

Digital Policy Hub – Working Paper

The Climate Policy Crisis: Governing Disinformation in the Digital Age

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The Digital Policy Hub working papers are the product of research related to the Hub's identified themes prepared by participants during their fellowship.

Partners

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Key Points

- Climate change is the quintessential global challenge, while also perhaps the issue that has experienced the most polarization in recent years. Therefore, understanding the way broader global politics manifest through tools such as social media and consequently impact policy making, becomes integral to effectively fighting the climate crisis.
- While climate change must be countered through effective mitigation and adaptation approaches at the local, national and global levels, implementing effective policies to do so can only be accomplished through buy-in by a critical mass of citizens.
- Disinformation campaigns have, however, increasingly been targeted at issues that fall along partisan lines and climate change has been a particularly polarizing issue. While it is known that online misinformation has become almost ubiquitous, its specific impacts on policy making are less well known.
- Research presented in this paper demonstrates ways in which efforts to misinform and disinform the public are becoming both increasingly prevalent as well as effective. Such efforts are in turn leading to negative outcomes in relation to the ability of the Canadian government to sustain support for climate policies that are integral to realizing targets outlined in the Paris Agreement.
- The polarization that is being stoked by misinformation campaigns on social media is the most serious threat to fighting climate change. New policies and approaches for policy development and implementation will be required to match the alacrity of the proliferating online flows of misinformation and disinformation.

A lie can travel halfway around the world while the truth is still putting on its shoes.

— Anonymous

Introduction

Climate change is *the* global challenge of the twenty-first century. While increasing numbers of people around the world continue to accept this as fact, there has been a parallel rise in the polarization in opinions regarding what ought to be done about the growing climate crisis (Atske 2022). In their most simplified forms, these divisions tend to be pitted along the traditional right and left of the political spectrum, with each side seemingly growing further apart, while also continuously solidifying in their beliefs (van der Linden et al. 2017). Climate change is perhaps the most symbolic — as well as dangerous — of the issues being governed along such dividing lines, but it is far from the only one. In recent years, there has been an increase in polarization regarding issues such as immigration, vaccines, LGBTQ+ rights, abortion and more (Kleiner 2018). One of the most interesting aspects of this proliferation in seeming incommensurability, is the global nature with which issues are thrust into public debate and in the ways they are treated. While for many living in Western nations, right-wing populism was epitomized by Trumpism, Brexit and the rise of far-right-wing political

parties across much of Europe, neither the West nor the Global North more broadly have a monopoly on populism and the polarization that tends to accompany it.

While the causes and consequences of such polarization are complex, multi-faceted and beyond the scope of this paper to examine in detail, a wealth of research has demonstrated that information, misinformation and disinformation on social media have played and continue to play a significant role in the polarization in countries across the Global North as well as the Global South (Nguyen and Vu 2019). As people have become increasingly reliant on their devices for a constant flow of instantaneous information, there have been a number of shifts that have contributed to the issues we are seeing today. These (d)evolutions include shifts away from localized media toward outlets aimed at more global audiences, as well as a hollowing out of journalistic rigour in favour of the algorithmic echo chambers that reify ideological leaning, rather than incite critical analytical reflection and debate (Machin and Bouvier 2020).

The revolution in the way in which people consume information has been radical in its speed, its effects on the media/journalistic landscape and, subsequently, on who people listen to and what they accept as “truth” (Treen, Williams and O’Neill 2020a). This revolution has been perhaps epitomized with the climate crisis, whose degree of complexity, severity and duration has made it an enduring flashpoint in political debate as other issues ebb and flow (McCright et al. 2016). While climate change is undoubtedly the challenge of the twenty-first century, this paper argues that the real issue is not whether the policy tools exist to prevent catastrophic warming, but instead the political polarization that prevents policies from effectively being communicated and implemented on an acceptable timeline. The world is currently at a precipice, and while continued innovation will be required in order to prevent the worst of the climate crisis, the UN Intergovernmental Panel on Climate Change (IPCC) Working Group III released a report that states we have the knowledge, money, technology and affordable clean energy required in order to cut global carbon emission in half by 2030 and realize the goals set out by the Paris Agreement (IPCC 2022). The real challenge, therefore, rests on cutting through partisan debates and the political economic inertia that has been fuelled globally by petrodollars in order to implement effective policies to attain a net-zero future. Unfortunately, as Angela Carter (2020) argues, for petro-fuelled and -funded states such as Canada, this inertia seems to be more powerful than might have been imagined, even in the face of progressive governments taking increasingly activist positions on the climate crisis.

Effectively communicating accurate information related to issues as complex as climate change as well as the dense layer of policies required to effectively combat its deleterious effects have become increasingly difficult in the internet age. This is, at least in part, a result of the proliferating misinformation and disinformation campaigns that target increasingly polarized audiences, and climate change is a particularly salient issue for doing so. While misinformation is more prevalent than ever and can spread at unprecedented speeds as a result of social media, further research is required in order to understand how such misinformation campaigns impact the policy-making landscape. Beyond this, new policies are required to govern online information as well as the likely probability of entirely new ways of approaching policy that enable them to be more innovative, adaptable and able to evolve at more rapid paces in order to attempt to match the speed with which information flows are expanding around the world.

Climate Change, COP and COVID-19: The Perfect Storm

In 2015, the United Nations Framework Convention on Climate Change saw 196 states at the UN Conference of the Parties (COP) 15 agree to a legally binding international treaty to limit global warming. The overarching goal of what came to be known as the Paris Agreement was to hold “the increase in the global average temperature to well below 2°C above pre-industrial levels” while also working “to limit the temperature increase to 1.5°C above pre-industrial levels.”¹ Not long after this historic agreement was reached in 2015, *The Guardian* published an article outlining that “the world’s leading climate scientists have warned there is only a dozen years left for global warming to be kept at a maximum of 1.5°C, beyond which even half a degree will significantly worsen the risks of drought, floods, extreme heat and poverty for hundreds of millions of people” (Watts 2018). Now, almost a decade after the COP 15 summit that led to the unprecedented Paris Agreement, as well as half-way through the 12-year window that was issued to save the planet, progress has at best been mixed.

In Canada — like much of the rest of the world — efforts to achieve the targets laid out in the Paris Agreement and set by the federal government have been a sort of two steps (or degrees) forward, and one (or 1.5) steps back. While the newly elected Liberal government swept to power with broad-based and popular support as the world’s major representatives were heading to Paris in 2015, the government’s popularity and seemingly its political capital required to implement effective climate policies have since been on a steady decline (Robertson 2023). As Prime Minister Justin Trudeau’s now-minority government enters its ninth year in power, this decline in both popular support and support for the government’s cornerstone climate policy — a carbon tax — have become precipitous (Hahn 2023). This decline in support certainly played no small part in the Liberal decision to walk back part of this cornerstone climate policy — exempting some Canadians from portions of the tax — and this seemingly slight reversal has quickly been followed with calls from the opposition to provide broad-based similar exemptions for all Canadians (Al Mallees 2023).

Similar to other countries around the world, progressives in Canada have waged an increasingly difficult battle against growing populist forces that seem to have been fuelled by the COVID-19 pandemic with the same energy in which wildfires burned across much of the globe in 2023. While the early stages of the pandemic saw economic shutdowns lead to notable decreases in greenhouse gas emissions, at the time there were already those who argued that COVID-19 would not be good for the environment (Katz-Rosene 2020). Following the initial lockdowns, a perfect inflationary storm had developed based on pent-up demand and savings, breakdowns in supply chains and to some degree unprecedented government stimulus injected to save economies from failing around the world. The aftermath of the pandemic saw economies roar back to life, and this abrupt return to economic activity and growth has been paralleled by inflation rates not seen in decades (Gravelle 2022). With over half the world’s population having never lived with such inflationary pressures that increased the costs for energy,

¹ See <https://unfccc.int/process-and-meetings/the-paris-agreement>.

housing, groceries and more, there has been growing demand for governments to use everything in their tool kits to make life more affordable (Ansell and Cansunar 2021).

Unfortunately, climate action is generally seen as a luxury for those privileged enough who can afford to do so (Heffernan 2020). This has been demonstrated in research and polling that shows a high degree of support for climate action when economies are strong and growing, and plummeting support when economic times are tough (Lipsev and Samson 2020). For many, times are currently as tough as they can remember and with economic relief slow to materialize, a narrative has quickly formed, particularly among right-wing populists that government policies — although most often specifically referring to the carbon tax — are to blame for the high cost of living (Postmedia News 2023). While some of these arguments are not entirely unfounded, the way they are communicated and disseminated among various communities is often through social media and increasingly rely of varying degrees of misinformation and disinformation. While these are terms that have become more prevalent in common vocabulary, they are complex and evolving concepts that deserve a degree of unpacking in their own right, as will be discussed next.

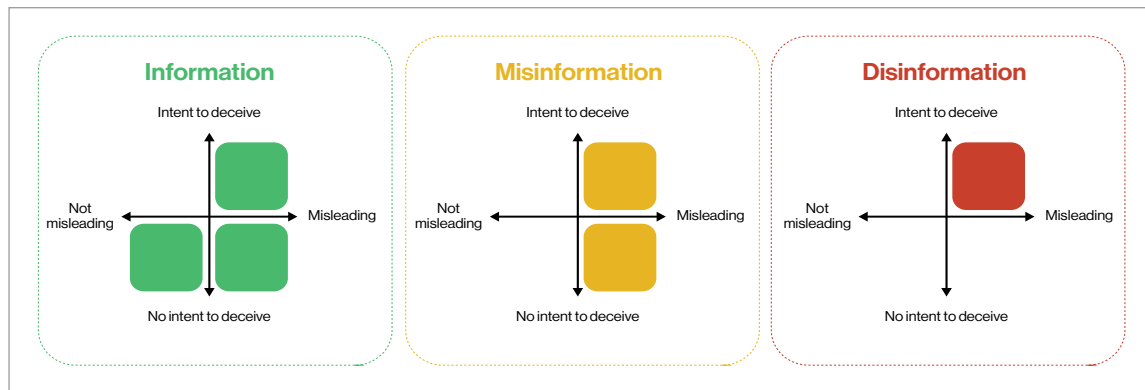
Information, Misinformation and Disinformation in the Digital Age

The concepts of misinformation and disinformation have become increasingly common in the daily lexicon of academic, public as well as more popular debates in recent years. In 2018, “misinformation” was declared the “Word of the Year” by Dictionary.com, and with the announcement it was stated that “the rampant spread of misinformation poses new challenges for navigating life in 2018” (Dictionary.com 2018). This announcement was accompanied by a statement by the dean of the Graduate School of Journalism at the University of California, Berkeley, who spoke of “the weaponization of falsity” and issued a “call to action” to counter this nefarious phenomenon (ibid.). It is clear that this call to action has become increasingly existential as policy makers try to deal with complex global challenges and are simultaneously faced with rising opposition and polarization.

Kathie Treen, Hywel Williams and Saffron O’Neill (2020b) define misinformation, on the one hand, as “misleading information that is created and spread, *regardless of whether there is intent to deceive*” (italics added). Disinformation, on the other hand, they suggest, differs in subtle but important ways and is defined as “misleading information that is created and spread with intent to deceive.” The figure below demonstrates the hierarchy of information these researchers developed in order to outline which forms of information attempt to realize various outcomes and which pathways they pursue in doing so. In understanding that such realities have existed for some time, it becomes important to understand what, if anything, has changed that has suddenly made possible the seemingly ubiquitous weaponization of such efforts to alter “truth”?

Rachel Ehrenberg (2012) suggests that what has changed is both the degree of and ways in which people consume information. She argues that although

Figure 1: Hierarchy of Information, Misinformation and Disinformation



Source: Treen, Williams and O'Neill (2020a).

“the strategic spread of misinformation is as old as elections themselves, the Internet Age has changed the game.” This conclusion is based on a wealth of research that demonstrates how social media has facilitated both the diffusion and consumption of information at previously unimagined scale and speed (Karlova and Fisher 2013; Wu et al. 2016; Del Vicario et al. 2016).

Interestingly — and perhaps ironically — the World Economic Forum (WEF) identified “digital wildfires in a hyper-connected world” as one of the 50 global risks it warned about in its *Global Risks Report 2013* (WEF 2012). The WEF cautioned that such digital wildfires posed the risk of serious consequences with the potential to wreak havoc in the real world. The report outlined that these concerns were specifically related to the potential for the spread of online misinformation through social media (ibid.). Building on these findings, the WEF further identified online misinformation as one of the top 10 global threats to the world in 2014 (WEF 2013). Part of the not-so-subtle irony of these findings is that now, more than a decade after the initial findings of the risks posed by online misinformation, the WEF has been the central target of a litany of conspiracy theories that have emerged and been fuelled by online misinformation and disinformation campaigns (Darcy 2023; BBC News 2021; The Associated Press 2023).

Misinformation and disinformation efforts have become virtually ubiquitous in election campaigns around the globe (Karanicolas 2019), pervasive throughout debates over vaccines and health care (Loomba et al. 2021), central to conspiracy theories about world leaders and key governance institutions (Birchall and Knight 2022), and more. These instances of misinformation pose real threats as efforts targeted at election campaigns contribute to undermining democracy and calling into question electoral results, which has already led to the violent Capitol Hill riots of January 6, 2021, in the United States (Soto-Vásquez and Sánchez-Santos 2022; Steele 2023; Lee et al. 2022). Misinformation regarding health care and vaccines has contributed to a questioning of medical expertise and research, and likely led to thousands of deaths that would have otherwise been preventable from COVID-19 (Sule et al. 2023). Moreover, there have been worldwide campaigns to target and undermine the credibility of democratically elected leaders and institutions that are key to effective global governance and the healthy functioning of the international political economy. Such

campaigns are wreaking havoc as demonstrated with trust in governance institutions at all-time lows in virtually all corners of the globe (Zhang and Ghorbani 2020).

While the above examples demonstrate some of the ways misinformation can be used in problematic, dangerous and often nefarious ways relating to specific contexts or issues, climate change is proving to be an enduring challenge whose complexity and scope is, in many ways, being met only by the relentlessness of the dark forces of the internet. Also similar to the examples above, climate change misinformation can be extremely dangerous, with a litany of research demonstrating that these campaigns have confused the public (Brulle 2018), led to political inaction (Cook, Ellerton and Kinkead 2018), stalled support for mitigation and adaptation policies (Ding et al. 2011) and contributed to opposition movements to climate policies once they are in place (van der Linden et al. 2017). If we are to heed the increasingly dire warnings that have been issued by scientists and leading international organizations, as well as the growing climate catastrophes being experienced around the world, it is clear that climate change poses an existential threat to humanity. Therefore, any actions that seek to limit, alter or counter the important information people require in order to make effective decisions on climate policies increase the risks posed to humanity (Alegre 2022).

The Impacts of Misinformation on Climate Policy in Canada

Mirroring the mixed two steps forward, one step back results of the Paris Agreement, while a strikingly high number of Canadians do not believe climate change is urgent enough to act in a way that might impose any sort of costs to them, a high and growing percentage of Canadians do increasingly view climate change as a serious and growing threat. In June 2022, the Pew Research Center released a survey in which Canadians responded that the two most serious threats of the modern age are online misinformation and climate change (Atske 2022). This was particularly striking as Canadians — along with the rest of the world — were, at the time of this survey, still working to pull themselves from the throes of the COVID-19 pandemic, the war in Ukraine was raging and generational inflation rates were spiking. However, despite this perfect storm, 68 percent of respondents classified online misinformation as a major threat, followed by 65 percent for climate change contributing to both of these issues topping the survey. While concerns about the world economy and the spread of infectious disease trailed at 58 and 57 percent respectively, Pew concluded that “among the many threats facing the globe, climate change stands out as an especially strong concern among citizens in advanced economies” (ibid.).

Usefully, the survey has tracked opinion over time as well as along political leanings, which show that among Canadians who associated themselves with the political right, 46 percent considered climate change a major threat, compared to 80 percent for those on the left, and 71 percent for respondents aligning with the political centre. Building on this data, the survey outlines that “despite these political divisions, concerns about climate change have been rising in recent years, as people react to the climate extremes plaguing countries” (ibid.). These findings are useful as they demonstrate that many of the traditional avenues of climate disinformation have not succeeded to the extent that

the perpetrators would have liked in misinforming the public. For years, campaigns aimed at preventing effective environmental action have tended toward arguments that suggest climate change is fake and not a result of human activity — that it is just part of the earth’s normal cycles or other such explanations. These arguments were aimed at positing there is either no need to act because the climate is either not changing or that any changes that are observed are not related to human activity (Brown 2017).

Despite the multifarious approaches to misinformation and disinformation campaigns of the past couple of decades, more and more people continue to believe in the consensus scientific view of anthropogenic-induced climate change and the resultant need to act. However, in the face of the clear and present danger the climate crisis is causing, which leads more than ever to suggestions the government must act immediately on climate change, most Canadians have juxtaposed responses when it comes to incurring costs for such action. This paradox was demonstrated by a recent Ipsos poll that found 62 percent of Canadians felt the government should do more in the fight against climate change, but only 23 percent responded that they would be willing to pay more to support such efforts. A majority responded that instead they would prefer government incentives to offset the costs of changing their own consumption and behaviour patterns to become more environmentally friendly (Aziz 2023). These findings, unfortunately, are symbolic of the collective failure to adequately change our current climate course — with individuals and governments around the world increasingly paying lip service to the requirement to urgently act, but generally proving unwilling to take the steps required to effectively do so.

As a result of the increasing prevalence of such contradictory views, Matto Mildenberger argues that “in some ways the face of climate denial in political rhetoric has shifted” (Crowe 2019). Increasingly, misinformation campaigns are shifting toward arguments that suggest it is either too late to do anything, or that our actions will be insufficient to change the outcomes. As a result, it is argued climate policies put forward by governments will force citizens to incur costs without providing any demonstrable benefits (McCright et al. 2015). Moreover, arguments against efforts to decarbonize economies have emerged touting “the case for doing almost nothing about climate change,” which accepts that the climate is changing and is a result of human activity, but that it is not a crisis in the way it has been framed by activists and governments and that it will be possible to use innovation to overcome climate challenges through various technological improvements and geoengineering (Kline 2023).

An expert panel report from the Council of Canadian Academies (2023) has reported that “misinformation can erode trust in our institutions and distort our policy priorities, delaying action on critical issues such as climate change.” These findings are furthered in a Policy Primer from the North American and Arctic Defence and Security Network that suggests misinformation campaigns have not only been effective in preventing effective climate policies from gaining broad-based support in Canada and elsewhere, but that often these campaigns are part of broader political destabilization efforts by adversaries such as Russia, China and illicit non-state actors. This research builds on a study by Indigo J. Strudwicke and Will J. Grant (2020) that found that “climate change is a prime issue for an adversary to exploit (vaccines are another one) because of the controversy and polarization that

already exists on this topic and disinformation campaigns over social media (such as Twitter) have targeted both sides of this issue in the past” (Bellamy 2020).

Therefore, due in no small part to the fact that climate change is such a defining issue that falls so squarely along partisan lines, it is particularly vulnerable to misinformation campaigns as well as a launching point for broader attempts to use deceiving information as a way of attacking the very social fabric that holds democratic states together.

Stephan Lewandowsky et al. (2013) suggest that climate change is a particularly polarizing issue due to the challenges involved in effectively communicating complex scientific concepts to the public and the uncertainty that accompanies such issues. These uncertainties mixed with the ever-evolving nature of scientific discoveries in the field of climate change are easy targets for disinformation campaigns that have long been prevalent in Western society and are entrenched in much of the public’s beliefs (ibid.). As such beliefs are so engrained, and as climate change mitigation efforts are often framed as having negative implications for economic growth, countering such beliefs has proven to be an extremely difficult challenge. This challenge speaks directly to the epigraph of this paper as well as another quote by the literary figure Jonathan Swift, who famously opined in 1710, “Falsehood flies, and the Truth comes limping after it.” In a world where lies and falsehoods can travel farther and faster than ever, serious work will have to be done to ensure policies are in place that can help the truth keep up.

Conclusions and Future Directions

The world is at a precipice. There has for some time been a broad-based scientific consensus that our window to act to avoid a significantly climate changed world is closing. This fear seems to have been all but guaranteed as reported by Politico that at the recent contentious COP 28 climate summit, which was embroiled with controversy, “leading scientists worldwide delivered a striking dose of reality to the United Nations...: it’s ‘becoming inevitable’ that countries will miss the ambitious target they set eight years ago for limiting the warming of the Earth” (Harvey 2023). Despite real and demonstrable achievements being made in the fight against climate change in recent years, political gridlock both within and between governments of all partisan stripes from the local to the global levels has led to insufficient action. This political deadlock, which has contributed to ongoing inertia in the fight against climate change, is caused in no small part by countries such as Canada that have been contended to be petro states that simply do not have sufficient desire to move away from their fossil-fuel economies. This raises a further challenge while seeking to more effectively govern information, because even when armed with adequate scientific understanding of the threats posed by climate change, many who benefit from the continuous extraction, sale and burning of fossil fuels continue to find reasons to maintain business as usual. As has been posited in this paper, while more work must be done to continue to develop innovative solutions to collective environmental challenges, the necessary resources required to stave off catastrophic global warming currently exist. However, similar to the ways in

which the climate crisis is a result of anthropogenic activity, it is currently our seeming inability to act effectively that is limiting our ability to meet our present climate goals.

Susie Alegre (2022) unpacks the increasingly contentious questions around “truth” and information and argues that freedom of thought and freedom of expression are limited when we do not have access to reliable, accurate and consistent information. She pushes this even further to suggest that even if we have access to such information flows, if our neighbours, colleagues or friends do not, even that limits our ability to think freely. As misinformation and disinformation have become increasingly ubiquitous and been leveraged to sow division and political polarization, Alegre’s findings suggest serious concerns for the ability to have free and open democratic societies in the age of social media, and with the coming age of artificial intelligence. Climate change is a particularly salient topic for unpacking these difficult questions as it is one of the most heavily divisive issues, while also one of the most serious global challenges of the twenty-first century. This paper has continued to build analysis on these contentious issues, and while a great deal more research is required, it is clear that developing new policies and new types of policy making will be required to govern online information flows.

This is the first in a series of working papers that will probe the impacts online misinformation and disinformation campaigns are having on the effective implementation of climate policies. This paper has sought to lay the foundations for this ongoing project by conceptualizing the social media landscape in relation to the politics of climate policy in Canada. It is clear that social media has created significant shifts in the way information is distributed and consumed and that there are powerful efforts being undertaken by multifarious actors to undermine and challenge information flows for their own purposes. The next paper in this series will seek to develop similar research to analyze the impacts of online climate misinformation in the southern African context. Findings from the first two papers will then be used to inform the third paper, which will unpack the policy landscape that exists for countering such online misinformation efforts while drawing conclusions on the avenues government can and should take to counter such damaging campaigns.

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Andrew Heffernan is a part-time professor of international relations and comparative politics at the University of Ottawa, where he also completed a Ph.D. in political science. He is a post-doctoral fellow at the Digital Policy Hub whose research will examine climate governance and mis- and disinformation around climate change. Other major research interests include African politics, global environmental governance, climate change mis- and disinformation, community-based conservation, and the politics of food. Andrew is also active in the scholarship of teaching and learning, about which he is regularly publishing on and presenting at academic conferences, as well as implementing in his teaching in university classes.

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