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Better digital literacy could help reduce climate and disaster conspiracy theories

As climate disasters intensify, online conspiracy theories spread rapidly, hindering relief efforts and eroding public trust. Digital literacy and proactive communication strategies can help combat misinformation and promote scientific understanding.

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In recent years, the proliferation of conspiracy theories amid escalating climate disasters and their aftermath has become an alarming trend.

During the 2024 Atlantic hurricane season in the United States, misinformation and disinformation regarding Hurricane Helene and Hurricane Milton proliferated on social media, falsely claiming that [they were "geo-engineered" and intentionally targeted at predominantly Republican regions](#). Such blatant falsehoods not only incited confusion and toxic online discourse but also [hindered relief and recovery initiatives](#).

As wildfires persist in Los Angeles, Americans are once again witnessing a [flood of rumours, half-truths and conspiracy theories](#).

The situation in Canada is equally alarming. There have been [conspiracy theories accusing "green terrorists" of causing the intensifying wildfire seasons](#). During the 2024 Jasper wildfire, some users on X (formerly Twitter) claimed [the disaster was part of a plot by Prime Minister Justin Trudeau to control Albertans](#).

These kinds of conspiracy theories are not only widespread but have also evolved into a mainstream form of climate change denialism. And they underscore an escalating challenge encountered by scholars and practitioners in climate change communication.

As researchers specializing in climate change communication and environmental sociology, we want to provide some analysis of climate change denialism driving climate conspiracy theories online, and propose potential ways to tackle misinformation.

Climate change denialism

Psychologically, theories such as identity-protective cognition and system justification suggest that people tend to accept information that aligns with their pre-existing beliefs, cultural norms and identities, while dismissing contradictory evidence.

Politically, climate mitigation has been vilified by right-wing populism as a political agenda imposed by "elites" (in other words, climate advocates and experts) to undermine the desires of "the people." This kind of narrative makes climate change a divisive issue that falls along broader ideological rifts.

Elaborate conspiracy theories can make it more difficult to differentiate between credible and unreliable sources of information. They can erode public trust in scientists and scientific evidence, impede the acceptance of climate science and the adoption of climate mitigation strategies. Moreover, conspiratorial beliefs exacerbate distrust in institutions and governments, obstructing the collective action required to effectively mitigate climate change.

There are some similarities and differences between how climate change denialism manifests in Canada and the United States. Recent research has shown that, similar to the U.S., political leanings significantly impact beliefs about climate change and trust in information sources among Canadians.

There are also Canada-specific factors at play, with regional differences in attitudes toward climate change more explicitly intertwined with the economic interests of the fossil fuel industry. A study conducted by sociologist Timothy J. Haney found that, following the 2013 southern Alberta flood, victims still expressed doubt about the scientific consensus on climate change and spoke in defence of the oilsands industry.

Alberta skepticism

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Likewise, [research conducted by political scientist Louis Massé](#) explains how regionalism in Alberta has contributed to creating a stronghold of skepticism, which in turn suppresses public discussions regarding the utility of extensive climate and sustainability policies.

Another consensus among scholars is that in Canada, [the reach of corporate power from the fossil fuel sector has played a key role in maintaining business as usual and denying the imperative for climate action](#).

Corporate concentration — when a small number of companies control a large portion of a market — is higher in Canada than in the U.S. This means corporate power plays a very active role in [blocking and delaying government action on climate change](#).

An episode of the CBC podcast The Current on the spread of conspiracy theories during the LA wildfires. (CBC News)

Climate change communication

The prevalence of conspiracy theories poses challenges to climate change communication. [Developing effective ways to communicate climate science](#) that are simple and understandable is a key way to address climate change denialism. Such communication alone, however, may not be sufficient due to two major factors.

First, [online harassment, trolling and even death threats aimed at climate scientists](#) significantly undermines their willingness to participate in public discussions. Second, online platforms like X and Meta have weakened their fact-checking mechanisms. This risks increasingly transforming them into incubators for misinformation and extremism.

Recently, [Meta CEO Mark Zukerburg announced](#) the company was ending its collaboration with third-party fact-checkers and would switch to using community notes. However, this tool, already in place on X, [may not be effective enough to stop viral misinformation from spreading](#).

In addition, some platforms' algorithms may be directing users to misinformation and conspiracy theories. For example, TikTok's recommendation algorithm has been accused of [fuelling conspiracy theories during the L.A. wildfires](#).

In light of these challenges, policy intervention is essential. Governments need to adopt a more proactive stance in combating climate change denialism, particularly by

implementing strategies that alleviate political division and rebuild public trust in experts and institutions.

Public support

[A recent public survey](#) conducted by think tank The Dais shows strong public support for government interventions to combat online harms, including those caused by misinformation and disinformation.

The federal government's proposed Online Harms Act, which aims to control harmful online content, is still making its way through the parliamentary process. However, the bill has draw criticism for [failing to adequately hold social media companies accountable for the harm caused by false information](#).

Whether the bill is passed into law remains to be seen. And there are always legislative challenges and difficulties when governments directly get involved in online content moderation.

That means communications and climate change experts should develop and promote [initiatives that encourage digital literacy, urge netizens to actively cross-reference and verify information sources and remind them to be wary of emotional appeals](#). These could be important first steps toward reducing the detrimental effects of conspiracy theories during disasters.

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