Fake News, Real Violence: Disinformation's Threat to Canadian Critical Infrastructure

Marianne Grenier

CMSS, University of Calgary

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Abstract

The significant rise and rapid propagation of false information in the past five years, especially in the Western World, is reducing trust in public institutions in Canada and many other countries. I explore the interconnectedness of disinformation targeting institutions and the effects on Canadian critical infrastructure's (CI) reputation, functioning, and evolution from a political and military perspective. The central question of this research is: What are the potential risks to Canadian CI and lessons to learn from domestic and international instances of disruption to CI as a result of disinformation? My goal is to explore the impacts of disinformation on various essential Canadian infrastructure sectors including healthcare, telecommunications, governmental installations, or defence. Recent disruptions and protests across the world, like vandalism of telecommunications towers, government buildings, or hospitals, illustrate how disinformation can put CI at risk. This paper identifies and analyzes domestic and international disturbances to CI, as a result of disinformation campaigns. I explore how disinformation affects public trust in social and public institutions and may lead to attacks and undermining of CI, affecting, in parallel, society's functioning. Subsequently, a comparison with the Canadian situation will be put forward to assess the potential risks, lessons, and preventative measures that could mitigate the impacts and dangers of disinformation to Canadian CI. The risks of letting falsities encourage audiences to act against CI are serious and need to be prevented to avoid financial, material, and human losses, further erosion of trust in public institutions, or greater disturbance in other sectors.

Keywords: disinformation, critical infrastructure, Canada, violence, risk society theory

Introduction

The growing variety of threats facing critical infrastructure (CI) across the globe has been reported in numerous media and is a concern of states. The airpower theory, creating by Guilio Douhet, raised the theory and practice of targeting essential systems on an opposing side with the intention of disabling the enemy's vital resources. The logic behind disrupting rival CI is based on the fact that societies rely heavily on some sectors to run operations of all kinds, from national defence to food or water management, affecting the daily lives of civilians. What has long been a strategy of states to physically destroy essential factories and supplies during warfare is now changing. Indeed, growing disruptions to CI come from national and internal threats rather than from states in open warfare. Moreover, some leaks, cyber-attacks, and violence towards CI have already been identified as indirect foreign interference. On the rare occasion that authors of such interference are identified, they often come from groups or states with no ongoing open warfare with the targets' states. This situation is difficult to navigate both for national defence of states and for those responsible for privately owned CI's security. Foreign interference is particularly difficult to grasp and identify in part due to the evasive nature of it. Examples of disruptions include cyber-attacks, espionage, or information warfare. The latest has been much more publicized since the growing identification of electoral interference by Russia in the 2016 elections, or the Cambridge Analytica scandal involving the Brexit referendum, as well as the American and Indian elections. The manipulation and influence of information are not new, but the tools used to do so are. The broad use of social media and messaging applications play a significant role in the development of complex disinformation campaigns and the rapid dissemination of false information. It has

been already demonstrated that false information spreads more rapidly than facts within the current model of social media. Disinformation has previously proven to have many ramifications and consequences, some involving intolerance and violence, across the globe. On top of affecting individuals and communities, disinformation also threatens national defence in various ways. For example, many democracies have recently been targeted with disinformation campaigns relating to the validity and manipulation of recent elections, targeting the credibility and stability of states. Additionally, disinformation can lead to serious acts against the states themselves and their institutions. One of the most critical aspects of disinformation quickly growing over the last decade is how disinformation threatens the security of CI. Individuals and groups strongly influenced by disinformation are inspired to act, or are led to believe false information, in turn, this may lead to physically penetrating and disrupting essential systems. This research aims to understand the links between disinformation and threats against CI. To do so, this work puts forward two case studies of events involving disinformation fuelling attacks on CI. Although the media and the major security events often involve American incidents and perspectives, is it essential to address how other states of various powers respond to and prevent similar incidents, and how they may be targeted and affected. This research focuses on how disinformation can also affect Canadian CI and its potential repercussions. This work focuses specifically on how the incidents relate to the Canadian scene and explores the intricacies and interconnections between disinformation targeting institutions and the effects on Canadian CI's functioning, reputation, and development from a political and military perspective. The central question explored is: what are the potential consequences of disinformation targeting Canadian CI and what lessons may be learned from domestic

and international instances of disruption to CI as result of disinformation? To answer, I explore the effect of disinformation on the events of the American capitol attack at the beginning of 2021, and the acts of vandalism against 5G networks in the Western world. To grasp the links between disinformation and CI protection, this paper uses the risk society theory which highlights societal reliance and dependency on technology and information, while technology links the management of CI and security.

Theory and Methodology

Theory

The risk society theory was brought forward by sociologists Ulrich Beck and Anthony Giddens.[1] The theory maintains that our modern industrial societies are being transformed through the accessibility and use of technology and communication infrastructure. The now widespread use of tools allows for new sharing methods as well as developing new ways of getting together.[2] The risk society theory presents numerous propositions, such as the distribution of "bads" rather than merely goods. This means that rather than simply wealth being increasingly distributed in the modern era, other negative aspects are also allocated, like pollution, contamination, and other results of production.[3] The other four main propositions of the theory are that:

(1) the scale and potential for catastrophe is increasing; (2) there is a loss

of faith in experts and science to predict and protect people from these

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[1] Kitchin, Rob, and Nigel Thrift. *International encyclopedia of human geography*. Elsevier, 2009. 305.
[2] Kitchin, Rob, and Nigel Thrift. *International encyclopedia of human geography*. 305.
[3] Ibid.

technological hazards; and (3) there are increasingly competing knowledge claims (erosion of expert consensus) regarding the management of technological environmental hazards. [...] Thus, (4) our ontological security about being safe in the world has been shaken whereby institutions in society (e.g., welfare state, personal insurance) are questioned for their ability to protect us long term.[4]

The risk society's thesis is helpful to understand public reaction to disinformation, which may be intensified due to technological hazards, the erosion of expert consensus and the potential for catastrophe.

Risk society theory relates well to the issue of disinformation as the experts' positions are often put aside and declared untrustworthy, especially through online sharing platforms like social media and messaging applications. The theory therefore helps to understand and conceptualize the origins and consequences of disinformation leading to aggression towards CI. Moreover, risk society can help to identify points of concern for Canadian and international realities regarding both disinformation campaigns and public support for such campaigns, as well as the related risks facing CI and public institutions.

Methodology

Domestic and international disturbances to CI as a result of disinformation campaigns are identified and analyzed. The case studies include the American capitol attack in January 2021 following false claims of electoral fraud, and the

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[4] Baxter, Jamie. 2020. "Health and Environmental Risk", in *International Encyclopedia of Human Geography* (Second Edition), Elsevier Science & Technology, 303.

vandalism incidents against the 5G systems in the recent years in Western states due to various inaccurate claims regarding health and safety issues.

These incidents were selected due to the importance of the events and their ramifications. In both circumstances, disinformation was central to fueling and encouraging the actions against infrastructure, often calling for citizens' actions rather than political responses. Based on these case studies, I explore how disinformation affects public trust in social and public institutions and can lead to aggression and the undermining of CI. This examination is crucial as attacks targeting essential systems can directly and indirectly affect society's functioning.

Subsequently, I analyze Canadian ability to face similar challenges, and how Canada should try to prevent and prepare for future incidents. A comparison with the Canadian situation is put forward to assess the potential risks, lessons, and preventative measures that could mitigate the impacts and dangers of disinformation to Canadian CI.

Results

Capitol Attack

At the start of 2021, tensions in America regarding the soon-to-be inauguration of the 51st President Joe Biden were at their highest. On January 6th, what started as a rally in Washington, D.C. "to protest the vote-counting ceremony" strongly encouraged by President Donald Trump, quickly turned into a mob of 2,000

to 2,500 people storming the Capitol.[5] Significant vandalism and violence were broadcast live across America and the world, all the while protesters live-streamed and recorded the events within the Capitol. These attacks sent lawmakers into hiding, wounded many participants and law enforcement, and killed one protester.[6] These events have since been widely reported on media platforms domestically and internationally.

The role of disinformation leading to these actions needs to be explored and deepened. First, Trump has had a long background of spreading false information through social and traditional media, both during his presidential campaign and while in office.[7] Various other elected officials who also spread similar false information have put forward disinformation narratives regarding the last elections within the United States.[8] Moreover, big players of disinformation regarding the 2020 American elections include some traditional news broadcasters like Fox News or One America News Network (OANN); big social media platforms like Facebook, Twitter, and YouTube; as well as celebrities and influencers on various platforms.[9] Many claimed fraudulent electoral practices, and spreading inaccurate information

[5] Duignan, Brian. 2022. *United States Capitol attack of 2021*. Britannica. Retrieved from: https://www.britannica.com/event/United-States-Capitol-attack-of-2021.

[6] Farley, Robert. 2021. *How Many Died as a Result of Capitol Riot?* FactCheck. Retrieved from: https://www.factcheck.org/2021/11/how-many-died-as-a-result-of-capitol-riot/

[7] West, Darrel M. 2021. *The role of misinformation in Trump's insurrection*. Brookings. Retrieved from: https://www.brookings.edu/blog/techtank/2021/01/11/the-role-of-misinformation-in-trumps-insurrection/

[8] Eggers, Andrew C., Haritz Garro, Justin Grimmer. 2021. *No evidence for systematic voter fraud: A guide to statistical claims about the 2020 election*. Proceedings of the National Academy of Sciences, 118 (45), 5.

[9] Coster, Helen and Jan Wolfe. 2021. *Conservative news outlets, accused of election falsehoods, air disclaimers*. Reuters. Retrieved from: https://www.reuters.com/business/media-telecom/conservative-news-outlets-accused-election-falsehoods-air-disclaimers-2021-03-26/.

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regarding the reliability of numerous systems in place to ensure smooth elections, like the Postal Services, the counters, or the registering processes.[10] Additionally, foreign interests in the American elections of 2020 have been publicized, since they could have motivated states and actors to interfere and spread disinformation.[11] The result of Biden's victory increased tensions within Republican circles as calls for electoral fraud and future authoritarianism increased.

Trumps' tweets and speeches called for protesters to "save democracy", and implied catastrophes to come if Biden were to be confirmed as the next president.[12] Moreover, the former president called directly to the population, more particularly, his fanbase, to take action against what he called a "stolen election".[13] The same day, he also stated: "If you don't fight like hell, you're not going to have a country anymore."[14]

What started as a protest throughout Washington eventually escalated and rioters' frustrations were redirected towards the Capitol, where the official count to confirm Biden's election was taking place that afternoon. By overwhelming the

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[10] Owen, Phil. 2020. *Tucker Carlson Won't Stop Backing Trump's False and Baseless Voter Fraud Claims*. The Wrap. Retrieved from: https://www.thewrap.com/tucker-carlson-wont-stop-backing-trumps-false-and-baseless-voter-fraud-claims-video/

[11] RAND. 2020. *Foreign Interference in U.S. Elections Focuses on Cultivating Distrust to Reduce Political Consensus*. Retrieved from: https://www.rand.org/news/press/2020/10/01.html

[12] BBC News. 2022. *Capitol riots timeline: What happened on 6 Jan one year ago?* Retrieved from: https://www.bbc.com/news/world-us-canada-56004916

[13] Qiu, Linda. 2020. *Trump has amplified voting falsehoods in over 300 tweets since election night*. The New York Times. Retrieved from: https://www.nytimes.com/2020/11/16/technology/trump-has-amplified-voting-falsehoods-in-over-300-tweets-since-election-night.html

[14] Macfarlane, Scott and Cassidy McDonald. 2022. *January 6 timeline: Key moments from the attack on the Capitol*. CBS News. Retrieved from: https://www.cbsnews.com/live-updates/january-6-capitol-riot-timeline-key-moments/

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security and law enforcement agents, rioters were able to enter the Capitol with the goals of disrupting the count and demonstrating their loyalty to Trump.

Employees and elected officials fled the building or hid, knowing that their "lives were endangered."[15] This uprising seemed in no way peaceful as many were armed and defied security measures.[16] Significant vandalism was perpetrated by the rioters, often filming, capturing themselves or each other taking or destroying property. One protester also stated, "It's only a matter of time. Justice is coming!" potentially implying vigilante justice-making through violence and insurgence.[17] During the events, a participant was shot and subsequently died from her wounds.[18] In financial terms, the events of that afternoon ended up costing around half a billion dollars, with an estimate of 1.5 million dollars in property damage.[19]

The capitol attack shows how escalation can stem from disinformation and call for action from authority figures within the realm where false information is coming. In this situation, it proved violent and threatened the lives of many, leaving numerous injured. Additionally, as government buildings and infrastructures are included in the conception of CI, it showed American institutions in a new light. The

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[15] Choi, Matthew. 2021. '*I thought I was going to die': AOC personalizes insurrection, bringing up past sexual assault*. Politico. Retrieved from: https://www.politico.com/news/2021/02/01/aoc-insurrection-instagram-live-464837

[16] Cohen, Marshall, Eric Hall, Brianna Keilar and Catherine Valentine. 2021. *Guns, knives, bombs and bear spray: Here are the weapons Trump supporters brought to DC on the day of the Capitol attack*. CNN. Retrieved from: https://www.cnn.com/2021/02/17/politics/capitol-insurrection-weapons-ron-johnson/index.html

[17] BBC News. 2021. *Capitol riot: 'QAnon Shaman' Jacob Chansley sentenced to 41 months in prison*. Retrieved from: https://www.bbc.com/news/world-us-canada-59253090

[18] Farley. 2021. *How Many Died as a Result of Capitol Riot?*

[19] Hsu, Spencer S. *Judge asks why Capitol rioters are paying just $1.5 million for attack, while taxpayers will pay more than $500 million*. The Seattle Times. Retrieved from: https://www.seattletimes.com/nation-world/judge-asks-why-capitol-rioters-are-paying-just-1-5-million-for-attack-while-taxpayers-will-pay-more-than-500-million/

political centre of the country is not only unsafe from internal uprisings and domestic attacks, but also represents the origin and root of the 'undemocratic' actions and conspiracies, where protesters need to strike.

5G Network

The second case study involves more decentralized events. It concerns the disinformation regarding the 5G network and subsequent physical attacks on towers and phone lines. Many apprehensions regarding the rise of the 5G network in the Western world are based upon factual evidence or historical issues. The main problem nations and experts attribute to this network is the strong and predominant involvement by China in the development of the technology.[20] Since Huawei, one of the strongest actors to develop and implement 5G worldwide, is a Chinese company under a communist and authoritarian government, there is evidence to show that China holds last power and control over it.[21] Although there are actual national defence issues associated with Chinese influence, some information spread involves assumptions and fear not based on confirmed sources.

However, the main disinformation about the 5G network presents the system as a health threat. The emergence and increase in interest for 5G networks lead to greater coverage of issues and implications of implementing a new cellular network globally. Social media and false news reports propagate inaccurate reports of health risks associated with the network.

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[20] Kaska, Kadri, Henrik Beckvard and Tomáš Minárik. 2019. *Huawei, 5G, and China as a Security Threat.* The NATO Cooperative Cyber Defence Centre of Excellence. Retrieved from: https://ccdcoe.org/library/publications/huawei-5g-and-china-as-a-security-threat/
[21] Ibid.

For instance, the BBC wrote an article stating that the "electromagnetic radiation used by all mobile phone technologies has led some people to worry about increased health risks, including developing certain types of cancer."[22] Although raised by scientists as "possibly carcinogenic", they mention that evidence falls short of demonstrating such an effect on humans.[23] However, the disinformation reported goes far beyond such statements, some mentioning directly that radiation causes cancer, when in fact radiation falls in a broad spectrum, including harmless radio emissions and light.[24] Or that the industry implementing wireless networks is "building a global microwave oven."[25]

Some platforms have even raised the issue that the COVID-19 virus might be linked to the 5G network and be transmitted through it.[26] In Europe, these false reports have led to attacks on cellular towers and equipment in Britain, Ireland, Belgium, Cyprus, and the Netherlands.[27] In North America, individuals have targeted cellular towers in the United States and Canada, especially since the beginning of the

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[22] Reality Check Team. 2019. *Does 5G pose health risks?* BBC News. Retrieved from: https://www.bbc.com/news/world-europe-48616174

[23] Ibid.

[24] CTCA. 2018. *Busting myths: If radiation causes cancer how can it be used to treat cancer.* Retrieved from: https://www.cancercenter.com/community/blog/2018/12/busting-myths-if-radiation-causes-cancer-how-can-it-be-used-to-treat-cancer

[25] Wagner, Paul. 2019. *5G Health Risks; The War Between Technology and Human Beings.* Gaia. Retrieved from: https://www.gaia.com/article/5g-health-risks-the-war-between-technology-and-human-beings?utm_source=google+paid&utm_medium=cpc&utm_term=&utm_campaign=1-INTL-PERFORMANCE-MAX&utm_content=performancemax&gclid=CjwKCAiAo4OQBhBBEiwA5KWu_xEUoiMCG38TeMvrBLOw7VH HSrvRyvo_hm9q7q0D3HEfLJYb9zrUNRoCy7oQAvD_BwE

[26] Ahmed W, Vidal-Alaball J, Downing J, López Seguí F. *COVID-19 and the 5G Conspiracy Theory: Social Network Analysis of Twitter Data* JMIR Internet Res 2020;22(5).

[27] Chan, Kelvin, Beatrice Dupuy and Arijeta Lajka. 2020. *Conspiracy theorists burn 5G towers claiming link to virus.* ABC News. Retrieved from: https://abcnews.go.com/Health/wireStory/conspiracy-theorists-burn-5g-towers-claiming-link-virus-70258811

COVID-19 pandemic.[28] The estimated damage costs are often in tens of thousands

and even hundreds of thousands of dollars.[29] In Canada, two individuals subscribing

to health conspiracies were arrested for setting fire to seven cellular towers in

Quebec.[30] Events like these can result in power or network outages, essential

communication being disrupted, significant damages, and aggression towards

workers.[31] The fact that several countries are facing the same types of challenges

shows how disinformation knows no borders and can impact a broad audience

worldwide.

Analysis

As presented by Dordevic and Safieddine, disinformation dissemination can

be divided into four factors: Human, interaction, platform, and content factors.[32]

Human psychology, how people interact in groups and how they are influenced,

explains how and why disinformation spreads. In the case of the Capitol attack of 2021,

there is a need to understand how false and inaccurate information led to a protest that

then ended up physically attacking a governmental installation, a sector included within

both American and Canadian definitions of CI. Subsequently, the health fears related to

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[28] Brodkin, Jon. 2020. *Cell-tower attacks by idiots who claim 5G spreads COVID-19 reportedly hit US*. Ars Technica. Retrieved from: https://arstechnica.com/tech-policy/2020/05/prepare-for-cell-tower-attacks-by-5g-covid-19-conspiracy-theorists-us-warns/

[29] Ibid.

[30] Péloquin, Tristan. 2020. *Tours cellulaires incendiées: un couple de Sainte-Adèle accusé*. La Presse. Retrieved from: https://www.lapresse.ca/actualites/justice-et-faits-divers/2020-05-07/tours-cellulaires-incendiees-un-couple-de-sainte-adele-accuse

[31] Brodkin. 2020. *Cell-tower attacks by idiots who claim 5G spreads COVID-19 reportedly hit US*.

[32] Dordevic, Milan, Fadi Safieddine, and Y. Ibrahim. 2020. "Variable Identification and Approaches to Validating Fake News." *Fake News in an Era of Social Media: Tracking Viral Contagion*, Rowland and Littlefield: 133.

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the expansion of the 5G network that led to vandalism on cellular towers significantly motivated some people to illegally act against CI.

Alternative news presents attractive answers and certainty to readers and followers. For instance, while traditional and fact checking news outlets either leave aside worries raised from false information or mention few options or resolutions, disinformation often addresses worries in a direct manner, enabling people searching for answers to directly come across the disinformation. Moreover, those propagating the information can present solutions relatively accessible to prevent the perceived threat from harming their audience and their families. Regarding the Capitol attack, all factors of disinformation dissemination were employed to push people to act. The false information played on human and interaction factors by instilling fear and group pressure among followers to vandalize and fix the so-called fraud elections. Additionally, the inaccurate information was spread on platforms polarizing views and contents, leading audiences to believe in a much greater movement and peer pressure.

In the case of the 5G network fears, numerous disinformation platforms raising issues against 5G used strong words, often in a familiar tone, convincing the audience that it is an outrageous issue. For example, webpages use words like 'insanity', 'waging war', 'extreme', 'lethal', or 'crime against humanity'.[33] Another key aspect of disinformation related to health is the suggestions for how to protect individuals from the health risks, including 'raising vibrations', 'remaining strong',

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[33] Wagner, Paul. 2019. *5G Health Risks; The War Between Technology and Human Beings*. Gaia.

'staying out of fear', 'focusing on love', 'intimacy and social vulnerability', etc.[34] Strong common aspects of these so-called remedies are the lack of scientific evidence or even research, as well as a general vagueness on how these variables could help protect individuals from the dangers of the 5G network. The webpages spreading inaccurate information present protection devices like nets to cover beds or claim that the practice of mindfulness and yoga helps fight the side effects of the 5G network.[35] While the "power of love" and "eating healthy" is defended on such reports, no scientific evidence come in play to evaluate or support these claims.

In both case studies, it is possible to identify aspects raised by the risk society theory. Specifically, the erosion of trust in experts and the scientific community is apparent. However, we notice a contradiction in terms of credibility that the disinformation allows regarding scientists. Numerous false reports include scientific claims, from one or more experts, calling out against the opinion and position of the broad majority of scientists in a particular field. The disinformation then often put much weight on this contrary knowledge and expertise, basing the credibility of these individuals on the sacrifices they are presumably making by turning their back to their field and others in it, in order to expose an alternative truth, much like whistleblowers.[36]

Canada is not spared from disinformation and its potential effects to CI. It is essential to consider that broad and varied potential attacks could happen and they

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[34] Ibid.

[35] Ibid.

[36] Vraga, Emily K. and Leticia Bode. 2020. "Defining Misinformation and Understanding its Bounded Nature: Using Expertise and Evidence for Describing Misinformation", *Political Communication*, 37:1, 136-144.

would not be limited to what has happened in the past. Therefore, law enforcement agencies and intelligence sectors need to be attentive and stay updated on disinformation campaigns and news spreading actively and rapidly on social media platforms or messaging applications.

Current law enforcement techniques aim to prevent issues with CI by looking at potential threats including those coming from disinformation and contacting public and private sectors responsible in the field to alert them.[37] Additionally, the RCMP and private security sectors are aware of international incidents relating to CI whether from natural causes or human caused. This method helps inform and prepare Canadian systems for potential security threats. Ideally, more preventive actions could reduce the gravity of acts, as well as the spread of wrongful information, especially that encouraging physical aggression against CI.

One significant difficulty with these human threats is that there is currently no team or system in place to monitor and act against disinformation leading to threats on national CI. Although there are siloed interventions and studies addressing types of disinformation, numerous factors come into play, making threats challenging to address. Most studies and research on disinformation are precise and focus on specific campaigns about few topics or its psychological and social causes.[38] Few holistic perspectives with a broader focus on disinformation and national defence impact exist. As the technological age is rising, and our consumption of

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[37] Gjoka, Rudin, personal communication with author, February 8, 2022.
[38] Abrams, Z. 2021. Controlling the spread of misinformation. Monitor on Psychology, 52(2). Retrieved from: http://www.apa.org/monitor/2021/03/controlling-misinformation.

information is increasingly fragmented, the international community and Canada need to be proactive and protect their CI from the propagation of false information.

Numerous impacts on society are linked to risk society theory. For instance, the potential for increased attacks against CI across borders and nationally can lead to distrust in public institutions. If successful human-caused incidents occur, it is also possible to create dissatisfaction and frustration in structures and institutions. Canadian authorities and private entities responsible for CI need to consider the potential for financial, material and human losses, leading to even further erosion of trust in public institutions, or greater disturbance in other sectors.

Potential paths exist to prevent human threats against CI due to disinformation. First, broader preventive measures would include campaigns and initiatives to bring the government and CI leaders closer to the population to increase trust and understanding of systems. CI needs to rely on strong positive public opinions. Second, there is a strong need to fund research and studies regarding disinformation to assess the reality and future threats towards public institutions. Third, following evaluation of the disinformation space, education campaigns must become a priority for authorities and even CI within the private sector to reduce the spread of false information that could lead to violence. Finally, other potential preventive measures to protect CI from disinformation-related aggression involve more traditional security. For instance, the decentralization of CI

could create a stronger system where one failure does not impact the entire structure.[39]

Conclusion

The rise and spread of disinformation, especially online, can represent a threat to the protection and security of national CI. The two case studies explored in this paper demonstrate the risk and potential for disinformation to escalate and encourage violence and vandalism on essential structures. The attack on the capitol on January 6, 2021, in Washington, D.C., shows the possible risks of continuous disinformation in a political context characterized by dissatisfaction with democratic precedents, which could also occur in other democratic countries.

The vandalism of 5G towers occurred domestically and shows the risk that disinformation can have against essential sectors domestically, the losses, and the associated costs. Recently, the freedom convoy to end COVID-related restrictions has disrupted the federal parliament in Ottawa. These are some of the examples showing that Canada, as well as other similar countries, is not spared from the repercussions of widespread disinformation involving CI.

Risk society theory points to the fragility of trust in public institutions and scientific communities, including the threat that disinformation poses to the security of CI.

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[39] Grenier, Marianne "Infrastructures essentielles après la COVID-19 : prévoir et mitiger l'augmentation des cybermenaces", *Études canadiennes / Canadian Studies*, 91 | 2021, 133.

Disinformation has already led to killings across the world. India witnessed murders due to false information spread across the country.[40] Similarly, French citizens attacked and killed Roma in a refugee camp following the sharing of inaccurate information on the latter.[41] The gravity of disinformation consequences is increasing, sparing no state or communities. Events like these and those studied in this paper demonstrate the necessity to act pre-emptively, assure greater awareness to the public, and improve safeguards of national CI. Above all, addressing the disinformation and preventing the possible ramifications and movements threatening the security of critical systems should be the nation's priority.

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[40] Samuels, Elyse. 2020. *How misinformation on WhatsApp led to a mob killing in India*. The Washington Post. Retrieved from: https://www.washingtonpost.com/politics/2020/02/21/how-misinformation-whatsapp-led-deathly-mob-lynching-india/.

[41] Agence France-Presse in Paris. 2019. *Roma attacked in Paris after fake news reports*. The Guardian. Retrieved from: https://www.theguardian.com/world/2019/mar/27/roma-call-for-protection-after-vigilante-attacks-inspired-by-fake-news.

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    day of the Capitol attack. CNN. Retrieved from:

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Contact Information

marianne.grenier@ucalgary.ca

www.linkedin.com/in/marianne-grenier