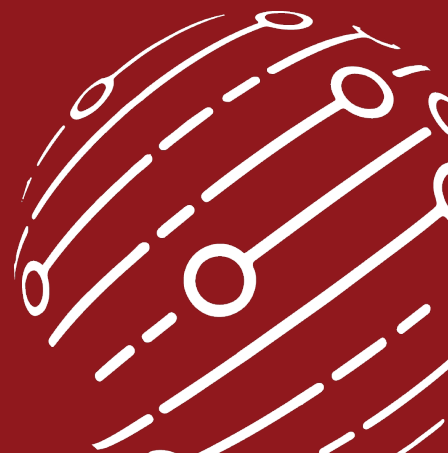




A Call for 'Whole of Society' Approaches for Combating Climate Mis/Disinformation

ANDREW HEFFERNAN
DECEMBER 2024



A Call for "Whole of Society" Approaches for Combating Climate Mis/Disinformation

This article is produced and published by the Information Integrity Lab at the University of Ottawa. The author, Andrew Heffernan, is a Climate Associate at the Information Integrity Lab. He holds a PhD in Political Science from the University of Ottawa, where he is a part-time professor specializing in International Relations and Comparative Politics.

Acknowledgment:

The framing and discussion questions highlighted in this paper were developed by Nicolas Rutherford, Senior Analyst at the Information Integrity Lab. They are designed to support ongoing consultations and foster broader engagement in preparation for the June 2025 Summit on Climate Mis/Disinformation.

Cover image:

AI image generated using Midjourney from the prompt : "A tree with leaves, its roots tangled in wires and electronic devices, evoking an encroachment of technology on nature, set against a stark white background."



TABLE OF CONTENTS

Foreword	4
Introduction	5
Building Public Awareness of, and Resilience to, Climate Disinformation	6
Public Opinion and Belief: The Erosion of Scientific Consensus	7
Social Media: Amplifying Falsehoods and Shaping Narratives	7
Policy Implications: Obstructing Effective Climate Action	8
Economic Ramifications: Misguided Investments and Missed Opportunities	8
Public Safety and Emergency Response: Direct Threats to Communities	9
Existing Climate Disinformation Countermeasures in Canada	9
Academic Research: Understanding and Countering Disinformation	10
Current Initiatives: A Multi-Pronged Approach	10
Towards Informed Climate Action: Challenges, Practical Solutions, and Policy Responses	12
Collaboration with Tech Platforms: Addressing the Digital Frontier	13
Public Awareness and Education: Empowering Citizens	15
Scientific Communication and Civil Society Initiatives	17
Private Industry	18
Proactive Communication and Support for Climate Journalism	19
Conclusion	21
Endnotes	22



FOREWORD

The accelerating climate crisis, marked by unprecedented global temperatures, severe weather events, and rising sea levels, demands urgent and coordinated global action. However, while scientific consensus around the human-driven causes of climate change has grown, so too has the proliferation of false narratives. False narratives, whether deliberately propagated as disinformation, or as misinformation, are distorting the public understanding of the climate change crisis and impede action.

The concept of "information integrity" emphasizes the importance of accurate, reliable, and trustworthy information. Information integrity is not just the absence of falsehoods but a set of practices and norms that ensure the quality and context of information, enabling individuals to make well-informed decisions. Information integrity relies on a healthy information ecosystem rather than the action of any one actor.

The University of Ottawa Information Integrity Lab has made advancing information integrity around climate change as one of its key priorities. With the support of the Trottier Family Foundation, the Info Integrity Lab has been advancing a work program based on innovative analysis, studies, ideas exchange, and practical tools and measures for mitigating the impact of mis/disinformation. A key inflection point in the work program is the convening of a Summit on Climate Mis/Disinformation on 17-18 June, 2025, in Ottawa, Canada.

We are pleased to make available this study in the spirit of developing a coalition of actors committed to ensuring information integrity in climate change discussions, and to mitigate misinformation and disinformation through practical solutions. This paper builds upon the framing article that the Info Integrity Lab published in October 2024, "Navigating the Climate Crisis: Information Integrity and the Challenge of Climate Mis/Disinformation", by InfoLab Senior Analyst Nicolas Rutherford. In the present paper, written by InfoLab Climate Associate Andrew Heffernan, a compelling case is made for "whole of society approaches" in combating climate mis/disinformation. The Info Integrity Lab looks forward to advancing further collaboration with the wide-range of actors doing important work in this space, convinced in the need and value of collective action.

— Jennifer Irish
Director, University of Ottawa
Information Integrity Lab



INTRODUCTION

Climate change disinformation poses a significant threat to Canada's efforts to address the global climate crisis. As the world grapples with increasingly severe impacts of the climate crisis – from devastating wildfires to extreme weather events – the persistent spread of false and misleading information undermines public understanding and impedes effective action. This report examines the tangible impacts of climate disinformation in Canada, evaluates current initiatives to counter these falsehoods, and proposes future strategies to mitigate their harmful effects. Beyond that however, and perhaps more importantly, the paper serves as a call to action/collaboration to academics, policymakers, practitioners, journalists, and other interested actors working in this space to both contribute to the solutions this paper begins to propose, as well as to help build questions to ensure effective avenues of inquiry are being pursued.

The paper takes a modest approach arguing for the need for whole of society approaches to combatting climate disinformation, yet also acknowledging comprehensive solutions cannot emerge from any one actor or even a small group of actors. As such, the paper is framed around a broad set of pathways that key sets of actors can pursue in order to create a healthier information ecosystem both within Canada, as well as globally. Each section has a set of accompanying questions that we hope will help continue to guide ongoing research and solution implementation processes. Beyond those 'known unknowns' that we outline with the questions provided however, we also realize that there are likely many more 'unknown unknowns' and as a result see this document as setting the stage for solutions, while inviting suggestions, and welcoming further questions and avenues for inquiry on this quickly evolving and complex issue.

The paper is organized around two overarching themes: building public awareness and resilience and developing practical solutions to climate disinformation. The first half of the paper addresses the first overarching theme and includes a brief discussion of the current state of climate disinformation. This section does not go into great depth as there are more and more studies about the nature of climate disinformation, and we are acutely aware of the need to build beyond this growing knowledge base to continue developing more effective solutions to the problem. The section then goes on to discuss some of the practical impacts of climate disinformation. This includes discussing some of the broad challenges being posed to society, as well as more specific cases where climate disinformation has caused additional harm. Finally, this section addressing the first overarching theme will provide a lay of the land on where our current counter-disinformation measures lie, in order to open discussion about what is currently being done that is working, as well as where major gaps remain.

The second half of the paper addresses the second key theme, discussing what we suggest is a need for whole of society approaches for countering disinformation. Because of the challenging nature of this problem, we argue that effective solutions will require consolidated actions from a variety of actors and sectors across society in order to build on and expand capacity and knowledge. Each of these sections proposes a number of avenues that can be taken, while also forwarding questions to elicit further suggestions for contributing to this approach for fostering a healthier information ecosystem. Finally, the report will offer some concluding thoughts, including suggestions for next steps, and a call to action to join this invitation for collaboration and capacity expansion.



BUILDING PUBLIC AWARENESS OF, AND RESILIENCE TO, CLIMATE DISINFORMATION

Addressing climate disinformation is a particularly wicked problem in the era of 'fake news' due in part to the proliferation of technology which can supercharge disinformation flows, and the constantly evolving and 'intelligent' nature of disinformation campaigns. For example, as the scientific consensus regarding the reality of human caused climate change has become increasingly difficult to deny, disinformation campaigns have evolved to question the efficacy of existing solutions, or sowed doubt as to whether it is within our power to address the climate crisis at all due to its severity.¹

The impacts of climate disinformation in Canada are far-reaching and multifaceted. This includes an erosion of trust in scientific consensus which has led to a stark polarization along ideological lines, complicating efforts to implement unified climate action. Social media platforms have emerged as key vectors for the spread of false narratives, as evidenced by the proliferation of misinformation during the 2023 wildfire season. These online campaigns have had real-world consequences, hindering emergency response efforts and public safety measures.

In response to these challenges, Canada has implemented various initiatives to counter climate disinformation. Academic institutions have spearheaded research efforts to understand and map disinformation networks, while governments have begun enacting joint initiatives both domestically and internationally. Furthermore, increasing pressure from investors and shareholders is pushing some companies to take climate change more seriously and improve their disclosure and mitigation efforts. This has also led many companies to actively promote accurate climate information as part of their business models and corporate missions. Collaborations between civil society organizations, tech platforms, and policymakers have also yielded improvements in content moderation practices.

Despite these efforts, the persistent nature of climate disinformation calls for continued innovation and expansion of countermeasures. This report will explore further avenues for action, including strengthening legal and regulatory frameworks, enhancing media literacy programs, and fostering international cooperation to address this global challenge. By examining these key areas, we aim to provide a comprehensive overview of the state of climate disinformation in Canada and offer actionable recommendations for building a more resilient and informed society. First however, we will further unpack some of the specific consequences disinformation campaigns are having on the fight against the climate crisis.

- What are the root causes of climate mis/disinformation?
- How do social and political divisions contribute to the spread of false narratives?
- Why can it be difficult for people to accept climate science, and what role does mis/disinformation play in this?
- How does climate mis/disinformation tap into people's emotional responses (e.g., eco-anxiety, fear, helplessness) and shape their perception/understanding of the issues?



Public Opinion And Belief: The Erosion Of Scientific Consensus

One of the most significant and measurable impacts of climate disinformation in Canada is its effect on public opinion. Research conducted by Daniel Stockemer revealed a startling statistic: more than 20% of the Canadian population subscribes to climate change conspiracy theories.² This high prevalence of conspiracy beliefs has serious implications for public trust in scientific consensus and, consequently, for support of climate action initiatives. Unfortunately, climate disinformation does not exist within a category of its own, but is part of a broader ecosystem of disinformation that seeks to limit effective climate action, sew division within society, and drive the polarization that is tearing at the social fabric of society.³

The impact of disinformation on public opinion is not uniform across the political spectrum. A study by the Pew Research Center highlighted a stark divide along ideological lines. Among Canadians who identified with the political right, only 46% considered climate change a major threat. In contrast, 80% of those on the left viewed it as a significant concern.⁴ This polarization, exacerbated by targeted disinformation campaigns, can create opportunities for disinformation to find wedges that distort issues and complicate solutions.

Regional variations in climate skepticism further complicate the picture. In provinces like Alberta, where the oil and gas industry plays a significant economic role, climate skepticism is more prevalent.⁵ This localized resistance to climate science and action underscores the need for targeted, region-specific approaches to countering disinformation.

- What makes it difficult to have open, meaningful conversations about climate science?
- How do conversations around climate become polarized or derailed by mis/disinformation?
- What role does trust play in these conversations, and how can we (re)build it?

Social Media: Amplifying Falsehoods And Shaping Narratives

Social media platforms have emerged as key vectors for the spread of climate disinformation in Canada. The "Flame Wars" report, a collaborative effort by Canadian academics and civil society groups, provided a detailed mapping of disinformation networks that proliferated on Twitter during the 2023 wildfire season. This report revealed a troubling pattern of disinformation that evolved over time. Initially, online conversations began in May 2023, with a surge in June as right-wing and anti-establishment groups disseminated content claiming that arsonists, not climate change, were responsible for the devastating fires. As the wildfire season progressed, these claims became increasingly conspiratorial, with some groups insinuating that left-wing extremists or even the Canadian government itself were behind the fires.⁶

Despite concerted efforts to debunk these false narratives, misleading posts continued to gain significant traction on social media platforms. This persistent engagement with disinformation highlights the challenges faced by fact-checkers and climate communicators in an era of algorithmic content promotion and echo chambers.



- What role do media, social media platforms, and influencers play in either exacerbating or addressing climate mis/disinformation?
- How can technology be harnessed to build awareness and resilience, rather than reinforce existing mis/disinformation?
- What opportunities exist for cross-sector collaboration between media outlets, tech companies, and grassroots organizations to fight climate mis/disinformation?

Policy Implications: Obstructing Effective Climate Action

The pervasive nature of climate disinformation has had tangible effects on policy development and implementation in Canada. Helen Hayes, Research Manager at the Centre for Media, Technology and Democracy, emphasized that "broadening and bolstering content moderation practices for this type of content will have tangible effects on both the ways that Canadians understand climate issues and the policies that work to address them."⁷

One particularly insidious form of disinformation that has impacted policy evaluation is the spread of delay narratives and corporate greenwashing. Research from one group of scholars on "net zero greenwashing" in carbon-intensive industries, with a focus on Canada's oil sands sector, has revealed how corporate climate pledges can become vehicles for misinformation.⁸ These pledges often obfuscate rather than illuminate, characterized by selective disclosure and inadequate reporting. This obfuscation creates significant obstacles to meaningful climate action, as it becomes increasingly difficult for policymakers and the public to distinguish between genuine commitments and empty rhetoric.

Economic Ramifications: Misguided Investments And Missed Opportunities

The economic implications of climate disinformation in Canada are substantial and multifaceted. The persistence of climate denial narratives has contributed to continued investment in fossil fuel industries, potentially leading to stranded assets as the global economy transitions to cleaner energy sources.⁹ This misallocation of resources poses significant risks to Canada's long-term economic stability and competitiveness in a rapidly decarbonizing world.

Moreover, misinformation about the costs and feasibility of renewable energy has slowed the transition to clean energy technologies.¹⁰ This delay not only impacts Canada's ability to meet its climate commitments but also hinders job creation in emerging green sectors. As other countries accelerate their transition to renewable energy, Canada risks falling behind in the development and deployment of crucial clean technologies.



Public Safety And Emergency Response: Direct Threats To Communities

The impact of climate disinformation extends beyond policy and economics, directly affecting public safety and emergency response efforts. The 2023 wildfire season in Canada provided a stark illustration of how misinformation can hinder critical emergency operations.

Kevin Skrepnek, manager of community and emergency services at the Thompson-Nicola Regional District, and former Chief Fire Information Officer for the BC Wildlife Service articulated the frustration felt by many in the emergency response sector. Skrepnek was on the front lines during the BC wildfire seasons of 2017 and 2018, which were the most destructive in BC's history at the time. He noted that the spread of false information on social media platforms actively hindered evacuation efforts and emergency response.¹¹ He continued, "it puts into words eloquently the angst that many in my industry have been feeling over the past few years – particularly the notion spread by bad actors online that governments are leveraging crisis as an opportunity to further some odious agenda."¹² Skrepnek's comments highlighted a growing concern among emergency management professionals: the notion that bad actors online are leveraging crises to further their own agendas, at the cost of public safety.

Climate disinformation has also contributed to the delay in addressing arctic security and sovereignty.¹³ While this issue has not become a pressing public safety concern for most Canadians, threats to Canada's North are rising in an increasingly authoritarian world. These are coupled with the uncertainties of a renewed Trump Presidency along with implications for Canada and NATO all of which underscores the need to get more serious on investing in arctic security.¹⁴

The above examples and case studies are but a drop in the bucket of the damaging impacts climate disinformation is having within Canada and across the globe. While we know its effects are far reaching and increasingly damaging, in order to continue the conversation about how best to counter these challenges, the next section will first outline some of the existing measures being employed in Canada.



Existing Climate Disinformation Countermeasures In Canada

In recent years, Canada has begun taking efforts to fight against climate disinformation, implementing a multi-faceted approach that combines government action, academic research, civil society initiatives, and collaboration with tech platforms and private industry programs. These approaches have included prebunking, debunking, deplatforming, infrastructure takedowns, attribution targeting and prosecution of actors. This strategy has begun to raise awareness about the issue, but continued efforts are needed to also yield tangible benefits in fostering a more informed public discourse on climate change.

Academic Research: Understanding And Countering Disinformation

Canadian universities and research institutions have been at the forefront of studying and countering climate disinformation. The Centre for Media, Technology, and Democracy at McGill University is conducting a comprehensive study on the state of climate disinformation in Canada.¹⁵ This research involves surveying over 3,000 Canadians and analyzing data from social media platforms to provide a detailed picture of how misinformation spreads and impacts public opinion.

Institutions such as Carleton University's Re.Climate have also been at the forefront of this endeavor. Their groundbreaking work, exemplified by the "Flame Wars" report released in 2023, has shed light on the intricate networks through which climate disinformation spreads.¹⁶ This report, a collaboration with the Climate Action Against Disinformation Coalition (CAAD), meticulously mapped out disinformation networks that proliferated on social media during Canada's 2023 wildfire season. It revealed how right-wing and anti-establishment groups propagated false narratives, attempting to shift blame from climate change to alleged arsonists. The impact of this research has been significant, raising public awareness about disinformation trends and providing policymakers with crucial insights to inform their strategies.

The Information Integrity Lab at the University of Ottawa has also emerged as a hub through which to connect academic institutions, think tanks, NGOs, government bodies, policymakers, journalists, and private industry in order to build on lessons learned to develop solutions toward derailing climate disinformation campaigns.¹⁷ Similarly, other Canadian universities have launched specialized programs and research centers focused on studying and countering climate disinformation. Institutions like the UNESCO Chair in Prevention of Radicalization and Violent Extremism at the Université de Sherbrooke have initiated projects to study the links between climate denial, misinformation, and social polarization. This interdisciplinary approach recognizes that climate disinformation is not an isolated phenomenon but part of a broader landscape of online radicalization and conspiracy theories.¹⁸ These academic initiatives are not only contributing to our understanding of climate disinformation but are also training the next generation of professionals to identify and counter false information. This is but a snapshot of the wealth of activity that academic institutions are undertaking on this front, with this brief section being but a small selection of initiatives to illustrate the types of activities taking place.

Current Initiatives: A Multi-Pronged Approach

The Canadian government has begun taking steps toward combating climate disinformation, implementing several initiatives that have shown promising results. The G7 Rapid Response mechanism has proven value as a tool to share information and counter disinformation, particularly in foreign interference in information manipulation. If its partnerships are broadened to include non-governmental actors, it could be a useful model to advance a climate disinformation observatory. With sufficient continued investment and development, this type of tool can enhance the speed and efficiency with which disinformation campaigns are detected and countered, contributing to a more resilient democratic discourse.¹⁹

Recognizing that an informed citizenry is the best defense against disinformation, Canada has invested



invested heavily in public awareness and education initiatives. The government has developed comprehensive guidelines for public servants, equipping them with the tools to identify and respond to disinformation effectively. Canada has also developed, "Countering Disinformation: A Guidebook for Public Servants" which serves as a valuable resource, providing an overview of disinformation tactics and their impact on democratic institutions.²⁰ Moreover, various organizations across Canada have implemented media literacy programs aimed at helping citizens critically evaluate information sources and identify disinformation.²¹ These programs often include specific components addressing climate change misinformation, empowering individuals to navigate the complex information landscape surrounding this crucial issue.

On the international stage, Canada has leveraged its influence to spearhead collaborative efforts against state-sponsored disinformation. The launch of the Global Declaration on Information Integrity Online, in partnership with the Netherlands, stands as a testament to Canada's commitment to global action. This declaration has established high-level international commitments, providing a framework for governments worldwide to uphold information integrity in the digital sphere.²²

The Canadian government has taken decisive action through the imposition of sanctions against individuals and entities responsible for spreading false narratives and propaganda, particularly related to the Russian invasion of Ukraine. More could be done on this front to leverage these tools against actors trafficking in climate disinformation. This approach sends a clear message about the seriousness with which Canada views the threat of disinformation.²³

In recognition of the pivotal role that social media platforms play in the spread of disinformation, Canadian authorities and civil society organizations have actively engaged with these tech giants.²⁴ The goal has been to improve content moderation practices related to climate disinformation. The recommendations put forth in the "Flame Wars" report have been instrumental in pushing for stronger regulation and enforcement of tech platform content moderation policies by the Canadian government. This collaboration has yielded tangible improvements in content moderation practices, making it more difficult for climate disinformation to proliferate unchecked on major social media platforms. While challenges remain, this ongoing dialogue between government, civil society, and tech companies represents a crucial step in addressing the digital frontier of climate disinformation.

While respecting the fundamental right to free speech, Canada has explored legal and regulatory measures to address the most harmful forms of climate disinformation. The Canadian Code of Advertising Standards has been effectively used to challenge misleading claims about climate change in advertisements, helping to reduce the spread of disinformation through commercial channels.²⁵

Parliamentary inquiries into the spread of disinformation, including on climate change, have led to policy recommendations that aim to strike a balance between protecting free speech and combating harmful misinformation.²⁶ Canadian climate scientists have taken a more active role in public communication, engaging directly with the public through various channels.²⁷ This increased engagement has helped counter misinformation with factual, evidence-based information, bridging the gap between scientific knowledge and public understanding.



Civil society groups have been instrumental in these efforts, with organizations like Climate Action Against Disinformation (CAAD) forming coalitions to monitor, expose, and counter climate disinformation campaigns.²⁸ Local and national environmental groups have organized grassroots campaigns to educate communities about climate change and counter local sources of misinformation, leading to better-informed local populations.

Canadian authorities and climate scientists have adopted strategies to proactively communicate accurate climate information, developing systems to quickly identify and respond to misinformation. This rapid response approach, coupled with consistent messaging across various channels, has helped prevent the spread of false narratives and ensured that accurate information reaches the public in a timely manner. Finally, with the Government of Canada recognizing the vital role of journalism in shaping public understanding of climate issues, there have been concerted efforts to support and strengthen the media in general and climate journalism in particular. This includes funding for specialized climate reporting and training programs for journalists to better understand and communicate climate science. The result has been more accurate and comprehensive climate change coverage in Canadian media, contributing to a better-informed public.

While this section has begun laying out the emerging information integrity ecosystem in Canada, significant gaps and limitations remain. Many of the initiatives discussed above are nascent in nature and either not yet fully functioning, not sufficiently resourced, or not yet fit for purpose. Moreover, as more actors come online in the fight against disinformation, actions for the most part remain overly siloed and much more collaboration is required for resource, expertise, and tool sharing in order to expand capacities. The following section will outline some of the avenues we feel ought to be pursued next in order to continue to develop this more effective whole of society approach.

- What current legal frameworks are in place to regulate climate mis/disinformation, and where are the gaps in these regulations?
- How can governments, at local, provincial, and national levels, enhance regulatory measures to curb the spread of climate disinformation, especially on digital platforms?
- What role do transparency and accountability play in addressing the financial incentives behind climate misinformation (e.g., advertising, media campaigns, and corporate greenwashing)?
- How can international policies or frameworks, such as the EU's Digital Services Act or similar models, inform Canadian approaches?
- What role can national and international legal collaborations play in regulating climate-related content online, and how can Canada contribute to global efforts?

TOWARDS INFORMED CLIMATE ACTION: CHALLENGES, PRACTICAL SOLUTIONS, AND POLICY RESPONSES

As Canada continues to grapple with the impacts of climate change, addressing the persistent challenge of climate disinformation will be crucial for effective policy-making and public engagement. The evolving nature of disinformation tactics, particularly the shift from overt climate denial to more subtle "delay" narratives, presents an ongoing challenge for researchers and policymakers alike.²⁹





Collaboration With Tech Platforms: Addressing The Digital Frontier

Despite the significant efforts to counter false information, misleading posts about climate change continue to gain considerable engagement on social media platforms.³⁰ This persistent engagement underscores the need for continued innovation in communication strategies and platform governance. Countering climate change disinformation through legal and regulatory approaches requires a delicate balance between protecting free speech and ensuring the dissemination of accurate information. As the threat of climate misinformation grows, policymakers are increasingly exploring legislative and regulatory measures to address this challenge.

One key policy approach is the implementation of transparency requirements for online platforms. The European Union's Digital Services Act (DSA) provides a model for such regulation, requiring very large online platforms to assess and mitigate systemic risks, including the spread of disinformation.³¹ Similar legislation could be adopted in other jurisdictions, mandating platforms to disclose their content moderation practices, algorithmic recommendations, and efforts to combat climate misinformation. This transparency can help researchers, policymakers, and the public better understand the scope of the problem and evaluate the effectiveness of platform interventions.

Another regulatory approach involves mandating fact-checking partnerships for major tech platforms. Policies could require platforms to collaborate with reputable fact-checking organizations specializing in climate science. For instance, Meta's current fact-checking program could be expanded and made mandatory,³² incorporating signals from International Fact-Checking Network (IFCN) signatory fact-checkers beyond their official partners.³³ This approach can help identify and label misleading content more quickly and accurately, without placing the burden of determining truth solely on the platforms themselves.

Policymakers are also considering regulations that address the financial incentives behind climate misinformation.³⁴ This could include requiring platforms to demonetize content that spreads climate misinformation, removing such content from ad programs and revenue-sharing schemes. The goal is to reduce the financial motivation for producing and spreading false information about climate change.



Some jurisdictions are exploring more direct legal approaches to combating climate misinformation. For example, France has implemented a law against the "manipulation of information" that can be applied to cases of climate disinformation during election periods.³⁵ While such laws must be carefully crafted to avoid infringing on free speech, they represent an attempt to create legal accountability for the spread of harmful misinformation.

Regulatory bodies could also be empowered to play a more active role in addressing climate misinformation. For instance, the Federal Trade Commission (FTC) in the United States could be given expanded authority to take action against companies that spread false or misleading information about climate change, particularly in advertising and marketing contexts. However, these legal and regulatory approaches must be balanced against concerns about free speech and the potential for government overreach. Critics argue that overly broad regulations could lead to censorship or the suppression of legitimate scientific debate.³⁶ To address these concerns, policies should focus on demonstrably false information rather than matters of scientific uncertainty or policy disagreement.

One potential solution is to focus regulations on the amplification of misinformation rather than its creation. Policies could require platforms to adjust their algorithms to reduce the visibility of content that has been identified as climate misinformation by authoritative sources, without necessarily removing it entirely.

International cooperation is also crucial in developing effective legal and regulatory approaches to climate misinformation. As climate change is a global issue and online information flows across borders, coordinated international efforts are needed to create consistent standards and enforcement mechanisms.

As we move forward, policymakers must continue to refine these approaches, learning from their implementation and adapting to the evolving landscape of online information. The goal should be to create a regulatory environment that promotes accurate information about climate change while preserving the open exchange of ideas that is essential to democratic societies. Ultimately, legal and regulatory approaches to countering climate change disinformation must be part of a broader strategy that includes education, media literacy, and support for quality journalism. As the Global Witness report highlights, climate disinformation is a complex ecosystem that requires a multifaceted response.³⁷ While regulation can play an important role, it must be complemented by efforts to build a more informed and resilient public.

- How can governments, tech companies, civil society organizations, and the private sector work together more effectively to create a more trustworthy information environment?
- What existing or emerging partnerships have shown success in combating climate disinformation (e.g., collaborations between environmental NGOs, tech platforms, and policymakers)?
- How can different sectors contribute to developing solutions that are not only effective but scalable and sustainable in addressing climate disinformation?
- How can public-private partnerships help promote the dissemination of accurate climate information and/or push for stronger content moderation policies?
- What role can local community-based organizations play in ensuring that "solutions" and strategies are culturally relevant and targeted to specific communities?



Public Awareness And Education: Empowering Citizens

To effectively combat climate change disinformation and empower citizens, governments and institutions must implement comprehensive policy strategies focused on public awareness and education. A multifaceted approach is essential to equip individuals with the knowledge and skills necessary to discern fact from fiction in the climate discourse. This must include tools and toolkits that are public facing and can easily be leveraged by the public directly. These tools should be the types of approaches that can easily be integrated into the daily lives of average people which can take the form of apps, games, educational modules, and more.

One of the foundational steps is mandating climate change education in schools. By developing national curriculum standards that require the teaching of evidence-based climate science across all grade levels, we can ensure that students gain a solid understanding of the fundamentals of climate change, its impacts, mitigation and adaptation strategies, and critical thinking skills for evaluating climate information.³⁸ This initiative should be supported by adequate funding and resources for teacher training, enabling educators to effectively convey complex scientific concepts. In addition to formal education, launching large-scale public awareness campaigns is crucial. Governments should allocate funding for multi-channel public information campaigns that utilize television, radio, social media, and community outreach. These campaigns should aim to explain climate science in accessible language, highlight local climate impacts, and promote practical solutions. Collaborating with trusted public figures and organizations can amplify these messages and enhance their credibility.

Supporting high-quality climate journalism is another vital policy approach. Providing grants and training programs for journalists can improve the accuracy of climate reporting. Research from UNESCO has demonstrated that young journalists are prioritizing causes in climate reporting which has led to measurable positive outcomes.³⁹ Establishing guidelines for responsible climate coverage in media outlets will help prevent the spread of misinformation. Furthermore, funding fact-checking initiatives specifically focused on identifying and correcting climate misinformation can play a significant role in maintaining public trust in credible sources.

Empowering community leaders as climate communicators is also essential. Governments can create programs to train local leaders—such as educators, health professionals, and faith leaders—equipping them with the resources needed to conduct effective climate education within their communities. This grassroots approach fosters trust and engagement, making information more relatable. This approach also builds on findings published in a recent book by Grant Bollmer and Katherine Guinness who outline the outsized impact influencers have on our societies.⁴⁰ While so often we think of the negative repercussions of influencer culture, harnessing the power of influencers for the public good is an increasing imperative as well.

To make climate impacts more tangible, The UN outlines that funding interactive climate education experiences is crucial.⁴¹ This includes through supporting the development of climate-focused museum exhibits, citizen science projects, and community resilience workshops which allows individuals to engage hands-on with the subject matter. These experiences not only educate but also inspire action by demonstrating the real-world implications of climate change.





Improving climate literacy among policymakers is another important strategy. Requiring regular climate science briefings for elected officials ensures they are well-informed about the impacts and solutions relevant to their jurisdictions. This knowledge empowers them to make informed decisions that align with scientific consensus. Enhancing transparency around climate data is equally vital. Governments should make climate research publicly accessible through user-friendly platforms that allow citizens to explore local projections and impacts. This transparency fosters trust and encourages informed discussions about climate issues.

Promoting media literacy specifically focused on climate issues is essential for fostering critical thinking skills among citizens. Integrating these skills into school curricula and adult education programs will teach individuals how to identify reliable sources of information. Additionally, supporting programs that educate the public on actionable climate solutions empowers citizens to take meaningful steps toward addressing the crisis. Workshops on reducing carbon footprints or participating in local initiatives provide concrete avenues for engagement.

Establishing dedicated climate education centers within communities can serve as hubs for information dissemination, workshops, and collaborative planning for local climate action. Furthermore, creating a national climate information service—akin to a weather service—can provide an authoritative source for reliable data and forecasts.

By implementing these policy approaches, governments can cultivate a more informed citizenry that is resilient to disinformation about climate change. Building widespread literacy around this critical issue will foster public engagement and the political will necessary to implement effective solutions, ultimately contributing to a more sustainable future for all.



- How can we ensure that discussions about climate change are not just informed, but also constructive, moving beyond polarized arguments to collective action?
- How can policies support public spaces that foster positive, solutions-oriented climate conversations?
- What role do storytelling, community engagement, and participatory communication strategies play in helping the public connect emotionally and intellectually with the climate crisis?
- How can we ensure that all voices, particularly those from marginalized or underrepresented communities (e.g., Indigenous populations, rural areas), are included in the conversations around climate action?

Scientific Communication And Civil Society Initiatives

Scientific community engagement and civil society initiatives play crucial roles in countering climate change disinformation. Effective policy approaches in this area should focus on fostering collaboration between scientists, civil society organizations, and policymakers to ensure accurate information reaches the public and informs decision-making processes.

One key policy approach is to establish and fund dedicated climate communication centres that bring together climate scientists, communication experts, and civil society representatives. These centers can serve as hubs for developing evidence-based messaging strategies, creating accessible educational materials, and rapidly responding to emerging disinformation campaigns. For example, the Climate Action Network (CAN), a global network of over 1,900 civil society organizations in 130 countries, acts as a convener for climate advocacy and pushes for strong political outcomes in international climate negotiations.⁴²

Governments should also implement policies that support and protect climate scientists engaged in public outreach. This could include providing legal and institutional backing for researchers facing harassment or intimidation due to their work on climate change. Additionally, funding should be allocated for media training programs that equip scientists with the skills to effectively communicate complex climate information to diverse audiences.

Promoting partnerships between academic institutions and civil society organizations is another important strategy. Policies can incentivize universities to integrate climate change education across disciplines and engage with local communities on climate issues. For instance, a study on climate change education at universities highlighted the need for more interdisciplinary approaches and practical training for educators.

Civil society initiatives play a critical role in grassroots climate action and education. Policies should support and amplify these efforts by providing funding, resources, and platforms for civil society groups working on climate issues. The United Nations' compilation of Civil Society Climate Action Stories showcases diverse initiatives from around the world, demonstrating the potential impact of empowered civil society actors.⁴³ In Egypt, for example, civil society groups have found ways to engage with climate policy despite challenging political circumstances.⁴⁴ By focusing on local crisis response and policy openings, these organizations have managed to influence climate resilience plans and connect with state establishments. Policymakers should recognize and support such adaptive strategies employed by civil society in different political contexts.



To enhance the credibility and reach of scientific information, the European research Executive Agency suggests policies should encourage the development of citizen science programs focused on climate change.⁴⁵ These initiatives can engage the public directly in data collection and analysis, fostering a deeper understanding of climate science and building trust in scientific processes. Furthermore, policies should support the creation of rapid response networks that can quickly mobilize scientific expertise to address climate misinformation in real-time.⁴⁶ This could involve establishing a database of climate experts available for media interviews and developing protocols for swift fact-checking of climate-related claims in the media and online platforms.

International cooperation is essential in combating global climate disinformation. Policies should facilitate cross-border collaborations between scientific institutions and civil society networks to share best practices, coordinate messaging, and present a united front against transnational disinformation campaigns. This is supported by findings from Stekelenburg et al. whose “data from a large, global collaboration (63 countries, N = 10,390) demonstrate that exposure to one simple climate consensus message has a meaningful effect on the estimate of consensus among climate scientists ($d = \sim 0.40$).”⁴⁷ This led them to their conclusions suggesting effective communication of scientific consensus on such issues can have a small positive impact, but that these ought to be expanded on in order to boost productive outcomes.

Effective policy approaches for countering climate change disinformation through scientific community engagement and civil society initiatives should emphasize collaboration, support for grassroots efforts, protection of scientists, enhancement of communication skills, and the promotion of climate literacy across society. By implementing these strategies, governments can create a more resilient information ecosystem that empowers citizens to make informed decisions about climate change and supports evidence-based policymaking.

- How can more effective communication contribute to the fight against climate disinformation, and what challenges do climate scientists face in this battle?
- What strategies are necessary to strengthen communication around climate science, policy, and disinformation, ensuring accurate and compelling storytelling while avoiding sensationalism or false equivalence?
- How can climate literacy initiatives help the public better discern between reliable and misleading information, particularly in the context of climate change?
- How can educators and communicators support citizens in becoming more media-savvy, particularly when it comes to recognizing climate disinformation online?
- What policy measures could support novel forms of media and communication outlets in building a stronger climate coverage infrastructure, from funding to training to promoting best practices?



Private Industry

In recent years, Canada's private sector has been grappling with the challenge of climate disinformation, with various industries taking steps to address this critical issue. The energy sector – long at the center of climate debates – has shown signs of shifting its approach. The Pathways Alliance, a coalition of Canada's six largest fossil fuel producers, made headlines in 2024 when it overhauled its online presence in response to Bill C-59, which mandates companies to substantiate their environmental claims.⁵² This move signaled a growing awareness within the industry of the need for truthful climate-related communications. Meanwhile, clean energy companies have been at the forefront of promoting accurate climate information, leveraging their business models to counter disinformation spread by fossil fuel interests.⁵³ This proactive stance has helped to balance the narrative and provide the public with more reliable information about renewable energy solutions.



The manufacturing sector in Canada has also been making strides in combating climate disinformation. Many companies are now publishing detailed sustainability reports, offering transparent data on their emissions and climate mitigation efforts. Industry associations have taken it upon themselves to develop guidelines for their members, emphasizing responsible environmental communication.⁴⁸ This shift towards transparency is helping to build trust and combat skepticism about industrial environmental impacts.

In the transport sector, companies are working to educate the public about the environmental impact of different transportation modes. Many are now providing transparent reporting on their emissions and detailing their efforts to reduce them.⁴⁹ Some transport companies have even partnered with environmental organizations to promote accurate climate information, recognizing that their industry plays a crucial role in shaping public perception of climate issues.

The Government of Canada is reporting that tech and social media companies operating in Canada have also stepped up their efforts to address climate misinformation. Major platforms have expanded their fact-checking programs to include climate-related content, while some have formed partnerships with Canadian climate scientists and organizations to improve the accuracy of climate information on their platforms.⁵⁰ These efforts are crucial in an era where social media often serves as a primary source of information for many Canadians.

Cross-industry initiatives are emerging as a powerful force in the fight against climate disinformation. Many large Canadian companies have made public commitments to reduce emissions and support climate action, often including pledges to communicate accurately about climate issues.⁵¹



These corporate climate commitments are helping to set a new standard for responsible business practices in the face of climate change.

Despite these positive developments, challenges persist. Some industry groups, particularly those representing fossil fuel interests, have been accused of using disinformation tactics to avoid responsibility for climate pollution. The fossil fuel industry continues to lobby against emissions reduction policies while publicly claiming to support climate action, creating a complex and often contradictory landscape of information.⁵⁴ However, new trends are emerging that may help to address these ongoing issues. The Canadian government is implementing stricter regulations on environmental claims, forcing companies to be more accurate in their communications.⁵⁵ Additionally, increasing pressure from investors is pushing companies to improve their climate-related disclosures and actions, recognizing that climate risk is also financial risk.

As Canada moves forward in its efforts to combat climate change, the role of private industry in addressing disinformation will remain crucial. While progress has been made across various sectors, continued vigilance and commitment will be necessary to ensure that accurate, science-based information prevails in the public discourse. The actions taken by energy, manufacturing, transport, and other industries today will shape the climate narrative and policy landscape for years to come, making their efforts to combat disinformation a critical component of Canada's broader climate strategy.

- What role does the private sector play in countering climate disinformation?
- How can other actors in society most effectively work with the private sector?
- What incentives are there for private actors to effective counter-disinformation?
- What tools does that private sector have at its disposal that others do not, and how can we ensure those tools are shared to expand their reach/effectiveness?

Proactive Communication And Support For Climate Journalism

Journalism and the traditional mainstream media in Canada have been undergoing radical restructuring amid a series of overlapping crises in the evolving journalistic landscape. Where and who the public receive their information in changing significantly and this is directly linked to the proliferation of disinformation through novel mediums spraying an increasingly erratic diversity of information on any given topic or issue. As such, countering climate change disinformation through proactive communication support for climate journalism requires a multifaceted policy approach. Establishing dedicated funding streams for climate journalism is a crucial step in this process. Policymakers should create grant programs and financial incentives specifically for news organizations and journalists focusing on climate coverage. This could include subsidies for climate-focused beats, fellowships for environmental reporters, contract vehicles, tax incentives, Scientific Research and Experimental Development tax credits, and grants for in-depth investigative projects on climate issues. Such funding can help offset the financial pressures that often lead to cuts in specialized environmental reporting.

Developing climate journalism training programs is another essential policy approach. Government



agencies, in collaboration with academic institutions and professional organizations, should create and fund comprehensive training initiatives for journalists. These programs should cover not only the science of climate change but also effective communication strategies, data analysis skills, and techniques for countering misinformation. The goal is to equip journalists with the tools they need to report accurately and compellingly on complex climate issues.

Policies should also focus on improving access to climate data and experts for journalists. This could involve creating centralized, user-friendly databases of climate information and establishing networks of climate scientists and experts available for media interviews. Government agencies should be mandated to provide timely and transparent access to climate-related data and officials for journalistic inquiries.

Promoting collaboration between scientists and journalists is another key strategy. Policies could incentivize partnerships between news organizations and research institutions, fostering better understanding and more accurate reporting of climate science. This could include funding for joint projects, workshops, and exchange programs that bring scientists and journalists together.

Supporting the development of innovative storytelling formats for climate journalism is also important. Policies should encourage and fund the creation of new digital tools, interactive visualizations, and multimedia platforms specifically designed for climate reporting. This can help make complex climate information more accessible and engaging for audiences.

The UN has outlined that establishing legal protections for climate journalists is crucial, especially given the increasing risks they face when reporting on environmental issues.⁵⁶ Policies should strengthen shield laws, protect whistleblowers, and ensure journalists' safety when covering climate-related stories, particularly those involving powerful interests.

Creating a national climate journalism awards program, such as the international Covering Climate Now Journalism Awards, can help raise the profile of excellent climate reporting and incentivize high-quality coverage.⁵⁷ Such recognition can boost the credibility of climate journalism and encourage more newsrooms to prioritize this beat.

Policies should also focus on fostering media literacy with a specific emphasis on climate information. This could involve integrating climate-focused media literacy programs into school curricula and public education campaigns, helping audiences better understand and critically evaluate climate news and information. Encouraging diversity in climate journalism is another important policy goal. Programs should be established to support and mentor journalists from underrepresented communities, ensuring a wider range of perspectives and experiences in climate reporting. This is particularly important for covering the disproportionate impacts of climate change on marginalized communities.

Finally, policies should promote international collaboration in climate journalism working with organizations such as the Covering Climate Collaborative.⁵⁸ This could involve funding exchange programs for journalists, supporting cross-border investigative projects, and facilitating the sharing of climate reporting resources and best practices across countries.



By implementing these policy approaches, governments can create a more robust ecosystem for climate journalism. This proactive support can help ensure that accurate, compelling, and impactful climate reporting reaches wide audiences, countering disinformation and fostering informed public discourse on this critical issue. As the challenges of climate change continue to grow, empowering journalists to effectively cover this beat is essential for driving awareness, understanding, and action.

- What role do media, social media platforms, and influencers play in either exacerbating or addressing climate mis/disinformation?
- How can technology be harnessed to build awareness and resilience, rather than reinforce existing mis/disinformation?
- What opportunities exist for cross-sector collaboration between media outlets, tech companies, and grassroots organizations to fight climate mis/disinformation?

CONCLUSION: A WHOLE OF SOCIETY CALL TO ACTION

Countering climate disinformation in Canada requires a coordinated, multifaceted approach that engages all sectors of society. By combining strong government leadership, rigorous academic research, active civil society engagement, responsible media practices, private sector cooperation, and broad public education initiatives, Canada can build a more resilient society capable of identifying, countering, and ultimately reducing the impact of climate disinformation. This comprehensive strategy not only protects the integrity of public discourse but also ensures that Canada can effectively address the urgent challenges posed by climate change, safeguarding the nation's environmental future and its role on the global stage. As climate change continues to shape our world, Canada's ability to foster an informed and engaged citizenry will be crucial in navigating the challenges and opportunities that lie ahead.

The analysis of the Information Integrity Lab supports the need for whole of society approaches to advance information integrity around the climate change crisis and the discussion of needed solutions. The questions contained herein are intended to serve as a springboard for constructive engagement on proposed solutions, and resiliency measures that can be matured through the Summit on Climate Mis/Disinformation and beyond.



Endnotes

- 1 Jon Roozenbeek and Sander van der Linden, *The Psychology of Misinformation*, New edition (Cambridge, United Kingdom ;New York, NY: Cambridge University Press, 2024).
- 2 Jean-Nicolas Bordeleau et al., “The Comparative Conspiracy Research Survey (CCRS): A New Cross-National Dataset for the Study of Conspiracy Beliefs,” *European Political Science*, December 15, 2023, <https://doi.org/10.1057/s41304-023-00463-4>.
- 3 Andrew Heffernan, “Countering Fossil-Fuelled Climate Disinformation to Save Democracy,” *Centre for International Governance Innovation*, November 21, 2024, <https://www.cigionline.org/publications/countering-fossil-fuelled-climate-disinfor-mation-to-save-democracy/>.
- 4 James Bell, Jacob Poushiter, and Christine Huang, “In Response to Climate Change, Citizens in Advanced Economies Are Willing To Alter How They Live and Work,” *Pew Research Center (blog)*, September 14, 2021, <https://www.pewresearch.org/global/2021/09/14/in-response-to-climate-change-citizens-in-advanced-economies-are-willing-to-alter-how-they-live-and-work/>.
- 5 Christian Schimpf et al., “If It Ain’t Broke, Don’t Fix It: How the Public’s Economic Confidence in the Fossil Fuel Industry Reduces Support for a Clean Energy Transition,” *Environmental Politics* 31, no. 6 (September 19, 2022): 1081–1101, <https://doi.org/10.1080/09644016.2021.1978199>.
- 6 Re.Climate, “Climate Action Against Disinformation | Flame Wars: Misinformation and Wildfire in Canada’s Climate Conversation,” 2023, <https://caad.info/analysis/reports/flame-wars-misinformation-and-wildfire-in-canadas-climate-conversation/>.
- 7 Re.Climate.
- 8 Melissa Aronczyk, Patrick McCurdy, and Chris Russill, “Greenwashing, Net-Zero, and the Oil Sands in Canada: The Case of Pathways Alliance,” *Energy Research & Social Science* 112 (2024): 103502.
- 9 Nur Firdaus and Akihisa Mori, “Stranded Assets and Sustainable Energy Transition: A Systematic and Critical Review of Incumbents’ Response,” *Energy for Sustainable Development* 73 (April 1, 2023): 76–86, <https://doi.org/10.1016/j.esd.2023.01.014>.
- 10 Sicellia Tsui, “Media Brief: Addressing Common Myths around Renewable Power,” *Clean Energy Canada (blog)*, November 2, 2023, <https://cleanenergycanada.org/media-brief-addressing-common-myths-around-renewable-power/>.
- 11 Kristen Holliday, “TNRD to Bring Concerns about New Emergency Management Act to the Province - Kamloops News,” 2023, <https://www.castanetkamloops.net/news/Kamloops/456908/TNRD-to-bring-concerns-about-new-emergency-management-act-to-the-province>.
- 12 Jeff Davies, “Wildfire of Rumours: Finding Truth in Dangerous Times,” *Northern Beat (blog)*, August 22, 2024, <https://north-ernbeat.ca/news/wildfire-of-rumours-finding-truth-in-dangerous-times/>.
- 13 Andrew Heffernan and Claire Parsons, “The Arctic Online: Cybersecurity Is Quintessential for Canada’s Arctic Security,” *Centre for International Defence Policy* 9, no. 9 (November 13, 2024), <https://www.queensu.ca/cidp/arctic-online-cybersecurity-quint-essential-canadas-arctic-security#:~:text=Canada's%20dual%20role%20as%20an,to%20international%20cooperation%20and%20secu-rity>.
- 14 Nima Khorrami, “NATO and the Trump Challenge: Navigating the Alliance’s Priorities in a Shifting Climate and Security Landscape,” *The Arctic Institute - Center for Circumpolar Security Studies*, November 26, 2024, <https://www.thearcticinstitute.org/na-to-trump-challenge-navigating-alliances-priorities-shifting-climate-security-landscape/>.
- 15 “Centre for Media, Technology and Democracy,” *Max Bell School of Public Policy*, accessed September 20, 2024, <https://www.mcgill.ca/maxbellschool/research/centre-media-technology-and-democracy>.
- 16 Re.Climate, “Climate Action Against Disinformation | Flame Wars.”
- 17 Andrew Heffernan, “Event Report: Climate Change and Mis/Disinformation: Clearing the Air October 1,” 2024, <https://infolab.uottawa.ca/common/Uploaded%20files/PDI%20files/Clearing%20the%20Air%20-%20Report.pdf>.
- 18 “Prevention of Radicalization and Violent Extermism - Research - Université de Sherbrooke,” accessed September 20, 2024, <https://www.usherbrooke.ca/recherche/en/udes/unifying-themes/togetherness/prevention-radicalization-violent-extremism>.
- 19 Global Affairs Canada, “Rapid Response Mechanism Canada: Global Affairs Canada,” *GAC*, February 2, 2021, <https://www.international.gc.ca/transparency-transparence/rapid-response-mechanism-mecanisme-reponse-rapide/index.aspx?lang=eng>.
- 20 Democratic Institutions, “Countering Disinformation: A Guidebook for Public Servants - Democratic Institutions,” guidance, January 26, 2024, <https://www.canada.ca/en/democratic-institutions/services/protecting-democratic-institutions/countering-disinfor-mation-guidebook-public-servants.html>.

- 21 Canadian Heritage, “Backgrounder – Helping Citizens Critically Assess and Become Resilient Against Harmful Online Disinformation,” backgrounders, July 2, 2019, <https://www.canada.ca/en/canadian-heritage/news/2019/07/backgrounder--helping-citi-zens-critically-assess-and-become-resilient-against-harmful-online-disinformation.html>.
- 22 Global Affairs Canada, “Global Declaration on Information Integrity Online,” GAC, November 6, 2017, https://www.international.gc.ca/world-monde/issues_development-enjeux_developpement/peace_security-paix_securite/declaration_information_integrity-integrite.aspx?lang=eng.
- 23 Global Affairs Canada, “Combating Foreign Disinformation and Information Manipulation,” GAC, February 14, 2024, https://www.international.gc.ca/world-monde/issues_development-enjeux_developpement/peace_security-paix_securite/combatt-disinformation-desinformation.aspx?lang=eng.
- 24 Canadian Heritage, “Digital Citizen Initiative – Online Disinformation and Other Online Harms and Threats,” April 23, 2021, <https://www.canada.ca/en/canadian-heritage/services/online-disinformation.html>.
- 25 “Code – Ad Standards,” accessed September 20, 2024, <https://adstandards.ca/code/>.
- 26 “Committee Report No. 17 - ETHI (42-1) - House of Commons of Canada,” accessed September 20, 2024, <https://www.ourcommons.ca/DocumentViewer/en/42-1/ETHI/report-17>.
- 27 CMOS Bulletin SCMO, “The Essential Role of Climate Scientists in Canada’s Climate Plan,” CMOS BULLETIN SCMO (blog), May 18, 2021, <https://bulletin.cmos.ca/the-essential-role-of-climate-scientists-in-canadas-climate-plan/>.
- 28 Re.Climate, “Climate Action Against Disinformation | Flame Wars.”
- 29 Andrew Heffernan, “The Climate Policy Crisis: Governing Disinformation in the Digital Age,” Centre for International Governance Innovation, 2024, <https://www.cigionline.org/publications/the-climate-policy-crisis-governingdisinformation-in-the-digital-age/>.
- 30 “Climate Misinformation on Social Media Is Undermining Climate Action,” April 19, 2022, <https://www.nrdc.org/stories/climate-misinformation-social-media-undermining-climate-action>.
- 31 “The EU’s Digital Services Act,” accessed September 20, 2024, https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/digital-services-act_en.
- 32 “Meta’s Third-Party Fact-Checking Program | Meta Journalism Project,” Meta’s Third-Party Fact-Checking Program | Meta Journalism Project, accessed September 20, 2024, <https://www.facebook.com/formedia/mjp/programs/third-party-fact-checking>.
- 33 “International Fact-Checking Network,” Poynter (blog), accessed September 20, 2024, <https://www.poynter.org/ifcn/>.
- 34 “Countering Disinformation Effectively: An Evidence-Based Policy Guide - Carnegie Endowment for International Peace | Carnegie Endowment for International Peace,” accessed September 20, 2024, <https://carnegieendowment.org/research/2024/01/countering-disinformation-effectively-an-evidence-based-policy-guide?lang=en>.
- 35 “France Passes Controversial ‘fake News’ Law,” euronews, November 22, 2018, <https://www.euronews.com/2018/11/22/france-passes-controversial-fake-news-law>.
- 36 “Why the Government Should Not Regulate Content Moderation of Social Media,” Cato Institute, April 9, 2019, <https://www.cato.org/policy-analysis/why-government-should-not-regulate-content-moderation-social-media>.
- 37 “What Is Climate Disinformation?,” Global Witness, accessed September 20, 2024, <https://en.blog/what-climate-disinformation/>.
- 38 “Should Schools Teach Climate Change Studies? These Countries Think So,” World Economic Forum, August 24, 2022, <https://www.weforum.org/agenda/2022/08/climate-change-schools-education/>.
- 39 “Young Journalists Leading the Shift: Prioritizing Causes in Climate Reporting | UNESCO,” accessed September 20, 2024, <https://www.unesco.org/en/articles/young-journalists-leading-shift-prioritizing-causes-climate-reporting>.
- 40 Grant Bollmer and Katherine Guinness, *The Influencer Factory: A Marxist Theory of Corporate Personhood on YouTube*, 1st edition (Stanford University Press, 2024).
- 41 United Nations, “Education Is Key to Addressing Climate Change,” United Nations (United Nations), accessed September 20, 2024, <https://www.un.org/en/climatechange/climate-solutions/education-key-addressing-climate-change>.
- 42 “Climate Action Network – Home,” Climate Action Network, accessed September 20, 2024, <https://climatenetwork.org/>.
- 43 United Nations, “Civil Society Climate Action Stories,” United Nations (United Nations), accessed December 5, 2024, <https://www.un.org/en/civil-society/call-civil-society-climate-action-stories>.



- 44 “On the Margins: Civil Society Activism and Climate Change in Egypt,” Carnegie Endowment for International Peace, accessed September 20, 2024, <https://carnegieendowment.org/research/2024/05/on-the-margins-civil-society-activism-and-climatechange-in-egypt?lang=en>.
- 45 “Breakthroughs in Tackling Climate Change Powered by Citizen Science Projects - European Commission,” accessed September 20, 2024, https://rea.ec.europa.eu/news/breakthroughs-tackling-climate-change-powered-citizen-science-projects-2022-02-21_en.
- 46 Canada, “Rapid Response Mechanism Canada.”
- 47 Aart van Stekelenburg et al., “Communicating Consensus among Climate Scientists Increases Estimates of Consensus and Belief in Human-Caused Climate Change across the Globe,” *Journal of Environmental Psychology* 100 (December 1, 2024): 102480, <https://doi.org/10.1016/j.jenvp.2024.102480>.
- 48 Steven Downes, “KPMG: The State of Sustainability at the World’s Top Firms,” December 2, 2024, <https://sustainabilitymag.com/articles/kpmg-the-state-of-sustainability-at-the-worlds-top-firms>.
- 49 Nina Jovanovic, Hossein Zolfagharinia, and Konrad Peszynski, “To Green or Not to Green Trucking? Exploring the Canadian Case,” *Transportation Research Part D: Transport and Environment* 88 (November 1, 2020): 102591, <https://doi.org/10.1016/j.trd.2020.102591>.
- 50 Canadian Heritage, “Helping Communities Address Online Misinformation and Disinformation,” news releases, May 15, 2024, <https://www.canada.ca/en/canadian-heritage/news/2024/05/helping-communities-address-online-misinformation-and-disinformation.html>.
- 51 Arthur Zhang and Rick Smith, “Who’s Following through Corporate Climate Commitments?,” Canadian Climate Institute, June 21, 2023, <https://climateinstitute.ca/corporate-commitments-net-zero-whos-following-through/>.
- 52 Amanda Stephenson, “Pathways Alliance Oilsands Group Removes All Website, Social Media Content,” *financialpost*, June 20, 2024, <https://financialpost.com/commodities/energy/oil-gas/pathways-alliance-removes-content-anti-greenwashing-bill>.
- 53 Amanda Stephenson, “Pathways Alliance Oilsands Group Removes All Website, Social Media Content,” *financialpost*, June 20, 2024, <https://financialpost.com/commodities/energy/oil-gas/pathways-alliance-removes-content-anti-greenwashing-bill>.
- 54 Heffernan, “Countering Fossil-Fuelled Climate Disinformation to Save Democracy.”
- 55 Canada, “Combating Foreign Disinformation and Information Manipulation.”
- 56 “Freedom of Expression and Media Crucial to Tackling Climate Crisis: International Freedom of Expression Rapporteurs,” OHCHR, accessed September 20, 2024, <https://www.ohchr.org/en/statements/2024/05/freedom-expression-and-media-crucial-tackling-climate-crisis-international>.
- 57 “The 2024 CCNow Journalism Awards,” *Covering Climate Now* (blog), accessed September 20, 2024, <https://coveringclimatenow.org/projects/the-2024-ccnow-journalism-awards/>.
- 58 “Covering Climate Collaborative,” *Local Media Association + Local Media Foundation*, November 6, 2023, <http://localmedia.org/strategic-pillars/industry-collaboration/covering-climate-collaborative/>.



Infolab.uOttawa.ca
Labinfo.uOttawa.ca