁰

Imagine if politicians played to these falsehoods for political gain. MP Pierre Poilievre, among others, is one such politician. The MP fuels conspiratorial thinking when he says the prime minister "is going to renovate Canadian society to fit his Trudeaupian ambitions".¹¹

What happens when deep fakes like this go undetected, get retweeted and shared, and foment unrest? The example above is innocent. Imagine fake videos of Canada's Chief Public Health Officer, Dr. Theresa Tam, manipulated to imply that the vaccine is doped to control the population, and the government is forcing people to get vaccinated. Who among us is okay with that kind of free speech in our public forum?

I'm not okay with deep fakes that deliberately sow discord. According to a 2019 research paper out of Boston University School of Law, deep fakes could cause harms "such as distortion of policy debates, manipulation of elections, erosion of trust in institutions, exacerbation of social divisions, damage to national security, and disruption of international relations."¹² Could they also thicken the walls of our filter bubbles so much that we don't hear or see each other anymore? If yes, it would mean our public forum is broken, because ideas are no longer being exchanged.

¹⁰ "2,000 People March through Aylmer, Ont., to Protest COVID-19 Health Measures | CBC News." *CBCnews*, CBC/Radio Canada, 8 Nov. 2020, www.cbc.ca/news/canada/london/2-000-people-march-through-aylmer-ont-to-protest-covid-19-health-measures-1.5794265.

¹¹ "'The Great Reset', Politics and Conspiracy." *CBCnews*, CBC/Radio Canada, www.cbc.ca/player/play/1824836163569.

¹² Citron, Danielle K., and Robert Chesney. "Deep Fakes: A Looming Challenge for Privacy, Democracy, and National Security." *Scholarly Commons at Boston University School of Law*, scholarship.law.bu.edu/faculty_scholarship/640/.

It would mean that a wave of populism can descend into information tribalism and anarchy, where disinformation can radicalize a segment of our society, and hate speech or incitement to violence run rampant in our media ecosystems under the guise of free speech. The trust in our public institutions has been built over generations on the basis of honesty, respect and responsibility. Disinformation erodes at these very ideals, posing an existential threat to our democracy.

I don't want to lose sight of genuine concerns held by Canadian communities. Given how wealth has concentrated in cities, and economic opportunity has stagnated for some, we must ask if groups susceptible to disinformation feel that Canadian media represents them. Perhaps, it's not about fake news or deepfake technology at all, but about empathy, and repairing a relationship with Canadians who feel left behind.

Professional and independent journalism plays an essential role to call out disinformation. Canadian media organizations like the CBC, the CTV Television Network, and newspapers like the Globe and Mail, the Toronto Star and the National Post must balance the perspectives of all Canadians while contributing to the shared national consciousness, and upholding Canadian values like fairness and respect.

This gets to the heart of my concern. While I am personally comforted to know the CBC exists, I also know that Canadians will continue to spend disproportionate attention on websites owned by internet monopolies who don't share Canadian democratic values.

This realization reminds me of a recurrent nightmare I have. I'm slated to write a final exam the next morning worth 80% of my grade, but I have yet to start studying. At this point I realize that

I know virtually nothing about detecting deep fakes, or what objectives and opinions are written into the algorithms that recommend us content. I do not know how effective content moderation and fact-checking efforts are. Most of all, I am alarmed that as Canadian citizens, we do not hold the controls to deal with these critical issues.

Instead, we depend on internet monopolies that are not accountable to us. Facebook, Twitter and YouTube are asymmetrical partners in protecting the health of our democratic forum. We depend on their leadership, their engineers and data, and their ethical judgement far more than they care about Canadian sovereign interests and values.

Last I checked, the functions of the media and our forum of democracy are still working. Ideas are still flowing. There is broad consensus that the internet companies cannot be trusted to regulate themselves. The idea that government regulation is needed to rebalance the economic incentives of internet companies is being exchanged. There are calls for increased legal liability for the spread of harmful disinformation. The idea that internet intermediaries should be treated as publishers, and not as passive phone companies, is gaining traction. Canadians see the role of internet intermediaries in the publication of harmful content as a deliberate one.

Based on FRIENDS of Canadian Broadcasting's 2020 report Platform for Harm, "The platforms' foreknowledge of the content they circulate is so detailed and profound that they very arguably are publishers under Canadian law" and can be held "legally liable for harmful and illegal content on their platforms if they (a) know about it in advance and decide to publish anyway, or (b) are notified of the offending content and fail to take it down."¹³ There is also recognition that

¹³ FRIENDS of Canadian Broadcasting. "Platform Liability." *FRIENDS of Canadian Broadcasting*, FRIENDS of Canadian Broadcasting, 2 Nov. 2020, <https://friends.ca/workspace/uploads/documents/platform-for-harm-2020-friends.pdf>.

there is a significant power imbalance for the average citizen to take legal action against these powerful internet giants. The discussion is open for a new government agency that could take enforcement actions on behalf of citizens.

Technically, our government must support investment in systems to detect deep fakes and authenticate the veracity of files.¹⁴ Most importantly, the voice of Canadian media must be embedded into the recommendation algorithms that are on trial.

When a fair partnership between the internet companies and our media, government, and scientific community is forged, we will be able to defend against the threat that disinformation poses to Canadian media ecosystems. The very survival of Canadian democracy hangs upon the effectiveness of this response.

¹⁴ Technology Networks. "AI Watermarks Could Outsmart 'Deep Fake' Photos." *Informatics from Technology Networks*, Technology Networks, 30 May 2019, www.technologynetworks.com/informatics/news/ai-watermarks-could-outsmart-deep-fake-photos-320017.