

# Facebook's Climate of Deception: How Viral Misinformation Fuels the Climate Emergency

Decades-old climate misinformation takes on new viral forms in the social media age, racking up 25 million estimated views on Facebook in President Biden's first 2 months in office.

May 11, 2021

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## Executive Summary

Research from Avaaz shows that in President Biden's first 60 days in office, misinformation related to climate science and renewable energy racked up an estimated 25 million views across Facebook. While climate disinformation campaigns have been waged for decades, <sup>1</sup> Facebook is a powerful new tool in misinformers' playbooks. <sup>2 3</sup>

Avaaz's research supports the hypothesis that tactics to prevent climate action are shifting away from outright climate change denialism, and toward more subtle misinformation narratives that promote "inactivism," <sup>4</sup> such as by asserting that it is too late to act on climate, promoting ineffective solutions to the climate crisis, or baselessly attacking effective forms of climate change mitigation. For instance, the most common misinformation narrative in our dataset did not deny the existence of climate change, but instead framed renewable energy sources like wind as being inefficient, unreliable, or otherwise harmful.

Our research further suggests that Facebook is unprepared to address the growing and evolving landscape of climate misinformation. For instance, the top-performing misinformation posts in our sample garnered more interactions than factual posts about climate and energy from the *New York Times* and the *Washington Post*. Additionally, posts *without* a fact-checking label accounted for 45% of all estimated views.

In the first two months of President Biden's term, waves of misinformation followed in the wake of major news events. For example, 73% of total estimated views in our dataset were on false or misleading content related to either the winter storm in Texas and subsequent widespread power outages, or the executive order rescinding the construction permit for the Keystone XL pipeline.

**In the absence of government regulation to combat the epidemic of misinformation on social media, past and future misinformation waves threaten to undermine President Biden's climate agenda and international efforts to limit global warming to 1.5°C above pre-industrial levels.**



## Section 1: Background

The phenomenon of climate misinformation itself is nothing new<sup>5</sup> but we have entered a new era where the very architecture of social media, which has become central to connecting the world, fuels its spread. Some of the false and misleading narratives in our findings have a deep history and ties to powerful actors, most significantly the fossil fuel industry. As President Biden and other world leaders prioritize climate action, disinformation campaigns targeting these policies are likely to escalate and Facebook appears to be unprepared to respond to the multifaceted terrain. Powerful actors operating within this space include:

### THE FOSSIL FUEL INDUSTRY

- It is no secret that Exxon knew about the impact that continuing to burn fossil fuels would have on global warming at least as early as 1981,<sup>6</sup> and yet continued to lobby as if it did not. The failure to disclose what they knew has been a key weapon in the arsenal of the powerful fossil fuel industry, and has been quite successful in sowing discord and confusion.<sup>7</sup> After looking at the association between countries highly dependent on fossil fuel energy and public polarization on climate change, some researchers have concluded that “fossil fuel-funded misinformation has contributed to the current state of public polarization.”<sup>8</sup> This politicization is highest in the US, where researchers have found the strongest link between climate denial and political ideology.<sup>9-10</sup>

### POLITICAL AND RELIGIOUS ORGANIZATIONS INCLUDING THINK TANKS, FOUNDATIONS, AND INSTITUTES

- Climate denialist organizations such as the Heartland Institute have been reported as deploying a variety of misinformation tactics<sup>11</sup> such as recruiting “celebrity contrarians” to deny climate change<sup>12</sup> and publishing climate denialist materials (90% of climate denialist books from 1972 - 2005 were produced by conservative think tanks).<sup>13</sup> In the wider community of climate denialist organizations, we also see a tactic of taking advantage of the journalistic norm of reporting on “both sides” of an issue to push climate denialist voices into the mainstream.<sup>14</sup> Such organizations have received millions of dollars in funding from wealthy donors such as the Koch brothers and the Mercers, as well as from ExxonMobil.<sup>15 16 17</sup>

### MEDIA

- The journalistic norm of “equal coverage” has contributed to a false balance on climate change science: in presenting both sides as “equal,” climate change denialists have been given undue scientific legitimacy in the media.<sup>18</sup> A 2019 study in Nature found that about half of mainstream English media outlets actively seek out climate change denying “experts” for coverage.<sup>19</sup> Coverage by Rupert Murdoch’s media empire has been particularly damaging to the climate movement; research has shown that outlets such as Fox and Sky News, which are owned by Murdoch’s News Corp, not only denied the science of climate change, but also dismissed those who expressed concern on the issue and regularly framed climate change deniers as voices of “courageous dissent” from 1997 to 2007.<sup>20</sup> Even following Murdoch’s public reversal on climate change in 2007, News Corp outlets have continued to showcase denialist perspectives and obscure the impacts of the climate crisis, notably spreading the false claim that arsonists, rather than global warming, were responsible for Australia’s massive 2020 wildfires.<sup>21 22</sup>

### GOVERNMENTS

- Governments have also played a role in supporting and funding climate misinformation, as well as derailing international climate negotiations. For instance, China amplified unsubstantiated climate skepticism for decades.<sup>23</sup> Saudi Arabia has a long history of obstructionism in international climate talks,<sup>24</sup> and its influence extends to US climate discourse. Saudi Arabia’s state-owned oil corporation Aramco and its representation in industry trade groups are tied to the funding of US climate denialist organizations.<sup>25</sup> At the COP24 in Poland, the United States joined Saudi Arabia, Russia and Kuwait in blocking the endorsement of the IPCC document urging global warming to be kept at or below 1.5°C, diminishing its validity and importance.<sup>26</sup>

For decades, climate disinformation campaigns have played a strong role in delaying effective climate action.<sup>27,28</sup> Now, these campaigns are turbo-charged online due to Facebook's algorithms that amplify dangerous misinformation,<sup>29</sup> at a moment when further delaying the clean energy transition could cost the U.S. trillions.<sup>30</sup>

**Actors seeking to sabotage efforts to tackle the climate emergency are shifting to social media, a significantly more powerful tool to misinform hundreds of millions of citizens.<sup>31</sup> As the largest social media platform in the world with 2.8 billion users, ensuring Facebook and other social media platforms have proper regulation and oversight to address the epidemic of climate misinformation should be a key part of the Biden administration's climate policy.**

Facebook is not the only platform where false information spreads. Researchers from New York University demonstrated in January how Twitter bots are a major source of climate disinformation.<sup>32</sup> Additionally, Avaaz research from early last year exposed climate misinformation on YouTube seen by millions.<sup>33</sup> The impact of delaying social media regulation any further will have a real cost -- in terms of human lives, devastation of communities from more extreme weather events, and rising economic costs to manage those extreme events as well as meet climate targets on more drastic timelines.

At the present rate of global emissions, the world just has a few years left to implement rapid and far-reaching changes to stay below the 1.5°C global warming target, beyond which climate scientists are increasingly warning that tipping points in the Earth's climate system, such as the collapse of coral reefs or ice shelves, could spiral out of the adaptive capacity of human civilization.<sup>34</sup> Meeting this goal requires a scale of national and global mobilization unprecedented in history, including cutting global emissions by 7.6% every year this decade.<sup>35</sup>

**Unless the White House and Congress act quickly and decisively to impose oversight and accountability on Facebook and other social media platforms, misinformation could derail progress on climate action, as well as COVID-19 and other key national and global challenges.**

The following sections detail our latest research findings and recommendations for the White House, administration officials, and lawmakers.



## Section 2: Facebook's Failure on Fact-Checked Climate and Energy Misinformation

Although Facebook's Mark Zuckerberg has admitted that climate change misinformation on the platform is a "big problem" in testimony to the House Energy and Commerce Subcommittees hearing on March 25, 2021, the company has failed to effectively fight falsehoods and distortions about the climate emergency and enforce its own policies.<sup>36</sup> This enables opponents of climate action to succeed in derailing it.

According to a recent analysis by Avaaz, in the first two months of President Biden's term, a sample of high-performing misinformation narratives related to climate and energy accumulated an estimated **25 million views**<sup>37</sup> on Facebook alone. **The top-performing posts containing this misinformation on the platform garnered more interactions than factual posts about climate and energy from the *New York Times* and the *Washington Post*.**

Avaaz analyzed 163 posts (in English) posted between January 20 and March 20, 2021, containing 39 claims debunked by Facebook partner fact-checkers related to climate and energy. **As of April 5, 2021, we found that:**

- The 163 posts analyzed accumulated an estimated total of **25,102,970 views** (1,516,841 interactions).
- **The top-performing misleading narrative in our dataset promoted the idea that renewable energy sources are not effective or reliable**, accounting for over half (51%) of interactions and accumulating an estimated 12.8 million views.
- **Fox News appeared three times in our dataset, more than any other account.** The three posts from Fox News were responsible for 31% of total estimated views in our dataset (7,546,900 out of 25,102,970), and all three promoted the false claim that frozen wind turbines were responsible for the Texas energy crisis. **None of the posts received a Facebook fact-check treatment.**
- The ten highest-performing misinformation posts in our dataset garnered **more than three times the interactions** of the top ten posts on climate and energy by the *New York Times*, and **more than six times the interactions** of the top ten posts on climate and energy by the *Washington Post* during the time period analyzed.
- Facebook failed to apply a fact-checking label on 42 posts in our dataset, which were responsible for **45% of total estimated views** (11,340,086 out of 25,102,970).
- 12 accounts<sup>38</sup> in our dataset have been **previously reported to Facebook** by Avaaz for sharing fact-checked misinformation. Posts from these 12 accounts were responsible for 43% of total estimated views (10,792,305 out of 25,102,970).
- Additionally, Avaaz documented an additional 14 posts that contained **five top-performing climate misinformation claims in Spanish** that accumulated a total of 213,335 estimated views. As of April 9, 2021, Facebook had not applied a fact-checking label to any of the Spanish-language posts we identified.

These findings again put into sharp focus Facebook's failure to enforce [its anti-misinformation policies](#) across all misinformation content (and those who spread it) equally. Some of the examples in this document were posted by individuals who may not have known at the time that it was false or misleading information, especially where the fact check occurred several days after the passage on the viral post. This makes speedy and effective retroactive correction all the more important. They also show that the countermeasures Facebook claims to have implemented in the last year against climate misinformation specifically -- including [the introduction of the Climate Science Information Center](#) -- are not enough to stem the tide of this problem.

**To date, the Biden administration has taken little action to directly combat the epidemic of disinformation that plagues the public policy debate on climate solutions -- and on other**

issues of national and global importance -- and take the necessary steps to hold tech platforms accountable.

## OVERARCHING MISINFORMATION NARRATIVES

Climate-related claims collected between January 20 and March 20, 2021 promoted the following 8 overarching narratives, listed in descending order of total estimated views:

1. Renewable energy sources are not effective or reliable. **(estimated 12.8M views)**
2. President Biden and his allies have profited from environmental policies such as rescinding the construction permit for the Keystone XL pipeline. **(4.7M)**
3. President Biden's environmental executive orders have caused the price of oil to increase and/or have caused the US to lose its "energy independence." **(2.7M)**
4. President Biden favors the energy/economic interests of other countries over those of the US. **(811K)**
5. Cancelling the Keystone XL pipeline will lead to large-scale waste of resources. **(499K)**
6. Scientists are controlling and/or negatively affecting the weather and ecosystem. **(373K)**
7. The Biden administration is to blame for the widespread power outages in Texas and remained silent on the issue. **(306K)**
8. Climate change is not caused by humans and the negative consequences of climate change are exaggerated. **(207K)**

**Two major events in the first two months of President Biden's term were exploited to drive the majority of the misinformation narratives we analyzed: (1) the winter storm in Texas and subsequent widespread power outages, and (2) President Biden's executive order rescinding the construction permit for the Keystone XL pipeline. Collectively, misinformation posts related to these two events were responsible for 73% of all estimated views in our dataset.**

False or misleading claims related to the Texas winter storm most often fed into the overarching narrative that renewable energy sources are not effective or reliable. For instance, the highest-performing claim in our dataset was that frozen wind turbines "caused" the Texas energy crisis (example post [here](#)). Other trending posts falsely claimed that helicopters had to spray frozen wind turbines in Texas with chemicals "made from fossil fuels" to de-ice them (example post [here](#)), or that a coal plant in Monticello, TX could have produced "reliable power" during the storm but was closed "because of renewable energy" (example post [here](#)).

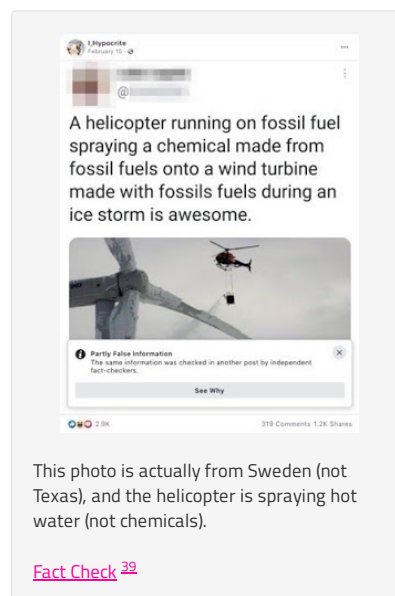
Meanwhile, false or misleading claims related to President Biden's executive order shutting down the Keystone XL pipeline predominantly contributed to two overarching narratives: that the President and his allies profited from the shutdown, and that the shutdown made oil in the US more expensive and/or caused the US to lose its energy independence. For instance, several posts falsely claim that Biden and others have sons on the Burisma Board and have invested heavily in Ukraine Gas and Oil, which is why they want to shut down the pipeline (example post [here](#)). Another [post](#) from Ted Nugent makes the misleading claim that "in just 10 days we are sent back 50 years" in terms of energy independence due to Biden's executive orders.

**Some post examples related to the Texas storm and the Keystone XL pipeline are below:**



In this clip, Tucker Carlson falsely blames the power outages in Texas on frozen windmills when in fact 87% of Texas's power loss had nothing to do with windmills.

[Source](#), [Fact Check](#)



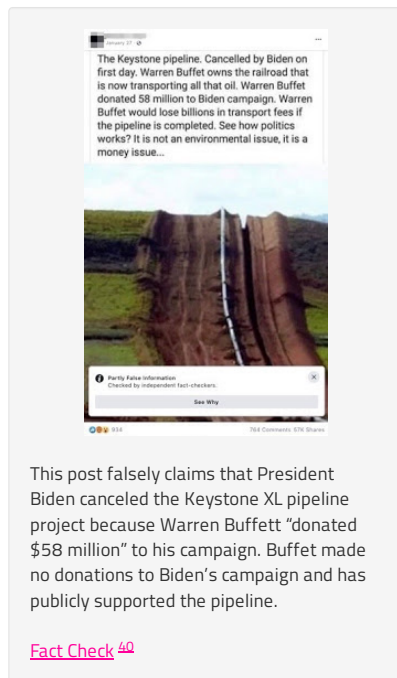
This photo is actually from Sweden (not Texas), and the helicopter is spraying hot water (not chemicals).

[Fact Check 39](#)

## A FEW FACEBOOK INFLUENCERS HAD OUTSIZED IMPACT IN SPREADING CLIMATE AND ENERGY MISINFORMATION

Between January 20 and March 20, 2021, interactions were concentrated on content from a small subset of influencers on Facebook. Posts containing false and misleading claims about climate and energy from the following 10 accounts were responsible for more than 73% of estimated views in the dataset. Avaaz has previously reported accounts marked with an asterisk to Facebook for violating the platform's community guidelines.

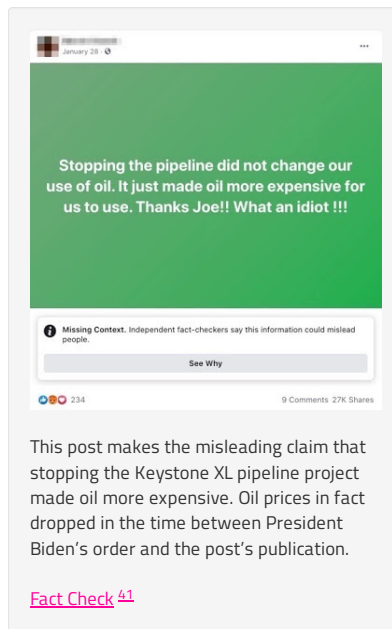
- Fox News\*
- Sid Miller\*



This post falsely claims that President Biden canceled the Keystone XL pipeline project because Warren Buffett “donated \$58 million” to his campaign. Buffett made no donations to Biden’s campaign and has publicly supported the pipeline.

[Fact Check 40](#)

- New York Outrage
- 4 user profiles [42](#)



This post makes the misleading claim that stopping the Keystone XL pipeline project made oil more expensive. Oil prices in fact dropped in the time between President Biden’s order and the post’s publication.

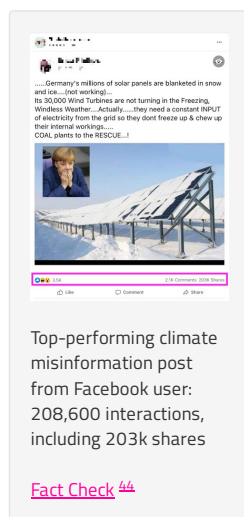
[Fact Check 41](#)

- Ted Nugent\*
- Occupy Democrats\*
- Brandon Tatum

Fox News shared three posts with fact-checked climate and energy misinformation, more than any other page in the dataset. [These three posts](#), which made the claim that frozen wind turbines caused the Texas energy crisis, amassed 7,662,650 estimated views (31% of total estimated views).

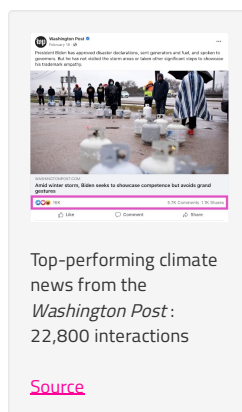
**As of May 6, 2021, none of the three Fox News posts had received a fact-checking label, despite the fact that the posts’ content was debunked directly by four separate Facebook partner fact-checkers,<sup>43</sup> and that Avaaz reported each of the posts to Facebook on February 23, 2021.**

Avaaz compared the top 10 performing posts (in terms of interactions) in our dataset against the top 10 performing posts each from the *New York Times* and the *Washington Post* related to climate and energy within the same time period (January 20 - March 20). **We found that the top 10 posts containing climate misinformation garnered more than 3x as many interactions (1,039,542 versus 307,054) as the top 10 posts from the *New York Times*, and more than 6x as many interactions (1,039,542 versus 162,091) as the top 10 posts from the *Washington Post*.**



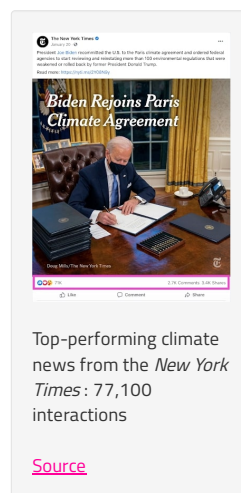
Top-performing climate misinformation post from Facebook user: 208,600 interactions, including 203k shares

[Fact Check 44](#)



Top-performing climate news from the *Washington Post*: 22,800 interactions

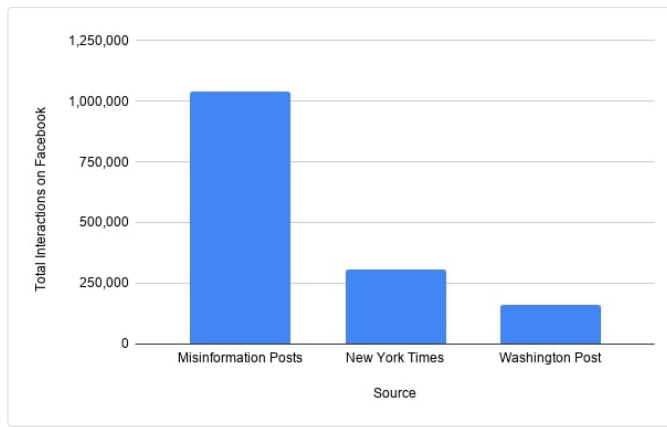
[Source](#)



Top-performing climate news from the *New York Times*: 77,100 interactions

[Source](#)

## CHART: TOP 10 MISINFORMATION POSTS IN AVAAZ'S DATASET VERSUS TOP 10 CLIMATE AND ENERGY-RELATED POSTS FROM THE *NEW YORK TIMES* AND *WASHINGTON POST*



## INCONSISTENCIES IN FACEBOOK'S APPLICATION OF FACT-CHECKING LABELS

Avaaz's findings also show inconsistencies in how Facebook applies fact-checking labels to nearly-identical pieces of misinformation. As shown below, changes to the format of misinformation are sometimes enough to avoid application of fact-checking measures (Avaaz has previously highlighted this shortcoming in the leadup to both the 2020 U.S. Presidential election [45](#) and the 2021 Georgia Senate runoff election): [46](#)

Misinformation post with a Facebook fact-check treatment

[Source](#)

Nearly identical misinformation post with NO Facebook fact-check treatment as of March 30, 2021

[Source](#)

Misinformation post with a Facebook fact-check treatment

[Fact Check 47](#)

Nearly identical misinformation post with NO Facebook fact-check treatment as of March 31, 2021

[Source](#)

## FALSE OR MISLEADING NARRATIVES TRENDING IN SPANISH


After translating the top-performing English claims into Spanish, researchers found 5 misleading claims spread by Spanish-language pages, groups and profiles. Fourteen posts promoting these claims garnered an estimated 213,335 views between January 20 and March 20, 2021.

The following claims were found spreading in both Spanish and English:

1. Frozen wind turbines caused the Texas power grid failure.
2. President Biden caused the early 2021 increase in the price of gasoline.
3. The U.S. was energy independent in 2019, and Biden's early executive orders changed that.

4. A helicopter sprayed a wind turbine in Texas with de-icing chemicals made from fossil fuels.
5. Nancy Pelosi bought \$1.25 million in Tesla stock the day before Joe Biden signed an order "for all federal vehicles" to be electric.

No Spanish-language posts received a fact-checking label, even where the format, content and interaction counts of posts were similar to English-language versions containing the same claim.




A helicopter running on fossil fuel spraying a chemical made from fossil fuels onto a wind turbine made with fossils fuels during an ice storm is awesome.

7:05 p.m. · 14 Feb. 21 · Twitter for iPhone

English-language post with a Facebook fact-check treatment

[Source](#)



Un helicóptero que funciona con combustible fósil, rocía un químico hecho a partir de combustibles fósiles sobre una turbina eólica hecha con combustibles fósiles para descongelarla y esta pueda funcionar.

Perfecta representación de las energías fósiles y limpias en la vida real

Spanish-language post with NO Facebook fact-check treatment as of April 9, 2021

[Source](#)





## Section 3: The Complexity of Climate Misinformation

### DEFINING THE NEW CLIMATE MISINFORMATION LANDSCAPE

**Facebook's failure to stop the spread of easily debunked climate misinformation is particularly concerning as tactics used by climate misinformers become more sophisticated.** Respected US climate scientist Michael Mann argues that the same corporate and private funders that have historically driven the climate denial movement have begun to shift away from denialism towards "inactivist" tactics meant to prevent effective responses to the climate emergency. <sup>48 49</sup>

These include narratives that promote climate doomism (the idea that it is "too late" for action on climate), advocate for ineffective solutions to the climate crisis, or place the onus for stopping climate change on individuals, rather than governments and industry. Mann has called this "a kinder, gentler form of denialism" that often suggests, "yes, there is some warming and human activity plays some role, but it's not nearly as bad as those 'alarmist' scientists say." <sup>50</sup>

**This shift away from outright denialism and toward "deception, distraction, and delay" is reflected in Avaaz's research: in the first two months of President Biden's first term, only 2% of the estimated views in our dataset were from posts that could be described as climate denialism.**

The most popular narrative in our dataset did not question that climate change was real, but instead attacked effective forms of mitigation by promoting false claims about renewable energy sources.

Building off of the framework offered by Mann, Avaaz has created a "table of tactics" to reflect the ongoing and evolving ways that actors are undermining meaningful efforts to address the climate emergency. The following table reflects the tactics that Avaaz has witnessed in our own research, as well as those described by other organizations and researchers.

### TABLE OF TACTICS TO UNDERMINE EFFECTIVE CLIMATE ACTION

**? DECEPTION** Seed disbelief, confusion, and doubt in climate change science or modeling

**Denial or minimization of the causes and impacts of climate change**

Assertions that the climate is not changing, that anthropogenic greenhouse gas emissions are not a significant contributor, or that the consequences of climate change are inconsequential

**Misrepresentation or manipulation of scientific models and data**

Discussion of scientific data, models, or findings without sufficient context and/or presented in false or misleading ways

**Unsupported skepticism**

Questioning the scientific consensus on climate change without providing sufficient and/or credible counter-evidence

**>> DEFLECTION** Push climate solutions away from meaningful and effective action

**Attacks on effective forms of mitigation**

Unfounded assertions that climate change policies and forms of mitigation, such as renewable energies, are ineffective, unreliable, or otherwise harmful

**Non-solution solutions and corporate greenwashing**

Promotion of ineffective or unsustainable solutions to climate change, such as "clean coal" or shifts in individual behavior alone, or relying on assumptions of future/unproven technologies to justify present inaction

### Energy-poverty thesis

Assertion that the shift away from fossil fuels will inevitably lead to increased poverty and increases in global inequality

↔ **DIVISION** Instigate fighting between groups

### Politicization

Appealing to one's political affiliation to encourage belief in misinformation, such as questioning one's loyalty to a party for supporting effective climate change solutions

### Drive a wedge

Creating infighting within groups around identity characteristics, such as claiming that the Green New Deal will hurt minorities in the US

📅 **DELAY** Convince people it's too late to act

### Doomism

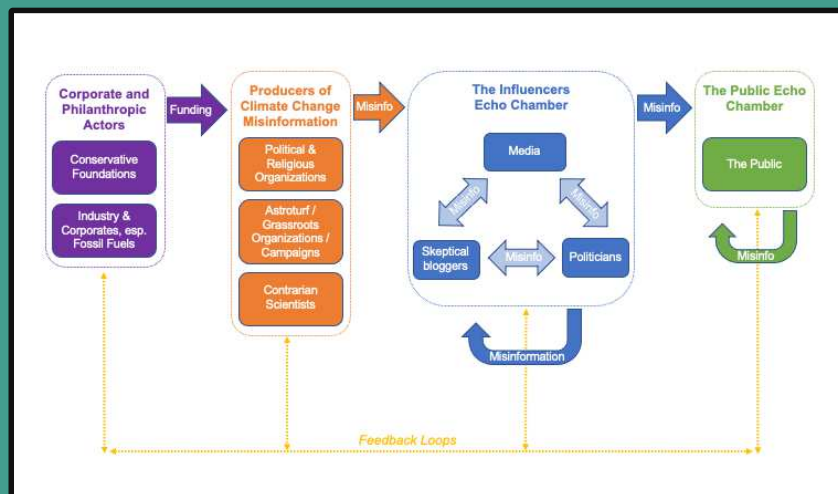
Assertions that it is too late to effectively mitigate the climate crisis through human action

### Adaptation Whataboutism

Assertions that adapting to the effects of climate change, especially through technological innovation, is all we can do because mitigation has failed

**Sources:** Innocent Chiluba, Sergei A. Samoilenko, and John Cook, "Understanding and Countering Misinformation about Climate Change," in Handbook of Research on Deception, Fake News, and Misinformation Online (Hershey, Pennsylvania: IGI Global, 2019), pp. 281-306; InfluenceMap, "Climate Change and Digital Advertising," influencemap.org (InfluenceMap, October 2020); Kramer, Ronald C. "4. "The Politics of Predatory Delay": Climate Crimes of Political Omission and Socially Organized Denial" In Carbon Criminals, Climate Crimes, 84-124. Ithaca, NY: Rutgers University Press, 2020 <https://doi.org/10.36019/9781978807648-005>; Michael E. Mann, The New Climate War: the Fight to Take Back Our Planet (New York, New York: Public Affairs, 2021); Kathie M. Treen, Hywel T. Williams, and Saffron J. O'Neill, "Online Misinformation about Climate Change," WIREs Climate Change 11, no. 5 (2020), <https://doi.org/10.1002/wcc.665>; Bob Ward, "Bjorn Lomborg's Lukewarmer Misinformation about Climate Change and Poverty," April 20, 2020

Facebook and other platforms play a key role in the dissemination of content that uses these techniques to delay climate action. Research<sup>51</sup> has shown that climate misinformation is amplified online within "influencer echo chambers" made up of media outlets, politicians, and skeptical bloggers, and subsequently spreads further within "the public echo chamber." Social media platforms bring these groups together in an environment where the fact that "content is promoted based on being engaging rather than on trustworthiness" contributes to polarization.<sup>52</sup>



The climate change misinformation network [Treen, Williams, and O'Neill, 2020]

For example, the dissemination of the false claim, in April 2021, that President Biden's climate change finance plan would restrict red meat consumption to four pounds a year, or "one burger a month," illustrates how the "influencers echo chamber" accelerates climate misinformation.

## ACCELERATION OF THE FALSE “ONE BURGER A MONTH” CLAIM VIA THE INFLUENCERS ECHO CHAMBER

Apr 22

### ORIGINAL CLAIM

On April 22, 2021, President Biden announced [U.S. greenhouse gas emissions reduction targets](#), calling for a 50-52% reduction in emissions from 2005 levels.

### MEDIA

The same day, the Daily Mail published an [article](#) with speculative claims about how the plan “could affect” the lives of Americans, in which the authors made an unsubstantiated association between Biden’s reduction targets and a [2020 University of Michigan Study](#). The study found that cutting 90% of red meat from American diets could reduce diet-related greenhouse gas emissions by 50%.

Apr 23

### MEDIA

On April 23, hosts and anchors on [eight separate Fox News programs](#) reported the claim that Biden’s climate plan called for cutting meat consumption as fact.

Apr 24

### POLITICIANS

On April 24-25, U.S. Representatives [Lauren Boebert](#), [Marjorie Taylor Green](#), and [Madison Cawthorn](#) tweeted variations of the claim, together amassing over 100,000 likes, comments, and retweets.

Texas Governor [Greg Abbott](#) also tweeted a screenshot of misleading Fox News coverage that lists cutting 90% of red meat from diet as one of “Biden’s climate requirements.” Rep. [Mary Miller](#) shared the same image on Facebook.

Together, tweets from politicians promoting the claim amassed over 100,000 likes, retweets, and comments.

Apr 25

### SKEPTICAL BLOGGERS

On April 25, Trending Politics, a low-quality conservative commentary site, published an article titled, “[NEW: Biden’s ‘Climate Change’ Plan Will Try To Limit You To Only One Burger Per MONTH.](#)” which was [shared widely](#) on Facebook. The article cited the April 22 Daily Mail article and linked to [misleading coverage](#) of the claim by Fox News host Larry Kudlow.

Apr 29

### PUBLIC ECHO CHAMBER

Posts promoting the claim accumulated thousands of interactions each on Facebook by the time Fox News issued a [correction](#) 3 days after its original broadcasts. The correction came after [two Facebook](#) partner fact checkers thoroughly debunked the claim.

By April 29, 2021, one week after President Biden’s announcement of new US climate targets, the five highest-performing misinformation posts on Facebook claiming he would limit meat consumption had an estimated 690,899 views. The pages behind these posts included Rep. Mary Miller and Fox News program The Five.

**While viral climate misinformation is likely to spread across platforms, the influencers echo chamber effect is aggravated on Facebook by the platform’s refusal to fact check politicians, its inconsistent labelling of misinformation spread by prominent media accounts,<sup>53</sup> and the Facebook algorithm’s promotion of content based on engagement rather than trustworthiness.**

Facebook has also profited from paid climate change misinformation disseminated to millions of users via its advertising platform. A 2020 report by InfluenceMap demonstrated that US advertisers exploited the platform’s powerful targeting tools and lax enforcement of advertising policies to push climate misinformation to older males in rural areas,<sup>54</sup> an audience that is demographically likely to be in the group that is most vulnerable to climate disinformation: conservative white males.<sup>55 56</sup>



## Section 4: Recommended Solutions

**Facebook and other tech platforms will not effectively protect users and climate progress overall from the harms of disinformation and misinformation until they are regulated by the Biden administration and Congress.** Limited counter-measures from Facebook have been rolled out, some in response to pressure from Facebook employees, climate groups and civil society, but they remain piece-meal.<sup>57</sup> The platform continues to refuse to adopt more robust measures.

To date, the Biden administration has taken little action to directly combat the epidemic of disinformation that plagues the public policy debate on climate solutions -- and on other issues of national and global importance -- and take the necessary steps to hold tech platforms accountable.

A government-wide infrastructure to fight misinformation and disinformation is needed now more than ever to curb its impact on the administration's priorities. **AvaaZ urges the administration to pursue the following:**

1. Adopt a National Disinformation Strategy to launch a whole-of-government approach.
2. Prioritize the appointment of the Global Engagement Center's Special Envoy, as the climate crisis is a global issue, and climate disinformation can hinder global cooperation.
3. Immediately begin working with the European Union to bolster transatlantic coordination on approaches to key tech policy issues, including disinformation.
4. Establish an interagency task force to study the harms of disinformation and misinformation across major social media platforms and present formal recommendations within six months.
5. Urgently push platforms to adopt, and regulators to legislate smart, systemic solutions, including:

**Transparency and Audits:** Social media algorithms are a black box, and through our engagement with the platforms we have realized that oftentimes high-level executives in Silicon Valley are unaware of the potential harms they cause, or do not prioritise engaging with evidence of such harm presented to them by their staff. The government, researchers and the public must have the tools to understand how social media platforms work and their cumulative impact. The platforms must be required to provide comprehensive reports on disinformation, measures taken against it, and the design, operation, and impact of their curation algorithms (while respecting trade secrets). Platforms' algorithms must also be continually, independently audited to measure impact and to improve design, operation and outcomes.

**Detox the Algorithm:** Social media companies are content accelerators, not neutral actors. Their 'curation algorithms' decide what we see, and in what order. The 2020 Presidential elections showed that the platforms could, in emergency situations, add friction and reduce the amplification and reach of harmful content and disinformation to their users, especially for those actors that are serial misinformers.<sup>58</sup> However, the platforms have rolled back the steps they took during the election, putting their bottom-line before their users' safety and well-being. Platforms must downrank the reach of and demonetize serial misinformers, while ensuring transparency on its actions and providing an appeals process. The Biden Administration can and must work with civil society to pressure platforms to do more to address the way their curation algorithms accelerate and amplify hateful, misleading, and toxic content.

**Correct the Record:** When independent fact checkers determine that a piece of content is disinformation, the platforms should show a retroactive correction to each and every user who viewed, interacted with, or shared it. This can cut belief in false and misleading information by nearly half.<sup>59</sup> This is an urgent and effective step Facebook could adopt today, based on the model of how it now deals with harmful COVID-19 misinformation.

**These recommended actions by the Biden administration will not only help in passing President Biden's climate agenda domestically, but also help accelerate climate action across the world.** The U.S. still represents a fraction of global emissions (about 15%), and needs other major emitters across the world to also decarbonize rapidly, in order to meet the 7.6% global emissions cuts per year as soon as possible to stay on track for the Biden administration's stated 1.5°C target.<sup>60</sup> Aside from diplomatic leadership to encourage allies and adversaries alike to cut emissions immediately, one of the most effective things the

Biden administration can do is to urgently plug the climate misinformation firehose that is Facebook (and other social media platforms such as YouTube).<sup>61</sup>

**What this research shows is happening in the US, is happening across the world, and likely far worse, because Facebook deploys its anti-misinformation resources more in the US than elsewhere.**<sup>6263</sup> Effective anti-misinformation regulation can help other countries far from US shores to take bold climate action without being as vulnerable to falsehoods and distortions that make such action untenable in the public discourse, largely carried out on American social media platforms. Other countries, indeed, could legitimately question why the Biden administration would continue to allow US social media companies to pollute public debate on life and death issues worldwide through irresponsibly designed algorithms.

# Methodology

## ENGLISH-LANGUAGE POSTS

1. Researchers documented all fact-checked publicly available false and misleading claims related to climate and energy published by Facebook's independent fact-checking partners between January 20, 2021 and March 20, 2021.
  - a. Fact-check organizations used: PolitiFact, FactCheck.org, Lead Stories, AFP, AP, Reuters, USA Today, The Dispatch, Check Your Fact, Science/Health/Climate Feedback
2. From March 30, 2021 - April 5, 2021, researchers documented the top-performing Facebook posts (in terms of interactions) in English, including up to five posts per claim.
  - a. Researchers documented Facebook posts referenced in fact-checks where applicable, and searched for additional Facebook posts using CrowdTangle.
3. Researchers documented posts published on Facebook between January 20, 2021 and March 20, 2021. These totaled 163 posts shared by 56 pages, 17 groups, and 83 profiles.
  - a. At the time of documentation, researchers recorded the number of post interactions and video views, as well as whether or not the post contained a Facebook fact-check treatment.
4. On April 5, researchers documented the number of followers of the pages and profiles in our dataset, as well as the number of members of groups.
5. On April 5, researchers calculated the estimated number of views of the 163 posts in our dataset. To do this, Avaaz:
  - a. Designed a metric based on the publicly available statistics of the 56 pages in our dataset.
  - b. Avaaz took into account the total number of views (**502,590,000**) for all videos uploaded or shared directly by the 56 pages between January 20, 2021 and March 20, 2021 and then divided it by the total number of interactions (**30,368,881**) for the same set of videos, which gives us a views/interaction ratio of **16.55 (502,590,000/30,368,881)**.
  - c. All of the posts in our dataset shared between January 20, 2021 and March 20, 2021 received a total of 1,516,841 interactions. Multiplying those interactions by our views/interaction ratio of 16.55 we obtain the final estimate of **25,102,970 views** for English misinformation.
6. To assess the performance of climate misinformation relative to posts on climate and energy policy by the New York Times and the Washington Post, researchers reviewed the highest-performing posts (in terms of interactions) by the *New York Times* and *Washington Post* Facebook pages between Jan 20 and March 20, and recorded interactions for the ten highest-performing posts related to climate and energy.

## SPANISH-LANGUAGE POSTS

1. On April 8, 2021, researchers translated from English to Spanish the 25 highest performing (in terms of interactions) false claims in our dataset.
2. From April 8 to April 9, 2021, researchers documented the top-performing Facebook posts (in terms of interactions) in Spanish for the previously identified 25 highest-performing claims in English, including up to five posts per claim.
3. Researchers repeated steps #2a - 4 in the "English-Language posts" section above for Spanish.
4. On April 12, researchers calculated the estimated number of views of the 14 posts in the Spanish dataset. To do this, Avaaz:
  - a. Designed a metric based on the publicly available statistics of the 11 pages in our dataset.
  - b. Avaaz took into account the total number of views (**32,476,156**) for all videos uploaded or shared directly by the 12 pages between January 20, 2021 and March 20, 2021 and then divided it by the total number of interactions (**1,513,632**) for the same set of videos, which gives us a views/interaction ratio of **21.45 (32,476,156/1,513,632)**.
  - c. All of the posts in our dataset shared between January 20, 2021 and March 20, 2021 received a total of 9,943 interactions. Multiplying those interactions by our views/interaction ratio of 21.46 we obtain the final estimate of **213,335 views** for Spanish-language misinformation.

## PRESIDENT BIDEN'S EMISSIONS PLAN POSTS

1. On April 29, researchers searched for the highest-performing posts promoting the claim, "Biden's climate requirements" will "cut 90% of red meat from diet" to a "max 4 lbs per year" and "one burger per month" on Facebook between April 22, 2021, and April 29, 2021.
2. Researchers documented the five posts with the most interactions.
3. On April 29, researchers calculated the estimated number of views of the five posts in the dataset. To do this, Avaaz:
  - a. Designed a metric based on the publicly available statistics of the five pages in our dataset.
  - b. Avaaz took into account the total number of views (**274,473**) for all videos uploaded or shared directly by the 12 pages between April 22, 2021 and March 29, 2021 and then divided it by the total number of interactions (**17,547**) for the same set of videos, which gives us a views/interaction ratio of **15.64 (274,473/17,547)**.
  - c. All of the posts in our dataset shared between April 22, 2021 and March 29, 2021 received a total of 44,169 interactions. Multiplying those interactions by our views/interaction ratio of 15.64 we obtain the final estimate of **690,899 views** for top five posts promoting this narrative.

## Appendix

Avaaz will continue to focus on climate misinformation and disinformation campaigns in the upcoming year, leading up to the Glasgow United Nations Climate Conference. Our initial findings suggest that Facebook is unprepared to deal with the broader threat of the platform being weaponized by such actors to influence the climate debate. The Biden administration needs to adopt a strategic approach that ensures legislation by Congress moves fast to aggressively curb misinformation and online harms. This must become a priority in order to have a chance at succeeding in an unprecedented society-wide mobilization to address the climate emergency, keep global heating below 1.5°C, and protect our people and planet.

## Acknowledgment

### **THE NECESSITY OF HAVING A FACT-BASED DISCUSSION ON CLIMATE CHANGE WHILE ALSO DEFENDING FREEDOM OF EXPRESSION**

Since its establishment over a decade ago, Avaaz has played a leading role in the struggle to ensure that the international community acts to address the climate crisis. Consequently, Avaaz is deeply cognizant of the different predictive models used by the scientific community to assess the level of confidence associated with each key finding as reported using the IPCC's calibrated language, based on the assessment of the available scientific, technical and socio-economic literature.

As with any scientific methodology based on probability, Avaaz understands that different models can be used, and different basic assumptions can be made, which impacts both the threat and timeframe assessments of how climate change will play out over the next decades and how cuts in greenhouse gas emissions will directly or indirectly limit global warming.

Avaaz has also been a vocal defender of the right to freedom of speech for years, and supports robust debates on this front. We believe that such debates are pivotal in a thriving democracy. One of the key objectives of this report is to allow for fact-based deliberation, discussion and debate to flourish in an information ecosystem that is healthy and fair, and that allows both citizens and policymakers to make decisions based on the best available data.

In this report, Avaaz has sought to ensure that what we termed climate misinformation is content that is outside of scientific boundaries, which can be readily confirmed by available authoritative literature.

Avaaz's support for freedom of expression means that we believe verifiably false or misleading content should be countered and debunked, but not deleted. It is for this reason that Avaaz's recommended solutions to platforms do not require them to remove false or misleading content, but for them to ensure that such content is not artificially amplified to millions of people and that those who have seen it are shown fact-checked corrections.

We see a clear boundary between freedom of speech and freedom of reach, and the curation and recommendation model currently adopted by most social media platforms is designed to maximize human attention and profit, not the fair and equal debate which is essential for humanity to rise to the great challenges of our time.

## Endnotes

1. Suzanne Goldberg, "[Exxon Knew of Climate Change in 1981, Email Says – but It Funded Deniers for 27 More Years](#)," The Guardian (Guardian News and Media, July 8, 2015). ▲
2. Damian Carrington, "[Climate Denial Ads on Facebook Seen by Millions, Report Finds](#)," The Guardian (Guardian News and Media, October 8, 2020). ▲
3. Veronica Penney, "[How Facebook Handles Climate Disinformation](#)," The New York Times (The New York Times, July 14, 2020). ▲
4. Piita Clark, "[The New Politics of Climate Change](#)," Financial Times (Financial Times, February 23, 2021). ▲
5. Innocent Chilwa, Sergei A. Samoilenko, and John Cook, "[Understanding and Countering Misinformation about Climate Change](#)," in Handbook of Research on Deception, Fake News, and Misinformation Online (Hershey, Pennsylvania: IGI Global, 2019), pp. 281–306. ▲
6. Shannon Hall, "[Exxon Knew about Climate Change Almost 40 Years Ago](#)," Scientific American (Scientific American, October 26, 2015). Exxon has reportedly stated that "climate science in the early 1980s was at a preliminary stage, but the company now saw climate change as a risk" see ▲
7. Phoebe Keane, "[How the Oil Industry Made Us Doubt Climate Change](#)," BBC News (BBC, September 19, 2020). ▲
8. Innocent Chilwa, Sergei A. Samoilenko, and John Cook, "[Understanding and Countering Misinformation about Climate Change](#)," in Handbook of Research on Deception, Fake News, and Misinformation Online (Hershey, Pennsylvania: IGI Global, 2019), pp. 281–306. ▲
9. Innocent Chilwa, Sergei A. Samoilenko, and John Cook, "[Understanding and Countering Misinformation about Climate Change](#)," in Handbook of Research on Deception, Fake News, and Misinformation Online (Hershey, Pennsylvania: IGI Global, 2019), pp. 281–306. ▲
10. Matthew J. Hornsey, Emily A. Harris, and Kelly S. Fielding, "[Relationships among Conspiratorial Beliefs, Conservatism and Climate Scepticism across Nations](#)," Nature Climate Change 8, no. 7 (July 2018): pp. 614–620. ▲
11. Innocent Chilwa, Sergei A. Samoilenko, and John Cook, "[Understanding and Countering Misinformation about Climate Change](#)," in Handbook of Research on Deception, Fake News, and Misinformation Online (Hershey, Pennsylvania: IGI Global, 2019), pp. 281–306. ▲
12. Maxwell T. Boykoff and Shawn K. Olson, "[Wise Contrarians: a Keystone Species in Contemporary Climate Science, Politics and Policy](#)," Celebrity Studies 4, no. 3 (October 25, 2013): pp. 276–291. ▲
13. Dunlap, Riley E., and Peter J. Jacques, "[Climate Change Denial Books and Conservative Think Tanks](#)," American Behavioral Scientist 57, no. 6 (2013): 699–731. ▲
14. James Painter and Teresa Ashe, "[Cross-National Comparison of the Presence of Climate Scepticism in the Print Media in Six Countries, 2007–10](#)," Environmental Research Letters 7, no. 4 (April 2012): p. 044005 ▲
15. Neela Banerjee, "[How Big Oil Lost Control of Its Climate Misinformation Machine](#)," Inside Climate News, December 7, 2020. ▲
16. Matthew J. Hornsey, Emily A. Harris, and Kelly S. Fielding, "[Relationships among Conspiratorial Beliefs, Conservatism and Climate Scepticism across Nations](#)," Nature Climate Change 8, no. 7 (July 2018): pp. 614–620. ▲
17. Kyla Mandel, "[Here's How the Mercer Family's Climate Denial Funding Influenced Trump](#)," ThinkProgress, January 26, 2018. ▲
18. Lorena Anderson, "[Media Creates False Balance on Climate Science, Study Shows](#)," UC Merced (University of California, August 22, 2019). ▲
19. Alexander Michael Petersen, Emmanuel M. Vincent, and Anthony LeRoy Westerling, "[Discrepancy in Scientific Authority and Media Visibility of Climate Change Scientists and Contrarians](#)," Nature Communications 10, no. 1 (2019). ▲
20. David McKnight, "[A Change in the Climate? The Journalism of Opinion at News Corporation](#)," Journalism 11, no. 6 (December 16, 2010): pp. 693–706. ▲
21. Graham Readfern, "[The Australian Says It Accepts Climate Science, so Why Does It Give a Platform to 'Outright Falsehoods'?](#)" The Guardian (Guardian News and Media, January 14, 2020). ▲
22. Kate Walton, "[Australians Fed up with News Corp's Climate Scepticism](#)," Climate Change News | Al Jazeera (Al Jazeera, December 17, 2020). ▲
23. Geoff Dembicki, "[The Convenient Disappearance of Climate Change Denial in China](#)," Foreign Policy (The FP Group, May 31, 2017). ▲
24. Morten Kaldhussæter Flisnes, "[Where You Stand Depends on What You Sell – Saudi Arabia's Obstructionism in the UNFCCC 2012-2018](#)," CICERO Research Archive (CICERO Center for International Climate and Environmental Research - Oslo, August 1, 2019). ▲
25. Lee Fang and Sharon Lerner, "[Saudi Arabia Denies Its Key Role in Climate Change Even as It Prepares for the Worst](#)," The Intercept (First Look Media, September 18, 2019). ▲
26. Matt McGrath, "[Climate Change: COP24 Fails to Adopt Key Scientific Report](#)," BBC News (BBC, December 8, 2018). ▲
27. Innocent Chilwa, Sergei A. Samoilenko, and John Cook, "[Understanding and Countering Misinformation about Climate Change](#)," in Handbook of Research on Deception, Fake News, and Misinformation Online (Hershey, Pennsylvania: IGI Global, 2019), pp. 281–306. ▲
28. Amy Westervelt, "[Perspective | How the Fossil Fuel Industry Got the Media to Think Climate Change Was Debatable](#)," The Washington Post (WP Company, January 12, 2019). ▲
29. Karen Hao, "[He Got Facebook Hooked on AI, Now He Can't Fix Its Misinformation Addiction](#)," MIT Technology Review (MIT Technology Review, March 11, 2021). ▲
30. "[The Costs Of Delay](#)," Energy Innovation: Policy and Technology (Energy Innovation LLC, February 3, 2021). ▲
31. Christine MacDonald, "[Exxon Spends Millions on Facebook To Keep the Fossil Fuel Industry Alive](#)," In These Times, October 20, 2020. ▲
32. Corbin Hiar, "[Twitter Bots Are a Major Source of Climate Disinformation](#)," Scientific American (Scientific American, January 22, 2021). ▲
33. "[Why Is YouTube Broadcasting Climate Misinformation to Millions?](#)," Avaaz, January 16, 2020. ▲
34. Robert McSweeney, "[Explainer: Nine 'Tipping Points' That Could Be Triggered by Climate Change](#)," Carbon Brief, October 2, 2020. ▲
35. "[Cut Global Emissions by 7.6 Percent Every Year for next Decade to Meet 1.5°C Paris Target - UN Report](#)," UN Environment Programme (United Nations, November 26, 2019). ▲
36. Kurt Wagner, "[Facebook's New Target in the Misinformation War: Climate Lies](#)," Bloomberg (Bloomberg, April 13, 2021). ▲
37. This is likely a conservative estimate of the actual total number of views of climate misinformation during this time period, as Avaaz only documented the top-performing posts, including up to five posts per claim. ▲
38. Fox News, Occupy Democrats, Sid Miller, Ted Nugent, Donald Trump Is My President, PragerU, President Trump Fans, Anna Paulina Luna, Sargon of Akkad, Deplorables, Happy Hayride, Dan Carr. ▲
39. Source link omitted to protect user privacy. ▲
40. Source link omitted to protect user privacy. ▲
41. Source link omitted to protect user privacy. ▲
42. Source link omitted to protect user privacy. ▲
43. [Politifact](#), [USA Today](#), [The Dispatch](#), and [FactCheck.org](#) ▲
44. Source link omitted to protect user privacy. ▲
45. Brian Fung, "[Facebook Can't Catch Misinformation It's Already Identified as False, Activist Group Says](#)," CNN (Cable News Network, October 9, 2020). ▲
46. Kyle Wiggers, "[Avaaz: Facebook Continues to Fail at Flagging False and Misleading Posts about U.S. Elections](#)," VentureBeat (VentureBeat, December 4, 2020). ▲
47. Source link omitted to protect user privacy. ▲
48. Richard Schiffman, "[Climate Deniers Shift Tactics to 'Inactivism'](#)," Scientific American (Scientific American, January 12, 2021). ▲
49. Michael E. Mann, The New Climate War: the Fight to Take Back Our Planet (Brunswick, Victoria, Australia: Scribe Publications, 2021). ▲
50. Richard Schiffman, "[The New Climate War Review: Reasons to Be Optimistic about the Future](#)," New Scientist, January 19, 2021. ▲



51. Kathie M. Treen, Hywel T. Williams, and Saffron J. O'Neill, "[Online Misinformation about Climate Change](#)," WIREs Climate Change 11, no. 5 (2020). ▲
52. Ibid. ▲
53. Cat Zakrzewski, "[Analysis | The Technology 202: Researchers Warn Misinformation on Facebook Threatens to Undermine Biden's Climate Agenda](#)," The Washington Post (WP Company, April 23, 2021). ▲
54. InfluenceMap, "Climate Change and Digital Advertising," InfluenceMap, October 2020. ▲
55. "[Trends in Party Affiliation among Demographic Groups](#)," Pew Research Center – U.S. Politics & Policy (Pew Research Center, March 2, 2018). ▲
56. Aaron M. McCright, Riley E. Dunlap, and Chenyang Xiao, "[Increasing Influence of Party Identification on Perceived Scientific Agreement and Support for Government Action on Climate Change in the United States, 2006–12](#)," Weather, Climate, and Society 6, no. 2 (January 2014): pp. 194-201. ▲
57. "[Facebook's New Target in the Misinformation War: Climate Lies](#)," Bloomberg, April 13, 2021. ▲
58. "[Facebook: From Election to Insurrection](#)," Avaaz, March 18, 2021. ▲
59. "[White Paper: Correcting the Record](#)," Avaaz, April 16, 2020. ▲
60. "[Cut Global Emissions by 7.6 Percent Every Year for next Decade to Meet 1.5°C Paris Target - UN Report](#)," UN Environment Programme, November 26, 2019. ▲
61. "[Why Is YouTube Broadcasting Climate Misinformation to Millions?](#)" Avaaz, January 16, 2020. ▲
62. "[Left Behind: How Facebook Is Neglecting Europe's Infodemic](#)" Avaaz, April 20, 2021. ▲
63. Julia Carrie Wong, "[How Facebook Let Fake Engagement Distort Global Politics: a Whistleblower's Account](#)," The Guardian (Guardian News and Media, April 12, 2021). ▲